

14. LOGISTICS SUPPORT GUIDELINES

Logistics support is an integral part of a successful response operation and will be directed by the Logistics Manager (see Figure 3-3). Depending on the size and extent of a spill, logistics support could range from simply notifying the Tier 1 Emergency Response Team (ERT) to securing the Tier 3 resources from worldwide locations. Key logistical “hubs” will be located at Douala, Cameroon and Komé, Chad, as appropriate. Overall logistical guidelines are provided in this GOSRP. Detailed logistical support and services will be developed and maintained as part of the ASOSRPs.

14.1. Field Operations Support

Logistics support for COTCO, TOTCO and EEPCL will consist largely of sourcing and providing food, shelter, and transportation for the oil spill ERT members and transportation for response equipment to the cleanup sites. Logistical support to Komé, PS-2 at Dompta, PS-3 at Bélabo, and to the PRS/FSO at Kribi is facilitated by existing local infrastructure. Logistics support outside of these areas, however, may be complicated by fewer support facilities, limited roads and accesses, as well as the need to mobilize and deploy response equipment to remote sites.

14.1.1. Staging Areas

Forward Staging Areas (FSA) will be set up as close to the operations site as practical. Their locations will be predetermined in the ASOSRPs. Boom trailers and support equipment will be pre-staged at these locations. In addition, logistical yards for operations (permanent yards) are shown in Figure 14-1.

Additional staging areas will be selected by the following criteria:

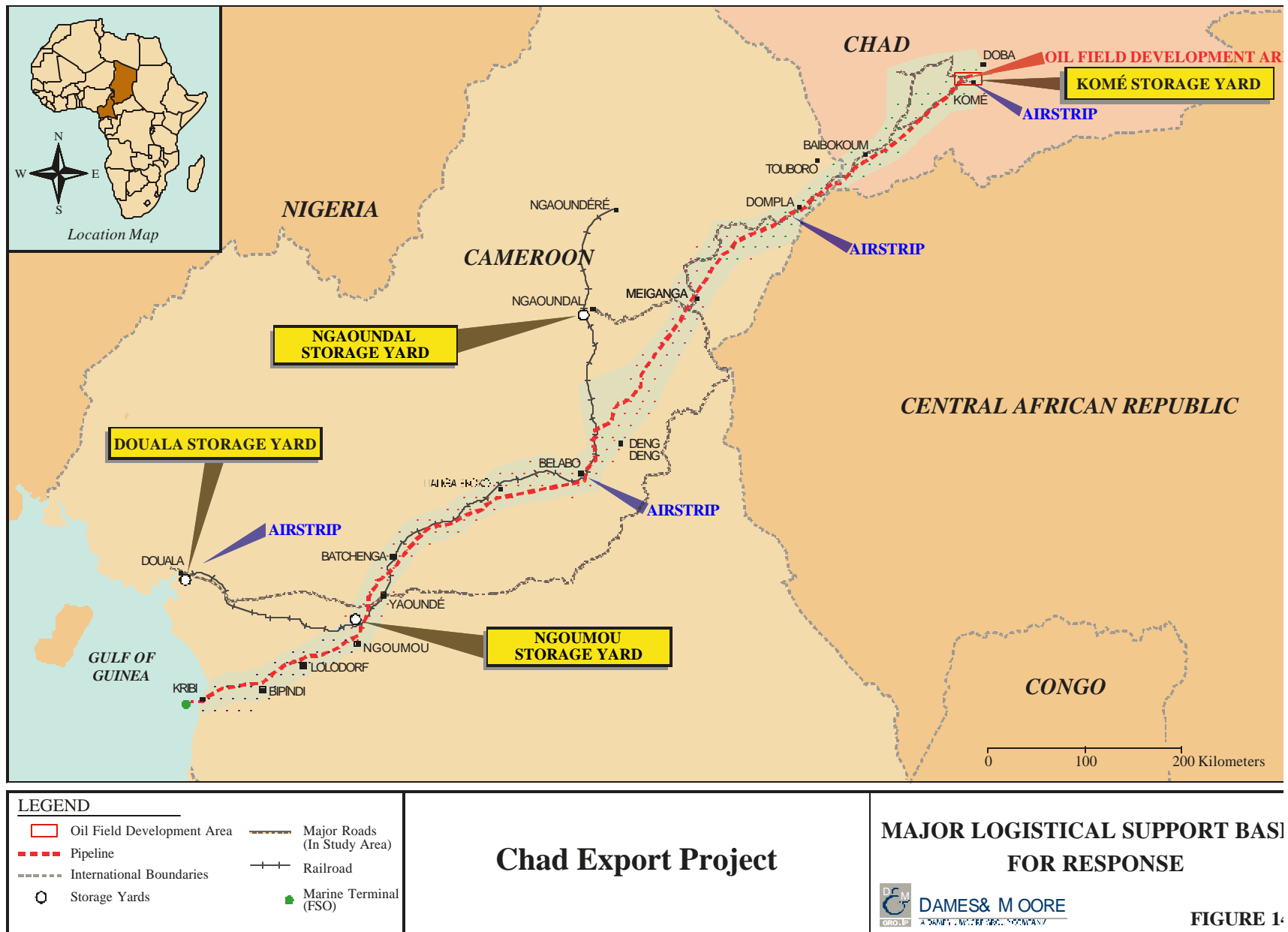
- Safety
- Proximity to the vulnerable sites
- Accessibility by road
- Access to water
- Available space for storing equipment
- Suitability for landing helicopters
- Ease of providing long-term logistics support (personnel changes, fueling, provisioning)
- Security

Each FSA Supervisor will establish:

- Site health, safety, and security plans
- Equipment reception and dispatch procedures
- Personnel arrival, tracking, and departure procedures
- Decontamination facilities
- Housing and eating facilities
- Sanitation facilities
- Communications network
- Re-fueling facilities

- Maintenance facilities

Figure 14-1. Logistical Support Bases for Response



14.1.2. Supporting Response Operations On Site

The Field Activities Supervisor and supporting operations Supervisors are responsible for the safety, health, and welfare of personnel. These Supervisors also will assure procedures are in place for the safe operation of equipment, its decontamination, and safe return to the forward staging area after use.

To accomplish this, the operations Supervisors must deal directly with the FSA Supervisor to ensure the following:

- Equipment reception and return
- Personnel tracking procedures
- Site safety plan
- Food and temporary shelter for personnel
- Temporary storage and disposal of recovered contaminants
- Sanitation facilities
- Medical support
- Protective clothing

The handling of any oily and non-oily waste generated by the response units will be coordinated and handled according to procedures that will be established by the Waste Disposal Supervisor or designee following the Waste Management Guidelines, Section 12.

14.2. Procurement

With mobilization of the Tier 1 resources, the ERT will begin coordinating resources required for the expansion of response operations into the long-term phase, should it become necessary. If the Incident Commander determines that the necessary response efforts will exceed the capability of the Tier 1 resources, operations can be expanded to include the long-term phase of oil recovery as well as shoreline protection and cleanup by bringing in Tier 2 and Tier 3 equipment. Based on information available at the time of this writing, resources will be mobilized to regional staging areas within 24 hours of notification for Tier 2 and 72 hours for Tier 3. These estimates will be re-evaluated and adjusted, if necessary, during development of the ASOSRPs.

As the level of response is expanded, the Field Activities Supervisor (see Figure 3-3) will coordinate and provide the status of current response operations and the potential anticipated future requirements for oil recovery as well as shoreline protection and cleanup support to the Planning/Technical Manager and the Logistics Manager. The Cleanup Supervisor will assist the appropriate personnel as directed.

The Logistics Manager, working with the Planning/Technical Manager, has the primary responsibility for establishing and maintaining an expanded support network necessary to address the requirements of the potentially larger and longer-term response effort.

The overall support requirements for the long-term response may include expanded support in the following areas:

- Additional oil spill response personnel
- Housing and support for response personnel in Douala and Komé
- Tier 2 and Tier 3 equipment

- Material inventory control
- Assembly and maintenance yards
- Transportation
- Re-supply
- Decontamination facilities
- Waste handling

Following notification, a material control group may be activated to provide the following:

- Coordination with the Logistics Manager, FSA Supervisors, and field personnel to account for materials and equipment currently engaged in the response
- Receipt and staging of additional response equipment and materials at the designated forward staging areas
- Issuance of resources from the forward staging sites to the required field destination for deployment or staging as directed
- Receipt, staging, and issuance of materials and equipment by Field Material Coordinators for use by the field response personnel
- During demobilization of response activities, the materials group will inventory and store materials and equipment received from the staging area coordinators. The materials control group will list the quantity and type of materials expended and/or damaged during the response operations.

14.2.1. Contract Services

The Contracting Supervisor, as part of Tier 2 or Tier 3 response, will establish the process for securing accounts and contracts with logistical support providers as well as spill response personnel and equipment. Pre-established contracts with local organizations will be listed by the provider as part of the ASOSRPs.

14.3. *Logistics Support*

14.3.1. Equipment

Spill response equipment will be maintained by the Project at a number of locations (see Section 10). Additional spill response equipment and specialized equipment, such as earth moving machinery, will be available through contractors responsible for pipeline construction and operations. Other equipment may be obtained from regional sources in Chad, Cameroon, or neighboring countries.

14.3.2. Supplies

As response operations are mobilized and deployed to the field, they require a continuous supply of provisions and supplies to remain on-site and effective. The Logistics Manager will ensure that food, potable water, fuel, equipment, and materials, are dispatched to various staging sites as required.

Food

The Food and Shelter Supervisor (Tier 3) or the Logistics Manager (Tier 2) will coordinate all food and beverage requirements for response personnel.

At the onset of response operations, the supply of food items will include:

- A catering contractor, or other suitable food source, activated for the supply and packaging of food necessary for extended operations in the field.
- Provisions are to be stored in appropriate (cold or dry) storage facilities and staged for deployment.
- Mobilization of vessels configured to store and transport cold and/or dry goods. These vessels must have loading/unloading equipment capable of transferring goods from shore-based facilities to supply the response vessels and onshore field sites.

Potable Water

Personnel will require potable water to be delivered on a regular basis. Supply of potable water may require:

- Vessels to either install or have onboard, approved potable water storage and transfer systems
- Containers on land
- Establishing a large-scale water purification system
- Importation of bottled water
- A schedule of water supply and transfer, with a method of testing to ensure safe water supplies

Fuel

Onshore fuel requirements will be addressed as follows:

- Shore-based vehicles and equipment will refuel at local community fuel stations or be fueled by tanker trucks.
- Aircraft can refuel at PS airstrips or commercial airports. Additional supplies of some aircraft fuel for helicopters may be stored at onshore locations within the spill area as required and when considered safe.
- Offshore fueling requirements will be addressed by storing fuel at communities and loaded on vessels with approved storage and transfer systems. These vessels will supply the field operations in compliance with approved safety procedures.

14.4. *Equipment Assembly and Maintenance*

As equipment and materials are mobilized for response, the assembly and maintenance of these resources becomes increasingly important. The responder's ability to effectively execute a timely response can be directly affected by this activity. Equipment assembly and maintenance units should be sited at locations appropriate to the response requirements.

As needed, the Logistics Manager will:

- Establish facilities to assist in fabricating, assembling, and testing equipment prior to field deployment
- Establish maintenance facilities to repair and maintain all equipment dedicated to the response
- Obtain necessary parts and supplies to maintain assembly and maintenance operations

- Establish a preventative maintenance program, including a record-keeping system of repairs and maintenance performed
- Establish smaller, mobile assembly and maintenance groups to support the efforts of the on-site supervisors. These groups may be required to meet the needs and conditions of the longer-term field response.

14.5. Transportation

Effective execution of a spill cleanup response may depend heavily on the ability to transport the necessary materials, personnel, and equipment to land, river, and coastal sites for staging, deployment, operations, and demobilization. An efficient and expedient customs procedure, to be incorporated into appropriate ASOSRPs, will be established by the Project for emergency clearance of OSR equipment and materials. The governments of Chad and Cameroon will be responsible for expediting customs clearances.

The Logistics Manager is responsible for establishing an effective transportation system. For Tiers 2 or 3 response, the Logistics Manager may assign these duties to a Transportation Supervisor. The Transportation Supervisor must work closely with the logistics group's Marine Operations Advisor and Aviation Advisor as these roles are mobilized. A single individual may handle the responsibilities of both the Marine Operations Advisor and the Aviation Advisor for Tier 2 responses. The Transportation Unit will control and coordinate the use of vessels, aircraft, vehicles, and heavy equipment assigned to spill response.

The Marine Operations Advisor and Aviation Advisor will track and maintain accountability for the resources under their direction. These advisors will obtain the necessary resource vessels and aircraft, etc., as requested. Together, they are responsible for the optimum utilization of the air and marine transportation resources. The Transportation Supervisor will direct all land transportation of personnel, equipment, and other resources.

14.5.1. Ground (Rail and Roads)

Ground transportation for personnel, equipment, and supplies is necessary from the onset of response operations. Ground transportation through roads and rail lines are the primary transportation routes for spill support to the Project. The Transportation Supervisor is responsible for obtaining the necessary vehicles or ground transportation for the transport of the following:

- Personnel
- Equipment and materials
- Supply
- Waste handling

Permanent storage yards will be maintained at the Douala port, the railhead at Ngaoundal, Ngoumou and at Komé (see Figure 14-1). Seven temporary construction yards will be identified at various locations between the Chad border and Kribi.

Road transportation is expected to improve as the Project construction phases develops. The Project calls for upgrades to the existing rail system between the port of Douala and the railhead at Ngaoundal, upgrades to approximately 300 km of existing roads between Ngaoundal and the Chad border, and the construction of a short section of new road to a new crossing of the Chad/Cameroon border at the Mbéré River.

14.5.2. Vessels

The On Water (Marine/River) Operations Advisor in logistics is responsible for obtaining vessels and other marine equipment, as directed, to meet the specific needs of the response. The use of these resources is coordinated through the On-Water Operations Supervisor and the Field Activities Supervisor, and their designated personnel, to address the following requirements:

- Cleanup operations
- Supply delivery
- Personnel transport
- Waste collection, etc.

Vessels of opportunity will be required for all Tier 2 and Tier 3 responses. Vessels of opportunity may include:

- Rig supply vessels
- Work boats (i.e., fishing boats)
- Tank vessels and barges
- Fuel and water resupply vessels
- Housing vessels
- Safety and command support vessels
- Skiffs

14.5.3. Aircraft

The Aviation Advisor is responsible for obtaining fixed and rotary wing aircraft. The use of these resources is coordinated through the Aviation Supervisor and the Field Activities Supervisor, or their designated personnel to meet the following requirements:

- Operations; spill monitoring; dispersant application; aerial direction of marine resources
- Logistical requirements including deployment of equipment to otherwise inaccessible locations and rapid deployment of personnel as required by on-scene supervisors
- Safety operations for transportation of medical personnel and/or medivac use.

14.6. *Facilities*

Docks/Staging Facilities

The primary staging facilities and their likely utilization are listed in Table 14-1.

Note: Factors such as personnel and equipment safety, security traffic restrictions, cargo loading and unloading requirements, and other restrictions should be considered when determining the specific uses of docks as staging facilities. The Deputy Incident Commander, the Safety Advisor, and the Security Advisor will deal with these issues.

Office Facilities

Office facilities require telephone, radio, and fax communications to allow for communication and documentation of activities both offshore and onshore. Additional office facility requirements will be dependent on the specific needs and requirements of

personnel assigned to the response. The Telecommunications Supervisor will coordinate this activity.

Housing

Housing will be provided through local accommodations. On-site personnel will be housed at camps at the Pump Stations or key logistical hubs. All other responders will be housed at temporary camp facilities.

The response vessels and the FSO may provide offshore housing if these are available. Additional offshore housing must be obtained in the event that personnel requirements exceed the capability of the response vessels.

Table 14-1. Logistics Support Facilities

Site	Utilization	Features
Komé	Command Center, Communications, Housing, Equipment, Waste Handling	Airfield, Incinerator, Camps, ERT, Warehouses, Waste Disposal Site, Potable Water, Fuel, Medical Support
PS-2	Communications Base, FSA	ERT & Spill Response Equipment, Warehouses, Waste Disposal Site, Potable Water, Fuel, Medical Support
Ngaoundal	Logistics Base	Rail and Road, Warehouses, Waste Disposal Site, Potable Water, Fuel, Medical Support
Bélabo/PS-3	Communications Base, FSA	ERT & Spill Response Equipment, Warehouses, Waste Disposal Site, Potable Water, Fuel, Medical Support
Yaoundé	Logistics Base	Airfield, Rail and Road, Hotels, Fuel, Medical, Potable Water, Waste Disposal
Douala	Command Center, Communications, Housing, Equipment, Waste Handling	Airfield, Rail and Road, Hotels, Fuel, Medical, Potable Water, Waste Disposal Site
Ngoumou Storage Yard/MA-4	Storage Yard and Logistics Base, Communications Base	ERT and Spill Response Equipment, Rail and Road, Helicopter Pad
Kribi (FSO)	Communications, Housing	ERT & spill equipment (FSO), Waste Disposal Site, Helicopter Pad, Fuel, Potable Water