

AERIAL OBSERVATION SUPPORTING NEARSHORE OPERATIONS

OBJECTIVE & STRATEGY



The objective of the Aerial Observation Supporting Nearshore Operations tactic is to provide effective, continual aerial observation in support of free-oil recovery task forces to maximize their effectiveness.

This tactic is not intended to determine the extent and trajectory of an oil spill slick like the Discharge Tracking on Water tactic; however, observers and resources used to accomplish this tactic may serve to supplement other Oil Spill Surveillance and Tracking operations and will report observations to the Nearshore Group Supervisor as well as the Operations Section, Situation Unit, and Documentation Unit.

TACTIC DESCRIPTION

The purpose of the Aerial Observation Supporting Nearshore Operations tactic is to provide continual aerial surveillance to maximize effectiveness of the Nearshore Response Group (NRG). Aerial observers will locate oil slicks, determine which slicks are most likely to impact sensitive areas, and direct on-water oil recovery operations to intercept and contain free-oil.

Rotary wing surveillance aircraft can be staged at the Nearshore Response Group Logistics Base as outlined in the Nearshore Group Logistics Base tactic. Fixed-wing surveillance aircraft will be staged at

a land-based air field.

Nearshore aerial observation planners will utilize data gathered from Discharge Tracking on Water (DT) resources to determine daily flight plans and establish task

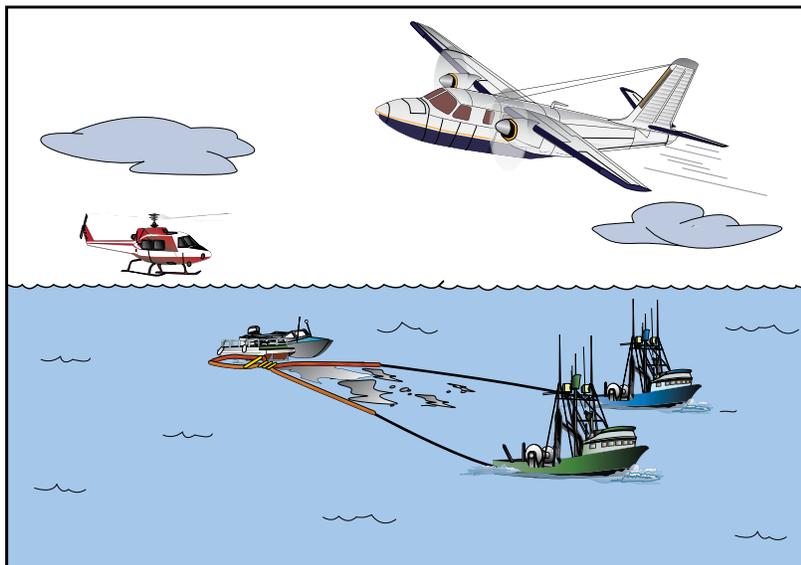


Figure DT-NS 1. Nearshore Aerial Observation using aircraft.





orders for Near Shore Task Forces (NSTF). Aerial observers will direct NSTF resources into appropriate areas to conduct on-water oil recovery operations.

Operating Environments

Nearshore Aerial Observation will generally take place in the nearshore environment or wherever Nearshore Free-Oil Recovery (NFO) task forces are operating including:



- Protected Water,



- Calm Water

DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

SAFETY

- PPE is required of all personnel in aircraft. See the incident Site Safety Plan and check with aircraft operator for PPE and PFD requirements.
- Flight following procedures should be observed for all observation aircraft.
- A communications schedule must be established and followed between the aerial observers and the incident Air Operations Branch/Tactical Group/Support Group.
- Obtain aviation weather forecasts for the area of operation. Strictly adhere to weather restrictions for the specific aircraft used.

DEPLOYMENT

- Data collected by DT tactical resources will be relayed to Aerial Observation Supporting Nearshore Operations personnel who will then vector appropriate NRG NSTF resources into identified slicks to maximize oil recovery.
- If wildlife or historic properties are encountered, see Wildlife Checklist or Historic Properties Checklist.

REFERENCES TO OTHER TACTICS

Other tactics that may be involved in Nearshore Aerial Observation include:



- Discharge Tracking On Water



- Nearshore Free-Oil Recovery



- Nearshore Group Logistics Base



- Nearshore Operations Planning and Implementation





Aerial Observation Supporting Nearshore Operations

EQUIPMENT AND PERSONNEL RESOURCES

Nearshore Aerial Observation platforms can be either rotary (Figure DT-NS-2) or fixed (Figure DT-NS-3) wing aircraft. In addition to the equipment listed below, the following installed or portable sensors may prove helpful but are not critical to successful execution of this tactic:

- Infrared (IR)
- Forward Looking Infrared Radar (FLIR)
- Ultra-Violet (UV)
- Side-Looking Airborne Radar (SLAR)
- Microwave Sensors



HELICOPTER SPECIFICATIONS

- Type: Twin Engine Multipurpose Utility Transport
- Cruising Speed: 130 kts
- Observation Speed: 80-90 kts
- Observation Altitude: 400-500 ft.
- Range: 245 nm
- Sling Capacity: 2,500 lbs
- Seats: up to 4

Figure DT-NS 2. Nearshore Aerial Observation Helicopter.

FIXED WING SPECIFICATIONS

- Type: Twin Engine, Turbo-prop, Good all around visibility (high mounted wings), Suitable navigation aids
- Range: 200nm (minimum)
- Hours Aloft: 5-8
- Observation speed: 110 kts
- Observation Altitude: 150-1,500 ft.



Figure DT-NS 3. Nearshore Aerial Observation Fixed Wing aircraft.



Rotary wing resources will be assigned to the NRG and will stage from an appropriate NRG Logistics Base.

A single aircraft is dedicated to a NRG to support its operations.

Support for fixed wing aircraft would have to be from a shore-based facility. Depending on the supported task force(s) location, this could be done from several airstrips, although fuel supply and crew accommodations would have to be taken into account.

Many different types of aircraft could be used to fill this role, but aircraft selection must take into account airfield capabilities in remote locations throughout Alaska.

Additional resources for Nearshore Aerial Observation include a GPS, a digital camera, a diagram or map of the area, marking pens/pencils, and a log book.

Equipment	Function	Quantity	Notes
GPS	Determine locations	1 or more	Personnel should be familiar with operation for the model and the Situation Unit should be capable of downloading data from the GPS. Should have extra battery and antenna.
Digital camera	Capture images of oil slick	1	Extra batteries and media
Log book and maps or diagrams	Taking notes, drawing sketches, and recording data	As necessary	Folding knee board or clip board
Infrared camera or video system	Detection of oil in low visibility	Situation specific	Requires trained operator and should be calibrated on the specific spill
Tracking buoy system (transmitting buoys and receivers)	Detection of oil in low visibility	Situation specific	Does not indicate thickness, area, coverage, or consistency
Personnel	Function	Quantity	Notes
Observer(s)	Observe and assess the nature of the slick and record data	1 or more	Should be trained in oil observation and any equipment that is being used
Skilled Technicians	Work under the direction of Lead Observer	0 to 2	Operates infrared cameras or tracking buoy system as dictated by the situation