

**FM 10-602
HEADQUARTERS
DEPARTMENT OF THE ARMY**

**HEADQUARTERS
AND
HEADQUARTERS
UNITS,
PETROLEUM
AND
WATER DISTRIBUTION
ORGANIZATION**

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Field Manual
No. 10-602

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 12 September 1996

Headquarters and Headquarters Units, Petroleum and Water Distribution Organization

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PREFACE

Purpose

This field manual provides general data and operational information for commanders and key personnel of the following units:

- Headquarters and Headquarters Company, Petroleum and Water Group — TOE 10602L0.
- Headquarters and Headquarters Company, Petroleum Pipeline and Terminal Operating Battalion — TOE 10416L0.
- Headquarters and Headquarters Company, Petroleum Supply Battalion — TOE 10426L0.
- Headquarters and Headquarters Company, Water Supply Battalion — TOE 10466L0.
- Headquarters Petroleum Liaison Team — TOE10560LM.

Scope

This field manual covers the headquarters and headquarters units of the petroleum and water organizations. It discusses their organization, employment, coordination with other units, field operations, and training.

User Information

Current references use some terms interchangeably. These terms include:

- Petroleum and Water Group — QM Group (Petroleum and Water)
- Pipeline and Terminal Battalion — QM Battalion (PO)
- Petroleum Supply Battalion — QM Battalion (PS)
- Petroleum Liaison Team — QM Petroleum Liaison Team
- Water Supply Battalion — QM Battalion (Water Supply)

The proponent of this publication is the US Army Combined Arms Support Command. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to —

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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

ENVIRONMENTAL RESPONSIBILITIES OF PETROLEUM AND WATER UNITS

The Army will be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of our mission.

General Gordon R. Sullivan

SCOPE OF ENVIRONMENTAL RESPONSIBILITY

We must take care of the environment (that is, practice environmental stewardship). The definition of stewardship is taking care of property while also caring about the rights of others. We must plan our operations without harming the environment. Good environmental stewardship lets leaders take care of soldiers and their families. It also saves resources vital to combat readiness.

The Army has the huge task of reducing the environmental impact on its installations and units throughout the United States and the world. Within CONUS, the Army owns 20 million acres of land (an area about half the size of Virginia). This shows the vastness of this task. Each area of our daily operation has some effect on the environment.

The Army is renewing its emphasis on taking care of the environment. Petroleum and water units by their nature have a huge impact on the environment. It is critical for the leaders and soldiers in these units to follow safe, legal environmental practices. By doing so, they protect their health and the health of those around them. They also prevent long term environmental damage that can lead to fines and other legal actions.

ENVIRONMENTAL STEWARDSHIP GOALS

The Army no longer just complies with laws, they want to be a leader in environmental protection. To do this, the Army has set goals for its leaders. These goals include —

- Make sure operations comply with standards. Do not receive a notice of violation or a fine for not following local, state, and federal environmental regulations.
- Clean up installations. Begin restoring all contaminated sites by 2000.
- Prevent future pollution. Reduce all hazardous waste and toxic releases.
- Integrate NEPA procedures into all operations.
- Protect natural and cultural resources.

ROLE OF ENVIRONMENTAL STEWARDSHIP IN LEADERSHIP

A leader who cares for the environment also cares for his people. He does this by reducing or eliminating undue health risks. He saves resources (soldiers or money) vital to his mission. He keeps training areas in excellent condition for training far into the future. He preserves cultural artifacts for study by future generations. Also, he teaches the basic moral duty of soldiers to protect and preserve the United States of America and its allies.

ENVIRONMENTAL RESPONSIBILITIES OF PERSONNEL

Personnel at all levels must protect our environment. This includes soldiers, NCOs, officers, and commanders.

Soldiers

These duties include —

- Follow installation environmental policies, unit SOPS, ARs, and environmental laws and regulations.
- Make sound decisions in everyday activities.
- Advise the chain of command on techniques to ensure environmental regulations are followed.
- Identify the environmental risks in individual and team tasks.
- Support the Army recycling program.
- Report HM and HW spills immediately.

NCOs

These responsibilities include —

- Always consider the environment in day-to-day decisions.
- Make sure soldiers know the Army's environmental ethic.
- Train soldiers to be good environmental stewards.
- Be committed to environmental protection.
- Identify environmental risk associated with tasks.
- Plan and conduct environmentally sustainable actions and training.
- Protect the environment during training and other activities.
- Analyze the influence of the environment on your mission.
- Integrate environmental considerations into unit activities.
- Train peers and soldiers to identify the environmental effects of plans, actions, and missions.
- Counsel soldiers on the importance of protecting the environment and the results of not complying with environmental laws.
- Incorporate environmental considerations in AARs.
- Support the Army recycling program.
- Report HM and HW spills immediately.

Officers

These duties include —

- Build an environmental ethic in soldiers.
- Train and counsel subordinate leaders on stewardship.

- Lead by example.
- Enforce compliance with laws and regulations.
- Always consider the environment in making day-to-day decisions.
- Make sure subordinates know the Army's environmental ethic.
- Train subordinates to be good environmental stewards.
- Commit subordinate leaders to protect the environment.
- Analyze the influence of the environment on the mission.
- Integrate environmental considerations into unit activities, to include identifying the environmental risks associated with unit tasks.

Unit Commander

The commander must build an environmental ethic in his soldiers. The commander sets the tone for environmental compliance. He is totally responsible for complying with all applicable environmental laws in the unit. Commanders train their subordinates on stewardship and counsel them on doing what is right. They must lead by example and enforce compliance with laws. Commanders should —

- Consider the environment in making daily decisions.
- Know about the NEPA, HM, HW, HAZCOM efforts, and spill contingencies.
- Commit subordinates to environmental protection.
- Make sure officers and NCOs know the environmental ethic and train them to be good environmental stewards.
- Counsel officers and NCOs on the importance of protecting the environment and the results of violating laws.
- Ensure officers and NCOs comply with requirements when reporting hazardous substance spills.
- Ensure environmental concerns are addressed throughout the training.
- Identify and assess the environmental consequences of proposed programs and activities.
- Plan and conduct training that complies with environmental laws—including marking areas as “off-limits” during training exercises.
- Discuss environmental concerns during briefings, meeting, and AARs.

- Establish and sustain unit environmental awareness training.
- Appoint an environmental compliance officer and a HW coordinator (the same person can serve both positions). These appointments ensure environmental compliance occurs at the unit level.
- Ensure the unit SOP covers environmental considerations, conservation, natural resources, and spill procedures.
- Support the Army pollution prevention/recycling program.
- Report HM and waste spills immediately.
- Conduct environmental self-assessment or internal environmental compliance assessments.
- Meet with key installation environmental POCs.

Appointed personnel

These personnel are appointed by the commander and should receive formal training. Their responsibilities include —

- Act as an advisor on environmental regulatory compliance during training, operations, and logistics functions.
- Serve as the commander's eyes and ears for environmental matters.
- Be the liaison between the unit and higher headquarters who are responsible for managing the environmental compliance programs and who can

provide information on training requirements certifications that unit personnel need.

THE UNIT-LEVEL ENVIRONMENTAL TRAINING PROGRAM

An effective training program allows personnel to carry out their responsibilities. TC 5-400 is the basic manual for environmental stewardship. Commanders ensure all personnel are trained on environmental issues. He appoints an environmental compliance officer/HW coordinator. This person works with other environmental personnel. He also makes sure environmental laws are followed. The commander meets with the battalion S3 and S4 officers and other environmental personnel. He finds what their requirements concerning environmental training and qualifications of unit personnel, ECAS inspections that may affect the unit, and common environmental problem areas and how to avoid them. The commander also makes sure the SOP details environmental issues and procedures the unit must follow. The training program should cover —

- HM management
- HW management
- HAZCOM
- Pollution prevention and HAZMIN
- Recycling program
- Spill prevention/response plan

CHAPTER 2

PETROLEUM AND WATER UNITS IN THE THEATER

MISSION

The Army has a worldwide petroleum and water supply mission. The Army is tasked by DOD Directive 4140.25M, JCS Publication 3 and AR 700-136 to support all US land-based forces, including the Air Force, Marine Corps and Naval forces ashore. It is responsible for forward movement of fuel and water through a combination of pipelines, hose lines, barges, rail cars, tank trucks, and aircraft. The Army operates and maintains most US military petroleum and water facilities. These facilities support US forces that are:

- Engaged in limited war.
- Committed in general war within a highly industrialized area.
- Deployed to undeveloped operational areas.
- Deployed to operations other than war as outlined in FM 100-5.

ORGANIZATION OF THE THEATER ARMY

Units within the theater army operate the bulk petroleum and water system in a theater of operations. Figure 2-1, page 2-3, shows the bulk petroleum support organization in a developed theater. Figure 2-2, page 2-4, shows the bulk petroleum support organization in an undeveloped theater. Figure 2-3, page 2-5 shows the bulk water support in a developed theater. Figure 2-4, page 2-6, shows the bulk water support in an undeveloped theater. FM 10-67, FM 10-52, and FM 10-52-1 discuss organizational details.

PETROLEUM SUPPLY SYSTEM

The theater petroleum supply system begins with the receipt of bulk and packaged petroleum products. Packaged products enter the theater at dry-cargo ports or from aircraft at air terminals. Bulk petroleum enters

the theater by several methods. Ocean-going tankers may off-load it at marine/tactical petroleum terminals. It is also received in air-landed operations by Air Force transport. LOTS operations use pipelines and hose lines to offload tankers at undeveloped ports into tactical petroleum terminals. GS and DS petroleum supply units then distribute the petroleum products throughout the theater. It is shipped as far forward as possible without changing modes. FM 10-67 details bulk petroleum distribution in developed and undeveloped theaters. Figure 2-5, page 2-7, shows the system for distributing bulk petroleum in the theater. Figure 2-6, page 2-8, shows the flow for bulk petroleum within a developed theater. Figure 2-7, page 2-9 shows the requirements flow for bulk petroleum in an undeveloped theater.

SUPPORT ORGANIZATIONS FOR PETROLEUM SUPPLY SYSTEMS

The following organizations may be assigned, attached, or placed in support of petroleum pipeline and terminal operating battalions, petroleum supply battalions or transportation medium muck battalions. Also, the headquarters and headquarters petroleum group may have additional teams assigned to it. These teams provide services unique to bulk petroleum distribution and petroleum quality management. See figures 2-1, page 2-3, and 2-2, page 2-4:

- Petroleum Pipeline and Terminal Operating Company (TOE 10-417LO). This company is normally attached to a petroleum pipeline and terminal operating battalion. FM 10-207 discusses this organization.
- Petroleum Supply Company (TOE 10-427LO). This company is normally attached to the headquarters and headquarters company of the Petroleum Supply Battalion. FM 10-227 discusses this organization.

SUPPORT ORGANIZATIONS FOR WATER SUPPLY SYSTEMS

- Transportation Medium Truck Company (Petroleum, Oils, and Lubricants (POL) (TOE 55727L000 and 55728L000). This company may be assigned to the petroleum supply battalion and/or the petroleum pipeline and terminal operating battalion.

- Petroleum Liaison Team (TOE 10560LM00). This team is normally assigned to the headquarters and headquarters company, petroleum group. See Chapter 7 for more information.

- Petroleum Host Nation Team (TOE 10560LS00). This team is normally assigned to the headquarters and headquarters company, petroleum group. See Chapter 7 for more information.

WATER SUPPLY SYSTEM

The theater water supply system begins with water production at a water source or the entry of packaged water into the theater. Water sources include deep water sources (ocean, sea or lake) or inground sources (wells, springs, or streams). Medical preventive medicine teams approve the use of all purified and packaged potable water in the water distribution system. In an arid environment, GS and DS water supply units distribute bulk water from the COMMZ to supported units. It is shipped as far forward as possible without changing modes. FM 10-52 gives more information on bulk water distribution. It discusses distribution procedures in a developed and an undeveloped theater. It also discusses supply systems planning, development, and operations. FM 10-52 discusses support by the host nation and bulk water transportation requirements. Figures 2-8, page 2-10, and 2-9, page 2-11, show the flow of requirements in a theater.

The following supporting organizations are assigned, attached, or placed in support of water supply battalions assigned to the quartermaster group (petroleum and water) as required. See figures 2-3, page 2-5, and 2-4, page 2-6.

- Water Supply Company (TOE 10468 L). The company is normally attached to a water supply battalion. FM 10-52 gives more information.

- Tactical Water Distribution (Hose Line) Team (TOE 10570LG). This team normally augments a water supply company. These teams lay, operate and retrieve TWDS. FM 10-52 gives more information.

- QM Water Purification Teams (TOE 10570LC). These teams operate in the Corps area and augment Corps-level DS purification units.

- Water Purification Detachments (TOE 10469L). The detachment normally augments a water supply company. These detachments operate the 3,000 GPH ROWPU. FM 10-52 gives more information.

- Water Purification Barge Team (TOE 10570LA). The team normally augments a water supply company or water supply battalion. It purifies seawater. It has two ROWPU'S mounted on a barge. Each can produce 150,000 GPD of potable water. FM 10-52 gives more information.

- Transportation Medium Truck Company (TOE 55727L200 & 55728L200). Truck companies are assigned to the water supply battalion and issued SMFT'S to perform the line-haul mission. The difference between the two TOE's is SMFT capacity, TOE 55727L carries the 4,750 gallon fabric tank while TOE 55728L carries the 3,000 gallon fabric tank. FM 10-52 gives more information.

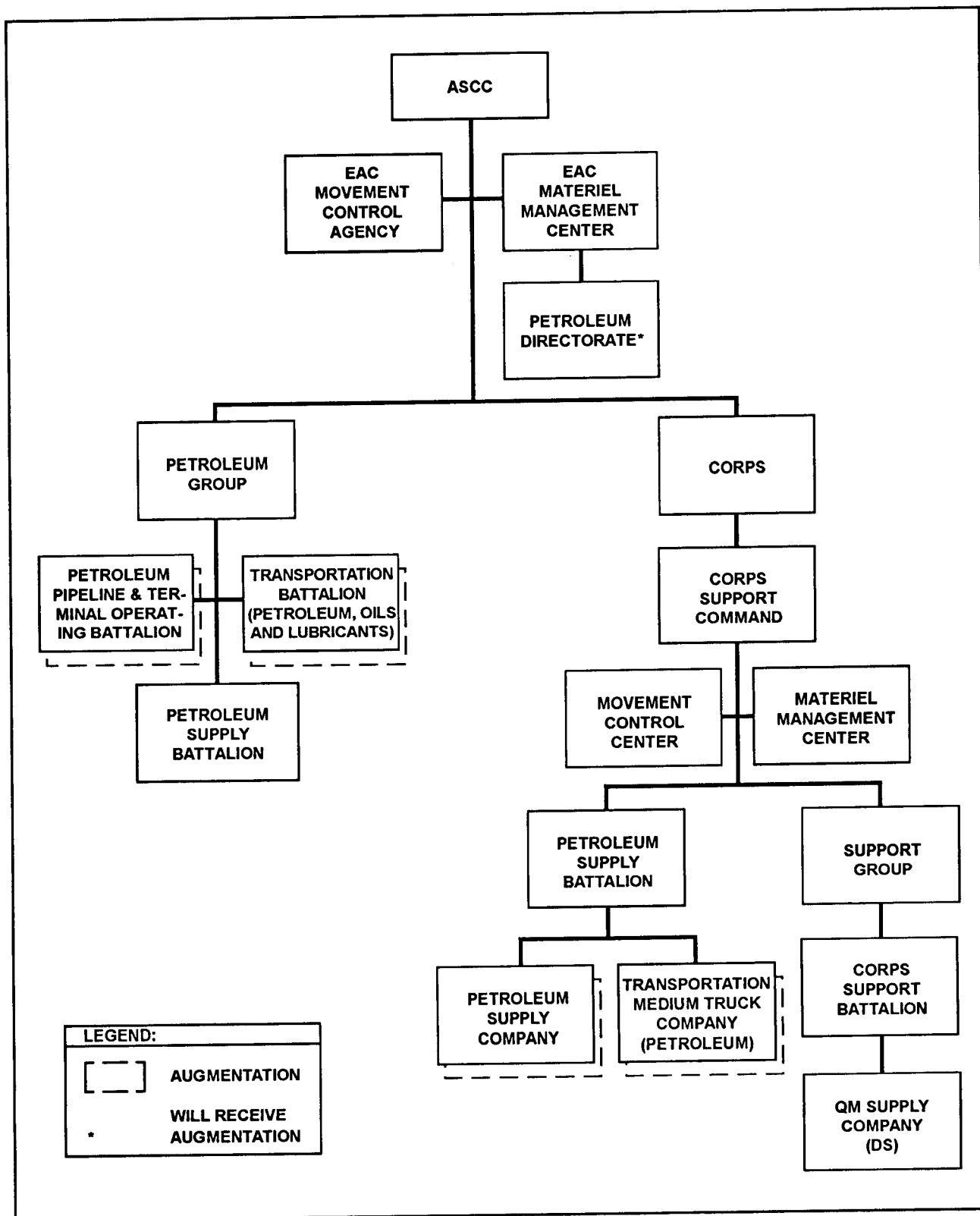


Figure 2-1. Bulk petroleum support organizations in a developed theater

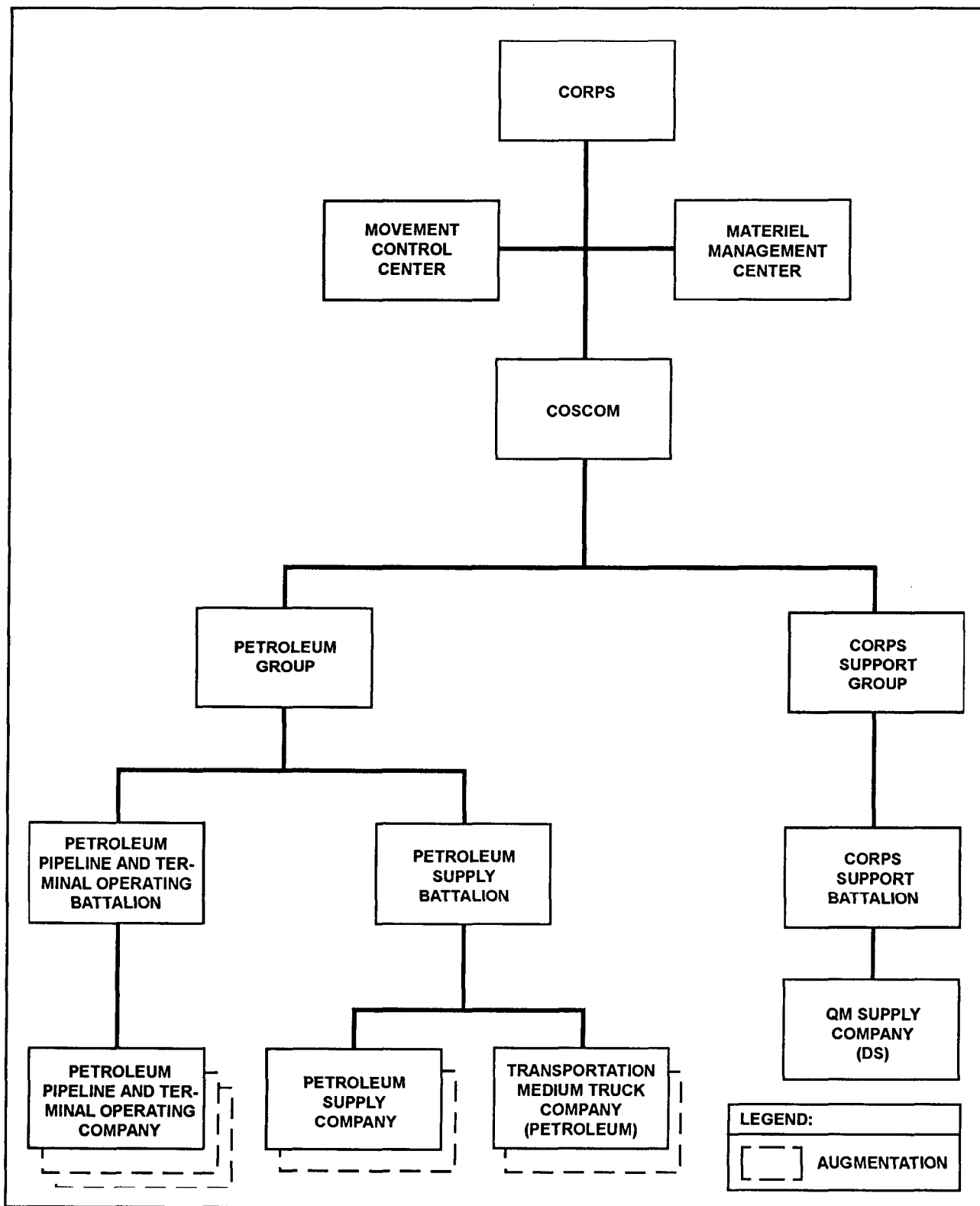


Figure 2-2. Bulk petroleum support in an undeveloped theater

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