NEARSHORE GROUP LOGISTICS BASE

OBJECTIVE & STRATEGY

LB

The objective of the Nearshore Logistics Base tactic is to support the operations of the Nearshore Response Group (NRG) by providing the following functions:

- Forward staging area for assembling Nearshore Task Forces (NSTF) and Strike Teams (NSST)
- Secondary storage and waste management for recovered oil/emulsion and solid wastes (contaminated or not), and sanitary wastes.
- Providing supplies and consumables (including fuel)
- Accommodations and food for personnel not berthed onboard response vessels
- Transportation, storage, and deployment of response assets, such as skimmers, boom, anchor systems, and storage devices
- Decontamination of responders, vessels, and equipment
- Aerial support to detect oil slick and direct NSST to the highest priority concentrations for recovery.

This tactic describes typical logistic support required for a NRG, based on the Nearshore Free-oil Recovery Tactic and the Nearshore Operations Response Strategy (NORS) concept described in the Nearshore Operations Planning and Implementation tactic.

In remote areas of coastal Alaska, there is little to no infrastructure, and marine-based logistical support will be the only way to support long-term on-water oil recovery operations. Marine-based logistics are challenging and expensive. Land-based operations are simpler and should be considered where shore-based infrastructure is available.

The logistical support base is managed by a Base Manager who reports to the Nearshore Response Group Supervisor in the Operations Section of the Incident Command System. The Base Manager will establish a system to track resources and personnel to ensure an efficient, organized, and safe response. Other response activities that may occur at a NRG staging area are: personnel and equipment tracking, field command center, communications base, emergency medical treatment, security, wildlife treatment, and responder rest areas.

The NRG Supervisor and the Base Manager work together to establish

the scope of operations that occur in the support base. The general process is to:

- Identify the location and trajectory of the spill or potential spill.
- Determine the operational objectives and geographic scope from the Unified Command.
- Select a site for the base that best supports marine and helicopter operations as well as a safe location with a lee and good anchorage bottom in case of severe weather.
- Deploy vessels, equipment, and personnel to the location.
- Set up equipment and begin operations.
- Receive inventory response resources for transfer to the field.
- Receive recovered oil and response wastes for secondary storage.
- Demobilize equipment and prepare for long-term storage.

TACTIC DESCRIPTION

The Logistics Base may utilize either a single large, purpose-built barge (Figure LB-1) or smaller barges or vessels in a "fleet" configuration with each having a specific function (accommodation, secondary storage, etc). These barges/vessels provide a staging platform(s) for oil recovery operations.

General Procedures

The Logistics Base is a location where functional response unit teams are assembled, staged and supported during response operations. Logistics Base operations are established during large, protracted spills involving numerous response and recovery sites, a Rear Supply Area may be established for the entire response effort with Forward Staging

RECOMMENDED SPECIFICATIONS
(approximate)

Length: 400 ft

Beam: 100 ft.

Draft: 20 ft.

Accommodations: 80

Deck Space: Adequate to service up to five NRG Nearshore Task Forces.

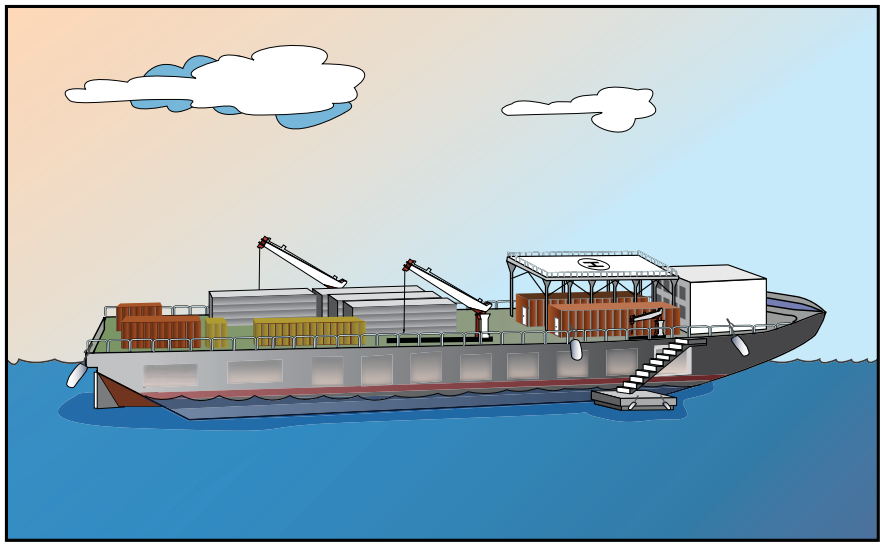

Figure LB-1. Single barge configuration for a Nearshore Logistics Base.

Areas positioned near individual response operations. Every staging area requires a manager and a deputy manager.

Considerations for locating the logistics base include, does the location provide:

- Enough area for maneuvering anticipated equipment,
- Space for receiving, temporary storage, distribution, and deployment of supplies and equipment,
- Space and equipment for maintenance, repair and refurbishment of response equipment,
- Landing pads for helicopters,
- Space and equipment for aircraft, vessel and equipment refueling, replenishment, and maintenance,
- Medical first aid and shelter for responders,
- Space for providing food, water, shelter, and sanitation facilities for responders,,
- Decontamination areas for personnel and equipment,
- Ease and safety for accessing transportation (helicopter, vessels, etc.),
- Close proximity and easy access to the incident site,
- Electrical power, telephone, fax, VHF/UHF radio communications, satellite phone capability, and
- Office space.

A Logistics Base should be established as close to the spill site as safely feasible, but, should always be in the Cold Zone. (See the Site Control and Layout tactic in Part B-I.) Anticipate changes in wind direction and the possibility of increased Hot Zone size when selecting a mooring area for near-shore staging barges/vessels.

Operating Environments

While draft restrictions may preclude Logistics Base barges/vessels from operating in some nearshore areas, they should be capable of operating near the same environments as NRG Task Force elements.

PROTECTED WATER

Vessels, boom, and skimmers for protected water systems should be able to deploy and operate in seas up to 3 feet and in winds up to 25 knots. Vessels deploying, towing, and tending boom should be able to safely transit seas which exceed the boom's operating limitation. Protected water systems are often based on vessels of opportunity, such as fishing vessels, fitted with portable skimmers and primary storage devices. Protected water systems may be deep draft or shallow draft, depending on the water body.

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CALM WATER

Calm water systems are composed of vessels, boom, and skimmers that should be able to deploy and operate in one-foot seas and 15 knot winds. Vessels deploying, towing, and tending the boom should be able to safely transit seas which exceed the boom's operating limitation. Calm water systems are usually based on small fishing vessels, work boats or skiffs fitted with portable skimmers and primary storage devices. Calm water systems typically work in depths as shallow as 3 feet.

Deployment Configurations

SINGLE-BARGE NEARSHORE STAGING

A single large, multi-purpose nearshore staging barge is the preferred tactical platform for supporting NRG Free-oil Recovery Task Force elements on water. While similar barges are in use for other response functions, this type of barge would have to be specifically built for use by NRG resources. This type of platform serves multiple functions, including:

- Accommodation and messing facilities
- Equipment storage
  - Skimming equipment
  - Boom storage, maintenance and deployment
  - Parts and equipment maintenance/repair
  - Mini-barge storage and support
  - PPE storage and distribution
- Secondary storage for recovered oil
- Decontamination
- Temporary storage for oily solid waste
- Potable water storage
- Helicopter support (Heli-Pad)
- Command center

MULTI-VESSEL NEARSHORE STAGING

Multiple smaller barge/vessel staging areas will require function-specific vessels including:

- Accommodation
- Equipment storage, maintenance and distribution
- Supply
- Helicopter access
- Secondary storage of recovered oil
- Waste management

Vessels that serve single functions are more readily available, come in a wide variety of sizes and configurations, and can sometimes perform multiple functions (i.e. accommodation and staging) depending on the size and type.

Comparison of Logistics Base Options

	Free-oil Recovery Strike Team[1]	Shoreline Protection Strike Team
Vessel Platforms	8 - Class 3 or 4 Boom Towing Vessels 4 – Class 2 or 3 Skimmer Tending Vessels 4 – Class 3 or 4 Primary Storage Tending Vessels	10 – Class 3 or 4 Boom Deployment Vessels 2 – Class 2 or 3 Support Vessels (Class 1 or 2 Landing Craft or equivalent)
Containment	4 – Enhanced Recovery Systems (Current Buster or equivalent)	5,000-ft Protected Water Boom 500-ft Shoreseal Boom 5,000-ft Snare Boom 50 ea. Anchor Systems
Skimming	4 – High Efficiency Oleophilic Skimmers	1 - Small Skimming System
Primary Storage	8 – 249-bbl Primary Storage Devices (mini barges or equivalent towable bladders)	1 – 50-bbl Primary Storage Device
Personnel	1 – Strike Team Leader 16 – Tow Boom Vessel Crew 12 – Skimmer Tending Vessel Crew 8 – Storage Tending Vessel Crew	1 – Strike Team Leader 20 – Tow Boom Vessel Crew 6 – Support Vessel Crew

System	Advantages	Disadvantages
Logistics Base - Single Barge	• Single primary support barge for all nearshore task forces • Smaller support fleet • Support tug crew can be assigned to work on barge	• Long lead time • Must be custom built prior to incident • Expensive • Draft-restricted for nearshore environment
Logistics Base – Multiple Vessels	• Shorter lead time • More readily attainable • Smaller, easier to reposition • Shallow draft	• Larger support tug/vessel fleet required • Portable docking facilities may need to be provided to accommodate smaller task force vessels • Larger overall "footprint" than single barge

DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

Safety

- Predetermine potential places of refuge where vessels can take shelter during severe weather.
- Monitor the following hazards to ensure a safe environment:
  - Severe weather,
  - Aircraft, crane, and heavy equipment operations,
  - Slips, trips, and falls,
  - Hypothermia,

- Exposure to contamination and hazardous materials,
- Hearing impairment,
- Respiratory exposure, and
- Eye protection.

- Select PPE based on incident-specific Site Safety Plan.

Deployment

- Consider historical and culturally significant sites, environmentally sensitive areas, and wildlife impacts when choosing a base location.
- Inventory contained in the area should be determined by the NRG Supervisor and must be tracked and maintained to ensure adequate resources for field operations.
- Resources should be ready for deployment when specified by the Operations Section.
- Decks and work areas should be maintained in an orderly fashion.
- Due to the inherent dangers of working on a floating platform, it is imperative that personnel and vehicle traffic patterns are clearly established.

REFERENCES TO OTHER TACTICS

Other tactics associated with NRG Staging Area include:

- PI Nearshore Operations Planning and Implementation
- S Staging Area
- NFO Nearshore Free-oil Recovery
- Dp Personnel Decontamination
- Dv Vessel Decontamination
- SCL Site Control and Layout
- POL Pumping Oily Liquids
- MST Marine-based Storage and Transfer of Oil Liquids
- TA Towing Alongside

EQUIPMENT AND PERSONNEL RESOURCES

This section describes the typical resources needed to support Nearshore Logistics Base operations. Exact quantities will vary based on vessel configurations and other resource needs. Resource requirements are generally designed to support up to five NSTFs as outlined in the Nearshore Operations Planning and Implementation Tactic. This list is not comprehensive as the need for ancillary equipment, supplies, parts, etc. depends on the resources and assets on the barge(s) during any given operation.

Nearshore Logistics Base Resource Requirements

Material Handling and Storage		
Containers, storage (8'x20')	40	Requirements will vary based on equipment needs and available on-deck storage space.
Container, refrigerated (8'x20')	1	Storage of perishables.
Container, frozen (8'x20')	2	Storage of frozen goods. Storage of biological samples, evidence, and other chain-of-custody
Large crane	2	35-ton
Small crane or lifting davits	6	Fixed; articulating. For general cargo handling.
Forklift	2	7-ton to move containers 2-ton for general cargo handling
Portable docking	6	Movable accommodation ladder and floating platform for personnel embarkation/ debarkation.
Rigging	Variable based on platform/ ancillary equipment needs	Lifting bridles/straps, tie-down chain/straps, chain, shackles, thimbles, sling load pennants, cargo nets.
Utilities		
Electric power generation	Variable based on platform/ ancillary equipment needs	Each facility should have integral power generation and lighting.
Hydraulic power	Variable based on platform/ ancillary equipment needs	
Lighting, fixed and temporary	Variable based on platform/ ancillary equipment needs	
Water and sanitary waste systems		Potable, Non-potable, grey, and black water systems. Fittings to connect with modular facilities as required
Secondary Storage and Waste Management		
Secondary storage of recovered oil	50,000 bbl	Tankage certified for oil storage
Oil transfer stations	15 simultaneous	Oil transfer equipment, pumps, hoses, and fitting to transfer oil from primary oil storage to secondary, sufficient to offload at two 249 mini-barge in an hour.
Mixed oily waste and transfer	55 gallon drums	50 drums
Oily solid waste	40x40 lay-down mat	All material to establish oily solid waste lay-down area: 2 rolls - 20' X 100' X 20mm liner 25 ea - 20' X 20' cargo nets 25 ea - Sling load pennants rated for helicopter use
Non-oiled solid waste	20x20 lay-down	Compactor and bagging system
Personnel decontamination stations	25	See personnel decon (Section B-I-4-1)
Vessel decontamination stations	5	See vessel decon (Section B-V-2-1)
Personnel Support		
Berthing[1]	80 personnel	Segregated 3:1 men:women

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Kitchen[1]	1	Sufficient to serve 80 personnel, 3 times per day.
Shower[1]	16	6 showers/6 sinks ea.
Toilet[1]	8	Segregated 3:1 men:women
Laundry[1]	8-10	Washer and dryer
Medical		
First aid room and supplies	1	
Command and Communications		
Office[1]	2	1 room, 2 desks, 4 lockers; can accommodate 2 beds; satellite capable
Command post facility[1]	1	Conference space for up to 10 people
Computers, laptops	5-7	For NSG Supervisor, Staging Area Manager, Site Safety Officer and admin support staff.
Communications	Adequate communication suite for scale of operation	Should include fixed comms suite for command center/office space as well as adequate hand held radios for staging area personnel. UHF, VHF, SSB, satellite phone and internet.
Personnel		
Near Shore Response Group Supervisor	2	General oversight of NRG. See USCG Incident Management Handbook and/or appropriate C-Plan.
Natural Resource Specialist	1	
Staging Area Manager	2	Oversight of staging area/barge.
Site Safety Officer	2	
Helicopter Pilot/Mechanic	2	With assigned aircraft.
Cook	4	
Electrician	1	
Mechanic/Plumber (vessels)	1	
Mechanic/Tech (Response equipment)	1	
Technician (Computer)	1	
General Technician	20	See Personnel Classifications in Section A, Part II of this manual.
Skilled Technician/Tankerman	25	See Personnel Classifications in Section A, Part II of this manual.
Deckhand	4	Can fulfill other roles when not undertaking primary responsibilities.
Fork Lift Operator	2	Can fulfill other roles when not undertaking primary responsibilities.
Crane Operator	2	Can fulfill other roles when not undertaking primary responsibilities.
Load Master	2	
Medic/EMT	1 (minimum)	
Administrative Support	2	
Fuel		
Aviation fuel and dispensing system	20,000 gallons	Rotary wing fuel requirements variable and highly dependent upon exact type and kind of aircraft selected and projected number of daily flight hours (based on need for 21 day supply). Two 1,000-gallon portable fuel tanks should also be provided for helicopter onshore support.

Diesel and dispensing system	50,000 gallons	Equipment/Vessels
Gasoline and dispensing system	20 drums	Equipment/Vessels
Hydraulic oil and dispensing system	10 drums	Equipment/Vessels
Lubricating oil and dispensing system	30 drums	Equipment/Vessels
Propane and dispensing system	1,000 gallons	Cooking/Forklifts
Coolant/refrigerant	Adequate to replenish/repair on board equipment	
Consumables		
Personnel protective equipment	200 sets	Each set includes: 20 Tyvek suits 40 heavy gloves 100 Nitrile gloves 2 rain suits 1 hard hat 3 safety glasses 50 foam ear plugs
Oil waste bags	500 cases	6 mil, closure system, color coded for waste type.
Sorbents	500 bundles pads 100 bundles boom	
Line	Variable based on platform/ ancillary equipment needs	Inventory should include adequate supplies of nylon, polypropylene, and natural fiber line in various sizes. Line types should include three-strand and double-braid nylon. Knives, fids, duct tape, paper tape and other splicing supplies should also be stocked.
Cooking supplies	Adequate for type size of kitchen facility	Pots, pans, utensils. May not require separate acquisition if provided with modular kitchen facility, trash bags.
Food[2]	Adequate for feeding 80 people three meals daily	
Office supplies	Adequate for 5-7	Paper, pens, pencils, notepads, file folders, staplers, staples, staple pullers, dry erase boards/markers/erasers, etc. waste receptacles, trash bags.
Paper/plastic goods	Adequate for 80 personnel for 21 days	Includes, plates, cups, flatware, paper towels (for food service and shower/toilet facilities). Modular kitchen facilities may have reusable items.
Linens/sleeping bags/pillows	Adequate for 80 personnel for 21 days	
Cleansers	Adequate for platform needs	Includes kitchen, living, and sanitary space use. Requires both standard and heavy duty cleansers for personal use.

[1]All modular facilities listed are standard ISO 9001:2008 8' x 20' containers. Need for specific units would be based on available barge specifications.

[2]The US Dept. of Agriculture estimates that the average person in the United States eats 0.5 lbs of meat, 1.6 lbs of dairy products, 0.2 lbs of fats and oils, 0.8 lbs of fruits, 0.7 lbs. of vegetables, 0.5 lbs of grains, and 0.4 lbs of sugars per day for a total of 4.7 lbs of food per day.

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