

GAO

Report to Chairman, Subcommittee on
Readiness, Committee on Armed Services,
House of Representatives

March 1989

MILITARY READINESS

Status of the Marine Corps Prepositioning Program in Norway



National Security and
International Affairs Division

B-206172

March 17, 1989

The Honorable Earl Hutto
Chairman, Subcommittee on Readiness
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

This report discusses the status of the Marine Corps prepositioning program in Norway, including the status of any unresolved issues. The Marine Corps is prepositioning selected equipment and 30 days of supplies and ammunition in Norway to support its mission—to help defend the northern flank of the North Atlantic Treaty Organization (NATO). The program, scheduled for initial operational capability in December 1989, is expected to cost the United States about \$415 million through fiscal year 1992.

Results in Brief

The Marine Corps should be able to complete those program activities and issues now undergoing internal planning and evaluation and meet its scheduled operational capability date of December 1989—the date the Marine Corps will complete operational planning. This is also the date the mission will be included in the war plans. However, the Marine Corps expects a shortfall in prepositioned ammunition that is in short supply. This shortfall will not preclude the Marine Corps from meeting its initial operational capability date because it can draw from resources allocated to other commitments should the Marines need to deploy to Norway.

Background

Representatives of the governments of the United States and Norway signed a memorandum of understanding in January 1981 and a storage agreement in October 1982 to preposition supplies and selected ground combat and aviation support equipment in the central coastal area of Norway to minimize the time necessary to form for combat. These agreements were in support of the rapid deployment concept for a cold weather air/ground task force of about 13,200 Marines and 155 aircraft.

The basic operational concept for the mission calls for the Marines to fly from U.S. bases to central Norway with their personal and other equipment not prepositioned (e.g., sophisticated electronic and communication equipment) prior to hostilities. Upon arrival, they will be issued

prepositioned equipment and 3 days' worth of supplies and ammunition and redeploy to the first key deployment area¹ in north Norway. Before the Marines arrive, the Norwegians will move 7 days' worth of supplies to the deployment area. They also will provide the means for redeploying the Marines from central Norway to that area and will move the remaining 20 days' worth of supplies there. The Norwegians will fulfill their responsibilities using a wartime host nation support battalion consisting of personnel, vehicles, and other assets.

Headquarters, U.S. Marine Corps, is the prepositioning program manager for the United States, while the Land Command, Troendelag, in central Norway, is the focal point for the Norwegian government. (App. I discusses the various U.S. and Norwegian military commands and their program responsibilities.) Prepositioned materials are to be stored primarily in caves in granite mountains and include items that are mission essential, not available through host nation support, suited for extended storage, heavyweight, and high volume. (App. II identifies the materials being prepositioned in Norway.) Under the agreements, the Norwegian government is responsible for the security and maintenance of prepositioned materials and will maintain equipment at the same level as Marine Corps operational units. (App. III discusses the maintenance concepts for the prepositioned material.)

The Marine Corps estimates that this program will cost the United States \$415 million through fiscal year 1992—about \$370 million in direct costs paid by the Marine Corps and about \$45 million through the United States' share of the NATO infrastructure funding for storage facilities and airfield enhancements in Norway (see app. IV). However, the Corps is considering an enhancement that involves purchasing and prepositioning the remainder of the aviation ground support equipment requirements for the mission, except equipment requiring calibrations, rather than airlifting the equipment at time of deployment. The Marine Corps estimated that this proposal, which officials said would be submitted for funding approval during the fiscal year 1990 program cycle, would cost about \$28 million.

Program Status

On the basis of our review of program procedures and our observations of the staging and shipment of materials to Norway, the storage facilities under construction, and the condition of equipment in temporary

¹The key deployment area is that area designated for the Marine task force to help defend. The Marine Corps and the Norwegians have identified second and third priority key deployment areas.

storage, we believe that the Marine Corps should be operationally ready and should be able meet the December 1989 initial operational capability date. For example:

- The construction of storage facilities has been completed and, with the exception of some ammunition, shipments of supplies and equipment to Norway should be completed and placed in permanent storage by December 1989.
- The governments of Norway and the United States have issued maintenance concepts and procedures in a technical manual. This manual outlines specific internal control procedures, such as semiannual quality assurance inspections and periodic inventories, designed to ensure maintenance and control of the supplies and equipment.
- The operational planning for the primary and secondary key deployment areas is on schedule and should be completed in December 1988 and December 1989, respectively.²
- The Marine Corps successfully completed testing the automated information system and associated reporting mechanisms, and the system became fully operational in October 1988.
- The equipment in temporary storage appeared to be properly maintained and in good condition.

Issues Being Addressed

We did not identify any unresolved issues. However, Marine Corps officials told us that certain minor issues, which are still undergoing planning or internal evaluation, will be resolved by the initial operational capability date. Our review supports this position. For example, one issue involves identifying sufficient Norwegian airfield space in the operating areas. In September 1988, the Marine Corps and the Norwegian military made a site survey for helicopter airfields to begin resolving this concern. Another issue relates to the extension of the shelf-life of certain medical supplies and the disposal location for items that reach the end of their shelf-life while in storage. This issue is in the process of being resolved.

Because the Marine Corps is making satisfactory progress toward the initial operational capability date for the program, we are not making any recommendations for changes or improvements.

²Operational planning for the third key deployment area is scheduled for completion in December 1991. Marine Corps planners advised us that additional equipment for the second and third deployment areas, if needed, would be moved with the units at time of deployment rather than be prepositioned.

Agency Comments

The Department of Defense reviewed a draft of this report and concurred with it. (See app. V.)

Our review, conducted from December 1987 through October 1988, was performed in accordance with generally accepted government auditing standards. Our objectives, scope, and methodology are described in appendix I.

We are sending copies of this report to the chairmen of appropriate congressional committees, the Secretaries of Defense and the Navy, and other interested parties.

Staff members who made major contributions to this report are listed in appendix VI.

Sincerely yours,



John Landicho
Director, Navy Issues

Contents

Letter		1
Appendix I Objectives, Scope, and Methodology		8
Appendix II Equipment and Supplies Being Prepositioned in Norway	Types of Material Being Prepositioned Facilities Used for Storing Prepositioned Materials	10 10 13
Appendix III Concepts and Procedures for Ensuring Maintenance and Control of Equipment Prepositioned in Norway	Equipment Maintenance Inventory Control Procedures Internal Controls for Ensuring Adequate Equipment Maintenance and Accountability	17 17 20 20
Appendix IV Actual and Projected Costs for Materials Prepositioned in Norway		24
Appendix V Comments From the Department of Defense		25

<hr/>		
Appendix VI		26
Major Contributors to This Report	National Security and International Affairs Division Washington, D.C.	26
	Norfolk Regional Office	26
<hr/>		
Table	Table I.1: Organizational Responsibilities	9
<hr/>		
Figures	Figure II.1: Map of Norway Depicting the Central Coastal Area Where Materials Are Prepositioned	11
	Figure II.2: Entrance to Frigaard Equipment Cave Under Construction	14
	Figure II.3: Maintenance Shop and Wash Rack Outside Bjugn Equipment Cave	15
	Figure II.4: Delivery of Ammunition at Entrance to Hammerkammen Ammunition Cave	15
	Figure II.5: Ammunition Stored Inside Sealed Chamber of Hammerkammen Cave	16
	Figure III.1: Quality Assurance Inspections of Refrigerators at Rinnleiret, Norway	21
	Figure III.2: Quality Assurance Inspections of 155-Mm Towed Howitzers in Temporary Storage at Rinnleiret, Norway	22
	Figure III.3: Construction Equipment in Temporary Storage at Nypan, Norway	22
	Figure III.4: Trucks and Trailers in Temporary Storage at Nypan, Norway	23

Abbreviations

NATO North Atlantic Treaty Organization

Objectives, Scope, and Methodology

Our objectives were to evaluate (1) the overall status of the Marine Corps prepositioning program in relation to the planned initial operational capability date and (2) the status of any unresolved issues and those program activities still undergoing internal planning and evaluation. To accomplish these objectives, we obtained briefings; held discussions with Marine Corps personnel; and reviewed technical manuals, correspondence, and other documentation at Headquarters, U.S. Marine Corps, and at Marine Corps, Navy, and European commands. Also, we observed the condition of the equipment in temporary storage in Norway and visited the storage caves. Specifically, we obtained information on

- the scenario for accomplishing the mission to assist in the defense of Norway and the status of efforts in planning and implementing the mission,
- the roles and responsibilities of commands involved in the prepositioning of supplies and equipment in Norway and the status of the Corps in meeting the initial operational capability date,
- the types of supplies and equipment being prepositioned and the storage locations, and
- the costs of the program.

With the exception of the U.S. Air Force 7240th Air Base Squadron, we visited all of the organizations shown in table I.1.

**Appendix I
Objectives, Scope, and Methodology**

Table I.1: Organizational Responsibilities

Organization	Responsibilities
United States:	
Headquarters, U.S. Marine Corps	Program policy and management and management of ground ammunition
Headquarters, Fleet Marine Force, Atlantic	Planning procedures and requirements identification
4th Marine Expeditionary Brigade	Operational planning for the air-land mission
Marine Corps Logistics Base, Albany, Georgia	Logistics, maintenance, and accountability
2nd Marine Aircraft Wing	Management of aviation ground support equipment
Commander in Chief, Atlantic Fleet	Management of air ammunition
Headquarters, Fleet Marine Force, Europe	In-theatre agent for Fleet Marine Force, Atlantic
U.S. European Command	Executive agent for Joint Chiefs of Staff
Commander in Chief, U.S. Naval Forces, Europe	Service component of U.S. European Command
U.S. Air Force, 7240th Air Base Squadron	Disbursement of payments to the government of Norway
Norway:	
Norwegian Army Material Command	Maintenance of Marine Corps ground combat equipment
Norwegian Air Material Command	Maintenance of Marine Corps aviation support equipment
Norwegian Land Command, Troendelag	Representative for the government of Norway

Although the Marine Corps has developed internal control procedures for the maintenance and accountability of the prepositioned material, we did not test these procedures since the program was not operational.

Equipment and Supplies Being Prepositioned in Norway

The U.S. Marine Corps is prepositioning selected equipment and 30 days of supplies and ammunition in Norway to support a Marine air/ground task force of about 13,200 Marines. Items that are mission essential, heavyweight, high volume, suited for extended storage, and not available through host nation support have been designated by Headquarters, U.S. Marine Corps, for prepositioning. These supplies and ammunition are grouped into sets designated to support the task force for 3, 7, and 20 days. The equipment and supplies are to be permanently stored underground in the granite mountains of central Norway near the Norwegian air stations at Oerland and Vaernes where the aviation ground support equipment is stored. (See fig. II.1.)

Types of Material Being Prepositioned

The Marine task force was structured as a mobile, rapid-response, and defensive force, and the type and quantity of prepositioned equipment were determined by these criteria. The prepositioned supplies and ammunition are intended to support the task force in Norway for 30 days, and each item is assigned to the 3, 7, or 20 day category. The equipment includes both ground combat and aviation ground support equipment. There will be a shortage of cranes and forklifts on the initial operational capability date because scheduled contractor deliveries are beyond that date; however, the Norwegian government has agreed to provide these items until they are prepositioned by the Marine Corps—now scheduled for 1990-91.

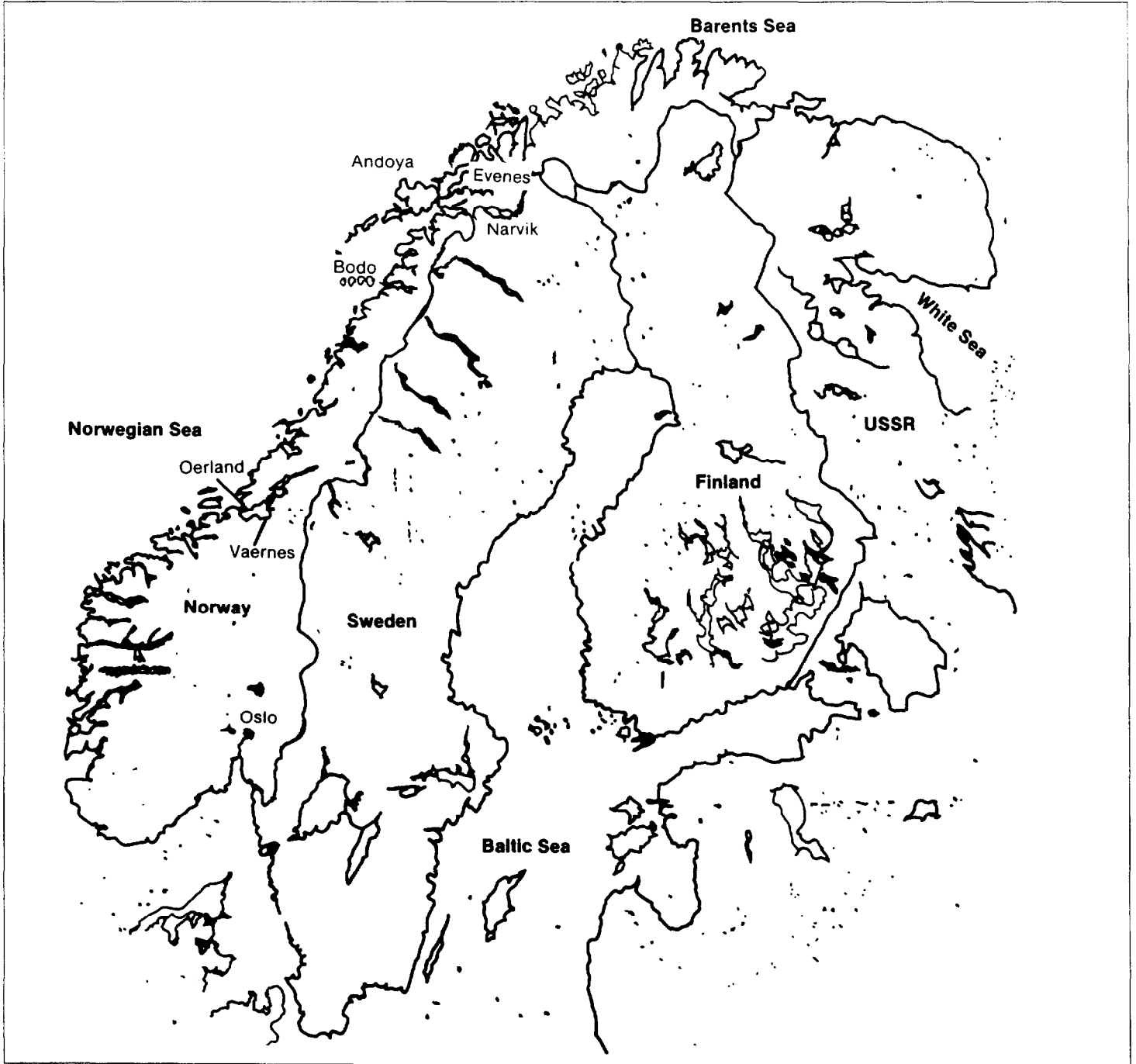
Ground Combat Equipment and Supplies

Materials, such as rolling stock, weapons, packaged petroleum, oils and lubricants, medical supplies and equipment, and rations, are being prepositioned to support the ground combat element of the task force. The major rolling stock items being prepositioned are the high mobility, multipurpose wheeled vehicle; the logistics vehicle system, 5-ton trucks; wreckers; and several types of other trucks and trailers. The only prepositioned weapon is the 155-mm towed howitzer. Other types of prepositioned materials include cold-weather and toxicological gear, construction equipment, tool kits, telephone systems, generators, first-aid kits, tents, and tent heaters.

The Marine Corps will be prepositioning 731 types of ground combat equipment and supplies, totaling about 293,000 items. According to Marine Corps officials, as of August 1988, about 60 percent of the authorized major items of equipment (i.e., rolling stock) had been shipped to Norway. Other items, such as medical shelf-life supplies and

Appendix II
Equipment and Supplies Being Prepositioned
in Norway

Figure II.1: Map of Norway Depicting the Central Coastal Area Where Materials Are Prepositioned



rations, will be shipped at a time nearer the December 1989 initial operational capability date; the final shipment is scheduled for October 1989.

The Marine Corps is prepositioning medical equipment and supplies in all equipment storage sites. These comprise the organic assets for the Marine Brigade, consisting of two medical companies and a surgical support platoon with a 140-bed capability. That capability will go with the Marines at time of redeployment to the key deployment area. Also, the U.S. Navy is prepositioning a 500-bed naval hospital in one of the Marine Corps storage sites to be set up upon removal of all Marine Corps equipment and supplies. This hospital will be a U.S. European Command asset and may be used to support the Marines in Norway.

Aviation Ground Support Equipment

Aviation ground support equipment is being prepositioned to support the task force's aviation combat element. This equipment, which includes maintenance cranes, aircraft tow trucks, weapons loaders, ordnance handling equipment, and maintenance stands, totals 40 types of equipment, or 1,063 separate items. Over 94 percent of the equipment is already in storage at two air stations—Vaernes Air Station and Oerland Air Station—to support reception operations.

The current equipment authorization described above represents 47 percent of that required to support the air element at time of deployment. The 2nd Marine Aircraft Wing has proposed that the remaining 53 percent of the requirement also be prepositioned rather than be airlifted to Norway at the time of deployment. This proposal, if approved, would cost an additional \$28 million. Marine Corps Headquarters expects to submit the proposal in the program cycle for fiscal year 1990.

Ammunition

Both ground and air ammunition are being prepositioned for the support of the task force. The ground ammunition, which includes launchers, grenades, and ammunition for the howitzers, will total about 7,284 tons, and the Marine Corps expects about 80 percent of the ground requirement to be prepositioned by the initial operational capability date. Prepositioned air ammunition will include about 3,276 tons and will include such items as cluster bombs, rockets, and missiles. About 42 percent of the air ammunition requirement is expected to be prepositioned by the initial operational capability date.

The shortfalls in ammunition are due to certain items being in short supply because of worldwide shortages. (The Navy is responsible for management and allocation of air ammunition.) However, the shortfalls will not affect the Marine Corps' ability to meet the initial operational capability date because the Marines can be operationally ready without having all of the ammunition in storage. For example, the Marine Corps can draw from resources allocated to other commitments should the Marines need to deploy to Norway.

Facilities Used for Storing Prepositioned Materials

Norwegian planners developed the concept of using caves in Norway's granite mountains for storing Marine Corps materials to provide for the security, preservation, and maintenance of the equipment and nonshelf-life sensitive supplies indefinitely. In addition to the caves for storing ground combat equipment and ammunition, two storage locations for the aviation ground support equipment have been designated at the Vaernes and Oerland Air Stations. North Atlantic Treaty Organization (NATO) infrastructure funding paid for these facilities where construction was required.

Storage Caves

Six granite caves have been tunneled in the mountains around Norway's central coastline to store the ground combat equipment, supplies, and ammunition. Three caves are for the storage of ground equipment and supplies and three are for ammunition. Construction of the last cave was completed in August 1988, and the transfer of materials from temporary to permanent storage was completed in November 1988.

The Norwegians decided to use caves to store prepositioned materials for several reasons—the primary reason being security. The caves are fitted with blast-proof doors and provide an additional amount of security over other types of storage facilities. They also provide a temperature and humidity controlled environment and do not take up any arable land.

Cave construction began with the blasting of tunnels and chambers. The inner chambers and tunnels were then sealed, and temperature and humidity control systems were installed. The design of the caves differs, depending on the type of material stored. The equipment caves have a network of connecting tunnels that provides maximum access to all parts of the caves, while ammunition caves have expansion chambers for safety purposes and have an individual chamber for each entrance. Also, equipment caves have external facilities that the Norwegians use

to maintain the equipment. (Figs. II.2 through 5 show the types and status of construction observed during our visit to Norway in June 1988.)

Figure II.2: Entrance to Frigaard
Equipment Cave Under Construction



Figure II.3: Maintenance Shop and Wash
Rack Outside Bjugn Equipment Cave

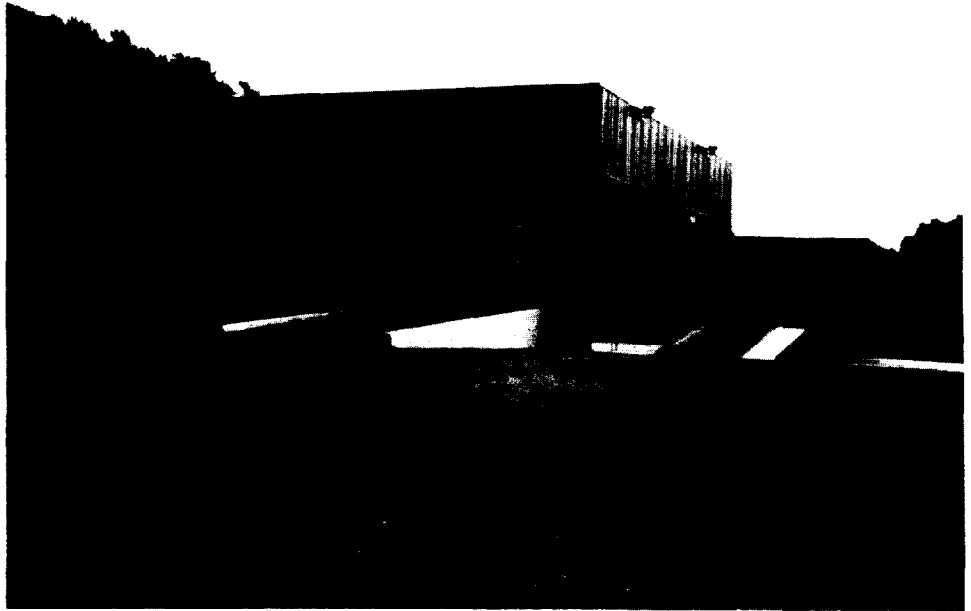


Figure II.4: Delivery of Ammunition at
Entrance to Hammerkammen
Ammunition Cave

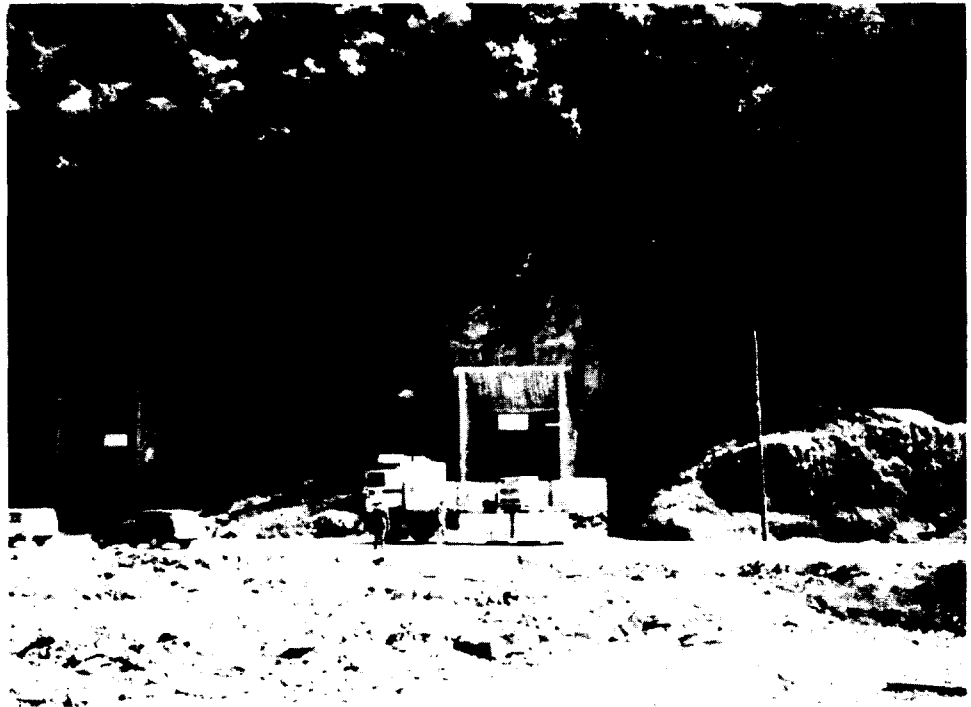


Figure II.5: Ammunition Stored Inside Sealed Chamber of Hammerkammen Cave



Aviation Ground Support Equipment Sites

A facility was constructed at the Oerland Air Station, using NATO infrastructure funding, to provide storage and a maintenance workshop for aviation ground support equipment. Equipment of this type is stored in the basement of a hangar at Vaernes Air Station. In addition, a new facility for storing the equipment and for use as a joint workshop for Marine Corps, U.S. Navy, and U.S. Air Force has been proposed for Vaernes using NATO infrastructure funding. The U.S. Navy and Air Force also have aviation ground support equipment stored at Vaernes as part of their missions in Norway.

Concepts and Procedures for Ensuring Maintenance and Control of Equipment Prepositioned in Norway

The memorandum of understanding governing the prepositioning of equipment and the reinforcement of Norway, signed by representatives of the governments of the United States and Norway in January 1981, assigns Norway responsibility for maintaining and ensuring accountability of the prepositioned equipment, ammunition, and supplies. The two governments' representatives have developed a technical manual that describes how Norway is to implement these responsibilities and how the Marine Corps is to ensure adequate maintenance and accountability for prepositioned materials.

According to the agreements and procedures, Norway will provide continual maintenance of prepositioned materials by using local labor. The Marine Corps is responsible for familiarizing and training Norwegian personnel on maintenance requirements and procedures for the prepositioned materials. In addition, the Marine Corps will provide the repair parts, as well as special tools and test equipment, to maintain the materials.

Upon receipt of the materials to be prepositioned, Norway assumes custodial responsibilities. Overall accountability for the materials rests with various U.S. military commands. U.S. and Norwegian personnel periodically inventory these materials and submit reports to the cognizant U.S. military commands at least annually.

The Marine Corps has established internal control procedures to ensure that equipment and supplies are adequately accounted for and maintained. These procedures require that the condition of equipment be established when transferred to Norwegian custody and to and from exercising Marine Corps units, that semiannual quality assurance inspections be conducted to evaluate the adequacy of maintenance and the overall condition of the equipment, and that equipment status and readiness be reported.

Equipment Maintenance

The Norwegian military is using military and civilian personnel at each equipment storage site to do the same maintenance as that performed by Marine Corps personnel in the United States. It can use, on a limited basis, its regional military depot workshop facilities and civilian contractors for higher levels of maintenance. Norway coordinates with the Marine Corps Logistics Base, Albany, Georgia, for ground combat equipment and with the 2nd Marine Aircraft Wing for aviation support equipment to replace unserviceable assets or to obtain maintenance that cannot be effectively accomplished by Norwegians.

Maintenance Concepts and Procedures

The technical manual describes the extent that maintenance, modifications, and calibrations are to be performed, designates the responsible Marine Corps and Norwegian personnel to do the work, and establishes the levels of readiness required for prepositioned equipment. Norway is to provide the level of maintenance needed to ensure that at least 90 percent of the onhand ground combat equipment will be operationally ready. To meet this standard, Norwegians perform preventive and corrective maintenance, modifications, and calibrations. For aviation ground support equipment, Norway is to provide the level of maintenance to ensure that all ready-for-issue equipment is available in a fully operational condition within 24 hours' notice from the Commanding General, Fleet Marine Force, Atlantic. Norwegian government personnel also maintain the equipment and make the necessary modifications and calibrations. When Norwegians are not able to do this, the 2nd Marine Aircraft Wing will assume responsibility.

For prepositioned ammunition, Norway is to provide minor maintenance, such as replacement of pallets, remarking or rebanding ammunition, and changes to condition codes. The Marine Corps Mobile Ammunition Evaluation and Reconditioning Unit will perform onsite evaluations, at least triennially, and limited maintenance and renovation of this ammunition. If maintenance cannot be deferred to the next scheduled visit, the Marine Corps will have, after requesting a cost estimate, Norwegians perform the work if it is within their capability. When such capability is insufficient, the work will be deferred until the next Unit visit or the ammunition will be rotated.

Frequency of maintenance varies for prepositioned equipment. For example, some of the aviation ground support equipment has a 4-week maintenance interval while others have 26-week intervals. The Marine Corps and the government of Norway established a 3-year interval for maintaining ground combat equipment and vehicles. Maintenance can be performed more frequently if the need is indicated during the annual inspection of selected equipment. However, Norway has asked that a maintenance interval longer than 3 years be established for the equipment because it is stored in a controlled environment. According to Marine Corps personnel, the Marine Corps Logistics Base plans to monitor the equipment and maintenance records to determine the feasibility of implementing a longer maintenance interval.

The use of prepositioned equipment during training exercises may create additional maintenance requirements. After each exercise, Marine Corps and Norwegian government personnel will inspect the equipment

to identify any deficiencies. Norwegian personnel will make repairs on a reimbursable basis if the Marine Corps unit cannot complete repairs before departing Norway. If the equipment is not operationally ready, maintenance personnel are to complete repairs no later than 90 days after receipt of parts. They can wait for the next scheduled maintenance cycle when repairs do not affect the equipment's operational readiness. However, the delay cannot exceed 12 months from the date of the exercise.

Repair Parts Inventory

The Marine Corps provides repair parts, equipment, and maintenance tools, referred to as a care-in-stores package, to maintain prepositioned equipment. Norway maintains custody of these items separately from the prepositioned equipment and supplies and will release these assets to the Marine Corps units deployed to Norway.

Use of Norwegian Personnel

Norway plans to hire 41 personnel—32 for ground combat equipment sites and 9 for aviation ground support equipment sites—to maintain prepositioned materials. At the time of our review, the Norwegians had already hired 32 maintenance personnel and planned to hire the remainder before the initial operational capability date.

The Marine Corps familiarizes Norwegian personnel with unique maintenance requirements for prepositioned equipment and provides certain training in the United States. Equipment familiarization has been conducted during Marine Corps visits to Norway and the Norwegians' visits to various military units in the United States. As of October 11, 1988, 18 Norwegian maintenance personnel had received formal training in the United States.

Meeting Maintenance Requirements Beyond Onsite Maintenance Personnel Abilities

Norway can use its military depot workshop facilities and civilian contractors to perform maintenance beyond the abilities of personnel assigned to the storage sites. When using these services, the United States will be charged the same rate for the same services as the Norwegian military. According to the repositioning program manager at the Marine Corps Logistics Base, this practice is used when round-trip transportation to the United States and associated repair costs exceed Norway's site depot or contractor-maintenance costs. Otherwise, the Marine Corps may have the equipment returned to the United States for maintenance or replacement.

Inventory Control Procedures

The Marine Corps has established inventory control procedures for the various types of supplies and equipment prepositioned in Norway. Norway's Land Command, Troendelag, performs annual inventories of ground combat equipment and consumable supplies, special tools and equipment, and repair parts. It reports the results to the Marine Corps Logistics Base at Albany.

Norwegian air station personnel perform annual inventories of consumable items among the aviation ground support equipment repair parts and quarterly inventories of reparable items and report the results to the 2nd Marine Aircraft Wing. Fleet Marine Force, Atlantic, assigns a Marine Corps team to conduct annual inventories of end items of aviation ground support equipment. The Fleet Marine Force makes annual inventories of ammunition or can request the Land Command to perform this function on a cost reimbursable basis.

Internal Controls for Ensuring Adequate Equipment Maintenance and Accountability

The Marine Corps has established internal controls to ensure that adequate maintenance and accountability procedures are followed. These include procedures for the transfer of custody of prepositioned materials, semiannual quality assurance inspections, and equipment status and readiness reporting. We did not test the internal control procedures because the program was not operational. However, conceptually they provide the basis for adequate maintenance and accountability of the prepositioned materials.

Procedures for Transfer of Custody of Prepositioned Materials

Material readiness tests, designed to combine the inspection of materials and the transfer of custody of such equipment, are conducted jointly by Marine Corps and Norwegian representatives. These tests are conducted when the materials arrive in Norway and when the materials are issued and returned from Marine Corps units undergoing training exercises.

We observed the tests being conducted on the high mobility, multipurpose wheeled vehicles that were delivered in June 1988 and found them to be comprehensive. The tests included a physical observation of the condition of the vehicle's exterior and checks of all vehicle operating systems, fluid levels, and lights. These tests provide an adequate basis for establishing the condition of the equipment at the time of transferring custody to the Norwegian government.

Semiannual Quality Assurance Inspections

Two Marine Corps commands are responsible for conducting semiannual quality assurance inspections of the prepositioned materials: the Albany Marine Corps Logistics Base for ground combat equipment and the 2nd Marine Aircraft Wing for aviation ground support equipment. The Logistics Base appoints a team to inspect equipment, materials, and records at least every 6 months. The 2nd Marine Aircraft Wing inspection team also conducts an inventory of the aviation support equipment repair parts.

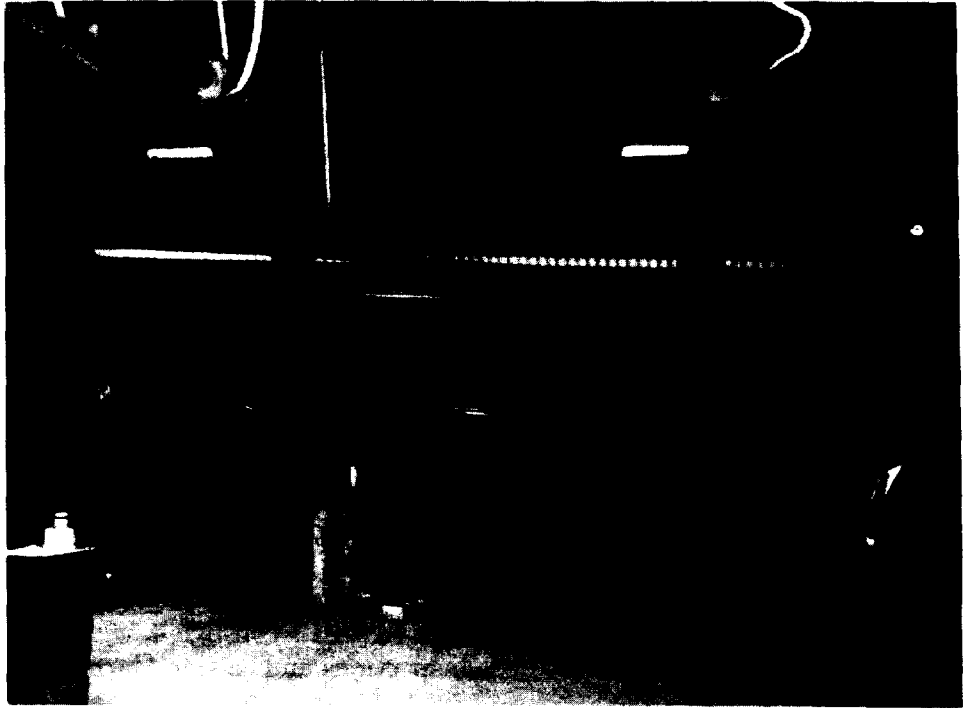
We reviewed the quality assurance inspection reports that the 2nd Force Service Support Group had prepared. This group had responsibility for this function until it was assumed by the Marine Corps Logistics Base in June 1988. The reports contained no major discrepancies related to the maintenance or overall condition of the equipment in storage. Also, we observed portions of the June 1988 quality assurance inspections, which were comprehensive and showed only minor equipment condition discrepancies. We also observed the condition of equipment in temporary storage in Norway and found no problems with maintenance or storage. (See figs. III.1 through 4, which show aspects of the quality assurance inspections and certain Marine Corps equipment in temporary storage.)

Figure III.1: Quality Assurance Inspections of Refrigerators at Rinnleiret, Norway



**Appendix III
Concepts and Procedures for Ensuring
Maintenance and Control of Equipment
Prepositioned in Norway**

**Figure III.2: Quality Assurance
Inspections of 155-Mm Towed Howitzers
in Temporary Storage at Rinnleiret,
Norway**



**Figure III.3: Construction Equipment in
Temporary Storage at Nypan, Norway**

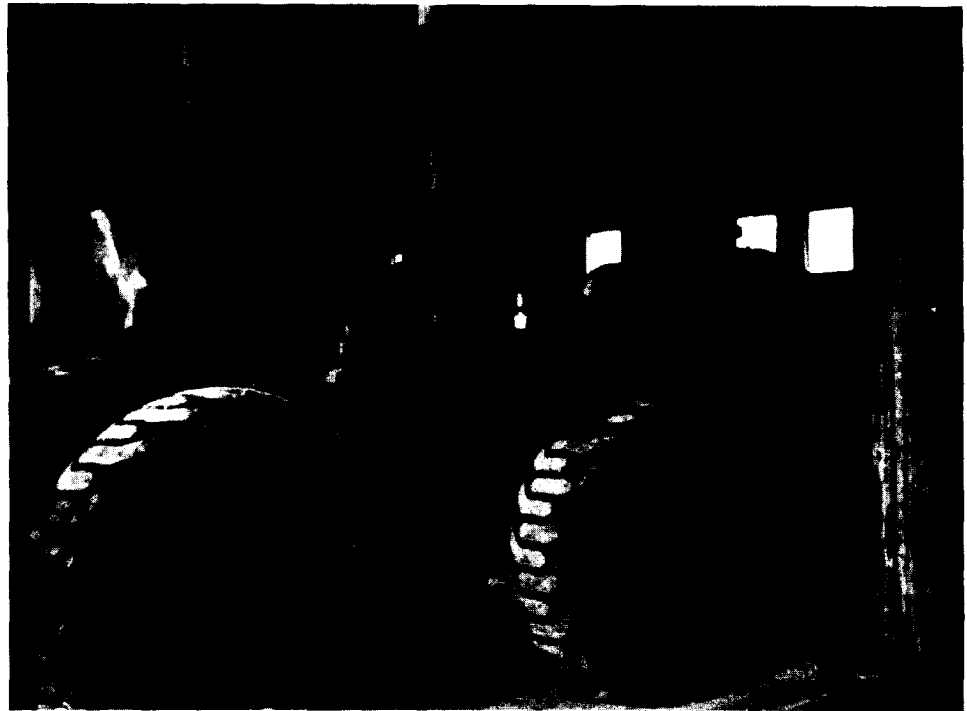


Figure III.4: Trucks and Trailers in
Temporary Storage at Nypan, Norway



Equipment Status and Readiness Reporting

The Logistics Base and the Norwegian military have developed an automated information system to provide the status of prepositioned equipment. According to Logistics Base personnel, they will be able to access data on equipment status in various formats and to monitor equipment status daily with this system. This system became fully operational in October 1988, thereby allowing more than a year for making any refinements and adjustments before the December 1989 initial operational capability date.

After that date, the Logistics Base will assume responsibility for readiness reporting on the prepositioning program. The only readiness aspects of this program to be reported are equipment on hand and equipment readiness for combat essential equipment. The automated information system will provide the data needed to compile these reports.

Actual and Projected Costs for Materials Prepositioned in Norway

Dollars in millions

(Through Fiscal Year 1992)

Type of costs	Amount
Procurement (purchase of supplies and equipment)	\$127
Ammunition	125 ^a
Operations and maintenance (construction materials, equipment maintenance, repair parts, etc.)	104
Stock fund (rations)	6
Fuel	8
Total	\$370
U.S. share of NATO infrastructure funding	\$45
Total	\$415

^aThis projected cost assumes all ammunition will be purchased by fiscal year 1992.

Comments From the Department of Defense



INTERNATIONAL
SECURITY POLICY

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

01 FEB 1989

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and
International Affairs Division
U.S. General Accounting Office
Washington, DC 20854

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report "MILITARY READINESS: Status of the Marine Corps' Prepositioning Program in Norway," dated December 20, 1988 (OSD Case 7861/GAO Code 394237). The Department of Defense concurs with the report.

DoD wishes to point out, however, that the field hospital (p. 16 of the draft), which is organic to the Norway Airlanded Marine Expeditionary Brigade, should not be viewed as a duplication or excess of medical assets. The decision to place the 500-bed Navy hospital in Norway is part of the Navy's worldwide Fleet Hospital Prepositioning program and was made independently of the Marine Corps Prepositioning program. It is, therefore, recommended that the following paragraph appear at the appropriate place in the final report:

"The Marine Corps is prepositioning medical equipment and supplies in all storage sites. These comprise the organic assets for the Marine Brigade, consisting of two medical companies and a surgical support platoon with a 140-bed capability. At the time of redeployment, this capability will go with the Marines to the key deployment area. The U.S. Navy is prepositioning a 500-bed naval hospital in one of the Marine Corps storage sites to be set up upon removal of all Marine Corps equipment and supplies. The fleet hospital is a U.S. European Command asset and may be used to support the Marines in Norway."

DoD also separately provided some suggested technical changes to the draft. The opportunity to comment on a draft of the report is appreciated.

Sincerely yours,

Ronald F. Lehman II
Ronald F. Lehman II

Major Contributors to This Report

**National Security and
International Affairs
Division Washington,
D.C.**

Harold J. Johnson, Associate Director, (202) 275-6504
Charles A. Schuler, Assistant Director

**Norfolk Regional
Office**

Edward W. States, Regional Management Representative
J. Larry Peacock, Evaluator-in-Charge
Robert L. Self, Site Senior
Kellie O. Schachle, Evaluator

Requests for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877**

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.