

REPORT TO
THE CONGRESS OF THE UNITED STATES

UNITED STATES CONSTRUCTION ACTIVITIES
IN THE
REPUBLIC OF VIET NAM
1965 - 1966



BY
THE COMPTROLLER GENERAL
OF THE UNITED STATES

MAY 1967



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D. C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

The accompanying report summarizes our observations after a recent survey of United States construction activities in Viet Nam. It was our primary objective, in undertaking this survey, to identify problems and possible weaknesses in program management that would require continuing attention to improve program administration.

The combined construction program in Viet Nam, which amounted to \$1.3 billion as of October 1, 1966, is being accomplished by the construction units of the military services and by contracts with various civilian firms for the Department of Defense, the Department of State, and the Agency for International Development. Since about three fourths of the total work being done at the time of our survey was under a single contract awarded to the joint venture known as RMK-BRJ, our survey concerned in great part the performance of this contract and the administration exercised by the various commands of the Naval Facilities Engineering Command, the contracting agency.

Construction under the contract, in support of United States operations in the Republic of Viet Nam, began in January 1962, at which time the scope of the work entailed about \$21.5 million principally in military assistance program funds. When the buildup of United States military forces began in April 1965, the joint venture contractor had the only significant construction capability then in Viet Nam. As force levels increased, with resultant pressures for major increases in facilities requirements, the need for expanding the construction capability became apparent and the contractor was directed to mobilize to the capability of accomplishing \$40 million worth of work in place per month by October 1966.

During the massive expansion of the contractor's construction capabilities, the contractor mobilized a work force of over 51,000 persons and 5,260 pieces of construction equipment valued at \$109.1 million. By September 1966 the contractor had surpassed the established goal for the monthly rate for work in place by accomplishing \$41.4 million

worth of work in place that month. The estimated value of the construction work in place was then \$337.4 million.

Our survey indicated that neither the Navy nor the contractor was adequately equipped to handle the massive expansion of the construction program in late 1965 and the first half of 1966; as a result, the cost of the program was increased to a considerable extent, although there is no way to reliably measure the extra cost sustained. During the period of the escalated mobilization, normal management controls were virtually abandoned and major problems were experienced. Following are illustrations of these conditions.

1. Construction material and equipment were procured without a sound basis for computing reasonable requirements, without knowing what was already on hand or on order, and without preparing the most economical purchase specifications.
2. Military construction units in Viet Nam had procurements of material and equipment unrelated to contract construction made for them by the contractor rather than having the procurements made through the military supply system.
3. Effective management of procurement and utilization of material became virtually impossible because accountability in Viet Nam over the mountainous supplies of construction material was lost.

The survey report also discusses other areas where we believe opportunities existed for improvement in program management. We have endeavored to recognize the conditions which prevailed during 1965 and 1966 and to give due consideration both to the local situation in Viet Nam and to the emergency demands associated with the United States effort there.

We recognize that the tremendous acceleration in construction work by the contractor required a departure from normal operating

procedures and that, under such circumstances, it would not have been possible to maintain the degree of management control required to prevent all waste and inefficiency. We believe, however, that the virtual abandonment of normal processes during the period of the escalated mobilization created many problems which might have been minimized by the exercise of an appropriate degree of management control.

This report cites those problem areas examined into during our survey where we believe that more effective controls could have been exercised to reduce the extent of waste and inefficiency. We recognize, however, that waste and inefficiency could not be completely eliminated in a construction program of this magnitude under the conditions existing in Viet Nam. Although we have emphasized the problem areas noted during our survey, it is not intended that this report should detract attention from the accomplishments of the contractor as evidenced by the physical construction in place and the construction capability which the contractor has mobilized in Viet Nam.

We have noted that, since our field work started in Saigon in July 1966, improvements have been taking place in the areas of weaknesses summarized above. We now plan to concentrate our audit efforts in more detailed reviews of these areas to evaluate the progress made and to make specific recommendations as to any further corrective measures which should be taken.

In accordance with our normal procedures, we have given the Department of Defense and the contractor opportunities to comment on our survey findings. Where they have disagreed with the presentation or significance of some of our specific findings, we have included their comments and our analysis of the points at issue in the report.

More generally, representatives of the Department of Defense agreed with a number of the opportunities for improvement identified in the report and pointed out that those responsible for the planning and execution of the construction program were fully cognizant of the fact that such an accelerated operation inherently includes many shortcomings. We were informed that measures had been taken and much progress

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had been made toward eliminating imperfections and that it was recognized that more must be done before an optimum operation could be achieved.

The contractor reported to us that, overall, the report appeared to be a reasonable evaluation of the program and many of the problems involved, but he emphasized that the facts presented in the report did not justify any conclusion that the program was mismanaged. The Department of Defense, in its comments to us, also stressed that, in view of the conditions under which the program had to be carried out and the remarkable construction performance attained, it did not consider that the management of the program could be considered wasteful or inefficient.

Copies of this report are being sent to the Director, Bureau of the Budget; the Secretary of State; the Secretary of Defense; and the Administrator, Agency for International Development.



Comptroller General
of the United States

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REPORT ON
UNITED STATES CONSTRUCTION ACTIVITIES
IN THE
REPUBLIC OF VIET NAM
1965-1966

INTRODUCTION

The General Accounting Office has made a survey of the \$1.3 billion United States construction program in the Republic of Viet Nam. We undertook our survey in consideration of the extent of the United States construction program there and of the continuing concern being expressed by the Congress regarding the effectiveness of management controls over the extensive United States Government activities in that country.

The purpose of our survey was to identify problems and possible weaknesses in program management that would require continuing attention to improve program administration. As such, we did not attempt to evaluate the basis for this vast construction program or its accomplishments. Moreover, since about three fourths of the total construction program had been assigned for performance to a joint venture known as RMK-BRJ under a contract with the Naval Facilities Engineering Command (NAVFAC), our survey concerned in great part this contract and the degree of administration and management control being exercised by the various commands of the contracting agency. However, we did examine briefly into the scope of other construction in Viet Nam, entailing more than \$374 million, which was being accomplished by United States Army, Navy, and Air Force military construction forces and by other civilian contractors in Viet Nam.

We performed our survey work at various construction sites located throughout Viet Nam and at the offices of the contractor and the Officer in Charge of Construction, Republic of Viet Nam, who has primary responsibility for administration of the RMK-BRJ contract in-country. We performed additional survey work at the NAVFAC Pacific Division in Honolulu, Hawaii; at the office of its Resident Officer in Charge of Construction in San Bruno, California; and at the NAVFAC Headquarters, Washington, D.C. We initiated our survey in June 1966 and completed our field work in October 1966.

Our survey was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

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MAGNITUDE OF THE CONSTRUCTION PROGRAM

The United States construction program in Viet Nam includes projects for the Department of State, the Department of Defense, and the Agency for International Development (AID). The program is being accomplished by military construction units of the Army, Navy, and Air Force and by various civilian contractors performing under contracts awarded by the military services on their behalf and for the other activities involved. From January 1962 to October 1966, funding for the total construction program had reached \$1.3 billion.

The limited construction capability available within Viet Nam made it necessary that the program be carried out primarily through the use of military troop units and civilian contractors from the United States. The scope of the construction program, the major organizations accomplishing it, and the funds programmed are set forth in the following schedule.

Schedule of Principal
United States Construction Activities
in Viet Nam
as of October 1, 1966

<u>Construction performed by</u>	<u>Method of accomplishment</u>	<u>Scope of work</u>
RMK-BRJ	Contract NBy 44105	Construction of facilities and related services in support of United States operations in the Southeast Asia area, including AID projects, U.S. Embassy building, and military construction projects such as troop facilities, airfield and port facilities.
U.S. Army Viet Nam 18th Engineer Brigade	Troop construction	Construction of cantonments, troop housing, waterfront facilities, storage areas, hospitals, airfield paving, and others.
Naval Forces Viet Nam 3d Naval Construction Brigade	Troop construction	Construction of cantonments, troop housing, utilities, storage areas, and others.
U.S. Air Force, Viet Nam 1st Civil Engineer Group	Troop construction	Construction of airfield support complex, airfield paving, communication facilities, cantonment, and others
Walter Kidde, Con- structors, Inc.	Contract AF 62 (111) 714	Construction of an airbase at Tuy Hoa.
Vinnell Corporation	Contract DA-13-195- AMC-00772-T	Construction of power plants and primary and secondary electrical power-line distribution systems at five locations.
Pacific Architects and Engineers, Inc.	Contract DA-90-116 FEC' 102, 250, 350 and DAJB-1167-C-001	Repair and utility contracts, Viet Nam.
Local contractors (note a)	Various contracts	Construction of billets, compounds, administration buildings, mess facilities, generator enclosures, security fences, ammunition storage areas, installation of power lines, construction of a water project in Saigon, and rehabilitation of office spaces.

^aLocal contracts administered by United States Army, Viet Nam; United States Naval Forces, Republic of Viet Nam; the Officer in Charge of Construction, Republic of Viet Nam; and the United States Agency for International Development Mission, Viet Nam.

Program sponsors estimated funded amounts

<u>Army</u>	<u>Navy</u>	<u>Air Force</u>	<u>MAP</u>	<u>AID</u>	<u>Dept. of State</u>	<u>Other</u>	<u>Estimated total funded</u>
(millions)							
\$417.4	\$251.1	\$196.5	\$62.5	\$ 8.2	\$1.0	\$ 8.7	\$ 945.4
108.5	-	-	-	-	-	-	108.5
-	53.2	-	-	-	-	-	53.2
-	-	9.8	2.5	-	-	-	12.3
-	-	40.4	-	-	-	-	40.4
10.0	-	-	-	-	-	-	10.0
75.3	-	-	-	-	-	-	75.3
2.1	18.5	0.3	0.4	51.6	-	1.9	74.8
<u>\$613.3</u>	<u>\$322.8</u>	<u>\$247.0</u>	<u>\$65.4</u>	<u>\$59.8</u>	<u>\$1.0</u>	<u>\$10.6</u>	<u>\$1,319.9</u>

BACKGROUND

The United States has been implementing a construction program in the Republic of Viet Nam (RVN) in support of United States activities there since at least January 1962. Although the original dollar input was relatively small, the program escalated to the point where, as of October 1, 1966, the construction program being accomplished by civilian contractors and by United States military troop construction forces, both for the Department of Defense and for other United States Government agencies and offices, amounted to about \$1.3 billion.

Programming, and funding for the United States construction program in Viet Nam is performed essentially by each of the United States Government agencies which has a construction requirement to support its operating plans. These agencies establish what facilities are needed and obtain approvals for the construction work through regular or special program submittals to the Congress. United States construction activities in Viet Nam can generally be classified as either military or civilian construction. Military construction requirements of the Department of Defense are programmed, funded, and managed under the military construction program, whereas the construction requirements of such other United States Government agencies as the Agency for International Development and the Department of State are programmed and accomplished within their individual operating budgets.

Military construction activities in RVN are coordinated, integrated, and directed by the United States Military Assistance Command, Viet Nam (MACV), through its Director of Construction. Since January 1966, MACV has been responsible for control and direction of obligational authority for all military construction activities.

Construction is authorized by MACV in the form of construction directives which are transmitted to its construction agents. These construction directives provide approved funding amounts and scopes of work in terms of broad Functional Facility Category Groups such as cantonments, ports, and airfields.

The Officer, in Charge of Construction, Republic of Viet Nam (OICC), a NAVFAC representative, is the principal construction agent for the United States military services and other Government agencies and offices in Viet Nam. The OICC is responsible for executing the construction

programs of these agencies, with the exception of those requirements which are assigned by MACV to Army, Navy, and Air Force troop construction forces. Construction efforts accomplished by the OICC are carried out under Naval Facilities Engineering Command contract NBy 44105 with the joint venture of RMK-BRJ, which comprises the firms of Raymond International of Delaware, Inc.; Morrison-Knudsen of Asia, Inc.; Brown & Root, Inc.; and J. A. Jones Construction Company. The head office of RMK-BRJ is located in Saigon, Viet Nam.

On January 19, 1962, a joint-venture--comprising Raymond International of Delaware, Inc., and Morrison-Knudsen of Asia, Inc., and known as RMK--was awarded a cost-plus-fixed-fee contract to construct four projects in Viet Nam at an estimated cost of \$21.5 million. Based on this amount of work, the contractor's fixed fee was established at 3 percent of the estimated cost of construction, including the approximate cost of Government-furnished equipment and materials and ocean transportation, for a fee of \$645,855. Subsequent to the award, the Government utilized the contractor's facilities and personnel for considerably more projects than had been contemplated, and by August 1965 the scope of the estimated work had increased to \$155.4 million. The work had increased to such an extent that the contractor recommended to the Department of the Navy that the joint venture be enlarged to include Brown & Root, Inc., and J. A. Jones Construction Company. The recommendation was approved and on August 3, 1965, the joint venture was enlarged to its present status and its name was changed to RMK-BRJ.

In May 1966, due to the still expanding scope of the work assigned to the contractor, the contract was converted from a cost-plus-fixed-fee contract with a fixed fee of 3 percent to a cost-plus-award-fee contract. Under the award-fee concept, the contractor is paid a reduced fixed fee plus an award fee based upon performance. The award fee places a financial incentive into the contract by permitting the contractor to earn a higher fee for better than minimum acceptable performance. In arriving at the award fee, an evaluation board grades the contractor semiannually on quality of work, management, and performance and on cost consciousness. Under this concept the contractor is paid a fixed fee of 1.7 percent and up to four ninths of the fixed fee as an award fee, depending on the grade received. For the first 6-month period, which ended September 30,

1966, the contractor received a grade of 81.3 percent which would provide for a fee of approximately 2.31 percent-- $.017 + (.017 \times 4/9 \times .813) = 2.31$ percent.

The construction efforts of the contractor are supported in the United States through its suboffice at San Bruno, California, which is responsible for United States personnel recruitment; procurement of materials, equipment, and supplies from sources within the United States; and export shipping functions. NAVFAC monitors the contractor's state-side activities through a Resident Officer in Charge of Construction also located at San Bruno, California.

In addition to the construction efforts of RMK-BRJ, United States construction activities in Viet Nam are also being accomplished by Army, Navy, and Air Force troop construction units and by other contractors working for the Government. The nature and scope of these construction activities are included as appendix III.

A list of the principal officials responsible for administration of the construction program discussed in this report is included as appendix I.

CONTRACTOR ACCOMPLISHMENTS

As of October 1, 1966, the contractor, RMK-BRJ, had been authorized to proceed with construction work at 38 major construction sites on projects which were estimated to cost approximately \$823 million. Obligations totaling \$807.8 million had been incurred on these projects, and actual expenditures had reached \$628.5 million by that date. The estimated value of construction work in place was \$337.4 million. The contractor had a mobilized work force of 44,091 persons and 5,260 pieces of construction equipment valued at \$109.1 million.

The tremendous acceleration of construction work by the contractor is shown in the following schedule of the estimated value of construction work put in place since January 1966.

<u>Month</u>	<u>Value of work in place</u>	
	<u>Monthly</u>	<u>Cumulative</u>
	(millions)	
Jan. 1966	\$15.0	\$115.0
Feb. "	17.1	132.1
Mar. "	18.9	151.0
Apr. "	21.9	172.9
May "	27.1	200.0
June "	28.9	228.9
July "	30.6	259.5
Aug. "	36.5	296.0
Sept. "	41.4	337.4
Oct. "	42.4	379.8
Nov. "	47.0	426.8
Dec. "	51.0	477.8
Jan. 1967	56.0	533.8
Feb. "	61.0	594.8
Mar. "	56.0	650.8

MOBILIZATION

When the buildup of United States military forces in Viet Nam began in April 1965, the Navy's joint venture contractor, then RMK, had the only significant construction capability then in-country. Both the Army and the Navy began mobilizing their military construction battalions; however, non-availability of units in the numbers required resulted in a slow buildup of troop construction capability. Anticipating the influx of a large increment of new work, the OICC began planning for the rapid buildup of RMK.

As force levels continued to increase with attendant increases in facility requirements, the need for a large buildup in RMK became apparent. Subsequent to the Secretary of Defense's visit to Viet Nam in November 1965, a capability of \$40 million worth of work in place per month was established as the buildup objective for the contractor. This level of capability represented the optimum practicable level attainable in the time frame under consideration.

The problem faced in mobilizing the contractor was the determination of specific construction requirements that would have to be accomplished 4 to 6 months thence. Requirements were not well established at that time and were developing rapidly. The contractor was directed to mobilize to the \$40 million objective level--on the basis of general requirements for

construction of port facilities, airfields, logistics facilities, and troop cantonments--and to attain that objective by October 1966. The contractor immediately proceeded with the establishment of personnel recruiting offices in the continental United States, Manila, and Seoul and with the procurement of required equipment and materials to meet the anticipated workload.

That the contractor reached the planned level of capability in September 1966, 1 month early, is considered by the Navy to be a significant achievement. In doing so, the contractor had undertaken work on 4 deep-water ports simultaneously; 7 jet capable airfields; dredging at 14 different locations; major logistics depot facilities at 4 different locations; and construction of other operational, logistics, and personnel facilities at approximately 30 other locations. In mobilization of its work force, the contractor achieved a total force level of approximately 51,000 employees in July 1966.

According to the Navy, this was subsequently reduced to a level of about 42,000 in October, without decreasing capability, as a result of increasing efficiency of the overall operation. This achievement is considered noteworthy. A comparable measure of the increase in workload of the contractor is indicated by the fact that the total contract workload on January 1, 1965, was \$50 million, while by October 1, 1966, it had reached \$823 million.

ACCOMPLISHMENTS

Some of the more tangible measures of output cited by the Navy are as follows:

1. A 10,000-foot aluminum mat expeditionary runway at Cam Ranh Bay completed in 66 days.
2. Light aircraft and helicopter airfield Da Nang East completed in 3 months.
3. Permanent concrete or asphalt runways delivered at Phan Rang, Da Nang, Chu Lai, and Cam Ranh Bay.
4. Completion of 4 berths at Da Nang and 2 at Saigon, 10 LST ramps, and 2,000 linear feet of barge off-loading space throughout the country.
5. Completion of 6,255,000 cubic meters of dredging in support of waterfront and other landfill operations.
6. Housing for 80,000 troops completed in 1966 with work partially completed on facilities for another 145,000.
7. More than 2.5 million square yards of airfield pavement delivered with another 3 million partially completed.

8. Over 1 million barrels of petroleum, oil, and lubricants storage turned over for use along with 3.8 million square feet of ammunition and covered storage space.

OBSTACLES

The achievements of the OICC and the RMK-BRJ would, in the opinion of the Navy, be singularly significant under favorable conditions. However, in Viet Nam these conditions were anything but favorable. Some of the obstacles cited by the Navy in the buildup of the construction force and the accomplishment of major projects are summarized below.

1. Limited skilled work force was available in RVN. Third country national workers had to be imported from Korea and the Philippines to make up this deficiency. This required coordination of complicated diplomatic arrangements between countries to obtain approval for use of third country nationals.
2. Major engineering problems were faced and solved on extremely short time schedules. Examples of these were: (a) the construction of deep-water piers at Da Nang which involved the development of a new concept in pier construction using tubular framework manufactured in the Philippines and (b) the construction of Newport, near Saigon, which presented difficult site conditions that would have eliminated such a site for similar work in the continental United States. These site conditions required complete change in design concept between the inception of the project and the start of work.
3. The contractor faced many changes in project criteria and siting as work progressed, which required quick reaction in adapting to these changing conditions.
4. In almost every location in which the contractor worked, its forces were exposed to enemy action. There were numerous occasions where his personnel, equipment, or materials were directly affected by enemy activity.
5. The contractor accomplished work at many sites that were isolated and essentially uninhabited, which required the contractor to establish its own logistics support system before work could commence. Cam Ranh Bay was the most graphic illustration of this condition.

The overall performance of the contractor is considered by the Navy to have been excellent under the conditions prevailing in Viet Nam. The Navy recognizes that shortcomings have been experienced in contractor operations; however, the Navy considers that most of these could not have been avoided and that timely actions have been taken to correct such deficiencies.

RAPID ESCALATION OF CONSTRUCTION PROGRAM

RESULTS IN LOSS OF EFFECTIVE MANAGEMENT CONTROLS

The buildup of United States military forces in Viet Nam began in the early part of 1965 and has continued since that time. During the summer of 1965, the military services prepared planning and programming documents showing the facilities which would be needed to support the increased operational requirements in Viet Nam.

On the basis of these forecast requirements, the Navy initiated discussions with the contractor to explore ways and means of increasing, within a short-time frame, the contractor's capability to complete construction projects in time to meet the requirements of the military services. At that time, certain weaknesses in management control were recognized and the contractor indicated that steps were being taken to eliminate these weaknesses. In addition, both the Navy and the contractor indicated their awareness that mobilization of forces, equipment, and materials for the escalated construction program would require proper attention to accounting, warehousing, property, expediting, and material procurement procedures.

In late 1965 and early 1966, the Navy and the contractor devoted considerable effort to determining the extent of the need for funds to finance long lead-time items (delivery 4 months or longer after placement of order) for construction projects approved for inclusion in the fiscal year 1966 supplemental budget estimates for support of operations in Viet Nam. These requirements were used to justify the need for the immediate procurement of \$200 million worth of supplies, materials, and equipment and to obtain approval of a plan to use the Navy Stock Fund to finance an advance buy pending the availability of fiscal year 1966 supplemental appropriations for construction in Viet Nam.

In January 1966 the Secretary of Defense approved the plan to use \$200 million of the Navy Stock Fund to finance the advance buy. Procurements made by the contractor under the advance buy were labeled by the Department of the Navy as Project 99 transactions. With the availability of these funds, the Navy and the contractor moved rapidly to mobilize the forces, equipment, and materials for the escalated construction program.

The accomplishments of the contractor in this respect are evidenced by an expansion of the work force from 26,100 in January to 51,044 by the last of July 1966; the increase of equipment, in-country, from about 1,800 to over 4,700 pieces of construction equipment; and the procurement of over \$84 million worth of material, supplies, and equipment in a relatively short period of time. As a result of this mobilization effort, the contractor's construction capability was increased tremendously; the monthly rate for work in place went from about \$15 million in January to over \$30 million in July to \$41 million in September 1966.

The actions required to mobilize a construction capability of the magnitude attained by RMK-BRJ, especially within the time frame of the

accomplishment, were bound to create all types of operational problems, and RMK-BRJ's efforts in this respect were no exception. In our opinion, the major problems in management control experienced by the Navy and the contractor were a direct result of the speed in which the contractor mobilized to meet the escalated requirements of the construction program and the problem areas cited in this report should be viewed in light of the physical construction accomplished by the contractor along with the existing construction capability which has been mobilized to construct required facilities in Viet Nam.

We recognize that the tremendous acceleration in construction work by the contractor required a departure from normal operating procedures and that, under such circumstances, it would not have been possible to maintain the degree of management control necessary to prevent all waste and inefficiency. We believe, however, that the virtual abandonment of normal processes during the period of the escalated mobilization created many problems which might have been minimized by the exercise of an appropriate degree of management control.

This report cites those problem areas where we believe that more effective controls could have been exercised to reduce the extent of waste and inefficiency, although we recognize that waste and inefficiency could not be completely eliminated in a construction program of this magnitude under conditions existing in Viet Nam.

PROCUREMENT ACTIVITIES

To attain the objectives of the rapidly escalating construction program in Viet Nam, the contractor and the Navy quickly mobilized equipment and materials from sources both within the United States and offshore. Based on our survey, our opinion is that neither the Navy nor the contractor were adequately equipped at the time of this mobilization activity--early in 1966--to establish a reasonable degree of management control over the procurement activities which resulted from this rapid escalation.

Our survey showed that procurement actions had been initiated with practically no basis on which reasonable requirements could be computed and with little or no knowledge of equipment and materials on hand or on order. In addition, little attention was given to the preparation of purchase specifications which would permit the procurement of the most economical item in the most economical manner.

Although it is not possible to calculate a reasonable estimate of the increased costs which were incurred in the absence of adequate management controls, it is clearly evident that a substantial amount of funds were used to procure equipment and materials which were not needed to meet valid requirements of the then-current program and which were of a specialized nature and of a quality superior to that actually required for the use made of them. We believe that additional costs were incurred as a result of procurements being made without the benefit of adequate and reasonable competition and without adequate consideration of alternative sources of supply.

Agency and contractor comments

The contractor stated that early procedures provided sufficient guidance and controls for the small volume of procurement which took place in the first 3-1/2 years of the contract. Extensive detail relating to the development of current procurement policies and procedures from the inception of the contract were presented together with other comments relating to existing internal controls. The contractor has expressed the belief that current policies and procedures and internal controls are adequate. The Navy expressed disagreement with our conclusions. Further detail is contained in appendix II.

GAO evaluation of comments

Since the comments by the contractor and the Navy under this section of the report relate to a number of various matters, we have replied in detail in appendix II. However, the following general observations are made here.

Between January 1962 and January 1967, the contractor had purchase commitments for about 420,000 line-items which cost \$464.5 million. About 311,000 of these line-items costing about \$398.9 million, or almost 86 percent of the total cost, were purchased between January 1, 1965, and June 30, 1966. The first comprehensive detailed procurement policies and procedures were issued by the contractor in June 1966. As discussed in detail in appendix II, we believe the procedures existing prior to the June 1966 revision were poor and not well planned.

NEED FOR IMPROVEMENT IN PURCHASING PROCEDURES AND PRACTICES

Since about April 1965, the contractor has been buying millions of dollars worth of equipment and material each week within the United States for the construction program in Viet Nam. Prior to this time the magnitude of procurements was relatively small, totaling \$22 million from the inception of the contract until about March 1965. However, by August 28, 1966, about \$402.9 million had been committed for the procurement of equipment and material in the United States. These procurements, which totaled to as many as 12,823 line-items in 1 week, were based primarily upon purchase requests initiated by the contractor in Saigon and forwarded to the contractor's procurement office in San Bruno, California.

In addition to procurements made through United States sources, the contractor's office in Saigon has made substantial purchases within Viet Nam and from foreign suppliers of equipment and materials for the construction program in Viet Nam. The contractor had, as of September 1966, committed a total of \$155.5 million for the non-United States procurement of materials, supplies, and equipment and for equipment rentals, subcontracting, and other services.

Although the magnitude of the procurement activity decreased in June 1966, it is still substantial, averaging more than \$5 million a week during the period June to August 1966. Consequently, we believe that normal procurement procedures, which were not followed during the massive buildup, should now be followed and that improvements in the procurement system should be made, particularly in the following areas, which were identified as the result of our survey at San Bruno and in Viet Nam.

Agency and contractor comments

The Navy agreed with our view that effort to improve the system should be continued.

The contractor did not comment on this section of our report.

DETERMINATION OF REQUIREMENTS

About the beginning of 1966, the contractor began to quickly mobilize equipment and materials in order to achieve the capability of accomplishing the goal of \$40 million worth of work in place per month by October 1966. Requirements for the equipment and materials were established on the basis of broad project identifications, such as airfields, port facilities, logistic facilities, and troop cantonments. In our opinion, such requirements were at best general in nature and were based upon what might be required to accomplish the construction program which was envisioned but was by no means firm.

Purchase requests were initiated by the contractor in Saigon in an atmosphere of "full speed ahead" without the usual controls over procurement actions. Normal industry practices, such as preparing material lists from finalized blueprints and preparing adequate specifications for procurement purposes, were virtually abandoned. Furthermore, neither the Navy nor the contractor organizations were prepared to carry out the expanded procurement activities in an efficient and economical manner.

Purchase requests were prepared in Saigon for either local procurement or procurement by the contractor's office at San Bruno. Screening of such requests against inventory on hand was virtually impossible because the contractor had lost accountability control over such inventories. Furthermore, brand names or commercial catalogs were often used in the preparation of purchase requests, thereby limiting the number of sources of supply which ultimately may have resulted in the Government's not obtaining the most economical price for the needed supplies.

Agency and contractor comments

The Navy commented that the information we presented did not correctly depict the process of mobilization and the determination of requirements carried out by the Navy and the contractor. The Navy stated that, although the MACV construction program was not precisely defined, the program did consist of overall requirements for operational and support facilities, including new airfields, ports, and cantonments. Based on the overall requirements, the OICC's and the contractor's mobilization planning consisted of equating the types of facilities to be built with the required numbers and quantities of equipment, material, and personnel.

The Navy added that construction capability and flexibility was the key; not the orderly, peacetime process of line-item definition, location, preparation of final plans and specifications, and deliberate material lists. Further, the Navy stated that to have cautiously delayed establishment of material requirements and initiation of procurement until final plans were available, as normally would be done, would have been impracticable in that environment and would have involved delays wholly intolerable to the military commands.

GAO evaluation of comments

In comparing the Navy's description of the mobilization process with the presentation in our report, we believe that our description accurately represents the manner in which the program was carried out. We recognize the urgency and exigencies inherent in the situation and the overriding considerations involved in this program. Moreover, we recognize that the program could not, in all respects, be accomplished using peacetime concepts. We believe, however, that, for the matters discussed in this section of our report (i.e., procurement practices requiring improvement), greater efforts could have been made earlier by the Navy and the contractor to employ reasonable management controls which, in our opinion, would have assisted in accomplishing the program objectives as well as promoting efficiency and economy in the construction program.

PROCUREMENT PRACTICES AT SAN BRUNO
REQUIRING IMPROVEMENT

The procurement activities at San Bruno were primarily those of a service organization used to process purchase requests received from Saigon. We found little evidence to indicate that the purchase requests were subject to technical review or evaluation at San Bruno before bid proposals were requested. Our survey has shown that it has been necessary for procurement and engineering personnel at San Bruno to rely heavily upon the adequacy of the purchase requests initiated in Viet Nam.

Both the contractor and the Navy have engineering staffs at San Bruno who review purchase requests, but their capabilities were limited by the fact that they usually did not have the benefit of knowing how materials were to be used and by the mere magnitude of the procurements. Furthermore, in the absence of this knowledge, they were impeded in questioning any of the purchase requests because of poor communications between San Bruno and Viet Nam and the delays which would have resulted had the purchase requests been questioned.

We found that technical and market information available in Viet Nam was also limited and that purchase requests were in some instances prepared on the basis of brand names or commercial supply catalogs. The technical review of purchase requests by the contractor and the Navy were superficial and, in our opinion, could not be classified as an effective management control. Some of the major problem areas in the procurement activities at San Bruno, which we believe were major contributing factors to uneconomical procurements, are discussed in later sections of this report.

Agency and contractor comments

The Navy stated that the introductory comments to this section were essentially correct but that it was not intended, nor is it now intended, that either the San Bruno procurement office of the contractor or the office of the Resident Officer in Charge of Construction (ROICC) be staffed with engineering talent adequate for the in-depth review and testing of purchase requests from Saigon. The Navy stated that an adequate number of engineers is provided for this purpose in the offices of the contractor and the OICC in Saigon. It was indicated that to duplicate this engineering effort at San Bruno would be wasteful and would result in delays in procurement and construction which could not be tolerated.

The contractor disagreed with our introductory comments and stated that in innumerable instances the specifications prepared by Saigon had been questioned by the San Bruno Engineering Department. Savings of \$11 million were claimed to have been achieved in 1 year as a result of such questioning.

GAO evaluation and comment

Although the Navy stated that the engineering review function was provided for by an adequate number of engineers in the offices of the OICC and the contractor in Saigon, our survey showed that the Navy's approval of purchase requests in Saigon was based on a superficial review. Also, as stated in our report, we found that, in Saigon, design personnel and the contractor's engineers were handicapped by a lack of technical and market information necessary to ensure that purchase requests would be written in such a manner as would permit effective competitive procurement.

Our inquiries showed no evidence that specifications were being carefully reviewed and also showed that most of the savings claimed by the contractor did not relate to procurement of equipment, materials, and supplies required for construction under the contract. Our further observations on the extent to which specifications have been questioned are contained in appendix II.

1. Restrictive procurement specifications

The use of restrictive specifications by the contractor has had the effect of seriously reducing the possibility of obtaining competitive prices. These restrictions have included specifying brand names or proprietary items which could be supplied only by a single manufacturer. In other instances specifications were written for materials that were not common to the industry. We cannot compute exactly what the increase in cost under the contract has been as a result of the use of such restrictive specifications; however, we believe it to be substantial, as evidenced by one example involving the procurement of \$2.8 million worth of corrugated steel culvert. We estimate that the added cost involved in this procurement alone may have been more than \$300,000.

The contractor's procurement records showed that the culvert was purchased from one supplier under 13 different purchase orders without benefit of competition. Although competitive bids had been solicited on 4 of the 13 purchases from other potential vendors, these vendors either did not, or could not, respond since the type of culvert desired was a proprietary item.

Although the proprietary item called notched-type culvert was available from only one supplier, others were capable of supplying an alternate flanged-type culvert at lower prices. The records on this procurement show that bids on the alternate-type culvert were neither requested nor considered.

A comparison of the average prices paid by the contractor for notched-type culvert and the lower prices which might have been obtained for the purchase of the flanged-type culvert indicates that an estimated average savings of 87 cents a foot for the quantities of each size bought could have been achieved. If savings of this amount could have been achieved on the entire 345,930 feet of notched-type culvert purchased, the cost of the procurement could have been reduced by about \$300,000.

Agency and contractor comments

Regarding the culvert procurement used as an example in this section of our report, the Navy and the contractor stated that the notched-type culvert was purchased for engineering reasons and offered advantages over the flanged-type culvert. The reasons given included reduced risk of damage, ease in handling and installation, and lower in-place cost. Also, the contractor stated that a reduction of \$125,000 was obtained through negotiation on the culvert procurements.

Additional Navy and contractor comments on other matters relating to this section of our report are contained in appendix II.

GAO evaluation of comments

For clarity we have replied to the comments of the Navy and of the contractor on the culvert procurement in the following two subsections. Our reply to their additional comments is included in appendix II.

Flanged-type culvert acceptability

Regarding the claim that notched-type culvert, the proprietary product, is preferred for engineering reasons, the records at San Bruno show that in April 1966, the ROICC advised the OICC that competition was not being obtained on procurements of notched-type culvert and asked whether flanged-type would meet needs in Viet Nam. The OICC replied unequivocally that the flanged-type culvert was an acceptable alternate.

Our follow-up work showed that both the Bureau of Public Roads (BPR), for use in Laos, and the Defense Construction Supply Center (DCSC), for use by the Army, Navy, and Air Force in Viet Nam, had purchased flanged-type culvert exclusively during 1966. Although BPR advanced various engineering reasons for using flanged-type culvert, BPR concluded that this type was used primarily because it was less costly. Records at DCSC show that notched-type culvert had been dropped from its inventory under the standardization program after a review showed that only \$559 of the notched-type had been requested out of \$1-1/2 million worth of total requests in 1963.

Contractor negotiations

The contractor claimed that negotiations had been held on the culvert procurements and that these resulted in a price reduction of \$125,000. The purchase order records do not contain any documented evidence as to when or where negotiations took place, who took part in them, or the basis on which negotiations were conducted on any of the 13 culvert orders discussed in our report.

Further discussions with the responsible contractor personnel disclosed that no negotiations were conducted on 10 orders involving almost half the quantity and cost of the total culvert purchased. On the remaining three orders, the records do show that there is a price difference of \$124,725 between two bids on file that were submitted by the sole-source supplier. Although the records do not show it, we were told that this reduction had taken place as a result of negotiations. If this occurred, such a reduction points out the likelihood that lower prices might have been obtained on earlier orders if negotiations had also been conducted on them.

Although we cannot refute the contractor's statement that negotiations did take place, the records show that whatever discussions did take place occurred after the orders had been placed at the higher price; therefore, we question whether any discussions leading to the reduction were as effective as could normally be expected. Since the orders, which were in effect contracts, had already been entered into, the contractor was bound by their provisions which could be amended only by mutual consent. Therefore, the contractor's efforts to negotiate could not be as effective as they would have been prior to award of the orders. As indicated, how the reasonableness of price was established is not shown by the records.

2. Unusually high quality material purchased

Our survey showed that the contractor had purchased materials that were of higher quality than those commonly purchased for use in the construction industry. We were told by an engineer in Viet Nam, who initiated some of the procurements, that high-quality material was required because ultimate end uses were not always known; thus it was necessary to purchase material of such high quality as would enable its use for any purpose. Our survey showed, however, that the contractor did know the end use in general terms, such as cantonments, and therefore knew that the highest quality materials were not needed for all applications. For example, the highest quality lumber was not needed for cement forms.

The contractor paid premium prices for the unusually high quality material purchased. While the increase in contract cost attributable to these premium procurements cannot be determined exactly, the following example involving the procurement of about \$15.7 million worth of high-quality lumber indicates that on these procurements alone the added cost may have been \$2.1 million or more over the estimated price for procuring lumber using the specifications followed by the Defense Supply Agency (DSA) in buying lumber for use in Viet Nam.

A major portion of the contractor's lumber purchases, 106 million board feet costing about \$15.7 million, was of a superior grade in specified lengths. The specifications for this lumber were prepared in Saigon and forwarded to San Bruno for procurement action. The purchase requests received in San Bruno provided for all construction-grade lumber, in Douglas fir, in 16- to 22-foot lengths. Although such high-quality specifications would be unusual in the construction industry for a general lumber buy, and DSA questioned the need for similar specifications with the result that they were modified, the contractor's lumber buyers requested bids under the restrictive specifications without questioning the purchase request received from Saigon.

Within the lumber industry there are various types, qualities, and lengths of lumber available for use in construction. The types of lumber most commonly used are a combination of Douglas fir, western larch, and western hemlock, together with smaller amounts of other species such as white fir, Idaho white pine, lodgepole pine, and ponderosa pine. The West Coast Lumber Inspection Bureau and the Western Wood Products Association identify the quality of lumber by grades from highest to lowest quality, respectively, as (1) select structural, (2) construction, (3) standard, (4) utility, and (5) economy. In addition to the grade, the price is also dependent on the length and species specified, the price per board foot being higher for the longer lengths and varying dependent upon the species purchased.

The usual practice of DSA, in procuring lumber for use in Viet Nam, is to buy mixed grades, species, and lengths. Our comparison of contractor procurements with those made by DSA shows that DSA procurements are more economical. Also, because of the multitude of contractor construction projects in Viet Nam and the related requirements for lumber, it appears reasonable, in our opinion, that use would be made of various grades, species, and lengths. For example, we noted that during the period March 1965 through April 1966, the Portland, Oregon, suboffice of DSA's Defense Construction Supply Center purchased approximately 30.5 million board feet

of lumber for shipment to Viet Nam. Most of this lumber was purchased in various species, in standard grades, and in random lengths.

In our opinion, it is uneconomical for a builder to use construction-grade lumber when standard-grade lumber, which is less costly, would suffice. However, in the aforementioned lumber transactions, the contractor followed this uneconomical practice.

In July 1966, NAVFAC established specifications to be used in design, material lists, requisitioning, and purchasing by southeast Asia contractors. These specifications states that standard-grade lumber is suitable for most permanent construction and that construction grade lumber generally exceeds the quality requirements for most southeast Asia uses. The specifications now also provide that Douglas fir, western larch, and western hemlock can be considered acceptable lumber species and that a maximum of 25 percent of the board feet required can be supplied in species of white fir, Idaho white pine, lodgepole pine, or ponderosa pine. The new specifications do not refer to the question of length.

If the contractor had purchased the lumber under specifications more consistent with DSA's, we estimate that the resultant savings would have been \$2.1 million.

Agency and contractor comments

Both the Navy and the contractor, in commenting upon this subsection, stated that the purchase of high-quality lumber, the example used in our report to illustrate the purchase of unusually high-quality materials, was considered necessary. The Navy quoted a cable from the OICC in Saigon analyzing the need for the high quality, which stated that 10 percent additional lumber would be required if standard rather than construction lumber were procured. The contractor claimed that 10 percent more of certain other species would have been required to fill needs had less stringent specifications been used. However, the Navy added that subsequent review had shown that the standards used in the procurement of lumber were unnecessary and that action had been taken to relax the standards. Also, see appendix II for further comments made by the contractor.

GAO evaluation of comments

Our follow-up work on the comments of the Navy showed that the message from the OICC to NAVFAC--quoted by the Navy as justifying the need for high-quality lumber--was dated April 20, 1966, which was 1 month after a large order for lumber with high specifications was placed and after extensive criticism was directed at the procurement by the lumber industry through the newspapers and through complaints to the Congress. The fact remains that the Navy, subsequent to the OICC message, reduced the high-quality specifications and found that lumber of such high quality was not needed.

Regarding the claim that additional lumber would have been required to fill needs had less stringent specification lumber been procured, our survey showed that, for the vast majority of the requirements, a 30-percent margin had been allowed for waste and pilferage. Furthermore, when specifications were reduced, no change was made in the quantities procured. Therefore, it appears that the 30-percent margin already allowed was sufficient.

3. Unusually large procurements

Our survey has shown instances where the contractor made large individual procurements that had the effect of placing unusual demands upon the supplying industry, and thus the contractor was able to obtain only limited competition from prospective suppliers. Such conditions occurred particularly during the period when the Navy had directed the contractor to make substantial advance procurements of items without the benefit of specific architectural and engineering criteria and without specific knowledge of when the material would really be needed. As a result the planning and scheduling of this procurement was impaired. Although only limited competition existed in these instances, the contractor nevertheless did not use the technique of negotiating with suppliers for fair and reasonable prices.

One single procurement, reported to be the largest lumber procurement since World War II, covered 78.4 million board feet of lumber costing about \$12.8 million. The request was initiated on February 11, 1966, in

Viet Nam and consisted of four separate and identical purchase requisitions. Each requisition contained 12 line-items totaling 19.6 million board feet at an estimated cost of \$3.8 million.

These requests were received at San Bruno on February 23, 1966, and the solicitation of bids from suppliers was started on February 28, 1966, or within 5 days of receipt. March 15, 1966, was established as the date bids were due, and 18 suppliers were solicited. Delivery was requested at 16 million board feet a month, which commenced in July 1966 and ended in November 1966. The records show that 11 of the 18 suppliers solicited responded. Only two of the suppliers responded with bids on the entire 78.4 million board feet. The other suppliers bid on only segments of the proposed four-part order.

On March 18, 1966, 2 days after the bids were evaluated, the purchase orders for the four increments were awarded to one vendor at \$12,837,600. This constituted the lowest bid on the total requirement.

Complaints were voiced by the lumber companies in newspaper articles appearing in the Northwest lumber region, as well as in individual letters to Government officials. It was reported that the order had the immediate effect within the industry of increasing lumber prices by as much as \$12 per thousand board feet and lumber treatment prices by as much as \$18 per thousand board feet. The order also had the effect of creating competition between the contractor and the Government. For example, at this time DSA also purchased lumber for use in southeast Asia and elsewhere. As a result of the market conditions, it was necessary for DSA to pay higher prices to satisfy the needs of its lumber customers within the desired time period.

On March 28, 1966, 10 days after the order had been placed, the contractor issued Change Order 1 to reduce the quality of the entire 78.4 million board feet purchased and thus permit an acceleration of delivery. Under the change, delivery was to be started in April and completed by October 1966, 1 month earlier.

Negotiations were held between the contractor and the supplier to establish price reductions applicable to the changed specifications, and the following reductions were negotiated.

<u>Change applicable to</u>	<u>Reduction</u>
Species	\$216,480
Grade	78,400
Length	<u>21,560</u>
Total	<u>\$316,440</u>

We believe that the relaxation of specifications so soon after award suggests the possibility that the original solicitations could have been made under the relaxed specification and that several companies were precluded from submitting responsive bids on the high-quality lumber originally sought. One supplier within the industry estimated that, had the

unsuccessful bidders been given the opportunity to bid on the order under the relaxed specifications, the total price paid may have been reduced in an amount ranging from \$1.5 to \$2 million. As previously mentioned, the price reduction negotiated by the contractor with the successful bidder was only \$316,440.

Agency and contractor comments

The Navy, in commenting upon this section, stated that the OICC had justified this large procurement upon the basis that the bulk buy was necessary to meet program requirements for time-phased delivery of the lumber. The Navy stated that, on the very day of the bid opening, the ROICC was requested to use all possible efforts to advance the delivery dates.

The Navy also questioned the validity of the estimate, which we had received from a supplier in the industry, that, had the unsuccessful bidders been given an opportunity to bid on the revised specifications, the total price may have been reduced in an amount ranging from \$1.5 to \$2 million. The Navy claimed that the negotiations had been good and that through negotiations the price had been reduced by \$527,640 instead of the \$316,440 stated in our report.

Additional Navy and contractor comments on other matters relating to this section of our report are contained in appendix II.

GAO evaluation of comments

The records show that the urgent need for the lumber was known in sufficient time to have relaxed specifications prior to placing the order. On March 7, 1966, 1 week after bids had been requested and 8 days before they were due, the ROICC submitted the following memorandum to the contractor.

"1. I am informed by OICC RVN that lumber requirements are critical. You are requested to expedite the filling of lumber requisitions and to ship the lumber as fast as possible. ***"

As the foregoing quotation shows, the urgent need for lumber was a matter of record in sufficient time to have permitted a relaxation of specifications prior to the award of the order.

Regarding our reported observation that one supplier in the industry estimated that the price paid for the large buy might have been reduced in an amount ranging from \$1.5 to \$2 million under the relaxed specifications, the Navy presented data which indicate that the supplier's estimate was high. If corrected for an error, the Navy stated that the supplier's alleged price reduction would have been \$864,160. While this one supplier may have made an error in calculating its estimate, we note that three other suppliers made similar estimates of the premium price paid. The estimates ranged from one million to several million dollars. One stated that the premium was from two million to three million dollars.

We did not attempt to verify the accuracy of any of the four suppliers' estimates. We did, however, independently estimate that, as a result of purchasing lumber with specifications in excess of those for lumber purchased by DSA, the contractor paid a premium price of about \$2.1 million on the total 106 million board feet of high-quality lumber purchased.

Regarding the negotiations held with the supplier, they may have been good as indicated by the Navy but we question the base price used or the starting point for the negotiation. Obviously, if the base price is too high, even good negotiations limited to a change in specifications will not result in a good price.

In our report we did not understate the reductions negotiated with the supplier as stated by the Navy. The record shows that the \$211,200 difference between the figures stated in our report and those stated by the Navy represents a price reduction made by the supplier prior to the issuance of the order without negotiation.

4. Vendor and procurement history records not maintained

Our survey has shown that the San Bruno procurement office did not maintain a central list of vendors who had supplied, or were capable of supplying, required materials. Also, procurement history records had not been maintained showing the volume of specific materials purchased or the vendors who supplied the materials. In the absence of these historical records, substantial reliance was placed on the memory of procurement personnel. Consequently, there was no real assurance that the most preferred potential responsive suppliers had been solicited and that prices paid were reasonable in relation to past procurements. Our survey disclosed several instances where suppliers had been solicited and had responded with competitive prices on given procurements handled by one buyer; yet these same suppliers had not been solicited on similar procurements handled by another buyer.

We believe that the above conditions have unduly limited the numbers of potential suppliers solicited and thus have possibly resulted in higher prices being paid for the materials needed. For example, our survey showed one case involving the procurement of cast-iron pipe fittings where one buyer did not know which companies had submitted bids to another buyer.

In March 1966 the contractor's procurement office at San Bruno awarded four almost identical purchase orders for a total of about \$1.1 million worth of cast-iron pipe fittings. The total order was divided into four parts because the material was to be shipped to four different locations; however, each order contained the same line-items.

The four purchase requests for this order were received in San Bruno on March 11, 1966. Starting on March 17, 1966, the buyer to which the purchase requests were assigned solicited bids from seven vendors and requested that bids be submitted by March 24, 1966. Of the seven vendors solicited, only two responded; however, only one met the specifications.

The four purchase orders totaling \$1,065,052 were awarded by the contractor to the single responsive bidder on March 31, 1966.

We found, however, that a responsive bidder on a previous procurement for identical items in December 1965 was not even considered in this follow-up buy, evidently because it was handled by another buyer. The unit prices bid by the supplier on the December buy are, when applied to the quantities involved in the March buy, about \$398,000 lower than the prices actually paid in March. We recognize that, because of changing market conditions, it is not possible to precisely estimate the effect of not soliciting a supplier which has indicated its ability and willingness to bid; however, we believe that the exclusion of such a potential bidder reduces the opportunity for lower prices.

Agency and contractor comments

Both the Navy and the contractor commented that, during the Project 99 procurements, the individual buyers maintained their own bidders list according to commodities procured. However, these lists were not integrated into a central bidder listing. For additional contractor comments on this section, see appendix II.

GAO evaluation of comments

Our follow-up inquiries show that the contractor's written procurement procedures did not require the buyers to maintain their own lists of suppliers until the procedures were revised in June 1966. Furthermore, in our discussions with four buyers in July 1966 to determine whether they maintained their own bidders lists, we found that only one had, and this buyer stated that it had not been kept current due to lack of time. Our evaluation of the contractor's additional comments concerning the procurement of the cast-iron pipe fittings appears in appendix II.

5. Repetitive procurements

Our survey has shown that, over the term of the contract, identical materials and supplies have been bought repetitively at short intervals. Generally, these procurements have been processed by soliciting bids from potential suppliers and by awarding new purchase orders. Such actions are, in our opinion, time consuming and more expensive than if the materials could be grouped. Therefore, we believe that, for some common items on which frequent purchases are made, it may be advisable for the Navy and the contractor to explore thoroughly the possibility of soliciting bids and/or negotiating prices with suppliers on the basis of open-end contracts which would permit procurement of materials at preestablished prices.

PROCUREMENT PRACTICES OVERSEAS
REQUIRING IMPROVEMENT

Our survey of the contractor's operations in Viet Nam disclosed that some of the procurement problems found at San Bruno also existed on overseas purchases. In addition, we identified other procurement problem areas which were peculiar to overseas purchases. A description of these problem areas follows.

1. Use of brokers to buy construction supplies

We observed that the contractor had made extensive use of brokers to buy materials and supplies for the construction program. This procedure is usually considered an undesirable practice in that it is, in effect, a transfer of the contractor's purchasing function to a third party and may result in added contract costs. In our review, we noted that one Singapore broker had received over \$1.6 million worth of purchase orders from the contractor for commodities ranging from lumber to common nails. This brokerage firm was reported to consist of two secretaries and a number of buyers that simply placed the orders received with the ultimate supplier. We are unable to determine the extent of the additional costs incurred by dealing through the broker; however, we were told by an RMK-BRJ buyer that in some instances the prices charged by suppliers were about one half the prices paid to the broker.

We were informed by the contractor that its local purchasing department had only limited experience as to the source of supply in the Far East market and that until April 1966 it had made limited attempts to establish first-hand information as to market potential. As a result, many large purchases were made through brokers in Singapore. We were told that as the contractor's purchasing department gained more experience as to potential suppliers it was and is now able to place more purchases directly with suppliers.

Agency and contractor comments

Neither the Navy nor the contractor took any exception to the facts stated in this subsection. See appendix II for a summary of their comments.

2. BUSH program not used by contractor

During our survey we noted that the contractor had purchased items both locally and offshore when it could have purchased them under the "Buy United States Here" (BUSH) program. The BUSH program is based on a concept of buying commercial-type United States-manufactured end products from companies located overseas to (1) achieve a more favorable delivered cost, (2) improve overseas logistical support by offering faster delivery, and (3) contribute favorably to the "Balance of Payments" (Gold Flow) program. BUSH contracts are indefinite delivery-type contracts. In the Far East area, the United States Air Force major air commands negotiate, execute, and award the contracts. Any overseas Government agency can place orders against the BUSH contracts in effect.

As of December 31, 1965, 31 BUSH contracts had been awarded in the Far East. The types of supplies available under these contracts included (1) office machines, (2) brushes, paints, peelers, and adhesives, (3) tires and tubes, (4) chemicals and chemical products, and (5) lighting fixtures and lamps. Many of these same types of items have been bought by the contractor's local purchasing department.

As of August 31, 1966, the contractor's local purchasing department had made only one purchase of \$4,757 and the San Bruno office only two purchases totaling \$10,800 against BUSH contracts. Contractor officials advised us that they first became aware of the BUSH program in April 1966. The contractor is attempting, however, to obtain a complete listing of all BUSH contracts and informed us that consideration would be given to these contracts as a source of supply for future purchases.

Agency and contractor comments

Although the Navy agreed with this subsection as presented, the contractor claimed that BUSH had been used in Viet Nam during all of 1966 and set forth five cases totaling \$201,702 where it had been used.

GAO evaluation of comments

A follow-up inquiry in Saigon concerning the contractor's statements showed that only one of the five purchases mentioned by the contractor was made under a BUSH contract. This transaction related to the purchase of thermofax machines costing \$4,037 from the Minnesota Mining and Manufacturing Company in Manila. The others were made with suppliers who had BUSH contracts; however, the RMK-BRJ purchases were not made under the BUSH contracts in effect.

3. Barter procedures not used to purchase materials and supplies

As of September 25, 1966, the contractor had purchased more than \$47.7 million worth of construction materials and supplies from non-United States sources. Although some of these materials, such as cement, were susceptible to barter procurements, no such purchases had been made. We believe that this resulted because responsible OICC personnel were not sufficiently versed in the methods of barter procurements and the advantages to be obtained by utilizing these procedures.

Procurement by barter is authorized by the Agricultural Trade Development and Assistance Act of 1954 (7 U.S.C. 1691) and the Commodity Credit Corporation Charter Act (15 U.S.C. 714) as a device to exchange surplus United States agricultural commodities for foreign supplies or services. Barter procedures involve a determination that a procurement requirement from overseas sources is susceptible to barter, followed by the award of a barter contract to a barter dealer. The barter dealer sells the surplus agricultural commodities, and the proceeds of the sale are used to acquire the needed material or the barter dealer acquires and makes direct delivery of the needed material.

Offshore barter procurements of materials and services for United States Government agencies, through the use of agricultural commodities as the means of payment, provide threefold benefit for the United States in that they reduce dollar expenditures, favorably offset the balance of payments, and save storage costs.

The contractor has purchased substantial quantities of cement, lumber, plywood, and other construction materials from various countries in the Far East. Some of these materials were susceptible to barter; however, prior to May 1966 no action had been taken to identify the barter potential or to establish sufficient expertise to handle this type of procurement. We believe that the lack of direction and experience at the onset of the escalated procurement activity under the contract resulted in the failure to take advantage of many potential barter arrangements.

We noted that one specific barter proposal to supply approximately \$9 million worth of cement was passed up partly because OICC officials were not in a position to give adequate consideration to a proposal offered by an established barter dealer. In this case the OICC was advised on December 30, 1965, by the Pacific Division, Bureau of Yards and Docks, that a barter contractor was interested in supplying a large quantity of cement required for the Viet Nam construction program. At that time the OICC, through the contractor, had defined a requirement of about 500,000 metric tons of cement and was in the process of fulfilling this requirement through Taiwan suppliers. When the above inquiry was made, no one then in the OICC organization had had any experience with the mechanics of barter procurements.

In January 1966 a representative of a trading firm which engages in barter transactions contracted officials of the OICC to discuss the possibility of obtaining the contract to supply the cement. We were advised by OICC officials that the barter contractor's offer was turned down because they were not satisfied that the barter contractor could produce enough cement in time. However, there was no record available at the OICC of the specific terms offered by the barter contractor, nor was there any indication that any specific proposals as to price and delivery terms had been requested. By this time the contractor had already concluded negotiations with the cement consortium in Taiwan and, although the contract had not been finalized, apparently had already decided to buy the cement in dollars.

Since May 1966 the Navy has made an effort to obtain a better understanding of the mechanics of barter procurement and has attempted to identify future barter potential. In June 1966 a representative of the Naval Facilities Engineering Command issued a report on the barter potential available in the Western Pacific area, and in July 1966 the Navy authorities in Viet Nam requested the contractor to develop an itemized listing of materials, equipment, and services to be procured from offshore sources to complete the construction program. However, although the contractor, as of September 1966, had identified in general terms the types of materials which might be bought from offshore sources for future requirements, no specific future procurement requirements had then been identified as being susceptible to barter procurement.

Agency and contractor comments

Although the Navy agreed that barter procedures were not in use by the contractor in Viet Nam, the contractor commented that certain barter contracts in existence for cement had been explored and were found to be more costly. The contractor stated that prices under the barter contracts were far greater than those paid under its negotiated contract for cement from a Taiwan consortium.

GAO evaluation of comments

Our price comparison between AID barter prices for Taiwan cement delivered to Viet Nam and the prices paid for cement by the contractor under a negotiated contract with a Taiwan supplier shows that the barter contractor was providing cement to AID at prices comparable to those being paid by the contractor under the negotiated contract and that such prices could have been obtained by RMK-BRJ.

During our follow-up work, we noted that the Navy had taken action to establish barter programs for their activities in southeast Asia. In January 1967 a barter team was sent from Washington to Viet Nam and Thailand to investigate and resolve problems concerning barter. As a result of the team's effort, barter programs have been established in an estimated amount of \$41 million for southeast Asia. Of this amount, approximately \$18 million applies to activities in Viet Nam.

PROCUREMENT POLICIES REQUIRING IMPROVEMENT

We believe that, in addition to the above-mentioned procurement practices, certain procurement policies of the Navy and the contractor have unnecessarily resulted in increased cost to the Government for materials and equipment. We believe that consideration should be given to changing these policies, which are enumerated in the following sections.

1. Contractor requested to purchase equipment and material for military troop construction forces

Our survey disclosed that the Army and Navy, instead of using the Government supply systems to obtain construction equipment and materials needed for use by their military troop construction units, had in some instances requested the contractor to make such procurements under the contract. As of July 1966, about \$55.2 million worth of equipment and material either had been or were in the process of being procured in this manner. These procurements consisted of about \$26.7 million worth of generators and prefabricated buildings for the Army Engineers and about \$28.5 million worth of trucks, construction equipment, and spare parts for the Navy Seabees. For providing this service, the contractor was to be paid a fee of one half of 1 percent of the acquisition cost, or about \$226,000.

In performing our survey, we were unable to ascertain with any degree of certainty whether the military services' departure from the normal system of making procurements through the military supply system was due to the nonresponsiveness of the supply system or to the abandonment of normal processes and controls under the guise of urgency.

We reviewed the manner in which the contractor had procured approximately \$2.2 million worth of equipment for the Navy. We found that the contractor had solicited bids from potential suppliers by telephone on the basis of descriptions provided by the Navy and awarded the orders on the basis of bids received.

Agency and contractor comments

The Navy, the contractor, and the Department of Defense stated that the contractor had been requested to purchase items for the Army and the Navy for use other than under the contract because of the time which could be saved by using that method instead of the normal method of procurement through the military supply system. We were further advised by the Navy and the Department of Defense that controls had been instituted since our survey which would limit future procurements by the contractor for the military services.

2. Limited use of existing Government supply system

Our survey showed that the Navy and the contractor had made only limited use of the Federal supply system. In addition, a lack of coordination between the contractor and the Government supply agencies in making

large procurements had resulted in both competing for the same limited product supply and thus unnecessarily increased prices.

A cost-type contractor has the authority, subject to the approval of the contracting agency, to utilize the capabilities of the Government supply systems, including those of the General Services Administration (GSA) and Defense Supply Agency.

We found that, when presented with a temporary funding problem in late 1965 and early 1966, the Navy considered using DSA for procurement of various items and found that it could provide many of the items that the contractor was buying. However, the possibility of using DSA as a principal source of supply was no longer pursued once funds became available.

We believe that more extensive use should be made of the capabilities of the Government supply agencies. Furthermore, we believe that the contractor should coordinate large procurements with the Government agency having responsibility for that item. Unless this is done, the contractor may be competing with the Government for the limited supply available from vendors, which will result in increases in price and a shortage of supply.

For example, as a result of its large lumber purchases, the contractor in April 1966 in effect began competing with the Government for available lumber. At that time DSA was also purchasing large quantities of this material. Not only did it become increasingly difficult for DSA to satisfy the needs of its lumber customers within the desired delivery periods, but also lumber prices to both buyers increased considerably.

We believe that this would not have happened had the contractor coordinated its procurements with DSA. The Portland, Oregon, suboffice of DSA was, and is, daily engaging in procuring lumber and, in our opinion, would be in a good position to consider the effect of procurements upon the market and attempt to make them in the way that would have the least adverse effect. Full details relating to the contractor's lumber procurements and their effect are discussed on pages 20 to 25 of this report.

Agency and contractor comments

Both the Navy and the contractor concede that the existing Government supply systems of GSA and DSA have not been used extensively. The Navy stated, however, that such action was not without justification. The Navy commented that the policy had been, and continues to be, to procure from the Government supply agencies if the material was a "shelf item." Unfortunately, according to the Navy and the contractor, many of the commodities required for the construction program are in such short supply that the Government supply agencies do not have the items in stock and cannot fill the contractor's requirements within the permissible time limits. The Navy noted that, although DSA was not used extensively, the contractor had procured approximately \$37.8 million worth of equipment and materials primarily from the Navy's Pre-positioned War Reserve Stocks and Advanced Base Functional Components. See appendix II for additional comments of the contractor.

GAO evaluation of comments

Although it is true that approximately \$37.8 million worth of equipment and material were obtained from Government sources, we believe that more extensive use of these sources would have been advantageous. In this regard, we note that it was not until December 1966 that the ROICC issued definite written instructions to the contractor regarding the screening, requisitioning, and utilizing of Government property. Some Government sources were utilized prior to these instructions, but we note that the \$37.8 million worth of items did not include equipment that may have been available from reserve stocks other than those of the Navy and also did not include quantities of common items, such as nails, bolts, and rebar; common electrical supplies; and similar materials, which make up the bulk of materials procured and which may have been available from Government sources at substantial savings.

To illustrate, we noted during our survey that the contractor was purchasing medical supplies from commercial sources. After we reported to the ROICC that prices being paid were substantially higher than those available for comparable items supplied by DSA, he required that DSA be considered as another vendor and that purchases of this type be made from DSA if in the best interest of the contract considering price and other factors.

MATERIAL CONTROL

The contractor has been unable to maintain control over the hundreds of millions of dollars worth of materials and equipment that have been purchased and shipped to Viet Nam for the construction program. With the tremendous escalation of the construction program, materials and equipment began to flow into Viet Nam in a constant stream and were diverted to various locations. The contractor was not prepared to control the receipt, storage, and issuance of this steady stream of materials and equipment, and, as a result, materials and equipment were "dumped" at contractor depot sites, unidentified, unsegregated, and unprotected from the elements or theft.

The magnitude of this problem is illustrated by the fact that, at the time of our review, the contractor could not account for the whereabouts of approximately \$120 million worth of materials which had been shipped to Viet Nam from the United States. These materials were accounted for in the contractor's books as being in transit; however, the contractor's representative having responsibility for material control acknowledged that much of it had in fact been physically received in Viet Nam.

The major factor contributing to the loss of control over the materials and equipment was the rapid escalation of the construction program and the tremendous influx, within a short period of time, of mountainous supplies of material and equipment. On the basis of our survey, we believe that the principal reasons why the contractor was unable to cope with the mounting problem were (1) lack of an effective system for material and equipment control, (2) shortage of experienced personnel, (3) lack of adequate staging areas and warehouse facilities, and (4) inadequate security measures to prevent unauthorized appropriation, pilferage, and theft.

Agency and contractor comments

The Navy Department, although admitting that the contractor had not been successful in maintaining effective accountability for materials and to a much lesser extent for equipment, contended that the deficiencies in maintaining control were largely related to documentation and recording of transactions rather than to a loss of physical control of material.

The contractor contended that proper documentation had generally been maintained for construction equipment. As for materials shipped to depot sites and construction sites at which warehousing facilities were available, the contractor commented that it was prepared to properly control the receipt, storage, and issue of the material. Where adequate storage areas and warehouse facilities were not available, the contractor admitted that proper accounting control could not be provided. For further contractor comments, see appendix II.

GAO evaluation of comments

We believe that the Navy comments tend to understate the seriousness of the material control situation as it existed from January 1966 through September 1966. Our review showed that, in addition to lack of

documentation, there was a loss of physical control as demonstrated in later subsections of this report entitled "Shortage of qualified personnel," "Shortage of warehouse facilities," and "Lack of adequate security."

LACK OF EFFECTIVE SYSTEM FOR
MATERIAL AND EQUIPMENT CONTROL

Our survey indicated that, until late August 1966, the contractor had no standard procedures for the receipt, inspection, handling, inventory control, requisitioning, and issue of materials and supplies at three major depot operations in Viet Nam. Millions of dollars worth of materials and supplies had been dumped in temporary open storage areas as they were received in Viet Nam and were issued directly from these storage areas without needed controls being exercised. The consequence of this condition is that it will be practically impossible to reconstruct, with any degree of accuracy, accountability for materials and equipment which have been

- (1) used on authorized construction projects without accountability,
- (2) appropriated without authorization or documentation by military units or others for use outside the scope of the contract, and (3) damaged, pilfered, or stolen.

Our observations of actual operations at the three contractor depots disclosed that stock control practices were either inadequate or nonexistent. At the Cam Ranh Bay depot, for example, at the time of our visit in July 1966, there were virtually no stock control records for the enormous quantities of materials and supplies on hand and stored at this location. Although the dollar value of the inventory obviously amounted to many millions of dollars, the depot managers had no record of the value of their inventories and could not present a reliable estimate of the amount of supplies that were on hand. Similar conditions were noted at the depots at Da Nang and Thu Duc Island.

We noted that the contractor was then in the process of inspecting and inventorying materials on hand which had not previously been accounted for. Contractor personnel informed us during our survey that there were still "mountains" of materials which had not been formally received and inspected and that a target date of November 1966 had been established for completion of the inspection; however, we were informed in October 1966 that this work was scheduled for completion sometime early in January 1967. We were further informed by contractor officials that, once a dollar amount of the adjustment for materials not accounted for was established, it would be prorated to the various projects.

Our observations of the contractor's material control are corroborated in a report issued by a team of OICC and contractor personnel who completed a review of the contractor's material control system in July 1966. The team concluded, among other things, that, although a rapid improvement had been apparent during the previous 3 months, the contractor was still far from meeting the requirements for adequate inventory control systems.

Navy and contractor comments

The Navy and the contractor did not agree with our statement in the report that the contractor did not have standard procedures for material control until September 1966. The Navy maintained that, from inception of the contract until September 1965, the contractor had an adequate system of control that was project-oriented and that, once the escalated program began, the contractor took steps to increase its staff and depot facilities. However, the Navy reported that, even so, difficulties had been encountered in controlling supplies and equipment under the depot concept.

GAO evaluation of comments

The contractor's control procedures which were issued in 1962 and amended in 1965 were, as the Navy points out, project-oriented, which meant that the procedures dealt with materials in limited quantities that were procured against a limited number of specific projects assigned. During our survey at the three major depot operations at Da Nang, Cam Ranh Bay, and Thu Duc Island, we could find no evidence of the existence of any formal procedures and instructions for standard operation and management of the depots. We noted that the personnel assigned the responsibility for managing depot operations were relying upon certain verbal guidelines along with some general guidelines issued in sporadic memorandums.

SHORTAGE OF QUALIFIED PERSONNEL

The contractor had not provided or organized a sufficient staff of qualified personnel to handle the receipt, inspection, inventory, storage, and issue of materials and equipment shipped to the major depots in Viet Nam.

The contractor advised a special Navy team, appointed in May 1966 to review the contractor's material control system, that there were only 4 construction sites out of a total of 38 at which the material situation was auditable. The team found that it was the contractor's depots that presented the major problem. Most of the materials are delivered to the depots, and at the depots the team found that normal receipt and inspection of materials and the establishment of stock record cards for inventory control and issue purposes were prevented due to, among other reasons, the lack of sufficient numbers of trained personnel.

The three main depots of the contractor in Viet Nam are located at Saigon, Cam Ranh Bay, and Da Nang. A shortage of trained contractor personnel existed at each location. At Saigon, the team observed that it was doubtful that the depot could be in good operating condition by the end of the year due to the lack of people, which was said to be the primary problem; inadequate supervision; shortage of warehouses; and lack of a stable surface upon which to store the materials. Likewise, the lack of qualified people was said to be the main problem at Cam Ranh Bay.

Furthermore, we noted that the OICC staff during the period February 1966 through June 1966--the time frame of the mass purchase and subsequent receipt of over \$84 million worth of materials and supplies--was not

adequate to ensure that the contractor had established an effective material control program.

Our survey also showed that, prior to June 1966, only one naval officer assigned to the OICC was available to supervise the contractor's actions relating to purchasing, receiving, inspecting, and controlling materials and supplies purchased for the contract. In June 1966 the Assistant OICC for Material was assigned responsibility for monitoring the contractor's material and equipment management program. This responsibility involves supervision of the contractor's efforts in programming, administering, and managing the procurement, shipping, storage, and inventory control of all materials, supplies, and equipment purchased for use under contract. Prior to that date, these functions were carried out by the Construction Division of the OICC.

Our survey showed that the authorized complement for the Assistant OICC for Material was 116, including 3 officers and 49 American civilians; however, there were only about 58, including 3 officers and 12 American civilians--or about one half of the authorized complement--available at the end of September 1966.

Agency and contractor comments

The contractor and the Navy have taken opposite views in commenting upon this subsection of the report.

The contractor commented that the availability of sufficient numbers of qualified personnel would not have solved the material control problem prior to the time when storage and warehouse facilities could be provided. The contractor, apparently on the basis of this premise, stated that warehouse personnel were not recruited until such time as they could be put to work actually warehousing the accumulated materials.

The Navy stated that the contractor had early recognized the need for qualified materials control personnel and made a major effort to recruit the required personnel but that the results had fallen short of achieving the desired number on a timely basis.

GAO evaluation of comments

It appears that the availability and use of qualified personnel prior to the completion of the contractor's warehouses could have resulted in some improvement of the material control situation at the depots. Moreover, this action would have enabled the contractor to have a sufficient number of adequately trained personnel ready to work when the warehousing facilities became available. For example, it was noted that in July 1966, when some facilities became available at one depot location, there was a serious lack of United States warehousing personnel available to receive, inventory, and store materials. We noted further that, as late as November 1966, a Navy review team stated that a major problem which still existed in the material control area was the lack of adequate numbers of trained personnel.

SHORTAGE OF WAREHOUSE FACILITIES

During the period from about January 1966 through April 1966, more than 195,000 tons of materials were received in Viet Nam and additional materials continued to arrive after that date. Due to the lack of warehouse space, most of these materials were dumped in open, unsecured, storage areas--unidentified, unsegregated, and unprotected from the elements, theft, misappropriation, and pilferage.

During the above period the contractor's only available warehousing consisted of five warehouses at the Port of Saigon and nine warehouses at the Tan Son Nhut Air Base near Saigon. We were informed, however, that the Tan Son Nhut facilities were to be abandoned because of the planned construction of a taxiway through the middle of the facilities.

During our survey we visited the contractor's depots and observed that substantial quantities of materials and supplies, consisting of such items as spare parts, plywood, lumber, paint, cement, and plumbing and electrical supplies were in a damaged or deteriorating condition. For example, at the Thu Duc Island Depot, there were hundreds, and possibly thousands of crates of spare parts which were haphazardly stored--unsegregated and unidentified. Many of these crates were broken. (See photographs, p. 98, app. IV.) Personnel with shipping documents in hand were searching through the maze of crates in an attempt to locate specific spare parts with which to repair items of deadline equipment.

At the Thu Duc and Da Nang East Depots, we observed that there were acres of lumber and plywood, much of which had become unbanded and was scattered loosely about. None of this lumber and plywood was covered or otherwise protected from the elements. (See photographs, p. 99, app. IV.) In fact, much of the lumber, angle iron, and corrugated sheet metal in storage at Thu Duc was sitting in mud and/or was under water as a result of frequent rains experienced in recent months. (See photographs, p. 100, app. IV.) At the Da Nang Depot we observed that substantial quantities of material were being stored outside. Stacks of material had toppled, and some had been buried in the shifting sand.

During our visits to these depots, we also noted that, generally, many of the packing crates were broken and the contents were either completely or partially damaged. As an example, broken cases of cement pipe and damaged buckets of paint were observed at the Da Nang Depot. (See photographs, p. 101, app. IV.) Similar conditions were noted in the storage of cement and pipe at the Cam Ranh Bay Depot. (See photographs, p. 102, app. IV.) The above conditions were a common occurrence rather than isolated instances. We also observed spoiled cement being used as a base for a storage area at Thu Duc Island and a barge full of spoiled cement being used as a fill at the Saigon port facilities.

Although the contractor, in February 1966, apparently had planned to build three depot complexes to be located at strategic points throughout Viet Nam, he was prevented from doing so because of other assigned priorities. We were advised by responsible OICC and contractor officials that the priority for construction effort as established by MACV was for

operational "Fight the War" facilities, such as airfields, ammunition depots, hospitals, and port facilities; consequently, logistics support facilities essential to support the construction effort held a low priority.

The actual construction of depot facilities lagged to a serious degree and resulted in an adverse effect on warehousing and inventory control operations. As of September 1966, 12 warehouses and one office building had been constructed at Cam Ranh Bay. Only four warehouses had been completed at the Da Nang Depot, and eight more were in various stages of construction. At Thu Duc Island--a major depot--only seven warehouses and one office building had been completed and three warehouses were under construction. As of September 1966, six additional warehouses planned for construction at Thu Duc had not as yet been started nor even scheduled; however, in March 1967 we were informed that all warehouses at Thu Duc had been completed as of February 17, 1967.

Agency and contractor comments

The Navy commented that the difficulties encountered in obtaining adequate land for material depots and the problems of low priorities for the construction of warehouses and open storage areas as contrasted with operational facilities had been accurately dealt with in the report. The contractor commented that the acute shortage of adequate warehouse and open storage facilities during the acceleration period in late 1965 and for the first 9 months of 1966 was the one factor which contributed most to the delays in proper accountability for construction materials, spare parts, small tools, and minor equipment.

The contractor also provided us with photographs of its depots taken in December 1966. (See photographs, pp. 103 to 108, app. V.)

In contrast the Department of Defense (DOD) commented that the essentiality of contractor logistic support facilities was fully recognized by the MACV which accorded high priority to this area. DOD added that exceptions occurred only when the urgency of operational facilities required the diversion of contractor resources, temporarily, from the construction of logistic support facilities.

GAO evaluation of comments

Regarding the contractor's comments, we believe that all the areas discussed in the report concerning material control significantly affected the contractor's ability to control the sizable quantities of materials and equipment delivered to Viet Nam during the period of the escalation.

As to the question of priorities assigned to the contractor's logistical depots, the fact remains that these facilities were not completed and in operation in time to provide adequate storage facilities for the contractor.

LACK OF ADEQUATE SECURITY

On the basis of our survey, we believe that the contractor did not have adequate procedures, methods, and resources to provide physical security over the receipt, storage, and issuance of supplies, material, and equipment. We noted that the security provided for various sites, including two major supply depots, was seriously deficient in guards, security officers, fencing, and lighting. These deficiencies, together with the loss of accounting control by the contractor, have resulted in an undetermined amount of property being pilfered, stolen, and misappropriated.

The contractor's inventory control was so lacking that, in one instance when stolen equipment was recovered by the Vietnamese National Police, the contractor was unable to establish ownership without the assistance of the procurement office in San Bruno. At the time of our survey, the contractor in many cases was unable to ascertain from which location equipment had been stolen.

Due to the unavailability of records, it was not possible for us to determine the extent of losses of Government property prior to about March 1966. Available records show, however, that since that date hundreds of thefts of supplies, materials, and equipment have been reported to the contractor's Security Department. The items reported stolen have ranged in value from little to as much as \$30,000 and included such items as bits of scrap material, large quantities of corrugated metal for prefabricated buildings, and equipment such as electrical generators and semi-trucks. Available reports indicate that only a small amount of stolen property has been recovered. There were also many reports of misappropriation of Government property. In addition, there have been numerous instances of attempted theft by employees.

Our survey showed that until about July 1965 the contractor's security and safety functions were combined and the primary function of the security section during that period was to process security passes for employees. Records disclosing the number of guards and other personnel assigned to this section were not available until about September 1966. However, it was estimated that in December 1965 the guard force consisted of approximately 500 persons, mostly Vietnamese, and 9 Americans. The Americans were employed as security officers to supervise the guards and to perform other security functions such as investigations. It was physically impossible for these nine Americans to provide the necessary supervision of the guard force on a 24-hour basis, because they were assigned to seven locations.

We noted that early in 1966 the contractor recognized that the security measures at the major depots were inadequate. For example, in March 1966, the Manager of Procurement and Supply stated that the entire security force at the Thu Duc Depot, which comprised unarmed guards, could not effectively accomplish any degree of security. Records reviewed indicated that the services of many of the guards had been terminated because the guards had been caught sleeping or drinking on duty, absent from their posts, or found to have participated in thefts. The Manager further

indicated several other problem areas in security, such as having no American guard supervisor on duty at night, inadequate lighting, and no procedures for check-out of employees and vehicles leaving the depot.

The shortage of American security officers has been pointed up by numerous reported instances of military personnel entering the contractor's storage areas, ignoring unarmed Vietnamese guards, and taking United States Government property without authorization.

The increase in the number of thefts prompted the OICC in May 1966 to advise the contractor that increased security measures were warranted in every phase of the contractor's field operations and that immediate steps should be taken to implement a system which would afford maximum protection to equipment and materials. The OICC stated that the thefts were apparently well organized, since the goods stolen were of large monetary value and in weights and quantities that required transport by vehicles. The OICC also noted that the theft of hand tools had impeded the progress of electrical construction because of a shortage of tools considered basic for this type of construction.

The contractor's Security Department had a requirement and authorization for 120 security officers. By June 1966, the actual number of American security officers had increased to 78. By September 1966, the number of security officers was 80 and there were about 1,460 guards, including 1,220 Vietnamese. About 240 of these guards were American soldiers employed during their off-duty hours. Although the number of security officers had increased, we were advised by the Director of Security that there was still a shortage of 45 security officers and that attempts had been made, without success, to obtain additional security officers.

In addition to the shortage of guards and security officers, we noted that thefts were also facilitated by the lack of, or by inadequate, fencing around storage areas and, in some cases, by poor or no lighting. As of August 18, 1966, a fence around the depot at Da Nang East was still being erected. In August 1966 the security officer at Chu Lai stated that he had several critical areas to keep under supervision and that, due to the lack of fencing, he was unable to secure anything. In August 1966 it was reported that at Cam Ranh, a major depot, there was no fencing at the equipment staging area, depot and shop areas, and lumber yard. The depot manager also stated that he had made numerous requests, but without success, to have lights installed at the depot.

It was also reported in August 1966 that, at the Cam Ranh Depot area, items were in open storage right to the water's edge. The security officer stated that there was nearly a mile of unfenced shoreline and that sampans came right up to the beach and carried away cargo. For example, on the night of July 22, 1966, the depot manager at Cam Ranh reported the theft of about 400 sheets of corrugated metal siding and roofing. On the following night, additional corrugated metal siding and roofing was stolen, and on the night of August 3, 1966, 60 aluminum window frames and

glass, three bundles of plywood, doors, and door frames were stolen. In each of these instances, the available evidence indicated that the thieves entered the depot yard from the water and loaded the materials on boats or sampans. Only a small portion of the corrugated metal was subsequently recovered.

We noted other aspects of the contractor's security operations which also contributed to the large number of thefts and pilferages. For example, investigation of several thefts disclosed an obvious lack of adequate job performance by contractor personnel in the receipt and issue of materials.

On May 30, 1966, Vietnamese police notified the contractor's security section that they had recovered a large quantity of the contractor's property. The police reported that they had observed that materials were being unloaded at a train station yard from a flatbed truck belonging to the contractor. Police subsequently arrested the station chief and his assistant, but they could not locate the truck drivers.

A resultant investigation disclosed that the stolen property, including such items as diesel engines, rolls of electric cable and wire, and 65 cases of mosaic tile, had been unloaded from a ship at the Port of Saigon and, on May 29, 1966, along with other property, had been loaded on contractor trucks for delivery to the Saigon Depot Island. The investigation disclosed that the property recovered by the police, valued at approximately \$195,000, had in fact been disposed of by the drivers en route to the depot and that only approximately 50 percent of the material loaded at the port had been actually delivered to the depot.

Local bills of lading (LBL) are used to document and control all over-the-road shipments of material, supplies, and equipment within contractor activities. Checkers at the receiving point are charged with making a physical count before signing the LBL to ascertain that all items listed thereon have been received.

A check of the LBL documenting this shipment disclosed that the contractor's warehouseman had receipted for the total shipment on May 29, 1966. The warehouseman later admitted that he was not at work on May 29, 1966, and that he probably signed the LBL on the following day. He stated also that he had relied on the employees who were responsible on May 29, 1966, for off-loading and checking. The warehouseman admitted further that he only checked some of the LBL's before he signed them and that this procedure had been in effect since his arrival in March 1966.

This stolen property was returned by the police on July 15, 1966. Had the police not observed the unloading of this property, it is likely that the actual loss might not have been discovered or might have been discovered too late to effect recovery.

In a similar case, two contractor truck drivers were arrested by a Vietnamese military unit on July 11, 1966, while in the process of selling stolen Government property valued at about \$81,000 to the manager of a

salvage yard. This property included such items as air conditioners, toilet bowls, and brass rod. During interrogation by the Vietnamese, the truck drivers admitted the theft and also admitted that they and other truck drivers had on at least four previous occasions stolen and sold other contractor (Government) property, including such items as 350 rolls of barbed wire, 450 sheets of metal, and 8 refrigerators. The thieves admitted that they had either managed to get the receiver's signature on the LBL or forged it and placed it in the file. They further declared that it was not difficult to gain access to the files because the American was rarely in his office.

Agency and contractor comments

Neither the Navy nor the contractor have questioned our report presentation of this problem area. Both, however, cite efforts made to improve this situation and state that, with the personnel increases in the contractor's security department and the development of a system for reporting thefts and recoveries, the numbers and values of thefts have decreased to the point where a contractor analysis of recent incidents indicated that about 85 percent of such thefts involve items valued at less than \$50. The Navy cites, as additional evidence of improved security, recoveries of more than \$840,000 worth of stolen goods during the period June through September 1966.

GAO evaluation

Our follow-up inquiries show that the figures cited by the Navy and the contractor were obtained from a special study made by the contractor in October 1966 and are rough estimates and are not the result of any item-by-item analysis of all known theft incidents.

DELAYS IN EXECUTION OF CONSTRUCTION PROGRAM

The construction program in Viet Nam has been beset with delays and suspensions of construction since at least the inception of the accelerated pace in June 1965. We believe that these conditions have resulted in increased design and construction costs and have had an adverse effect on operational effectiveness and readiness. From our observations, it appears that the magnitude, complexity, and nature of the construction program, combined with the amount of coordination required by the diverse elements of command in Viet Nam and elsewhere, were the major factors contributing to the design and construction delays.

Details of some of the problems affecting construction performance observed in our review are as follows:

CONSTRUCTION STANDARDS, CRITERIA, AND SITING CHANGES

During our survey we observed that repeated changes in design, criteria, and/or siting had delayed the timely completion of construction projects. We noted also that the absence of directed standards of construction and of standard designs of buildings had necessitated redesign of many projects. We were advised by OICC officials that these factors had an adverse effect on the construction program in that they resulted in construction delays and extra design costs. There were no measurements in specific terms of the effect of these delays, but we were informed that the lost time involved resulted in not having needed facilities available as and when required to meet operational commitments.

We noted, for example, that at Cam Ranh Air Base, between September 1965--the date of the initial design directive for a series of projects--and late February 1966, the Air Force continuously changed stated requirements, criteria, and siting. At the Bien Hoa construction site, it was noted that a general evolution of changes in siting and criteria had a detrimental effect on construction planning and execution. At this site, one project was in a constant "start-stop" status during the period November 13, 1965, through January 29, 1966, due to changes in siting layout and equipment outfitting requirements specified by the project sponsor.

Due to the limited scope of our survey, we did not inquire into the reasons for the changing requirements. We observed, however, that this situation was a problem area causing construction delays and extra design work and thus required management attention.

As concerns the lack of construction standards, we noted several instances where the absence of design criteria had adversely affected construction scheduling. For example, at the Tan Son Nhut construction site, the Air Force prior to May 1965 specified, and the OICC designed, a two-story masonry airmen's dormitory. In late October the OICC was advised that permanent-type construction was not authorized. Subsequently, between early November 1965 and late January 1966, the OICC was directed to redesign the facility as follows: for the first redesign, quonset huts were specified; then two-story austere wood frame construction with

adjoining latrines of semipermanent prefabricated buildings; and lastly, adjoining latrines of standard wood frame construction.

As of September 1966 some efforts had been made to establish uniform construction standards. We noted that standard designs were developed and prescribed for an enlisted men's barracks and that construction standards were prescribed for administration buildings, infirmaries, kitchens, mess-halls, and other common facilities. We were also advised that coordination between project sponsors and the OICC was improving. We did, however, note that siting and criteria problems were still affecting construction performance.

LAND ACQUISITION PROBLEMS

Our survey showed that the contractor and United States Forces had encountered difficulties in obtaining real estate in the Republic of Viet Nam (RVN) for use as operating facilities and military sites. As a result of these difficulties, added construction costs were incurred and constructor delays were experienced.

In Viet Nam, the United States is precluded from obtaining title to real property. There are two basic ways in which land can be acquired: (1) lease the property from private citizens, the method usually used in acquiring smaller parcels of land, and (2) obtain written permission from the Government of Viet Nam (GVN) to use the property. Land required for the construction of military facilities is acquired by MACV, whereas property required by the contractor for its own operations, such as office space and training facilities, is generally acquired by the contractor.

MACV obtains the land or property required for use by United States Forces from or through the GVN. The requests are submitted to the Joint General Staff, RVN, for approval. If the land is owned by the GVN, it is provided rent free. Otherwise, it is acquired from private citizens by the GVN through local administrative officials. In acquiring property from private citizens, the GVN pays for land, crops, houses, graves, and trees. These items have to be tabulated and indemnification prices established. Since all indemnification payments are made by the Central Government, a real estate commission has to approve the tabulation before payment can be made.

Contractor officials informed us that they have had considerable problems in obtaining land in Viet Nam for rock quarries, warehouses, waterfront facilities, and operating facilities. Lack of land on which to build some of these facilities has contributed greatly to such other problems as material control and theft. For example, the contractor was allocated Thu Duc Island in the Saigon river for a major logistics depot site. It had to be brought in at considerable expense in order to make the site usable. Apparently, this island was difficult to defend against theft since raids occurred almost nightly, which resulted in considerable loss of goods. It was the opinion of contractor officials in Saigon that there were other more suitable sites in the Saigon area that were

available for the depot. Other examples of land acquisition problems noted during our survey are discussed below.

DENIAL OF BUILDING PERMIT FOR
CONSTRUCTION OF CONTRACTOR'S FACILITIES

In order to establish an in-transit camp for Americans and third country nationals and a training center for Vietnamese workers near Saigon, the contractor entered into a lease with a private Vietnamese citizen on February 25, 1966, for land in Gia Dinh Province. The lease was for 2 years, and the first year's rent of \$150,000 was paid in advance. In April 1966, after construction had been started, the Province Chief directed the contractor to stop construction because the land was zoned for park use and building permits could not be issued. The contractor refused to stop building and appealed to the OICC for help. The contractor claimed that a title examination had been made which revealed that the landowner had the right to lease it and that no recorded encumbrance or prohibitions against construction existed.

In a meeting with local Provincial officials it was mutually decided that a building permit would be issued if it were agreed that the buildings would be turned over to the Province after they were no longer needed. However, the Director of Construction subsequently recommended against continuing the project because there were no available funds within the current program, which could be used for this purpose, and in May 1966 the OICC ordered construction stopped. None of the buildings had been completed although most of the foundations had been laid and some framing started. During our survey we were advised that the contractor had abandoned the site after incurring construction costs of about \$760,000 and lease costs of \$150,000.

LACK OF COOPERATION OF LOCAL OFFICIALS IN GRANTING
USE OF LAND FOR THE DEVELOPMENT OF ROCK QUARRIES

At Da Nang, where land to develop rock quarries was urgently needed as a source of rock for military construction projects in the Da Nang area, a MACV request for use of land was disapproved by the GVN since the area was being exploited under grant by the mayor of Da Nang to a local contractor.

On May 30, 1966, the Navy representative at Da Nang requested permission to use the land to continue developing rock quarries that had been started, since the local contractor's quarry rights were to expire within a month. Instead, the Mayor renewed the local contractor's quarry lease for 3 months and, in addition, authorized a second local contractor quarry rights for 6 months in an area located in and below the quarry site that RMK-BRJ wanted to develop. Contractor officials stated that the granting of these quarry rights resulted in an unworkable situation and led to curtailed production of aggregates needed in construction which, in turn, would result in slippage of project completion dates.

DELAYS BY THE GVN IN CONCLUDING LAND ACQUISITION
AGREEMENTS WITH PRIVATE CITIZENS

One of the problems experienced in the construction of air bases has been the slowness of the Vietnamese Central Government in making indemnification payments to the local people for crops, graves, houses, and trees. Until the indemnification is made, construction on lands which are privately owned cannot be started.

At the Phu Cat Air Base, construction was delayed for about a month during June and July 1966 because approval of grave tabulations had not been made by the real estate commission. This same situation occurred in April 1965 at Qui Nhon, where the construction of buildings at the airfield was delayed while waiting for the local people to receive their indemnification payments.

Agency and contractor comments

The contractor did not comment on its actions on delays in the execution of the construction and neither the Navy nor the DOD took exception to the facts as stated. For a presentation of their general views, see page 66 of this report.

EXCESS MATERIAL AND EQUIPMENT

During our survey, we noted that as of August 1966 about \$32.9 million worth of equipment, materials, and supplies purchased by the contractor were not needed to complete assigned projects.

Our survey showed that the excesses consisted of items ordered by the contractor as a part of the mass buildup in the construction program. However, due to the elimination of an airfield project from the program and the transfer of construction responsibility in May 1966 for another major airfield project to the United States Air Force, the contractor had equipment, material, and supplies excess to its needs.

In October 1966, we were advised by officials in Viet Nam that, although the above-mentioned \$32.9 million worth of supplies and equipment were not needed by the contractor to complete the construction assignments then currently programmed, the items were not considered to be excess to the total construction requirements in Viet Nam or southeast Asia.

On August 31, 1966, the contractor reported that \$11.9 million worth of equipment was not needed to complete the construction projects. The excess property consisted of major construction equipment items, such as 24-cubic-yard scrapers, tractor-dozers, batch plants, rock-crushing plants, and other assorted items.

Initial action to identify and stop delivery of possible equipment excesses was initiated in June 1966. At that time, the contractor identified about \$3.7 million worth of equipment on order that was not required. Subsequently, on August 31, 1966, the contractor, after a series of equipment requirements analyses, prepared a consolidated list of equipment which was not needed for the contract construction program assigned as of that date. This list identified the total amount of excess equipment at \$11.9 million and showed that excesses valued at \$5.6 million were at the factory; excesses worth \$2.5 million were at the Port of Embarkation (POE); and excesses worth \$3.7 million were either in, or en route to, Viet Nam. We were informed that the contractor's procurement office at San Bruno, California, had been instructed to hold up shipment of the equipment on order and at the POE pending appropriate disposition instructions by the Navy.

On June 24, 1966, the excess equipment was offered to the OICC contractors in Thailand. On September 3, 1966, MACV, at the request of the OICC, circulated the updated list of equipment valued at \$11.9 million for possible acquisition by military units in Viet Nam. Action was also initiated through NAVFAC to dispose of the contractor excesses.

We noted that the OICC contractors in Thailand had been interested in several pieces of the equipment and that two Army engineer units had wanted to acquire a large portion of the excess valued at about \$2.7 million. The Air Force had made an inquiry but did not express an interest in any particular items. As of September 30, 1966, one OICC contractor

in Thailand had purchased several items of the equipment valued at about \$152,000 but no decision had been made on the disposition of equipment requested by the Army engineer units. In addition, we noted that equipment valued at about \$2.5 million, which was being held at the POE, was to be transferred to Pre-positioned War Reserve Stock (PWRS) and held at Navy construction battalion centers for disposal through NAVFAC and that equipment still at the factories and valued at about \$5.6 million was also to be transferred to PWRS.

In connection with the excess materials and supplies, we noted that on August 11, 1966, the contractor determined that \$21 million worth of construction materials and supplies purchased under the contract were excess to the requirements of projects then currently programmed under the contract. The OICC prepared a catalog of the excess materials and supplies, which was to be circulated to military construction agents in Viet Nam and Thailand in an effort to dispose of these materials.

Although the OICC and the contractor have been identifying construction items as excess to the contractor's assigned program since June 1966, we were advised by the OICC that, as of October 1966, the \$32.9 million worth of equipment, materials, and supplies were no longer considered as excess to the contractor's needs. This action was taken in view of the requirements being developed for contractor construction in future years' programs. Furthermore, we have been informed by the OICC that no items required for future construction will be offered for purchase by other Government agencies since such disposal would only require another procurement with attendant costs and time loss. We plan to examine into the basis for the above determinations during our continuing review of the construction program.

SHORTAGE OF CONSTRUCTION FUNDS

On the basis of our survey, we believe that procurement of materials and equipment in excess of needs for actual program assignments, understated project cost estimates, and changes and increases in the scope of the work resulted in OICC's not having sufficient funds available to complete projects assigned to the contractor. We noted that as of September 1966 an additional \$204 million would be required to complete projects then assigned to the contractor under the construction program.

In August 1965, military planners determined that by April 1966 the contractor, RMK-BRJ, must establish a capability to produce, in place, monthly construction work valued at \$25 million. This buildup objective was increased during the period December 1965 through February 1966 to about \$40 million worth of construction work in place per month to be reached by October 1966. The planning was based on a minimum contract construction of \$960 million from the period June 1962 through the Fiscal Year 1966 Supplemental Appropriation. The contractor was therefore directed to mobilize sufficient material, supplies, and equipment to accomplish \$960 million worth of construction; and, beginning in February 1966, about \$143 million was spent in a mass procurement to mobilize the material, equipment, and repair parts needed for a \$960 million program.

As of June 30, 1966, however, the OICC/contractor had been assigned only \$742 million for contract work. The difference between the \$960 million anticipated construction program and the \$742 million program assigned represents (1) the reduction of \$37.1 million in the Viet Nam military construction program assigned to RMK-BRJ, (2) the reassignment of \$25.3 million from OICC-RVN jurisdiction to the United States Air Force for the construction of an air base at Tuy Hoa, and (3) the nonfunding of anticipated projects amounting to about \$155.6 million.

Although there was a reduction in the total construction program assignment to the contractor, there was no corresponding reduction made in the contractor's requisitions for material, equipment, and supplies. Thus the material, equipment, and supplies purchased during the early stages of the buildup, which were to be used to complete a \$960 million construction program, were no longer needed for the construction for which purchased. As a result the funds used to procure these items reduced the money available to pay for labor costs necessary to complete projects included in the \$742 million program eventually assigned to the contractor.

In addition, we noted that as of September 1966 the contractor's construction program was still not sufficiently funded to accomplish all of the projects included in the program. The funds assigned for actual construction by the contractor (excluding funds for the procurements for others) as of September 1966 amounted to \$807 million in military construction and military assistance program funds. This was an increase of \$65 million over the \$742 million program funded in June 1966. This increase was due to a shift from construction by troops to contract construction and the reprogramming of additional funds amounting to \$25.1 million from the Defense Contingencies section of the Fiscal Year 1966

Supplemental Appropriation as increased funding for the Newport project in Saigon.

An analysis by the OICC of the current cost estimates for the program funded at \$807 million indicated that the funds needed as of September 1966 to complete the projects included in the program would amount to \$1.011 billion, or \$204 million more than the funds available. The funding deficit for Air Force projects was \$67 million; Navy projects, \$62 million; Army projects, \$56 million; and MAP projects, \$19 million. The major causes of the underfunding condition observed during our survey were (1) consistently understated estimates and (2) repeated changes and increases made by project sponsors in the scope of the work without providing additional funds. In addition, increases in overhead costs due to increased equipment amortization rates contributed to the underfunding condition noted in our survey.

In connection with the understated project costs, we noted that programming procedures in effect assign the cost of projects included in the construction program in Viet Nam on the basis of preliminary cost estimates (PCE). The PCE is an interim project cost estimate based on the average cost for the particular type of project involved. PCEs are used until a current working estimate (CWE) based on detailed design drawings is available.

We observed that the PCEs used have considerably understated the cost of projects because of the lack of previous cost experience upon which to base the estimates and because of the rising costs in the Vietnamese economy. For example, the original Army estimate for the construction increments 1 and 2 of the Ammunition Storage Facility at Tan Son Nhut was \$235,000. The OICC's initial CWE was \$197,062 for increment 1 and \$351,962 for increment 2. Thirty days after the initial estimate, the OICC increased the CWE of increment 1 to \$335,000. Because of the funding situation, increment 2 was subsequently dropped, the funds programmed being applied to increment 1.

A second cause of the underfunding was the repeated changes and increases made by project sponsors to the work scope. When a project is included in the construction program and assigned to the OICC, the project sponsors provide the scope of the work to be performed and the general design criteria. These factors are utilized in establishing the estimated project cost. We were advised by OICC officials that project sponsors have consistently changed and increased the scope of construction work without providing for any increase in the amount of funds for the additional work. For example, the preliminary cost estimate used for funding purposes for the runway at Phu Cat was \$4.5 million. The original concept for the runway was to use aluminum matting on a compacted native soil. At the time, even the site for the base was not definite. At the time of our survey, the CWE was based on permanent concrete over a rigid base estimated to cost \$20.1 million. Plans were then only 30 percent complete and it must be recognized that the CWE could change as plans are finalized. Total underfunding was then \$15.6 million.

Also contributing to the underfunding condition was the fact that project costs as estimated in September 1966 were higher because the amortization rates for the equipment, materials, and supplies purchased for the program had to be increased. The rates in effect prior to the increases were based on amortizing the costs of equipment and supplies over the life of a \$960 million program. However, as of September 1966, the funded construction program was \$807 million, and thus the amortization rates had to be spread over a narrower base than originally planned.

We were advised by the OICC that the contractor's construction program funding problems were presented to DOD officials in August 1966 with a request for additional funds. Although increased funding of \$65 million was made available to the contractor during August and September, we noted that as of September 1966 no decision had been made as to the total amount of additional funds to be allocated to the contract to enable the completion of assigned projects.

Agency and contractor comments

The contractor did not comment on this section of the report. The Navy and the DOD, although agreeing with the facts presented, commented that the report presentation implied undue criticality to the situation and further implied that the scope increases at Phu Cat had been uncontrolled, whereas they were deliberate.

GAO evaluation of comments

Because the Navy and DOD comments do not take exception to our facts but rather relate to claimed implications, our evaluation of their comments is included in appendix II.

PROBLEM AREAS CONCERNING

CONTRACT NEGOTIATIONS

The rapid escalation of the funded contractor construction program to a magnitude of about \$945 million resulted in many problems concerning contract negotiations. These problems involved delays in incorporating the additional work into the contract, contractor's fee, and elements of reimbursable costs.

DELAYS IN NEGOTIATING CHANGE ORDERS

One of the major problem areas experienced in contract negotiations has been the incorporation of additional work into the contract. Serious delays have been encountered between the time the contractor is notified to proceed with the additional work and the time of preparation of appropriate cost estimates and negotiation of a change order to incorporate the work into the contract. These delays are significant, because the tendency is to use as a basis for cost estimates those costs which have already been incurred in the negotiation of change orders under a cost-plus-fee contract. Since the fee is computed by applying a percentage to a base made up of estimated costs, to the extent that the base comprises actual costs, the method of arriving at the fee partakes of the nature of a cost-plus-a-percentage-of-cost contract.

The scope of the contract is expanded by means of notices to proceed (NTPs) issued to the contractor for projects requested by the sponsoring organization. According to established procedures, the NTP is to be issued to the contractor after the preparation of a Government cost estimate. However, in an effort to save time and get the contractor started on the construction projects, the NTPs have generally been issued before cost estimates have been prepared or the contractor's fee has been established. The projects initiated by NTPs are subsequently formalized as contract change orders, at which time the contractor's fee is established.

It is the intent for the cost-plus-fixed-fee contracting procedure to establish the contractor's fee and the estimated cost of the work before actual construction begins. If actual costs differ from the estimated costs with no change in the scope of the work, there is no change in the contractor's fee. The timely negotiation of the estimated cost of the work and the contractor's fee is therefore very important in order to preclude the use of actual costs in negotiating the contractor's fee, especially in programs where costs are rising because of inflation.

Our survey showed that there has been an extensive time lag in the negotiation of the contractor's fee and the estimated cost of construction projects assigned under the contract. Of 68 projects negotiated under Change Orders L and M, some 21 of these projects, with an estimated cost of \$747,800, were 100-percent complete at the time of the negotiations. Over half of the 68 projects were 50-percent or more complete at the time of the negotiation.

As of May 20, 1966, neither the contractor nor the Government had prepared cost estimates for 187 of 266 projects under construction but not yet formalized as change orders to the contract. A review of 120 of these projects showed that the contractor had been directed to initiate work on 55 of the projects prior to December 31, 1965, and that no cost estimates had been prepared on 50 percent of these projects at the time of our review.

We also observed that the administrative time required to review and approve contract changes contributed to the extensive backlog of contract adjustments. Change Orders A through O of the contract required formal approval by either the Pacific Division, Naval Facilities Engineering Command (PACDIVNAVFAC) or the Naval Facilities Engineering Command (NAVFAC) in Washington. This resulted in lengthy administrative time being required to formalize and process change orders. On August 2, 1966, the Commander, PACDIVNAVFAC delegated to OICC the authority to negotiate and execute change orders of less than \$600,000, without prior approval of the Division or NAVFAC. Since the delegation of this authority, eight change orders consisting of about 250 projects were executed by the OICC.

Although the OICC has improved its administration of contract change orders, there still is need for more improvement. As of September 1, 1966, approximately 760 projects totaling about \$775 million had been assigned to the contractor by means of NTP's. Approximately 520 of these projects totaling about \$440 million had been incorporated into the contract via change orders. Therefore, a considerable number of projects still required the negotiation and execution of change orders.

Agency and contractor comments

The Navy, while agreeing that there had been delays in the preparation of estimates for fee negotiation purposes, stated that the delays were unavoidable under the conditions existing in Viet Nam since the work generally starts with no more than 30 percent of the plans and specifications being complete. The Navy added that the delays did not result in increased contractor fees since the fees are based upon estimated costs negotiated with the contractor, not actual costs. We were also advised that, since the completion of our survey, a major effort, which has been largely successful, has been made to reduce the estimating backlog.

GAO evaluation of comments

Our report recognizes that the contractor's fee is based on estimated costs negotiated between the OICC and the contractor rather than on actual costs; however, the tendency is to accept actual costs, where they have been experienced, as appropriate estimates. As we point out, to the extent that this is done, the method of arriving at the fee partakes of the nature of a cost-plus-a-percentage-of-cost contract. Under 10 U.S.C. 2306(a), the cost-plus-a-percentage-of-cost system of contracting may not be used.

CONTRACTOR'S FEE

Our survey has shown that the contractor's fee at the rate of 3 percent, which was established in January 1962 when the estimated cost of construction was \$21.5 million, was retained during the period when the construction program had escalated at a rapid rate. It was not until March 1966 that negotiations were held with the contractor to change the fee rate, even though NAVFAC's Contract Administration Division maintains that, under historic cost-plus-fixed-fee negotiation practices and DOD Instruction 4105.46, the contractor's fee rate should be reduced as the magnitude of the contract increases. Up to this time the contractor's fee was established at \$1.4 million on the basis of work incorporated into the contract through Change Order "G."

The contract was converted in May 1966 to a cost-plus-award-fee contract, but the fee applicable to all change orders approved up to June 2, 1966 (Change Order "M") will be at the 3-percent rate. Up to the time of the conversion to the contract, the contractor's fee was established at \$5.4 million. We have not reviewed, or evaluated, any of the cost estimates supporting the contract change orders; therefore, we do not know what effect, if any, the tremendous increase in construction costs has had on the amount of fee allowed to the contractor.

Under the revised or award-fee concept, the contractor is paid a base fee of 1.7 percent plus an award fee of up to 0.76 percent, for a total possible fee of 2.46 percent. The award portion of the fee is based upon semi-annual performance evaluations made by a board of three senior Navy Officers. The board grades the contractor in such areas of contract management as quality of work, management, performance, and cost. The contractor received a rating of 81.3 percent for the first 6 months rating period which began on April 1, 1966, and an award-fee amounting to \$649,094.

To induce the contractor to accept a reduced fee under the award-fee concept, the Navy agreed to make certain other concessions. These concessions included the computation of the contractor's fee for work accomplished by lump-sum subcontractors at the full fee rate rather than the 2-percent limit formerly applied and the allowance of premiums paid for employees' War Risk Insurance as a reimbursable expense.

Prior to the conversion of the contract to a cost-plus-award-fee concept, the contractor had borne the cost of war risk insurance and these costs were not reimbursed by the Navy. The Navy reversed its original position that such costs were not properly reimbursable and agreed to reimburse the contractor for the insurance premiums, effective April 1, 1966. We were advised that the contractor had been reimbursed \$588,879 for war risk insurance premiums incurred during the period from April 1, through August 31, 1966.

The contractor has been awarded fees for the procurement of materials, equipment, and supplies from commercial sources for other military agencies, including the obtaining of quonset huts from Government stocks for the military forces. These items have been obtained by the requesting

military agencies for use on other than the RMK-BRJ contract, and primarily for the military construction forces. It appears that these payments could have been avoided if the military services had used the Department of Defense supply system to obtain these supplies.

As of August 20, 1966, for the purpose of computing his fee, the contractor was given credit for procuring for others about \$2 million in materials and supplies at a fee of three fourths of 1 percent and \$106 million at a fee of one half of 1 percent. For fee purposes, included in these procurement costs are allocations for freight and handling expenses and administrative overhead at rates of 35 and 22 percent, respectively, of the purchase price. The total fee paid for these procurements was \$548,000.

In addition, the contractor had procured and received approximately 6,300 quonset huts at a price of \$11.6 million, excluding freight and overhead, from the Navy's Prepositioned War Reserve Stock to meet the requirements of the contract and for use by others, such as the military construction battalions. The contractor is also awarded a fee for these procurements. The fee rate varies, depending on the ultimate use of the quonset huts and the time frame in which procurement costs are negotiated as contract change orders. For example, up to June 1966, the contractor had received a fee of 3 percent for those quonset huts applied to contract construction effort, and three fourths of 1 percent for quonsets turned over to other Government agencies for their use. For change orders negotiated after that date, a fee rate ranging from 1.7 to 2.46 percent applies to those quonsets used by the contractor and one half of 1 percent applies to those quonsets assigned to other Government agencies.

We are unable to identify the full fee potential relating to the contractor procurement of the Government-owned quonset huts until the balance of procurements have been allocated to specific uses. As of September 1, 1966, however, the contractor had been awarded a partial fee of about \$55,000, and the contractor will receive an additional fee of at least \$38,000.

Agency and contractor comments

The Navy replied that the present fees are considered fair and quite moderate and that the practice of including Government-furnished equipment and material in the estimates, for fee purposes, has been followed since World War II. The Navy added, however, that the OIGC is considering reducing the fee because of the large amount of Government-furnished material.

GAO evaluation of comments

We agree with the Navy comments but wish to point out that the only Government-furnished material referred to in the report is that which passed through the contractor's hands on its way to other Government elements and never was used or installed by the contractor in the performance of his construction work. We believe that this fee could have been avoided and the material could have gone directly from Government stocks to the Government user without passing through the contractor.

SHIPPING COSTS

The large volume of equipment, materials, and supplies purchased by the contractor within the United States has created a need for extensive export shipping capability. During the term of the contract through July 31, 1966, approximately 957,000 tons of cargo have been shipped by the contractor from the continental United States (CONUS) to Viet Nam or to the contractor's depot in the Philippines. Of this total, approximately 952,000 tons were shipped by surface vessel at a cost of about \$34 million while the remaining 5,000 tons were shipped by air at a cost of about \$5 million. These figures exclude the costs of shipping the materials from vendor plants to the ports and any other costs incurred at the ports for special export packing. During a 6-month period in 1966, the contractor paid commercial freight bills of approximately \$862,000 for shipping cargo to ports within the United States and, at only one port--Port Hueneme, California--paid about \$833,000 for export packing services during a 5-month period.

The contractor has followed the policy and practice of routing the major portion of the cargo going by surface through four United States Navy ports. These ports are used as staging areas, and the contractor maintains permanent staffs at these locations who are responsible for receiving the cargo and administratively processing it for shipment. These ports are the Naval Supply Center, Oakland, California, and the Navy Construction Battalion Centers at Port Hueneme, California; Gulfport, Mississippi; and Davisville, Rhode Island. For some exceptionally large or otherwise special shipments, other ports are occasionally used. Air cargo shipped is routed through Travis Air Force Base, California.

As cargo arrives at its respective port or staging area, it is generally offered to the Military Traffic Management and Terminal Service (MTMTS) which arranges for transshipment of the cargo to its destination. MTMTS arranges for the shipment of the cargo through the facilities of the Military Sea Transport Service (MSTS) or the Military Airlift Command (MAC). Some cargo has been shipped by commercial carriers on the basis of arrangements made directly by the contractor. The following table reflects the approximate cumulative quantity and our estimate of the associated cost of shipping cargo through the use of the military and commercial shipping agencies as of July 31, 1966.

	Quantity (tons)	Cost
Militarily handled cargo:		
Surface (MSTS)	945,860	\$34,457,003
Air (MAC)	<u>4,076</u>	<u>4,303,716</u>
Total	<u>949,936</u>	<u>\$38,800,724</u>
Commercially handled cargo:		
Surface	6,542	\$ 328,356
Air	<u>339</u>	<u>759,848</u>
Total	<u>6,881</u>	<u>\$ 1,088,204</u>

NEED TO IMPROVE UTILIZATION
OF THE DEPARTMENT OF DEFENSE
MILITARY TRAFFIC MANAGEMENT AND TERMINAL SERVICE

The contractor has not fully utilized the services of the MTMTS in routing shipments of cargo from suppliers to ports. The MTMTS is a single-manager service established by the Department of Defense for the purpose of improving the effectiveness and economy of military traffic, land transportation, and operation of common-use ocean terminals. As part of its traffic management function, MTMTS has the capability of advising and assisting procurement agencies in developing the most economical sources of supply by providing cost, rate, and other traffic data to be considered when making procurements.

Our survey has shown that, with few exceptions, the contractor has utilized the services of MTMTS only for making military shipping arrangements for the shipment to Viet Nam of cargo from CONUS ports and staging areas selected by the contractor. MTMTS has not been used by the Navy or the contractor to ensure that the most effective and economical means were used to get the cargo to the ports; although, as previously discussed, this function is also an MTMTS responsibility. The contractor, for the most part, has made the determinations as to how cargo was to be shipped within the United States.

In the opinion of MTMTS representatives, the Government could have achieved economies had its services been fully utilized by the contractor. By using background experience and facilities available within MTMTS, it may have been possible to achieve savings in the following ways:

1. By determining anticipated shipping costs prior to awarding purchase orders and by fully considering their effect on total purchase price prior to selecting the supplier.
2. By ensuring that the route and means used to ship cargo was the most efficient and economical.
3. By ensuring that the shipping rates offered by shippers were the lowest available and reflected special reduced tariffs available to the Federal Government.

Agency and contractor comments

The Navy commented that the report presentation on shipping costs was considered to be a fair assessment of this element of the contractor's operation. The contractor commented only on the nonutilization of MTMTS routing services, stating that MTMTS services had been used in a number of instances but that when used the results had been far from satisfactory. As examples, the contractor cited shipping problems which had occurred on two procurements.

GAO evaluation of comments

We found that one of the contractor's examples involved a shipment of about 84 pounds that went astray for some unknown reason. We believe that this example should not reflect on the quality of MTMTS service. While much larger in scope, the problem which occurred in the other example was the result of poor coordination of shipping instructions between the Army, Navy, and contractor and was not directly the fault of MTMTS.

QUESTIONABLE USE OF AIR TRANSPORTATION TO SHIP CARGO

During the term of the contract through July 31, 1966, the contractor shipped approximately 8.8 million pounds of cargo by air at an estimated cost of \$5.1 million. In view of the high cost of shipping cargo by air, significant savings can be achieved by limiting air shipments to only those materials that are urgently needed.

Our survey has shown that, in the past, air shipments have been justified on the basis of early delivery dates requested or a specific request for air shipment contained in the purchase requests prepared in Viet Nam. At San Bruno we were told that, generally, the delivery dates or requests for air shipment contained on purchase requests were not questioned and the cargo was shipped by air.

Our review of some air shipments showed that equipment spare parts and medical supplies were two commodities that were commonly shipped by air. Although the nature of these commodities may justify the use of air shipment, many others appeared questionable. For example, we found that 918,000 manila envelopes of various sizes were purchased at a cost of about \$17,600 and shipped by MAC during June and August 1966. The envelopes, when shipped, weighed approximately 47,455 pounds, and we estimate the cost of shipping them was about \$22,250, which is higher than the purchase price of the envelopes. Other examples of individual air shipments made include 10,224 pairs of work gloves weighing 1,140 pounds, 25,000 adjustable head bands for safety hats weighing 9,030 pounds, darts and dart boards weighing 210 pounds.

A joint Navy-contractor material systems review team conducted a recent survey in Viet Nam and, in its report of July 1966, similarly noted that many shipments had been made by air but that the material had been on site as much as 3 months without being used.

NEED FOR CONTROLS TO LIMIT USE OF COMMERCIAL AIR TRANSPORTATION TO SHIP CARGO

In the past the contractor has shipped cargo by commercial air instead of using the Military Airlift Command. This practice has significantly increased the cost of shipping cargo by air and has also had the effect of creating competition with the Government for commercial air cargo space that otherwise could have been offered to the Government by the carrier at a substantially reduced rate.

Through July 31, 1966, the contractor air shipped, via commercial means, 678,436 pounds. The contractor generally paid about \$1.12 a pound for the commercial shipments, compared with a MAC rate of about 57 cents a pound. If MAC could have been used, the savings could have been as great as \$373,000.

We have not analyzed specific commercial air shipments in detail to determine why MAC was not used; however, among the reasons cited were (1) that MAC could not provide assurance that the cargo would arrive at the site when needed (2) that, for perishables and closely controlled items, the reduced risk of spoilage or loss justified the use of commercial air. Our survey showed that included in the commercial air shipments were such items as prefabricated buildings, wardrobe lockers, and office and kitchen equipment.

One large commercial air carrier, which the contractor has used extensively, also has a contract with the Government permitting unused (category "A") cargo space on commercial flights to Viet Nam to be offered to the Government at rates below normal commercial rates. These rates vary from about \$0.50 to \$1.04 per pound, dependent upon the shipper's meeting specified minimum weight requirements. The commercial category "A" space is offered by the carrier to MAC, which utilizes the space to supplement its regular cargo capability at a reduced cost.

Since the contractor has been shipping large quantities of cargo commercially and paying regular commercial rates through a carrier that is offering category "A" space to MAC at a reduced rate, it appears that this might have had the effect of reducing the amount of category "A" space made available to the Government at a reduced cost. Consequently, through the contractor, the Government has incurred higher shipping costs and the advantages of the military airlift transportation system with its associated priority shipping schedules have been lost.

NAVY AND CONTRACTOR RECOGNIZE NEED TO IMPROVE EXPORT SHIPPING PRACTICES

In our survey we noted that both the Navy and the contractor recognized that improvements were needed in export shipping practices, including those areas discussed in the foregoing subsections. A proposed ROICC instruction setting forth the shipping policies and procedures to be followed by the contractor indicates that, to the extent practicable, the contractor will use the Department of Defense transportation system.

In recent months the contractor has made definite attempts to reduce the volume of shipments by air. As of August 1, 1966, all air shipments required the specific approval of a responsible official in Viet Nam. If the current controls are continued, this action should result in significant savings in transportation costs.

PERSONNEL RECRUITMENT AND EMPLOYMENT ACTIVITIES

The recruitment and employment of personnel from within the United States is one of the principal functions of the contractor's San Bruno office. This function includes actively participating in the recruitment and employment of personnel within certain geographical areas, administratively controlling the employment of persons recruited in other areas of the United States by offices of the companies comprising the joint venture, and administratively processing and arranging transportation for new employees from point of hire to San Bruno and on to their overseas destination.

Actual employment of applicants recruited by San Bruno or the other offices is based on personnel requisitions initiated in Viet Nam. The requisitions are for specific positions and the filling of the requisitions is administratively controlled at San Bruno. No matter where applicants are hired in the United States, all new employees are routed through San Bruno where administrative processing is completed prior to the new employees' departure overseas. The processing at San Bruno includes the signing of an "Off-Continent Employment Agreement" between the contractor and the employee.

In order to recruit and employ third country nationals from the Republics of Korea and the Philippines, the contractor has set up recruiting offices in Seoul and Manila, respectively. Their function is to actively recruit and employ personnel within their respective countries and to administratively process and arrange transportation for the new employees from their homes in Korea and the Philippines to Viet Nam.

As of July 31, 1966, contractor personnel totaled 51,044 and consisted of:

Americans	4,019
Third country nationals	5,739
Vietnamese	<u>41,286</u>
Total	<u>51,044</u>

We noted that shortly after July 31, 1966, the work force shown above was reduced due to an imminent shortage of funds that necessitated a reevaluation of manpower required under the contract. On the basis of this reevaluation, the contractor's work force has been reduced as shown below:

	<u>Americans</u>	<u>Third country nationals</u>	<u>Vietnamese</u>	<u>Total</u>
August	3,936	5,475	37,091	46,502
September	3,726	5,543	34,822	44,091
October	3,494	4,661	34,032	42,187
November (note a)	3,469	5,017	34,358	42,844

^aAs of November 25, 1966.

Although the contractor's work force has been reduced, NAVFAC has stated that the work-in-place capability of \$40 million a month has not been reduced because the overall efficiency of the contractor has been increased.

Our survey showed that, with the exception of Vietnamese personnel, contractor employees are paid on a monthly salary basis and no provision is made for payment of overtime, even though work was scheduled at a minimum of 60 hours or more a week. We noted that the monthly salaries paid varied with the position filled and the nationality of the incumbent. For example, Americans working as engineers and administrators and in related fields receive monthly salaries ranging from \$600 for secretaries to \$2,000 for engineers. For Americans in skilled construction fields, the salaries range from \$1,000 for foremen to \$1,800 for project managers. The base monthly salaries paid to Korean and Filipino third country nationals working for the contractor range from \$225 for clerk typists to \$450 for senior engineers.

We noted that the contractor had employed Vietnamese workers on an hourly wage-rate basis as nonsupervisory, supervisory, administrative, technical, camp, and commissary personnel. The hourly wage ranged from 12 Vietnamese piasters (\$0.10) for an unskilled laborer to 117.7 Vietnamese piasters for a chief accountant (\$1).

In our survey of the contractor's recruitment and employment activities, we observed that a significant number of Americans hired by the contractor are released before completing the 18 months of service required in the employment agreement. Many of these terminations have occurred within 1 to 3 months after the employee's arrival in Viet Nam. As a result, the costs incurred by the contractor to recruit, hire, and transport such employees are, for the most part, wasted.

From the inception of the contract through about July 31, 1966, the contractor hired approximately 5,270 American employees, including those hired in Viet Nam. Most of these employees were hired within the previous 12 months. As of July 31, 1966, of the total number of Americans hired, the employment of 1,034 or 19.6 percent had been terminated prior to completing the 18-month contract. These terminations included voluntary resignations as well as discharges for cause. During the 3-month period May 1 through July 31, 1966, a total of 446 terminations were recorded, of which more than one half occurred between the first and third months of employment. We also noted that, of the 446 employees released, 322 voluntarily resigned and the remaining 124 were discharged for cause.

Reasons given for the terminations included dissatisfaction with assignment; personal reasons; dissatisfaction with management; misconduct; and absent without leave.

The contractor's personnel records frequently did not contain adequate documentation relating to the circumstances surrounding the employment and early termination of employment. However, our analysis did reveal certain areas in the contractor's recruitment program which we

believe were probable causes for some of the voluntary resignations and discharges.

Concerning voluntary resignations, we found that it was not the practice of the contractor to orient new employees on the conditions they would encounter in Viet Nam. The San Bruno personnel office did not have the capability to give new employees such orientation. Furthermore, the brochure on Viet Nam given to all new employees was outdated and did not realistically present the true conditions. The brochure was revised in August 1966.

With regard to discharges for cause, we noticed instances relating to weaknesses in the recruitment procedures. During our survey we reviewed the personnel files of 66 employees whose employment had been terminated for cause. Of the 66 files reviewed, 12 did not contain any evidence of a background investigation, while information in several other files apparently was not properly considered.

The contractor has used two methods in determining the qualifications and moral character of an applicant; namely, (1) sending a questionnaire to previous employers and obtaining references and (2) using a private firm which acts as a disinterested party in obtaining information concerning the applicant's business and moral reputation. The private firm's report was not obtained for all employees until about the middle of June 1966.

DEPARTMENT OF DEFENSE AUDIT EFFORT

In our report to the Congress dated July 18, 1966, on our Survey of Internal Audits and Inspections Relating to United States Activities in Viet Nam (B-159451) we discussed Department of Defense audit responsibility and efforts as they related to the RMK-BRJ contract. We reported that the Defense Contract Audit Agency (DCAA) had audit responsibility under this contract and that, since January 1966, the DCAA resident staffs in Viet Nam and at San Bruno, California, had been performing what was characterized for the most part as voucher-type audits. Our present survey has shown, however, that progress has been made since that time in terms of both an increased staff and a more comprehensive type of audit. The status of DCAA audit efforts both in Viet Nam and at San Bruno as of the end of our survey is summarized below.

VIET NAM AUDIT

Our above-mentioned report to the Congress stated that the DCAA had a resident staff in Viet Nam consisting of six Air Force officers and one Army enlisted clerk who were engaged in auditing the RMK-BRJ contract. Our current survey disclosed that, as of November 1966, DCAA's Saigon office was staffed by six military and eight civilian auditors and one administrative member and that six additional civilian auditors had been committed for the Saigon office. The primary area of interest was still the RMK-BRJ contract, but the work had been expanded to include the audit of other contracts.

During our survey, DCAA personnel in Saigon advised that initially the verification of costs was accorded a low priority to permit a more complete coverage of management controls and that specific cost verifications would be performed as additional staff became available. We noted that, since our July report, DCAA's efforts have been primarily aimed toward examining procedures and controls, with secondary emphasis on cost reimbursements. For example, one recent audit on subcontracting procedures revealed a series of poor management practices but was not extended to measuring the cost effect of these procedures.

DCAA has been performing continuing audits in the areas of material and services, cost of equipment, payrolls, automatic data processing systems, subcontract costs, and overhead and has been reviewing equipment rental procedures. On September 11, 1966, DCAA initiated an in-depth audit on a statistical sampling basis of the cost claimed on 62 public vouchers totaling about \$52 million, which included payments for such items as material, services, and equipment procurements; equipment rentals; insurance; subcontracts; stevedoring; and medical, freight, and transportation expenses. As of September 23, 1966, the DCAA had performed approximately one third of its work on this review and had identified potential suspensions of about \$900,000 and disallowances of about \$5,800.

SAN BRUNO AUDIT

As of September 1966, the DCAA staff at San Bruno had increased to a total of 6, and during October it increased at times to as many as 10, contrasted with a staff of only 2 auditors at the time of our previous review. In addition, the DCAA staff at San Bruno has requested assist audits by other DCAA staffs at contractor locations other than San Bruno.

As in the case of audits in Viet Nam, primary emphasis at San Bruno has been on the audit of the RMK-BRJ contract; but, with the increase in staff, audit effort has been expanded to a review of the activities of two Thailand joint-venture contractors. With this increased staff, the character of the audit being performed began to change to a more comprehensive review of management policies and procedures. Accordingly, as of September 1966, DCAA was planning for and had begun management surveys in such areas as personnel recruitment, payroll, travel and relocation, insurance, automatic data processing, and internal audit.

The status of DCAA's work in the foregoing areas is in various stages of completion, and detailed reviews may be undertaken in some or all of these areas depending on the results of the survey work; already some detailed work has been done in the area of travel.

GENERAL OVERALL AGENCY AND CONTRACTOR COMMENTS

In addition to commenting on the individual observations made in the draft report, the Department of Defense, the Department of the Navy, and the contractor all made general comments relating to the nature of the construction program and the conditions under which it was accomplished:

The Department of Defense stated:

"We believe that valid judgments of the overall effectiveness and efficiency of management performance require recognition of the magnitude of construction requirements assigned to the construction agencies; the extraordinary short deadlines imposed for construction of the many facilities urgently required; the natural obstacles to construction inherent in an undeveloped country beset with hostilities; the 10,000 mile logistics pipeline; the difficulties involved in recruiting personnel for an 18-month period of employment in an undesirable environment; and the shipping, offloading and transshipment difficulties experienced during the mobilization period. These factors were very real and had a major influence on the decisions and actions taken in execution of the program."

"In summary, those responsible for the planning and execution of the construction program were fully cognizant of the fact that such an accelerated operation inherently includes many shortcomings. Measures have been taken and much progress made toward eliminating imperfections. It is recognized that more must be done before an optimum operation is achieved. All concerned are striving toward this goal as are the GAO representatives engaged in this survey."

The Department of the Navy stated:

"In the face of the absolute necessity to get the airfield, ports, cantonments and other facilities completed within startlingly short deadlines, it cannot be denied that some errors of judgment were committed, that short cuts were taken, that 'business as usual' was frequently abandoned. It would have availed very little indeed to have been perfect managers and to have maintained perfect procurement, materials handling and warehousing operations if such perfection were achieved at the sacrifice of the extremely rapid responsiveness to military requirements that was demanded. We believe that this consideration must be continually borne in mind ***."

In referring to the construction planning for the accelerated construction program the Navy stated:

"It must be recognized that this construction planning, in the environment and with the time limitations imposed, was not, by any means, the precise, reasonably paced, carefully detailed planning that can be indulged in on a peacetime construction project."

Nonetheless, it was done and done effectively. By this planning, the required levels of material procurement, equipment marshaling and personnel recruitment were determined. That it was imprecise, that it entailed risks in mobilizing to levels greater or lesser than later developments might ultimately require was, of course, recognized and was accepted as inherent in the situation."

The contractor commented:

"It must be remembered - that in war, time does not permit the accepted approach of normal, orderly planning, design, procurement and construction. In times of crisis, the experience of those available to do the work must be relied upon and, in such matters, experienced judgment must prevail. Hindsight in such cases can be distressingly accurate."

"It must be remembered that a runway for an operational aircraft was much more vital to the war effort than a well-managed warehouse complete with tidy paper work."

GAO EVALUATION OF OVERALL COMMENTS

We recognize that the tremendous acceleration of construction work by the contractor required a departure from normal operating procedures and that under such circumstances it would not be possible to maintain the degree of management control required to prevent waste and inefficiency. However, we believe that the virtual abandonment of normal processes during the period of the escalated mobilization created many problems which might have been minimized by the exercise of an appropriate degree of management control.

This report cites those problem areas we examined into during our survey where we believe more effective controls could have been exercised to reduce the extent of waste and inefficiency, recognizing that waste and inefficiency could not be completely eliminated in a construction program of this magnitude under the conditions existing in Viet Nam. Although we have emphasized the problem areas noted during our survey, it is not intended that this report should detract attention from the accomplishments of the contractor evidenced by the physical construction in place and the construction capability which the contractor has mobilized in Viet Nam.

TO THE READER:

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APPENDIXES

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PRINCIPAL OFFICIALS RESPONSIBLE FOR
ADMINISTRATION OF THE CONSTRUCTION PROGRAM
DISCUSSED IN THIS REPORT

DEPARTMENT OF DEFENSE

SECRETARY OF DEFENSE:
Robert S. McNamara

ASSISTANT SECRETARY OF DEFENSE (Installations & Logistics):
Paul R. Ignatius

DIRECTOR, DEFENSE CONTRACT AUDIT AGENCY:
William B. Petty

DEPARTMENT OF THE ARMY

SECRETARY OF THE ARMY:
Stanley R. Resor

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY:
Paul H. Nitze

COMMANDER, NAVAL FACILITIES ENGINEERING COMMAND:
Rear Adm. A. C. Husband

DEPARTMENT OF THE AIR FORCE

SECRETARY OF THE AIR FORCE:
Dr. Harold Brown

COMMANDER IN CHIEF, PACIFIC

COMMANDER IN CHIEF, PACIFIC:
Adm. U.S.G. Sharp

COMMANDER, PACIFIC DIVISION, NAVAL FACILITIES ENGINEERING
COMMAND:
Rear Adm. William H. Heaman

PRINCIPAL OFFICIALS RESPONSIBLE FOR
ADMINISTRATION OF THE CONSTRUCTION PROGRAM

DISCUSSED IN THIS REPORT (continued)

COMMANDER IN CHIEF, PACIFIC (continued)

RESIDENT OFFICER IN CHARGE OF CONSTRUCTION, NAVAL FACILITIES
ENGINEERING COMMAND CONTRACTS, PACIFIC:
Comdr. Robert W. Puddicombe

VIET NAM COMMANDS

COMMANDER, MILITARY ASSISTANCE COMMAND, VIET NAM:
Gen. William C. Westmoreland

DIRECTOR OF CONSTRUCTION, MILITARY ASSISTANCE COMMAND, VIET NAM
(note a):
Brig. Gen. D. A. Raymond

DEPUTY COMMANDING GENERAL, UNITED STATES ARMY, VIET NAM:
Lt. Gen. Jean E. Engler

COMMANDING GENERAL, UNITED STATES SEVENTH AIR FORCE, VIET NAM:
Lt. Gen. William W. Momyer

COMMANDER, UNITED STATES NAVAL FORCES, VIET NAM:
Rear Adm. Kenneth L. Veth

DEPUTY COMMANDER, PACIFIC DIVISION, NAVAL FACILITIES ENGINEERING
COMMAND, SOUTHEAST ASIA (note b):
Rear Adm. Paul E. Seuffer

OFFICER IN CHARGE OF CONSTRUCTION, NAVAL FACILITIES ENGINEERING
COMMAND CONTRACTS, REPUBLIC OF VIET NAM (note c):
Rear Adm. Paul E. Seuffer

DEPARTMENT OF STATE

SECRETARY OF STATE:
Dean Rusk

UNITED STATES AMBASSADOR TO THE REPUBLIC OF VIET NAM:
Ellsworth Bunker

PRINCIPAL OFFICIALS RESPONSIBLE FOR
ADMINISTRATION OF THE CONSTRUCTION PROGRAM
DISCUSSED IN THIS REPORT (continued)

AGENCY FOR INTERNATIONAL DEVELOPMENT

ADMINISTRATOR:

William S. Gaud

DIRECTOR, MISSION TO THE REPUBLIC OF VIET NAM:

Donald G. MacDonald

^aPosition established, effective February 11, 1966.

^bPosition established, effective March 21, 1966.

^cPosition replaced Deputy Officer in Charge of Construction Southeast Asia, effective July 1, 1965.

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ADDITIONAL AGENCY AND CONTRACTOR COMMENTSAND GAO EVALUATION THEREOFPROCUREMENT ACTIVITIES

Pages 14 to 33

Agency and contractor comments

The contractor presented considerable detail relating to the development of procurement policies and procedures, from the inception of the contract. Reference was made to both a private Management Services Team and a Government Procurement Procedures Review Board which reviewed the procurement practices, and we were provided with the current procedures developed as a result of these reviews. We were informed that procurements of over \$5,000 for supplies and \$1,000 for equipment were approved by both OICC and ROICC; that bid opening procedures were followed rigidly; that applicable procurement rules were carefully followed; and that all procurement files were reviewed by an internal audit division prior to award of procurement. In view of these factors, the contractor stated that internal control procedures were considered to be adequate.

The Navy stated that they were unable to agree with the conclusions reached, which are stated in this section of our draft, in view of the circumstances and achievements of the program and stated that their comments relating to subsequent sections of the report would demonstrate the invalidity of the conclusions. The Navy stated also that no comment could be made regarding the possibility of collusion because of the speculative nature thereof and because there had been no indication whatsoever that any such collusion had, in fact, occurred.

GAO evaluation of comments

Written procurement procedures were first issued by the contractor on October 23, 1962, and these remained essentially the same until June 9, 1966. The early procedures were general and, we believe, did not provide reasonable instructions for the guidance of procurement personnel. The procedures were silent regarding basic controls, such as (a) the need to have purchase requests carefully reviewed by buyers or engineers for the purpose of assuring that specifications would not unduly restrict competition, (b) the need to keep brand name procurements to a minimum, and, where necessary, to specify a brand name "or equal" whenever possible, (c) the need for buyers or others to maintain formal bidders' lists, (d) the need to have bid openings witnessed by more than one person, including a Navy representative when large procurements were involved, which practice was established by a special directive issued by ROICC on April 5, 1966, and (e) the need to establish the reasonableness of prices paid on sole-source

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procurements. Detailed instructions implementing desired control over the foregoing areas and others were not incorporated into the contractor's procedures until June 1966.

The private Management Services Team, referred to by the contractor, made similar observations. The team was hired in April 1966, and in their final report, issued in August 1966 they pointed out several major problems in the procurement area, which, they indicated, top management had recognized. The problems listed were as follows:

* * * * *

"Statements of procurement policy were incomplete and did not give the staff clearly defined guidelines to carry out their responsibilities.

"The procedures that were written were poorly organized and not easily understood. Policies and procedures were so mixed that it was difficult to determine who was responsible for what. Further, they were not focused at sufficient depth to be of real guidance to the day-to-day buying and clerical personnel.

"There was no formal training program. Since the existing procedures were so inadequate, the indoctrination of new employees had to be accomplished by rote, and orally.

"There was inadequate documentation to justify noncompliance with applicable Government regulations.

"*** There was no internal control program to ensure compliance with joint venture policy or applicable Government regulations.

"In order to carry out its primary responsibility, purchasing was operating under bidding practices which were in contravention with a ROICCPAC directive of April 5, 1966."

The private consultants recommended that the purchasing procedures be rewritten; this was accomplished with the issuance of revised procedures dated August 24, 1966.

The Government Procurement Procedures Review Board, referred to by the contractor, was established to meet a requirement that the contractor's procurement procedures be approved by the contracting officer. Although the contract was awarded in January 1962, this Board was not established until April 1966. The Board issued an interim report in April 1966 pointing out weaknesses in the contractor's system, but, pending completion of the private consultants' study and the revised purchase procedures, which were then in process, the Board delayed the completion of its study and the issuance of a final report. A final report was

issued in December 1966. The Board concluded that the procurement procedures issued by the contractor on August 24, 1966, were well written and comprehensive. However, some expansion, clarification and refinements were considered to be necessary. As a result of recommendations made in the Board's December report, the contractor issued revised procedures on January 1, 1967.

We believe that it is clear, from the foregoing information, that the contractor's procurement procedures prior to June 1966 were deficient and that, in relation to the period in which most procurements were made, action taken to improve the procedures was not timely. Moreover, it was the lack of controls or laxity in administering them until late in the term of the contract that led us to express our opinion that the possibility of collusion could exist more easily in this case than in cases where such controls had been rigidly applied.

Approval of purchase orders

It is true that purchase orders must be approved by the OICC and the ROICC; however, we believe that the volume of purchase orders which required review and approval was so great that it is doubtful that careful consideration could have been given to the purchase orders. To illustrate, during the month of March 1966, the average weekly number of purchase orders issued was 520 and the average weekly cost of these orders was about \$21 million. In view of such large volume, it is extremely doubtful that the OICC or ROICC approval was representative of a careful review of the circumstances surrounding the preparation of the request and order by the Navy. In fact, our survey showed that, at San Bruno, the ROICC staff directly involved in monitoring the contractor's buyers' day-to-day preaward actions was limited to one person until March 1966, when one additional new employee assumed this task. We were informed by Navy officials that the review of purchase requests in Viet Nam was also necessarily limited because of the volume of requests involved.

PROCUREMENT PRACTICES AT SAN BRUNO

REQUIRING IMPROVEMENT

Pages 17 to 26

Agency and contractor comments

As indicated in the body of the report the contractor stated that specifications were questioned at San Bruno in innumerable instances and, as a result, an \$11-million savings in one year was achieved. In addition, both the Navy and the contractor presented extensive detail relating to a serious communications problem which existed between San Bruno and Saigon prior to June 1966 and to their efforts to resolve the problem.

GAO evaluation and comment

We were told that a complete screening of engineering files would be necessary to determine how extensively specifications were questioned prior to June 1966, since no summary records have been maintained specifically for this purpose. It is noted, however, that, in the contractor's reply where the communications problem which existed between San Bruno and Viet Nam was discussed, the contractor stated that, prior to June 1966, the maintenance of any reasonable degree of liaison between San Bruno and Saigon, with respect to purchase specifications, was rendered extremely difficult by the absence of adequate communications.

The contractor and the Navy have undoubtedly questioned and modified or amended some specifications and perhaps have achieved some economies thereby, and we do not intend to imply that this has not occurred. Such a practice may have increased greatly since the establishment of improved communications in June 1966, but nevertheless, our survey showed that, during the period when most procurements were made, there was little evidence that such actions were standard practice as now required by existing procedures.

Our inquiries have shown that the \$11 million the contractor claims to have saved represents a portion of about \$15 million savings claimed by the ROICC's value engineering process. Although the \$11 million could not be specifically identified, we made a limited review of the nature of the entire claimed savings, and, while we do not necessarily agree with the manner in which the savings were computed, we do recognize that some savings have been achieved through value engineering. We noted, however, that more than \$11 million of the \$15 million of claimed savings were achieved on procurements made for other operations rather than for procurement of equipment, materials and supplies required for construction under the contract, and through the acquisition of Government excess or surplus equipment.

RESTRICTIVE PROCUREMENT SPECIFICATIONS

Pages 18 to 19

Agency and contractor comments

Both the Department of the Navy and the contractor have stated in their comments that unnecessarily restrictive procurement specifications were not used and that competitive prices were obtained. The contractor stated that construction equipment and water filter separators were items for which restrictive specifications were necessary. The Navy, to support its view, has stated that a test of 296 purchase orders included in the Project 99 advance buy shows that only 16 procurements were made for which there was only a single bidder and that these procurements were justified. The Navy has further stated that these 296 procurements represent 90 percent of the total Project 99 procurements. The contractor cites similar statistics covering two tests made by the contractor.

The contractor has commented that its primary efforts in negotiating with suppliers have been directed toward establishing broad pricing policies, which resulted in the contractor's buying directly from manufacturers rather than through distributors. The contractor estimated that \$20 million was saved in the purchase of equipment and \$8 million in the purchase of spare parts by buying directly from the manufacturers. This is said to have been achieved only by long, difficult, and frequently bitter negotiations.

GAO evaluation of comments

Since the comments by the Navy and the contractor under this section of the report relate to various matters, we have, for clarity, replied to them under the various subsections involved.

Necessity for restrictive specifications

We recognize that it may be necessary to restrict procurement specifications in some areas. Procurements of construction equipment and related spare parts may, as stated by the contractor, be examples of such areas since this may permit the most effective maintenance program. We also recognize that other items, such as the water filter separators procured, may be critical in assuring safety and therefore may also warrant somewhat restrictive specifications. However, in our survey report we did not question specifications on procurements of this nature. We believe that unnecessarily restrictive specifications were used in purchasing many other common items including subsistence items, culvert, hand tools, plywood, and the 106 million board feet of lumber, discussed on pages 20 to 22 of our report.

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Extent to which restrictive specifications were used and possible effect on competition

Our inquiries have shown that the purchase orders sampled by the contractor and the Navy and the resultant statistics presented represent their observations of the extent to which there was a single or sole-source supplier for the orders reviewed. As the Navy and contractor's statistics show, we also observed that more than one responsive bid is received on most purchases. However, we believe that more than one bid could frequently be obtained without any assurance that full and free competition had existed or that reasonable prices had been offered for a product as opposed to a brand. Since full and free competition is desirable, we believe that the statistics presented by the contractor and the Navy are indicative of little more than the fact that more than one bid is frequently received.

We requested that the Navy provide us with a record of the Project 99 procurements that they had sampled and summarized in their reply. At the completion of our work, the record had not been located for us; thus, we were unable to review the details of the Navy's test. However, on the basis of our knowledge of the Project 99 procurements made for contractor required materials and supplies, we identified at least 46 purchase orders that were made to sole-source suppliers or that involved specifications, which we believe seriously reduced the possibility of obtaining full competition. These orders totaled \$18.4 million and thus represented more than 20 percent of the \$84.7 million dollar value of Project 99 procurements made by the contractor for its own use. We did not review all of the \$84.7 million of purchase orders in this group; thus, the number of orders and the amount we identified is a minimum.

Savings achieved on purchases made directly from manufacturers

We believe that the significance of the savings claimed by the contractor and Navy due to their making procurements direct from manufacturers is not warranted. We note that the claimed savings represent the difference between what the members of the joint venture would pay for equipment and parts in their other operations and prices paid for items needed in Viet Nam under the Government cost-type contract. Procurements made by the joint venture for Viet Nam are made under a Government cost-type contract and thus are not part of the joint venture members' other operations. The nature, tremendous size, and scope of the Government cost-type contract is undoubtedly much different from that found in a normal contract in the construction industry.

Aside from the unusual size of the contract, the Armed Services Procurement Regulation (ASPR) provides that prime contractors, in performing cost reimbursement type contracts, are entitled to make purchases from suppliers under Federal Supply Schedule (FSS) contracts administered by the General Services Administration. The range of products available under

FSS contracts is great and includes many kinds of equipment, spare parts, and construction supplies. The FSS contracts are often made directly with manufacturers. All that is required for a prime contractor to use them is that the contracting officer authorize their use and certify to the manufacturer that the order has been placed in behalf of the Government and that title to property bought is vested in the Government.

The contractor's claimed savings on equipment and spare parts are estimates, and a full evaluation of the accuracy of the estimates would require a detailed analysis of every procurement for these items. We have not undertaken such a review but, on the basis of our review of spare parts procurements made by the contractor, we believe that the claimed savings are questionable. We found that generally the contractor paid no less to the largest spare-parts suppliers than the price that could have been obtained by using existing FSS contracts. It is, therefore, inappropriate for the contractor to compute savings by using prices normally paid in the construction industry when more favorable prices are available by using manufacturers' prices available to the Government.

Further inquiries have shown that apparently neither NAVFAC nor the contractor was aware that extensive FSS spare-parts contracts existed since the Navy had not issued the necessary authorization to the contractor, and certification to specific suppliers, to enable use of the FSS contracts. It appears that, if the contractor had engaged in extensive negotiations to obtain approval to buy spare parts direct from manufacturers, such negotiations may have been unnecessary.

Bid procedures

It may presently be true that bid opening procedures, requiring the presence of top management on large procurements, are being rigidly followed. However, we note that the procedures referred to were established by a ROICC directive dated April 5, 1966, and were formally incorporated into the contractor's procedures in June 1966. Our survey showed little evidence that, prior to ROICC's directive, bids were handled in a reasonable manner. We made a random sample of 50 purchase orders placed in early 1966 and found that there were 45 for which it appeared that existing bid procedures should have been followed. The bid procedures did not appear applicable to the remaining 5 purchase orders. Out of the 45, we found that 23 did not contain any indication of how many bidders had been solicited; 27 did not show when the bids had been due; 39 contained no evidence of when the bids had been received; 16 did not show when the bids had been opened, and, in at least one instance, the successful low bidder's quotation had been received and accepted after the bid due date. In the course of our survey we were told that, at times, bids had been opened by the buyers as they were received.

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Internal audit activity

It is currently true that there is an internal audit review of all procurements before award. Review is accomplished, using an audit program developed by the private management consultant hired by the contractor in April 1966. The internal audit group at San Bruno was first formed by the contractor on September 13, 1965, but little or no work was done by the internal auditors in the area of procurement until June 1966.

Applicable procurement rules and regulations

The applicable procurement rules and regulations that the contractor states were being carefully followed are those issued by the contractor. The contract does not require those contained in the ASPR to be followed. Furthermore, as briefly discussed in the foregoing subsection relating to bid procedures, the records often do not show that the contractor's existing procedures were being carefully followed.

UNUSUALLY HIGH QUALITY MATERIAL PURCHASED

Pages 20 to 22

Contractor comments

The contractor stated that undoubtedly there were instances in which high quality material was specified but stated that the lumber discussed in our report was not such an item.

GAO evaluation of comment

Our comments on the lumber example are contained in the body of the report. To illustrate that the unusually high quality material purchased was not limited to lumber, another example is summarized briefly. As stated on pages 18 and 19 of our report, we noted in our survey that 345,930 feet of steel culvert was purchased by the contractor at a cost of about \$2.8 million. In our survey we found that virtually all of the culvert purchased was from two to four steel gauges heavier than required by military specifications and common usage, even though we found no evidence that military specifications were unacceptable. We estimate that about \$528,000 could have been saved on the procurement of the culvert had military specifications been followed.

We believe that the lumber, the culvert, and other items, as disclosed by our survey, were clearly bought in unusually high quality.

UNUSUALLY LARGE PROCUREMENTS

Pages 22 to 25

Agency and contractor comments

The contractor stressed that the award of the large lumber order had been made to the low bidder after full competition and said that, under the circumstances, negotiation among bidders to reduce the price--what the contractor refers to as "bid shopping"--would have been unethical.

The Navy stated that, after receiving a bid protest from an unsuccessful bidder on this procurement, the Comptroller General upheld the award in decision B-158805 dated July 21, 1966.

GAO evaluation and comment

We believe that full and free competition did not exist and therefore the reasonableness of prices offered should have been established by negotiations prior to awarding the purchase orders. Under the circumstances, we believe that the Navy and contractor would have been justified in initiating negotiations with one or more of the potential suppliers prior to issuing orders and that this would not have been unethical, as stated by the contractor. In fact, even under formally advertised procurement, as contrasted with the informal solicitations by the contractor, both the Federal Property Administrative Services Act of 1949 and the Armed Services Procurement Act of 1947 permit negotiations after advertising when the bid prices received through advertising are unreasonable as to all or part of the requirements or are not independently reached in open competition. These acts also permit negotiations when public exigency will not permit the delay incident to formal advertising.

As to our contention that full and free competition did not exist, we noted that, when the bids were solicited and later received and reviewed, there were a number of factors that we believe normally would have alerted a buyer that competition would be limited and/or that prices offered may not have been the lowest possible. These factors are:

1. An order for 73.4 million board feet of lumber is unusually large. It has been reported that this was the largest single lumber procurement since World War II. The largest single lumber procurement made by the contractor prior to this order was only about 11.2 million board feet. We believe that the unusual size of the order pointed up a need for special and careful handling.
2. As we reported on pages 20 to 22 the lumber specifications on which bids were solicited were not normal to such a large single procurement. The Navy's reply indicated that both the OICC and the contractor were well aware of the normal practices, but, in view of the program urgency at that time, it was believed that the

deviation from normal was justified. We believe that the unusual nature of the specifications, which was known, is further evidence that the element of normal industry selling practice was missing insofar as providing assurance that fair and reasonable prices would be obtained through competition.

3. Three suppliers, including the successful bidder, expressed their desire to bid on lumber under alternate specifications.
4. Only 2 of 18 suppliers solicited were able to bid on the entire quantity of lumber requested. Others were able to bid only on smaller quantities.
5. The low bid received for one increment, or one fourth of the total quantity of lumber desired, was about \$185,000 less than the bid offered by the successful bidder for one increment. (The low bid was not accepted because the successful bidder's total bid for the four increments was lower than the combination of the low bid for one increment and the other bids for the remaining three increments.)
6. The successful bidder had consistently been the contractor's high-priced lumber supplier. This is illustrated by the following table:

	<u>Weighted average price range paid on prior procurements</u>	
	<u>Large-buy supplier</u>	<u>All other suppliers</u>
	(per thousand board feet)	
1-inch lumber	\$129	\$86 to 116
2- " "	\$115 to 129	97 " 107

We believe that the foregoing information which was known to the Navy and the contractor prior to issuing the purchase orders makes it very clear that there was no assurance that reasonable prices had been obtained through competition; the opposite seems to be true.

In the decision referred to in the Navy comments, the Comptroller General upheld the legality of the award. The full context of the decision regarding the propriety of the award is quoted below:

"From the foregoing, we do not perceive a valid basis on which to question the legality of the contract awarded ***, and it appears that such firm is meeting its contractual responsibilities.

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"We have however, considerable doubt that the financial interests of the Government were best served by the manner in which this procurement was processed. It appears that preaward attempts by prospective bidders to get the specifications revised, particularly to length, species and grade, so that better prices and earlier delivery could be quoted were unavailing, and bidders were not afforded the opportunity to bid on the lumber actually procured although the specifications were revised in those specific areas shortly after award and price adjustments negotiated. ***"

When considered in full context, the Comptroller General's decision regarding the propriety of this procurement is consistent with our reported findings at this time.

VENDOR AND PROCUREMENT HISTORY

RECORDS NOT MAINTAINED

Pages 25 to 26

Agency and contractor comments

The contractor commented that, although 13 bidders had been solicited formally and informally for the cast iron pipe fittings, only two bids were received of which only one was responsive. The contractor commented further that the limited number of bids received had been due to the fact that the three large domestic manufacturers of this item were unable to bid on this procurement because of circumstances beyond the contractor's control. The contractor reported that the buyer for this procurement had made a positive effort to negotiate lower prices with the one responsive bidder but was unsuccessful in obtaining any reduction of the prices quoted.

GAO evaluation of comments

The records do not support the contractor's statement that the Purchasing Department had consulted every known manufacturer or supplier on the procurement of cast iron pipe fittings. The purchase order file showed that seven suppliers were solicited on the order, and this did not include a responsive bidder who had offered competitive prices for identical items only 3 months earlier.

A list of other suppliers which allegedly were contacted at the time of the procurement in March 1966 was added to the procurement files in February 1967 as a result of our interest in this procurement. These contacts allegedly had been made before formal bid requests were sent out to determine if the suppliers may have been interested in bidding, but, since they had not been interested, they were not solicited. We note that the purchase order files show that, out of the seven vendors who were formally solicited, presumably because they were interested in bidding, only one responded with an acceptable bid. Of the remaining six, one responded with a bid for plastic fittings; one responded with no bid, explaining that they did not manufacture the materials; and all others either responded with no bid or did not respond at all. In view of the almost complete lack of bidder response, we believe that the contractor should have established the reasonableness of prices paid.

Although the reasons advanced by the contractor as to why other suppliers were unable to bid may be true, we noted that generally the reasons given by the contractor represent explanations offered by the successful bidder and one other supplier, in November 1966, in response to requests of the buyer 8 months after the purchase. If these reasons are valid and were known in March 1966, at the time of the procurement, we believe that it should have been even more evident that the possibility

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of obtaining fair and reasonable prices by seeking competitive bids, as was done, was highly unlikely.

Our follow-up showed that the three largest manufacturers which according to the contractor would normally supply the drainage fittings but were precluded from bidding by circumstances beyond the contractor's control had not been solicited by the contractor on the December 1965 procurement for bids on the same items. We note that, instead, the December procurement had been made from the same wholesaler from whom the March procurement was made. We believe this provides further evidence that the contractor has not been effectively obtaining full and free competition in making procurements.

Although the contractor's statement was that the buyer on this procurement did make a positive effort to negotiate lower prices with the one responsive bidder, the purchase order files do not support this statement. The only evidence in the file supporting the reasonableness of the prices offered by the supplier is a letter from the supplier, dated November 23, 1966; this was after the time at which our interest was expressed in the procurement, and the letter was requested by the buyer to "justify" the prices paid.

PROCUREMENT PRACTICES OVERSEAS

REQUIRING IMPROVEMENT

USE OF BROKERS TO

BUY CONSTRUCTION SUPPLIES

Page 27

Agency and contractor comments

The Navy commented that the procurements discussed in our report took place, generally, before 1966. The Navy claimed that the United States Air Force Procurement Office (USAFPO) in Singapore was contacted in an effort to enlist that office's assistance in obtaining the required materials. The Air Force office was unable, however, to give any assistance because of their total involvement in United States Air Force procurements. Even though the Air Force, at an earlier date, had been unable to assist the contractor because of increased workload, the United States Consul General, in late 1965, imposed a requirement that all procurements thereafter be carried out through the Air Force Procurement Office in Singapore.

The contractor stated that he had found it necessary to make off-shore procurements through sales agents and/or brokers throughout southeast Asia, since each manufacturer or producer designated and utilized this method of representation instead of maintaining a sales outlet for their products. The contractor stated that, in an effort to weed out certain undesirable sales agents and/or brokers, the contractor had made surveys in various southeast Asian countries and had eliminated the unqualified from the respective bid list.

GAO evaluation of comments

Contrary to the Navy's statements, during our survey we noted that the contractor used brokers in Singapore up to April 1966. For example, for the period January to April 1966, the contractor purchased \$508,000 worth of materials from the broker cited in our report. In addition, during the first 4 months of 1966 the contractor made at least \$2.2 million worth of purchases in Singapore.

Regarding the requirement of the United States Consul General in late 1965 that all procurements be carried out through the USAFPO, it was apparent that this requirement was not followed by the contractor. A test of the purchase orders issued by the contractor for procurements in Singapore during each month of the entire year of 1966 showed no evidence that these procurements were made through the USAFPO. In this regard, it is noted that the OICC, on February 3, 1967, directed the contractor to

obtain the advance approval of the United States Seventh Air Force Branch Procurement Office in Singapore prior to initiating any actions, including requests for bids and visits with either Government or commercial firms.

Although the Agency and the contractor have indicated that action has been taken to eliminate procurements from undesirable brokers, as discussed in this report, we believe that greater efforts should be made by both the Navy and the contractor to eliminate the use of all brokers in procuring materials and equipment for the Viet Nam construction program. We believe that such efforts are essential in view of the magnitude of the United States Government's off-shore procurements for the Viet Nam programs and the potential for significant cost savings by buying direct from the suppliers.

PROCUREMENT POLICIES REQUIRING IMPROVEMENT

LIMITED USE OF EXISTING

GOVERNMENT SUPPLY SYSTEM

Pages 31 to 33

Agency and contractor comments

The contractor commented that a team from DSA spent approximately one week reviewing the items purchased by the contractor to see if DSA could be of assistance in furnishing materials from the Defense Supply System. The contractor stated that the DSA team advised that the contractor's purchasing was of such magnitude that they would be unable to be of much assistance because (1) DSA would be able to furnish only a very small percentage of each item desired and (2) it would be too time consuming and virtually impossible to convert the descriptions given on the contractor's purchase request to the Federal stock numbers on which DSA procurement is based.

The Navy added that the availability or nonavailability of funds does not determine whether the procurement is to be effected from the Government supply agencies.

GAO evaluation of comments

Regarding the DSA team's review of the contractor's procurements, our survey disclosed information which appears contrary to that stated by the contractor. The record shows that, out of a random sample of contractor requisitions studied by the team, it was concluded that 50 to 75 percent of the line items could be identified by Federal stock number and, of those that could be identified, it appeared to the team that 50 percent were managed by DSA's Defense Construction Supply Center which is only one of six such centers within DSA. Furthermore, the team drafted tentative procedures which would have permitted more extensive use of the system, but, as indicated in our report, the matter was dropped.

The Navy states that the availability of funds does not determine whether procurements are to be effected from Government supply agencies. Although this may normally be true, the record shows that, in this instance, the availability of funds was a factor which contributed to the Navy's adopting a policy not to more fully utilize DSA as a source of supply, when such a possibility was being considered.

MATERIAL CONTROL

Pages 34 to 43

Agency and contractor comments

The contractor maintained that a substantial portion of the \$120 million in the in-transit account as of August 1966 represented inventory purchased and charged to the in-transit account but still stored at various Navy depots in the United States. According to the contractor, this very substantial amount of materials and supplies was purchased under the accelerated program and then ordered retained in the United States, pending a reevaluation of the construction program in Viet Nam.

GAO evaluation of comments

During our review we noted that, as of August 25, 1966, there was no data available definitizing the value of materials in storage in the United States. Our follow-up inquiry showed that, in November 1966, the contractor instituted an inventory of materials, supplies, and equipment retained in the United States. The cutoff date of the inventory was established at November 25, 1966.

The contractor's inventory of materials, supplies, and equipment just recently received in Viet Nam, established that, as of November 25, 1966, \$42 million worth of materials, supplies, and nonexpendable equipment were on hand in the United States. The contractor's inventory account balances, as of November 25, 1966, showed that \$147.9 million worth of materials, supplies, and nonexpendable equipment were in transit. Therefore, since the in-transit accounts were overstated by the amounts of the inventory on hand in the United States, about \$105.9 million worth of materials, supplies, and nonexpendable equipment were still in the in-transit accounts as of November 25, 1966. These balances represent generally materials, supplies and nonexpendable equipment received in Viet Nam for which accountability had not been established as of that date.

We were advised by contractor representatives in February 1967 that RMK-BRJ was making a maximum effort to gain control over the material situation. This involved identifying all material bought, but held in the United States; receiving and inspecting all materials at the Viet Nam depots; identifying materials--to the extent possible--which were put in place without formal receipt and inspection reports; inventorying all materials at the Viet Nam depots and reconciling the results of the above actions with all materials purchased to determine the value of materials in transit and unaccounted for. The value of the unaccounted-for items will, in our opinion, represent those materials and supplies over which the contractor has lost both documentary and physical control. We were advised further that the contractor expected to complete all actions to account for the materials by May of 1967.

SHORTAGE OF CONSTRUCTIONFUNDS

Pages 50 to 52

Agency and contractor comments

The Navy commented that, although the discussion in the report on the shortage of construction funds is generally accurate, this very accuracy tends to obscure the basic factors involved and thereby to imply undue criticality of the situation. The Navy further states that, when the funding shortage was identified, the Secretary of Defense moved promptly to provide, out of a contingency fund of \$200 million, the necessary funds needed to continue the construction program initially contemplated.

The Department of Defense commented that the matter of project cost estimates is complex and will continue to fluctuate. Criteria, siting, and scope must change with combat operations. The increase in cost estimate, cited at Phu Cat, implied that scope increases were uncontrolled. The decision to change AM2 matting to concrete for the runway and taxiway was deliberate. The plan for this base called for an expeditionary runway to be constructed initially, with a follow-up permanent runway to be constructed later. When the base was sited at Phu Cat, it was determined that, because of unfavorable terrain features, a permanent runway in addition to the expeditionary runway would lead to unacceptable high costs and time consumption. Excessive earthmoving would be required. Thus, limited by the mountainous terrain, the construction of only one runway with permanent surfaces for the operational features was chosen. The Phu Cat location prevailed over alternate sites on the basis of logistical support and operational considerations.

GAO evaluation of comments

We believe that the Navy's comments understate the problems which were associated with the August 1966 projected funding shortage. A full-scale detailed review would be required to identify the full impact of the funding problem; however, we believe that the anticipated shortage of working capital adversely affected contract operations.

For example, as a result of the funding shortage, the OICC ordered various economy measures, such as (1) the curtailment of depot investments and (2) the cancellation of major procurement actions. In addition the contractor was advised that no new projects were to be started, pending clarification of the funding problem.

The basic premise underlying all of our survey work on the construction program was to identify areas requiring management attention. The overall effects of the underfunding of the construction program, although somewhat intangible, were real, and, therefore, we believe that this was definitely a major problem area which required greater management attention.

OTHER CONSTRUCTION ACTIVITIES
IN VIET NAM

Other military construction in Viet Nam, in addition to that being accomplished under the RMK-BRJ contract, is being performed by the troop construction battalions and squadrons of the armed services, Walter Kidde Constructors, Inc., and the Vinnell Corporation, both United States contractors, and other local Vietnamese contractors. These construction agents have constructed or are in the process of constructing cantonments, troop housing, waterfront facilities, communications facilities, administration buildings, and mess facilities. In addition, another United States firm, Pacific Architects and Engineers Company (PA&E), is responsible under an Army contract for the repair and utility function for United States Army facilities in Viet Nam. As of October 1, 1966, these activities were funded at about \$374 million as follows:

	<u>Funded amount</u>						<u>Total</u>
	<u>Army</u>	<u>Navy</u>	<u>Air Force</u>	<u>MAP</u>	<u>AID</u>	<u>Other</u>	
	----- (millions) -----						
Construction activity:							
Troop Units	\$108.5	\$53.2	\$ 9.8	\$2.5	\$ -	\$ -	\$174.0
Walter Kidde Constructors, Inc.	-	-	40.4	-	-	-	40.4
Vinnell Corporation	10.0	-	-	-	-	-	10.0
PA&E	75.3	-	-	-	-	-	75.3
Local contractors	<u>2.1</u>	<u>18.5</u>	<u>0.3</u>	<u>0.4</u>	<u>51.6</u>	<u>1.9</u>	<u>74.8</u>
	<u>\$195.9</u>	<u>\$71.7</u>	<u>\$50.5</u>	<u>\$2.9</u>	<u>\$51.6</u>	<u>\$1.9</u>	<u>\$374.5</u>

The responsibility, management, operation, mission, and organization of the above listed activities are discussed below:

TROOP UNITS

Troop construction forces of the Army, Navy, and Air Force in Viet Nam are under the direction of the Director of Construction, Military Assistance Command, Viet Nam (MACV). As of October 1, 1966, the funded troop construction program amounted to \$174.0 million. These funds are being used principally to purchase materials and supplies and are not an indication of the actual value of the troop construction effort.

The operation, mission, and organization of the military construction battalions and squadrons in Viet Nam are discussed below:

Army troop construction

The 18th Engineer Brigade, under the direction of the United States Army, Viet Nam (USARV), exercises operational control over troops assigned to the Army Engineering battalions. These battalions are operating in the central and southern areas of the Republic of Viet Nam and are involved in constructing cantonments, airfields, roads, warehousing facilities, hospitals, and administrative buildings. The funded Army troop construction program of \$108.5 million accounts for the majority of the \$174 million troop construction program of the three services.

Navy troop construction

The Navy construction battalions (Seabees) have been assigned responsibility for constructing cantonments, hospitals, airfields, support facilities, and port facilities in the northern area of the Republic of Viet Nam. The Third Naval Construction Brigade, under the direction of the Commander, Naval Forces, Viet Nam, exercises operational control over the 30th Naval Construction Regiment and eight Mobile Construction Battalions. Approximately \$53 million has been funded for this construction.

Air Force troop construction

The 1st Civil Engineer Group under the direction of the Directorate of Civil Engineering, United States Seventh Air Force, exercises operational control over the four Air Force Civil Engineering Squadrons (Heavy Repair) involved in troop construction in Viet Nam located at Phan Rang, Cam Ranh, Phu Cat and Tuy Hoa. The primary mission of these squadrons, which accounts for about 65 percent of their effort, consists of repairing airfields damaged by enemy action or natural disaster. Their remaining effort is applied to constructing airfields, support facilities, dormitories, and latrines, and installing utilities as directed by the Director of Construction, MACV. Supplies and materials for Air Force troop construction have been funded at about \$9.8 million for this construction.

WALTER KIDDE CONTRACT

On May 31, 1966, the Air Force awarded a contract to Walter Kidde Constructors, Incorporated, a subsidiary of Electric Bond and Share Company, for the design and construction of an Air Base and small port facility at Tuy Hoa, Viet Nam, for an estimated cost of \$52 million for which \$40.4 million has been funded under this contract. The Kidde contract is a cost-plus-incentive-fee contract with a fixed fee of \$2,200,000 and incentive-fee provisions for early completion of the project and a limited degree of inflationary impact on the local economy.

The administration of the contract and the monitoring of the construction program is the responsibility of the United States Seventh Air Force in Viet Nam. However, since corporate transactions for the

project, including Continental United States (CONUS) procurements, are performed in New York, an Air Force contracting officer in New York has been delegated much of the responsibility for the administration of the contract, including negotiation of the final contract, execution of subsequent change orders, approval of contractor CONUS procurement actions, and the control of fund expenditures.

As of September 1966, the contractor employed about 420 Americans, 265 third country nationals, and 380 Vietnamese.

VINNELL CORPORATION CONTRACT

The United States Army Materiel Command, acting for the Deputy Commander, USARV, has contracted with the Vinnell Corporation for service in the logistical efforts in Viet Nam. As a part of this effort, a contract was entered into in June 1966 with the Vinnell Corporation for land power construction projects costing approximately \$10.0 million. This contract provided for the construction of initial power plants and the installation of primary and secondary electric power distribution lines at Cam Ranh Bay, Qui Nhon, Nha Trang, Vung Tau, and Long Binh, Viet Nam.

PACIFIC ARCHITECTS AND ENGINEERS CONTRACT

The United States Army has awarded four cost-plus-fixed-fee contracts totaling \$75.3 million, including fee, to Pacific Architects and Engineers, Incorporated, for services necessary to accomplish repair and utility functions for Army facilities in Viet Nam. The initial contract was awarded on May 1, 1963, for about 1 year, and, for each successive year, a contract larger in amount was awarded replacing the prior year contract.

The Army is currently in the process of expanding the scope of the \$42.5 million fiscal year 1967 contract at an increased cost of about \$60 million to include repair and utility services for facilities and installations of MACV and the Free World Forces. In October 1966, the contractor employed about 700 Americans, 4,000 third country nationals, and 9,000 Vietnamese.

The first contract provided that the Government furnish all the required material and equipment through the Army supply system. However, because of the extensive buildup of troops and the corresponding problems encountered in obtaining the necessary materials and equipment, each successive contract provided for increased contractor procurement authorization. The current contract authorizes the contractor to procure necessary material and equipment directly from the United States and from Vietnamese and other off-shore suppliers.

LOCAL CONTRACTORS

During the period July 1, 1965, through August 31, 1966, the Army and Navy awarded 77 contracts, each over \$25,000, to local Vietnamese contractors totaling \$0.4 million and \$2.8 million, respectively. These contracts, which were primarily for constructing, rehabilitating, and repairing buildings in the Saigon area, were administered by the Commanding General, USARV, and the Commander Naval Forces, Viet Nam. In addition, USARV has executed lump sum fixed-price construction contracts with local contractors, totaling \$30.6 million. These contracts were primarily for construction of cantonments and other facilities.

The Agency for International Development has also awarded several contracts locally amounting to approximately \$41 million. These contracts are primarily for the construction of the Saigon metropolitan water project.

PHOTOGRAPHS TAKEN DURING GAO SURVEY
OF CONTRACTOR STORAGE DEPOTS



Contractor's Depot Facility
Thu Duc Island, Viet Nam

These photographs show a small portion of the hundreds, and possibly thousands, of cases of spare parts which were haphazardly stored at the Thu Duc Island Depot. Many of the cases were broken and the contents scattered about. These cases were unsegregated and unidentified and, as a result, needed spare parts were not easily located. These conditions are discussed briefly on page 38.

PHOTOGRAPHS TAKEN DURING GAO SURVEY
OF CONTRACTOR STORAGE DEPOTS



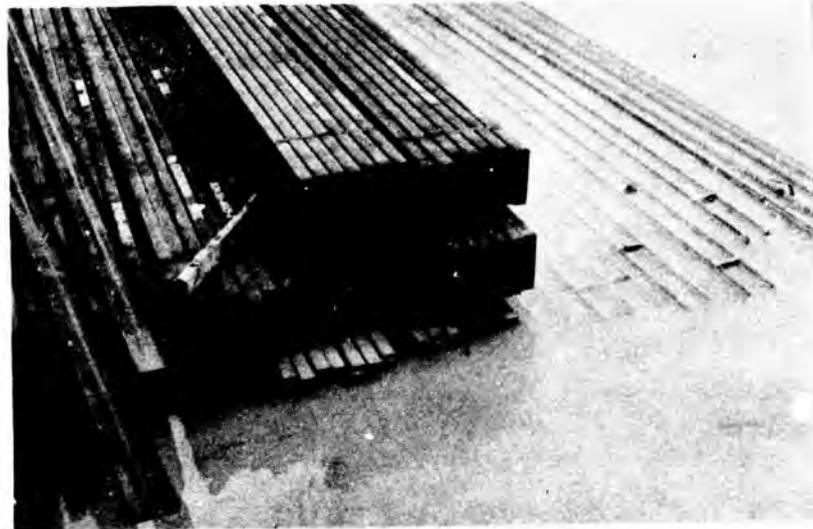
Contractor's Depot Facility
Thu Duc Island, Viet Nam



Contractor's Depot Facility
Da Nang (East), Viet Nam

These photographs show that plywood stored at the Thu Duc Island Depot was sitting in mud and/or was under water as a result of the heavy rains experienced in this area in recent months and that many of the lumber bundles at the Da Nang (East) Depot had become unbanding and the lumber strewn about. The above conditions are discussed briefly on page 38.

PHOTOGRAPHS TAKEN DURING GAO SURVEY
OF CONTRACTOR STORAGE DEPOTS



Contractor's Depot Facility
Thu Duc Island, Viet Nam

These photographs show that quantities of angle iron and prefabricated building parts in storage at the Thu Duc Island Depot were partially submerged in water and/or mud as a result of frequent rains experienced in the area in recent months. These conditions are discussed briefly on page 38.

PHOTOGRAPHS TAKEN DURING GAO SURVEY
OF CONTRACTOR STORAGE DEPOTS



Contractor's Depot Facility
Da Nang (East), Viet Nam

These photographs show broken cases of concrete pipe and damaged buckets of paint which were in storage at the Da Nang (East) Depot. These conditions are discussed briefly on page 38.

PHOTOGRAPHS TAKEN DURING GAO SURVEY
OF CONTRACTOR STORAGE DEPOTS

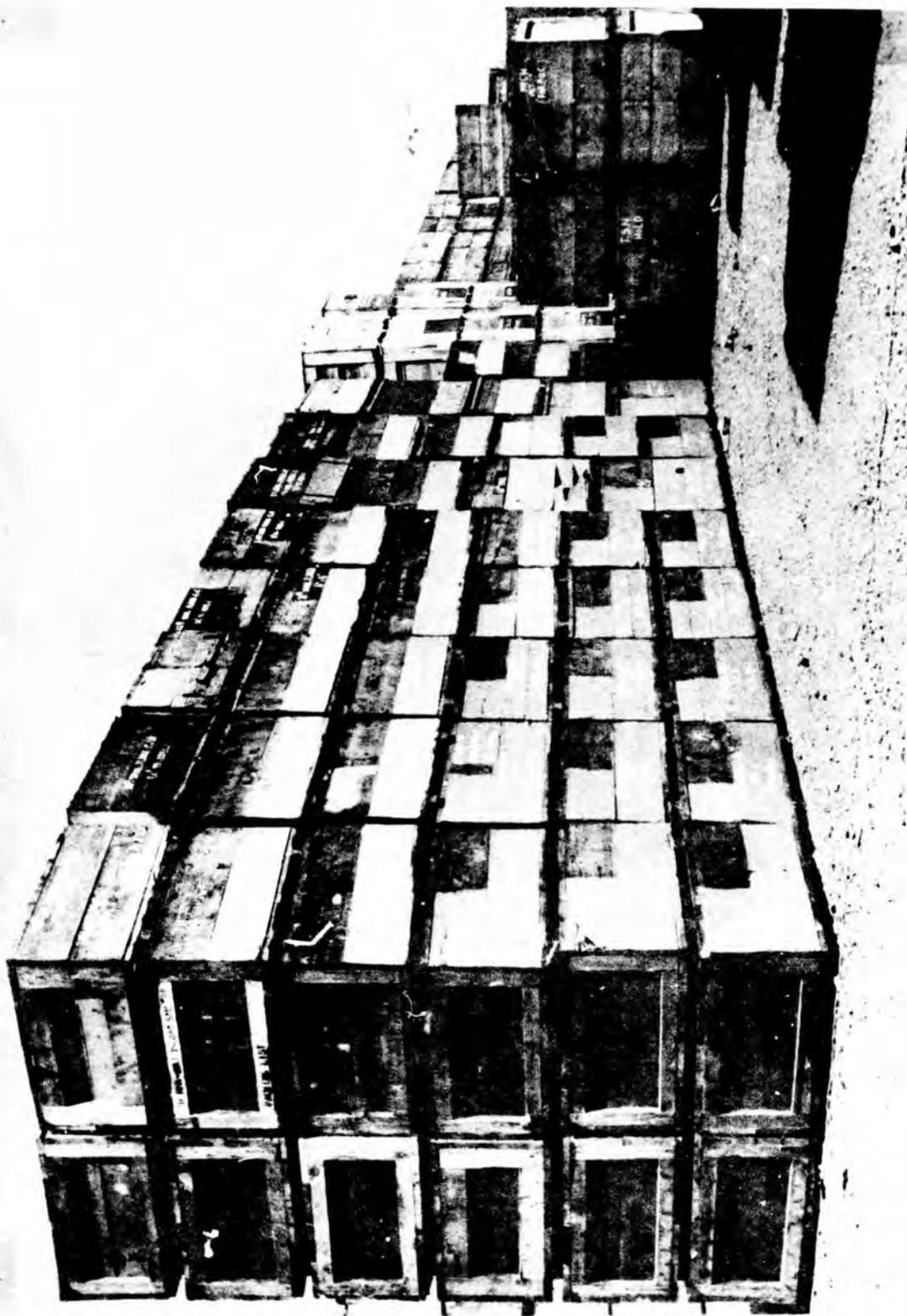


Contractor's Depot Facility
Cam Ranh Bay, Viet Nam

These photographs show broken cases of pipe and damaged bags of cement which were in storage at the Cam Ranh Bay Depot. These conditions are discussed briefly on page 38.

PHOTOGRAPHS TAKEN BY THE CONTRACTOR, RMK-BRJ,
OF ITS DEPOTS IN DECEMBER 1966

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Crate Storage, Thu Duc Island, Saigon, December, 1966



Open Plywood Storage, Thu Duc Island, Saigon, December, 1966

PHOTOGRAPHS TAKEN BY THE CONTRACTOR, RMK-BRJ,
OF ITS DEPOTS IN DECEMBER, 1966

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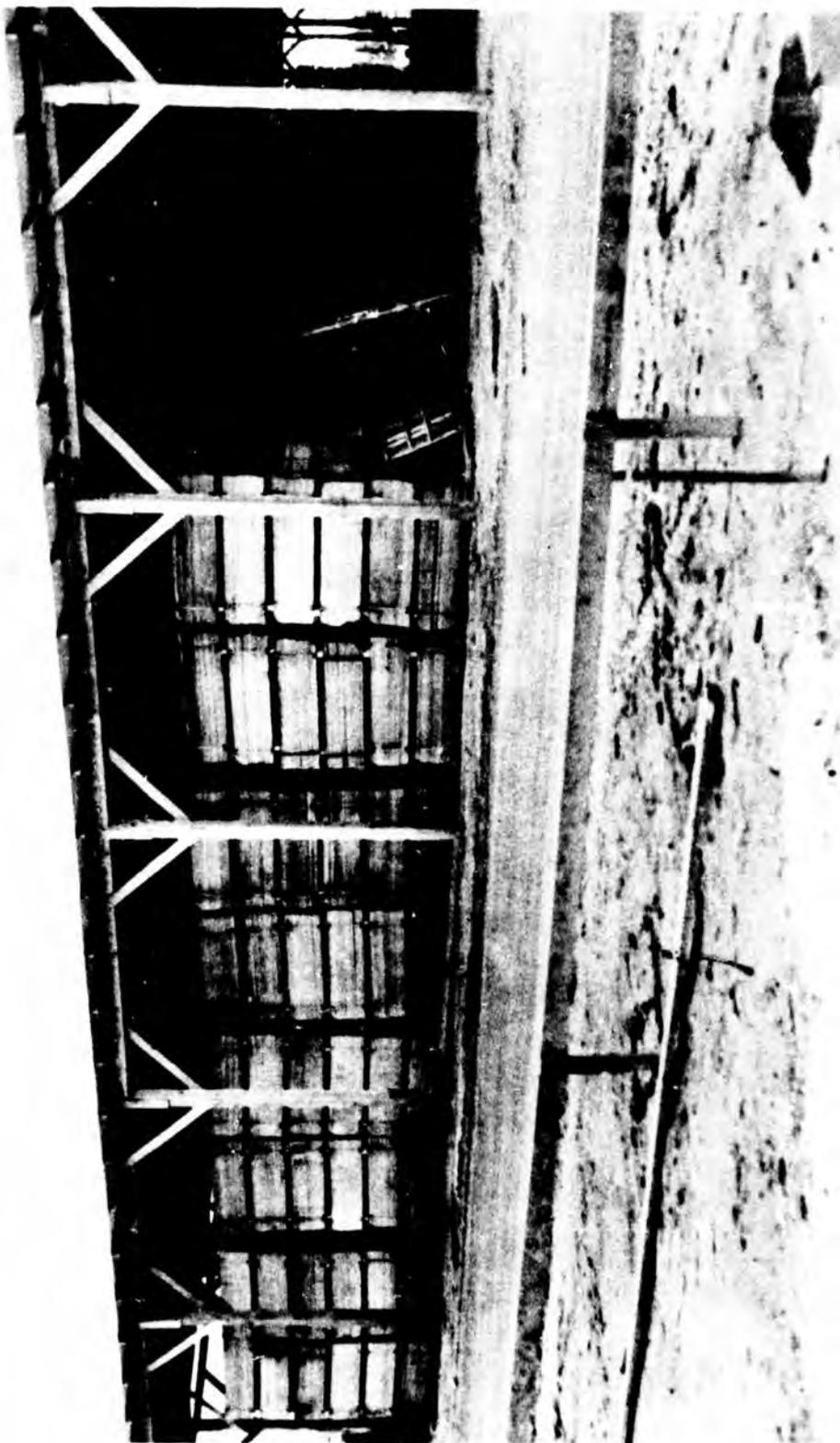


Open Lumber Storage Area, DaNang East Depot, December, 1966

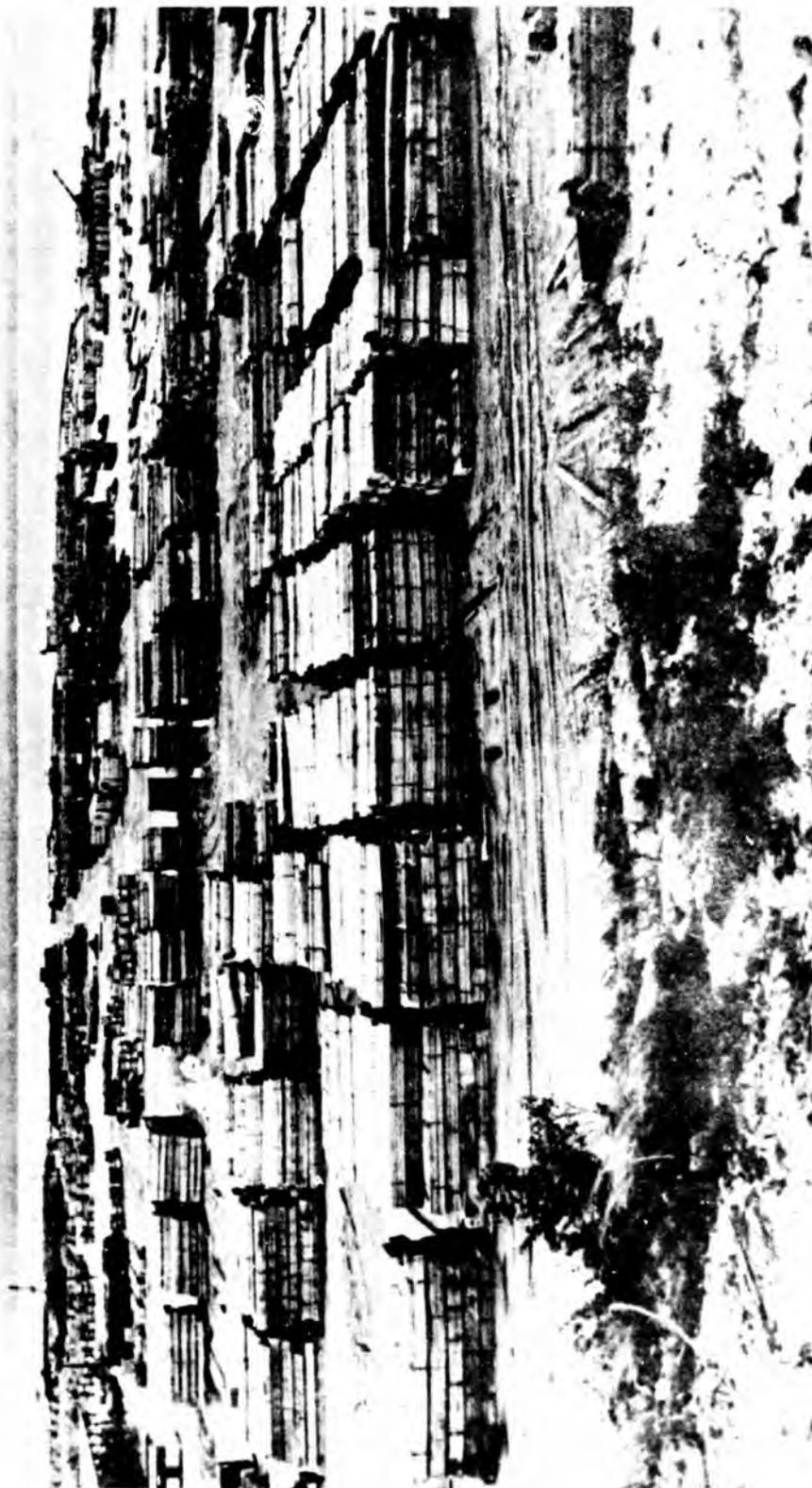
PHOTOGRAPHS TAKEN BY THE CONTRACTOR, RMK-BRJ,
OF ITS DEPOTS IN DECEMBER, 1966



Lumber Storage--DaNang East Depot, December, 1966



COVERED PLYWOOD STORAGE, CAM RANH BAY DEPOT, DECEMBER, 1966



LUMBER STORAGE--CAM RANH BAY DEPOT, DECEMBER, 1966

