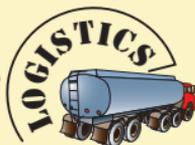


Spill Tactics for Alaska Responders (STAR)



April 2006

FIELD GUIDE

GENERAL RESPONSE OBJECTIVES

Effective incident management and a coordinated and integrated response should focus on achieving the following objectives:

- **SAFETY AND PUBLIC HEALTH**

Ensure the safety of responders as well as maximize the protection of public health and welfare.

- **SOURCE CONTROL**

Ensure actions are underway to control the source and minimize the total volume released.

- **ENVIRONMENTAL PROTECTION**

Ensure all necessary actions have been taken to protect environmentally sensitive areas, to include minimizing wildlife impacts.

- **CONTAINMENT AND RECOVERY**

Ensure effective containment, cleanup, recovery, and disposal of spilled product.

- **PUBLIC INFORMATION AND COMMUNICATION**

Keep stakeholders, public, and the media informed of the situation.

Safety is paramount during all responses regardless of size and complexity



P.O. Box 175
Seldovia, Alaska 99663
tel 907.234.7821
fax 240.368.7467
contact@nukaresearch.com

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Project website: <http://www.dec.state.ak.us/spar/perp/star/index.htm>

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INTRODUCTION

PURPOSE

The Spill Tactics for Alaska Responders (STAR) manual provides a standardized oil spill response tactics manual specific to the State of Alaska. The manual is intended to be a standard tactical reference for oil spill planning and response activities in Alaska. It is available for use by the spill response community, including federal, state, local, industry, and spill response organizations throughout Alaska.

The information in this manual bridges the gap between oil spill contingency planning and response by providing standard tactics and terminology that can be easily transferred from contingency plan to Incident Action Plan. The standardization will facilitate mutual aid among response organizations and may improve resource ordering and allocation during a response. The manual also has value as a field guide and training aid for oil spill responders.

The STAR manual may eventually be referenced in the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan), and the ten federal/state subarea plans. In addition, the manual may be referenced in the Oil Discharge Prevention and Contingency Plans (C-Plan) submitted to the Alaska Department of Environmental Conservation (ADEC), as well as Federal Vessel and Facility Response Plans (VRP and FRP), and Spill Prevention, Control, and Countermeasure (SPCC) Plans.

SCOPE

The STAR manual includes non-prescriptive guidance on meeting the Response Planning Standard (RPS) for C-Plans. The definitions and descriptions contained in this manual provide a clear, consistent, statewide standard for oil spill tactics and response resource classification.

The STAR manual provides a companion to Geographic Response Strategies (GRS) developed in Alaska. The tactics described in the manual are used to develop the strategies in GRS. The STAR Manual also complements the Alaska Incident Management System (AIMS) Guide for Oil and Hazardous Substance Response, as well as other response guides developed for spill response.



The tactics and equipment described in this manual specifically address the uniquely challenging and diverse operating environments that exist across the State of Alaska. Because the information in this manual reflects the response priorities and concerns of both planners and responders, it has the potential to increase the spill response efficiency of spill response organizations by providing guidance on the resources and capabilities required to accomplish the specific tasking likely to come from the Incident Management Team (IMT) during a response.

The tactics described in this manual include primarily those activities that occur during the emergency response phase (Phase I) of an oil spill.

The tactics described here are not prescriptive or exclusive; C-Plan holders and spill response organizations are free to develop and utilize other tactics or modify these tactics to meet their needs. **These tactics are also intended to be flexible; spill responders should adjust or modify these tactics to meet the prevailing conditions that they encounter in the field.**

HOW THIS DOCUMENT WAS DEVELOPED

The STAR Manual was developed through a cooperative consensus-based work group process involving federal and state spill response agencies working with representatives of oil spill response organizations and contingency plan holders. Additional input was sought from natural resource management agencies, regional citizen's advisory councils, local governments, and other stakeholders. The work group consulted a broad array of published oil spill response tactic manuals before developing the STAR Manual. Over forty (40) sources of tactics reference material, including existing spill response tactics manuals as well as field response guides, oil spill contingency plans, general reference documents, and internet reference sites were reviewed. Where feasible and appropriate, tactics from other published sources were used as a starting point in developing the STAR tactics. Copyright permission was sought and granted before adapting tactics from other published sources. The STAR Manual was developed through funding provided by the ADEC from the Oil and Hazardous Substance Release Prevention and Response Fund (the 470 Fund).



The work group established the following principles for developing the manual:

- Strive for standardization and consistency throughout the manual.
- Tactics are to be non-prescriptive in nature.
- All tactics should allow for flexibility to meet conditions in the field.
- The manual should be easy to understand and use.
- The manual should be designed for expandability.
- Plan for periodic updates.
- Embrace innovation.
- Facilitate meeting regulatory requirements by C-Plan holders.

The work group consisted of the following participants:

- Alaska Chadux Corporation
- US Environmental Protection Agency
- Alaska Department of Environmental Conservation
- Alaska Clean Seas
- ConocoPhillips Alaska Inc.
- Alyeska Pipeline Service Company
- US Coast Guard
- US Navy Supervisor of Salvage
- Tesoro Alaska Company
- Cook Inlet Spill Prevention & Response Inc.
- Southeast Alaska Petroleum Resource Organization
- BP Exploration Alaska
- US Department of the Interior

HOW TO USE THIS DOCUMENT

Because the manual targets two distinct audiences, it has been published in two different formats. The Planning/ Incident Management Team (IMT) version has been published as an 8.5 by 11-inch notebook for use by contingency



planners and incident management teams (IMT). A more condensed field operations version has also been published for easy use by response crews. The manual is available electronically via CD-Rom or the Internet (<http://www.dec.state.ak.us/spar/perp/star/index.htm>).

Checklists and cross-reference tables have been included to aid responders. The checklists are intended for general use by responders in the field. Cross-reference tables allow planners and responders to determine appropriate tactics for the operating environments.

The STAR manual is organized according to five general categories of oil spill response tactics: Safety, Oil Spill Surveillance and Tracking, Mechanical Response, Non-Mechanical Response, and Logistics. Mechanical Response tactics are sub-divided into Containment and Recovery, Sensitive Area Protection, and Primary Storage and Transfer of Recovered Products and Waste.

Each tactic sheet includes a pictographic tactic description, which shows a typical deployment configuration or configurations as well as a summary of the tactic objectives and strategies that may be utilized. The tactic sheet also contains resource information that summarizes the types and quantities of personnel and equipment recommended to implement the tactic as described. Resource information is displayed in tables that show both direct and supporting resource requirements.

The manual uses short names and icons to describe oil spill response tactics. Icons are also used to represent other parameters, including operating environment, and tactic type (e.g. safety, surveillance and tracking, etc.) The Legend of Symbols shows all icons used in the manual.

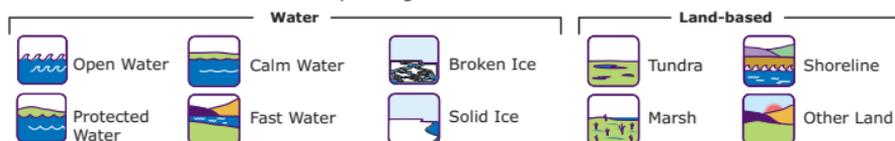
The Sample Tactics Description contains a diagram that shows how each tactic is organized.



LEGEND OF SYMBOLS

OPERATING ENVIRONMENTS

The following symbols are used throughout this document in order to assist in the identification of the operating environments.



TACTIC CATEGORIES

The following symbols are used throughout this document in order to assist in the identification of the tactic category.



TACTIC ICONS

The following symbols are used throughout this document in order to assist in the identification of the tactic strategies.

	Beach Berms & Exclusion Dams		Diversion Boom, Protected Water		Marine-based Storage & Transfer, Fast Water
	Beach Berms & Exclusion Dams, with Earth Moving Equipment		Diversion Boom, Calm Water		Marine Recovery
	Beach Berms & Exclusion Dams, with Manual Labor		Diversion Boom, Fast Water		Marine Recovery, Protected Water
	Containment Boom		Exclusion Boom		Marine Recovery, Calm Water
	Containment Boom, Open Water		Exclusion Boom, Protected Water		Marine Recovery, Open Water
	Containment Boom, Protected Water		Exclusion Boom, Calm Water		Marine Recovery, Fast Water
	Containment Boom, Calm Water		Free-oil Recovery		Marine Recovery, Broken Ice
	Deflection Boom		Free-oil Recovery, Calm Water		On-land Recovery
	Deflection Boom, Open Water		Free-oil Recovery, Deep Draft		Passive Recovery
	Deflection Boom, Calm Water		Free-oil Recovery, Fast Water		Personnel Decontamination
	Deflection Boom, Protected Water		Free-oil Recovery, Open Water		Personal Protective Equipment
	Deflection Boom, Fast Water		Free-oil Recovery, Protected Water		Pits, Trenches, & Slots
	Dikes, Berms, and Dams		Free-oil Recovery, Broken Ice		Pumping Oily Liquids
	Dikes, Berms, and Dams with Earth Moving Equipment		Free-oil Recovery, Shallow Draft		Plume Delineation
	Dikes, Berms, and Dams with Manual Labor		Marine-based Storage & Transfer		Shoreside Recovery, Restricted Access
	Discharge Tracking on Water		Marine-based Storage & Transfer, Open Water		Shoreside Recovery, No Access Restriction
	Diversion Boom		Marine-based Storage & Transfer, Calm Water		Site Control & Layout
	Diversion Boom, Open Water		Marine-based Storage & Transfer, Protected Water		Site Entry Criteria
					Staging Area
					Vessel Decontamination



SAMPLE TACTICS DESCRIPTION

The illustration depicts a typical deployment configuration for the tactic. Sometimes, more than one option is provided.

Each tactic contains an identifying symbol for that specific tactic.

Each of the five tactic categories has a specific icon assigned for ease in identification.

Possible operating environments are indicated using icons (described in the legend)

A concise description of how the tactic is deployed is provided to explain the illustration.

Version date



Mechanical Recovery – Containment and Recovery



ON-WATER FREE-OIL RECOVERY



OBJECTIVE & STRATEGY

The objective of the Free-Oil Recovery tactic is to contain and recover spilled oil on the water, thus minimizing impact to the environment. In some situations, the Unified Command may task the free-oil recovery team with maximizing oil recovery, while in other situations the objective may be to maximize protection of a sensitive area by encountering oil that is on a trajectory to impact that area.



The general strategy is to:

1. Identify the trajectory and location of the spilled oil by performing over-flight surveillance and trajectory analysis.
2. Select a deployment configuration that best supports the operating environment and available resources.
3. Mobilize to a location downstream and upwind of the slick and deploy free-oil recovery teams.
4. Encounter the oil and concentrate it in oil containment boom.
5. Recover the oil with available skimming systems.
6. Store the recovered fluid in a primary storage device, until it can be transferred to secondary storage.

TACTIC DESCRIPTION

Free-oil recovery systems are comprised of vessels with oil boom for containment and concentration, skimming systems for recovery, and primary storage devices for temporary storage. There is a great variation in the way these systems are configured depending on the operating environment, type of oil and state of weathering, and the available deployment platforms. Examples of skimming systems and primary storage devices may be found in the Marine Recovery tactic.

Operating Environments

 OPEN WATER

Free-oil recovery system components (vessels, boom, and skimmers) for open water operations should be able to deploy and operate in seas up to 6 feet and in winds up to 30 knots. Vessels deploying, towing,



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Spill Tactics for Alaska Responders



Part III
MECH.



Various operational and environmental considerations are presented here.

Images describing the tactics are provided as visual representation.

Mechanical Recovery – Containment and Recovery
On-water Free-Oil Recovery

Figure FO-8. Nearshore trapping, boom-towing boats collect oil then tow the trapped oil to deeper water for recovery.

NEARSHORE TRAPPING

Shallow draft vessels can be used to capture oil in shallow water by encircling it and slowly dragging the slick into deep water. A marine recovery system is then used to remove the oil (see Figure FO-8).

DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

SAFETY

- Daily fair and foul weather evaluations are recommended, and should include distance to safe harbor, transit times and exposure of vessels.
- Vessel masters should have experience in the appropriate operating environment and local knowledge is preferred.
- Vessels setting and tending the boom should be able to safely transit seas that exceed the boom's operating limitation.
- If possible, vessels in transit to/from an operation or staging area should transit in pairs.
- A communications schedule should be established and followed, between vessels in transit and the Operations Section or Radio Dispatcher.
- Vessels, including skiffs, must have a minimum of two crew aboard.
- Response personnel should wear PPE as required by the incident-specific Site Safety Plan.

DEPLOYMENT

- Site conditions may influence deployment configuration options.
- Combinations of Free-oil Recovery and Diversion tactics are often used together.
- Combinations of configurations may optimize recovery.
- Procedures and permits for decanting recovered water should be considered.

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Each section of the manual has a colored tab on the outer edge of the page to assist in finding the tactic.

Part III
MECH

Safety and Deployment considerations.



The equipment and personnel tables can be used to determine typical equipment and personnel needs. Actual equipment and personnel needs will be site and situation specific.

“Equipment” is the list of equipment needed to deploy the tactic. “Function” describes what the equipment will be used for. And “Quantity” is the amount or number of each piece/item. “Notes” describes any necessary additional information.

A dedicated icon is used for each tactic.

Mechanical Recovery – Containment and Recovery

On-water Free-Oil Recovery

- Open water systems, typically operate two 12-hour shifts per day. Other systems typically operate one 12-hour shift per day.
- Logistics for oil transport and disposal should be considered.

REFERENCES TO OTHER TACTICS

Other tactics associated with On-water Free-oil Recovery include:

-  Marine Recovery
-  Diversion Boom
-  Marine Based Storage and Transfer

EQUIPMENT AND PERSONNEL RESOURCES

Commonly used resources for this tactic include vessels, boom, skimmers, primary storage devices, and personnel. Configuration type and quantity of strike teams required will be determined by site conditions, spilled oil type and volume, area of coverage, and resource availability. Resource sets may need to be refined as site-specific requirements dictate.

Open Water Free-oil Recovery System

Typical Equipment	Function	Quantity	Notes
Oil boom, > 42" height	Contain and concentrate oil	1,000 to 3,000 ft.	Depending on configuration and oil concentration
Skimming system(s), open water	Remove concentrated oil	1 minimum	Type and capacity of skimmer depends on oil type, oil weathering state, and operating environment
Enhanced recovery device	Concentrate oil	1 optional	Type and capacity of skimmer depends on oil type, oil weathering state, and operating environment
Primary storage device	Store recovered fluid	2 times the effective daily recovery capacity of the skimming system(s)	Typically large barges or bladders are used for open water systems
Decanting system	Removing recovered water	1 optional	Permit is required to decant
Typical Vessel	Function	Quantity	Notes
Class 1 or 2	Platform for skimming and handling recovery device	1 or 2	Depending on configuration
Class 3, 4, 5 or 6	Boom towing	1 to 4	Depending on configuration
Typical Personnel	Function	Quantity	Notes
Field Team Leader	Supervises operations	1	
Vessel Operators, open water	Masters of response vessels	2 to 5	Depending on number of vessels
Skilled Technicians	Crew vessels and operate response equipment	4 to 7	Depending on number of vessels
General Technicians	Work under the direction of skilled technicians	2 to 5	Depending on number of vessels



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TACTIC LIST

SAFETY

- (1) Site Entry Criteria
- (2) Personal Protective Equipment
- (3) Site Layout & Control
- (4) Personnel Decontamination

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OIL SPILL SURVEILLANCE & TRACKING

- (5) Plume Delineation, Land
- (6) Discharge Tracking On Water

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MECHANICAL RESPONSE

Containment and recovery tactics

- (7) Containment Boom
- (8) Dikes, Berms & Dams
- (9) Pits, Trenches & Slots
- (10) On-water Free-oil Recovery
- (11) On-land Recovery
- (12) Diversion Boom
- (13) Marine Recovery
- (14) Shoreside Recovery
- (15) Passive Recovery

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Sensitive area protection tactics

- (16) Exclusion Boom
- (17) Deflection Boom
- (18) Beach Berms & Exclusion Dams
- (19) Cold Water Deluge

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Primary storage & transfer of recovered products & wastes

- (20) Marine-based Storage & Transfer of Oily Liquids
- (21) Land-based Storage & Transfer of Oily Liquids
- (22) Pumping Oily Liquids

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NON-MECHANICAL RESPONSE

- (23) Dispersant Application
- (24) In-situ Burning, Oily Vegetation
- (25) In-situ Burning, On Water
- (26) In-situ Burning, Pooled Oil

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LOGISTICS

- (27) Staging Area
- (28) Vessel Decontamination

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PERSONNEL CLASSIFICATIONS

RECOMMENDATIONS

GENERAL TECHNICIAN

- ◇ Minimal or no field experience in spill response.
- ◇ Must be physically able to perform the duties assigned (which may include lifting 50 lbs.).
- ◇ Current respiratory fit test, if required.
- ◇ Duties associated with mobilization, deployment, and support functions.
- ◇ Tasks include:
 - Boom Deployment.
 - Loading and unloading equipment.
 - Assembly of anchor systems.
 - Decontamination of equipment.
 - Assembly of temporary storage devices.
- ◇ Meets the following annual minimum training requirements:
 - HAZWOPER Refresher.
- ◇ Possesses documentation of:
 - Current 24 Hour (or higher) HAZWOPER.
 - Current HAZWOPER medical exam, if required.

SKILLED TECHNICIAN

- ◇ Possesses documentation of minimum training requirements of the General Technician.
- ◇ Possesses training and experience in spill response.
- ◇ Usually performs related activities as part of regular employment.
- ◇ Tasks include:
 - Operation of skimmers, power packs, and transfer pumps.
- ◇ Has training/experience (any combination) with:
 - Response equipment deployment and use.
 - Response tactics and equipment requirements.
 - Boat safety, navigation, or operation.
 - Emergency response management.
 - Contingency plan familiarization.
- ◇ Has actual spill response, exercises, field deployment experience:
 - Operation of recovery equipment systems.
 - Decontamination procedures.
 - Deployment and use of containment systems.
 - Operation of transfer and storage equipment systems.
 - Wildlife hazing, capture, and stabilization (field training/experience).



TEAM LEADER _____

- ◇ Possesses documentation of compliance with the following minimum training:
 - Meets training requirements for General Technician.
 - Meets training requirements of Skilled Technician.
 - Completed HAZWOPER On Scene Incident Commander or HAZWOPER Management and Supervisor Training.
- ◇ Categories include Division & Group Supervisors, Task Force Leader, and Strike Team Leader.
- ◇ Attended training in the actions, responsibilities and tasks associated with incident management.

VESSEL OPERATOR, PROTECTED OR CALM WATER _____

- ◇ Possesses documentation of compliance with the following minimum training:
 - Meets training requirements for General Technician.
 - Meets one of the following criteria:
 - Completion of 40 hours of training/experience on vessels including navigation, charting, vessel electronics, docking, and maneuvering procedures.
 - Current USCG Operator of Uninspected Passenger Vessel (or higher) license.
- ◇ Tasked with safe operation of vessels under 30 feet in length and designed for operation in protected water or calm water environments or occasionally in conjunction with larger vessels in offshore response.
- ◇ Duties include:
 - Towing and placing containment boom.
 - Setting and tending anchors.
 - Movement of equipment to remote sites.

VESSEL OPERATOR, OPEN WATER _____

- ◇ Possesses documentation of compliance with the following minimum training:
 - Meets training requirements for General Technician.
 - Meets one of the following criteria:
 - Completion of 40 hours training/experience on vessels larger than 30 feet, including navigation, anchoring, vessel electronics, docking, and maneuvering procedures.
 - Current USCG 25 GT Near Coastal, or larger, license.



Classifications

- ◇ Tasked with safe operation of vessels larger than 30 feet designed for sustained operations in an offshore environment.
- ◇ Duties include:
 - Towing of containment boom.
 - Working in conjunction with barge containment operations.
 - Towing mini-barges.
 - Operating skimmers to recover oil.
 - Providing management support to offshore operations.

STAGING AREA MANAGER

- ◇ Knowledge of the primary functions and layout of a Staging Area and the procedures and personnel needed for safe, effective Staging Area operations.
- ◇ Familiarity with Staging Area purpose and functions (may be covered in ICS training).
- ◇ Familiarity with Staging Area layout and resource requirements (may be covered in contingency plan training).
- ◇ Familiarity with roles and responsibilities of Staging Area Management personnel (sometimes covered in contingency plan training).
- ◇ Familiarity with procedures for safe, effective Staging Area operations and required documentation (may be covered in company's materials management practices).
- ◇ Familiarity with logistical issues relating to their specific geographic area of operation.



VESSEL CLASSIFICATIONS

RECOMMENDATIONS

CLASS 1 – OFFSHORE RESPONSE VESSEL

Class 1 vessels are large, deep draft, steel hull vessels generally longer than 150 ft. and over 1,500 HP. These vessels are capable of providing all offshore services required during a response, i.e., major skimming systems, berthing, command vessel, hauling cargo, etc. They generally have large open rear decks, elevated wheelhouses and are USCG inspected. They can be used in any offshore region of Alaska. These vessels may be able to provide limited support services to other vessels in the fleet, i.e., berthing, meals, fuel, water, repair, etc. They are not restricted by seasonal or most sea ice constraints.

CLASS 2 – LARGE RESPONSE VESSEL

Class 2 vessels are slightly smaller than Class 1 vessels, typically less than 150 ft. in length. All have steel hulls with drafts generally less than 12 ft. They can include larger landing crafts, have forward or aft houses, and have adequate deck space for deployment/operation of VOSS systems, boom deployment/towing, and barge assist. They may have limited accommodation space. These vessels may be able to provide limited support services to other vessels in the fleet, i.e., fuel, water, repair, etc. They are not restricted by seasonal or most sea ice constraints.

CLASS 3 – LARGE FISHING/WORK VESSEL

Class 3 vessels are dedicated oil spill response vessels and the largest vessels of the fishing fleet, including large seiners, longliners, gillnet boats, and tenders. They may have steel, aluminum or fiberglass hulls. Deck space is adequate for small skimming system deployment/operation. HP is generally over 400, allowing them to tow boom up to open water size. These vessels may have accommodations, but are usually limited to the vessel crew plus one or two. They are not restricted by seasonal use, but will be restricted in sea ice concentrations over 70% ice cover.

CLASS 4 – SMALL FISHING/WORK VESSEL

Class 4 vessels are smaller fishing vessels, including seiners, longliners, and gillnet boats. They have limited deck space and accommodations. They are well-suited for towing protected water or calm water boom, but can be used for towing ocean boom in areas of lower current speed. These vessels work best in nearshore areas with support from Class 1, 2, or 3 vessels. They are perfect for bays and protected waters. They are shallow draft vessels, made of aluminum



Classifications

or fiberglass, and usually have no additional accommodations. They may be limited by seasonal constraints and are not expected to work in sea ice concentrations over 50% ice cover.

CLASS 5 – GENERAL VESSEL

Class 5 vessels are small, generally less than 30 ft., with no accommodations. These day-use vessels are used for placing and towing protected water or calm water boom in nearshore areas or river mouths. They may be used for scouting, wildlife hazing/capture, and miscellaneous assignments within various on-water task forces. These vessels may be limited by seasonal constraints.

CLASS 6 – WORK BOAT OR SKIFF

Class 6 vessels are work boats, jitneys, skiffs, or other open small boat type vessels, generally with outboard motors and no accommodations. They may be used to handle protected water or calm water boom in nearshore areas or river mouths, and other miscellaneous assignments within on-water task forces. Class 6 vessels are generally not suited for transport/towing/working in exposed waters or handling long arrays of boom.

CLASS 7 – PASSENGER VESSEL

Class 7 vessels are passenger charter vessels designed and licensed to carry passengers such as supervisors, media, or regulatory agency representatives. They are generally for day use and can also be used to support field command/safety staff, wildlife hazing/capture, and logistics.

CLASS 8 – TOW VESSEL

Class 8 vessels are inspected or uninspected towing vessels, designed and equipped for towing large or small barges.

CLASS 9 – DIVE VESSEL

Class 9 vessels are dive vessels, designed or equipped to support diving operations.

CLASS 10 – SALVAGE VESSEL

Class 10 vessels are salvage vessels, designed or equipped to support marine salvage operations.

CLASS 11 – TANK BARGE

Class 11 vessels are tank barges or tank vessels designed and equipped to carry liquid cargoes.



OPERATING ENVIRONMENT CLASSIFICATIONS *RECOMMENDATIONS*

The operating environment classification system used in this manual follows the system used in the World Catalog of Oil Spill Response Products – Eighth Edition.¹ The World Catalog in turn follows the standards of the American Society of Testing and Materials (ASTM), in particular F625-94(2000) Standard Practice for Classifying Water Bodies for Spill Control Systems. Equipment is rated to perform in one of the following operating environments:

Operating Environment	Significant Wave Height	Examples of General Conditions
 Open Water	≤ 6 ft.	Moderate waves, frequent white caps
 Protected Water	≤ 3 ft.	Small waves, some white caps
 Calm Water	≤ 1 ft.	Small, short non-breaking waves
 Fast Water	≤ 1 ft.	Small, short non-breaking waves with currents exceeding 0.8 knots, including rivers
 Broken Ice	≤ 1 ft.	Ice coverage exceeds 10%
 Solid Ice	not applicable	Ice coverage is 100% and is of sufficient strength to support response operations.
 Marsh	not applicable	Marshes are low-lying waterlogged land that are poorly drained and difficult to cross on foot or vehicle.
 Tundra	not applicable	Tundra has permanently frozen subsoil. Tundra is often waterlogged land that is poorly drained and difficult to cross on foot or vehicle.
 Other Land	not applicable	All other land types except Marsh and Tundra.
 Shorelines	not applicable	All shoreline types adjacent to open, protected, calm, and fast water.

NOTES: Some equipment is transferable between operating environments; flexibility is a key tenet of any oil spill response.

Shoreline types and descriptions can be found in the Alaska State/Federal Unified Plan.

¹ Potter, Steve, ed. 2004. *World Catalog of Oil Spill Response Products*. Ottawa, Ontario, Canada: SL Ross Environmental Research Ltd.





SAFETY CHECKLIST

Everyone working on a spill response must understand that safety is the number one objective. The Safety Officer is responsible for the health and safety of all response personnel in the field, which includes establishing safety zones, personal protective equipment (PPE) requirements, hazard identification, and preparation of Site Safety Plan(s). The Safety Officer also supports establishment of site entry criteria and decontamination facilities. The following checklist is a general safety checklist that should be used by all incident personnel.

General Safety Checklist:

- Obtain a safety briefing from your supervisor or the Safety Officer before beginning work.
- Read, understand, and follow the Site Safety Plan developed for the incident.
- Read the Material Safety Data Sheet (MSDS) for all products that you will be working to contain or remove.
- In all cases of an unknown chemical, the Safety Officer will assist/verify identification prior to any containment or removal actions.
- Wear the appropriate personal protective equipment (PPE) as directed by the Site Safety Plan.
- Assess the safety of the situation on a regular basis. Consider the following types of hazards:
 - Fire and explosion risk
 - Chemical exposure
 - Safety of on-water or on-ice operations
 - Temperature extremes (i.e., heat stress and hypothermia)
 - Report any sightings of bears to your supervisor and request a bear guard if appropriate
 - Other physical hazards, including noise
- Report any unsafe conditions to your supervisor or the Safety Officer.
- Report any accidents and/or injuries to your supervisor.
- Do not attempt any tasks that you are not trained to perform.
- Use the "Buddy System" in all controlled access areas.
- Follow decontamination procedures established for the incident.
- Segregate wastes according to procedure established for the incident, as directed by the Waste Management Plan.
- Participate in an incident safety critique prior to departing the incident.
- Maintain integrity of safety zone (hot, warm, cold) to prevent the spread of contamination.





FIELD TEAM LEADER CHECKLIST

Everyone working on a spill response must understand their position, duties, and responsibilities in the response organization. All field teams will work under the Operations Section, led by the Operations Section Chief. Depending on the size and complexity of the incident, the Operations Section may be divided into Division, Branches or Groups. A Field Commander will be assigned to supervise one or more field operations. Field response teams will be assigned to carry out specific tasks under the direction of the Field Commander. **Field response teams may be designated as Task Forces or Strike Teams and will be supervised by a team leader.** The following general checklist has been developed for field team leaders.

General Field Team Leader Checklist:

- Obtain a briefing from your supervisor before beginning work.
- Review your work assignment, as directed by ICS Form 204 Field Assignment.
- Safety is the highest priority; review the General Safety Checklist, including the buddy system.
- Muster and account for your team. Make sure all team members are checked in to the incident and assigned to your team.
- Brief your team on the following prior to beginning work:
 - Safety (see Safety Checklist).
 - Locations of work assignment, Field Command Post, Staging Area and Decontamination Area.
 - Weather/Sea conditions.
 - Current incident situation.
 - Operational objective(s) and priorities.
 - Task(s) to be accomplished.
 - Task(s) assignments.
 - Communications procedures and schedules (see Communications Checklist).
 - Equipment check-in and check-out procedures.
 - Personal protective equipment (PPE) requirements.
 - Site entry (check-in and check-out) procedures.
 - Decontamination procedures.
 - Waste management procedures (see Waste Management Checklist).
 - Evacuation procedures.
 - Questions.



Checklists

- Verify that your team members have the proper training and certifications for the tasks that they are assigned to accomplish.
- Establish status report expectations with your supervisor and subordinates, including:
 - Time.
 - Location.
 - Current weather conditions.
 - Status of resources and activities and task force specific information.
 - Additional needs or requirements.
- Ensure that there is an escape route and evacuation plan for your team should the situation deteriorate.
- Ensure that your team has adequate shelter, food, drinking water, first aid, toilet facilities, transportation, and bear/wildlife guards if appropriate.
- Ensure that your team follows communications, site-entry, decontamination, and waste management procedures.
- Brief your team members on their responsibilities pursuant to the historic properties checklist, and on any incident-specific historic properties-protection protocols.
- Brief your team members on their responsibilities pursuant to the wildlife checklist, and on any incident-specific wildlife-related protocols.
- Account for your team members on a regular basis and at the end of your shift.
- Conduct a post-shift debriefing of your team and document safety issues and lessons learned.
- Maintain a log (such as the ICS Form 214) and turn-in to your supervisor or the Documentation Unit at the end of your shift.
- Follow buddy system.





RADIO COMMUNICATIONS CHECKLIST

Radio communications during a spill response are directed by an Incident Communications Plan (ICS Form 205), which is developed by the Communications Unit. Clear and accurate radio communication is critical to a successful response. The following general radio communications checklist has been developed for all response personnel.

General Radio Communications Checklist:

- Obtain, review, and follow the Incident Communications Plan (ICS Form 205). In some cases communications channels are specified on the Field Assignment Sheet (ICS Form 204).
- Determine your primary and alternate communications channels.
- If you are assigned a radio, perform a function test on your assigned channel(s).
- Obtain extra batteries and/or a battery charger.
- Establish a communications schedule with your supervisor or the radio dispatcher. Follow the schedule.
- Establish a procedure for failed communications with your supervisor or the radio dispatcher.
- Establish a procedure for emergencies with your supervisor or the radio dispatcher.
- Use only assigned channels.**
- Monitor your radio.
- Minimize all radio communications to essential information.
- Determine footprint of radio communications, and report if there is a problem.
- If you are required to use phonetic spelling, use the following system:

A - ALPHA	J - JULIET	S - SIERRA
B - BRAVO	K - KILO	T - TANGO
C - CHARLIE	L - LIMA	U - UNIFORM
D - DELTA	M - MIKE	V - VICTOR
E - ECHO	N - NOVEMBER	W - WHISKY
F - FOXTROT	O - OSCAR	X - X-RAY
G - GOLF	P - PAPA	Y - YANKEE
H - HOTEL	Q - QUEBEC	Z - ZULU
I - INDIA	R - ROMEO	





WILDLIFE CHECKLIST

Including Oiled or Potentially-Oiled Wildlife

The following considerations apply to all field response personnel *except* those assigned specifically to wildlife-related activities.

General Wildlife Checklist:

- Be aware that wildlife, including birds, marine mammals (e.g., sea otters, seals, or whales) and terrestrial mammals (e.g., foxes or bears) may be encountered while you are performing field-based response activities.
- Do not** approach, disturb, scare, deter, haze, touch, harass, handle, throw objects at, or capture any wildlife, since those activities may be unlawful and must be overseen and/or permitted by appropriate State or Federal wildlife resource agency personnel. In addition, exposure to, or handling wildlife can cause injury and/or illness to the responder.
- Report all sightings of wildlife, including animal carcasses and live wildlife, to your supervisor, noting the time and location of the observation.
- Report any sightings of bears to your supervisor, who may in turn, request a bear guard, if appropriate.
- Follow all incident-specific wildlife-related protocols included in the Incident Action Plan.
- Additional information on activities related to oiled or potentially-oiled wildlife may be found in Annex G of the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substances Discharges/Releases (see <http://akrrt.org/UnifiedPlan/G-Annex.pdf>).





HISTORIC PROPERTIES CHECKLIST

The following general historic properties checklist has been developed for all response personnel.

General Historic Properties Checklist:

- Be aware that historic properties (also known as historic and prehistoric archaeological resources) may be encountered when you are performing field-based response activities. Because these heritage sites are irreplaceable, the Unified Command has a site identification and protection program to help protect these resources.
- Historic and prehistoric archaeological resources include a wide range of sites, deposits, structures, ruins, buildings, graves, artifacts, fossils, and other objects of antiquity. It is unlawful to collect or disturb, remove, or destroy any historic property or suspected historic property.
- If you see historic properties, or if you are not sure, do not touch or disturb them. Instead, immediately report the information (including the location) to your supervisor according to the incident-specific Cultural Resources Policy.
- In addition to the incident-specific Cultural Resource Policy, information on historic properties protection during an incident may be found in Annex M of the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substances Discharges/Releases (see <http://akrrt.org/UnifiedPlan/M-Annex.pdf>) or via the Alaska Regional Response Team web site (see http://akrrt.org/AK_IPG.pdf).





WASTE MANAGEMENT CHECKLIST

The proper handling and disposal of wastes generated during a spill response is directed by an incident-specific Waste Management Plan, which is developed by the Environmental Unit. A Waste Management and Disposal Group may be formed to collect and dispose of generated wastes, but everyone working on the incident is responsible for the proper management of the wastes that they create or recover. The following general waste management checklist has been developed for all response personnel.

General Waste Management Checklist:

- If you generate or handle waste, you must obtain, review, and follow the Waste Management Plan.
- Minimize all waste where practical. Reuse or recycle as much as possible.
- Identify all wastes. If you cannot identify a particular waste, ask for the assistance of your supervisor or a Waste Management Specialist.
- Do not co-mingle wastes, unless directed to do so. Segregate all wastes into at least the following categories:
 - Recovered Liquid Waste*
 - Recovered Oil
 - Recovered Oily Water
 - Recovered Oily Sludge
 - Recovered Oily Liquids mixed with other chemicals
 - Recovered Solid Wastes*
 - Oily Snow or Ice
 - Oily Sand, Gravel, or Soil
 - Oily Debris or Vegetation
 - Oily Sorbents, Boom or Personal Protective Equipment
 - Non-oily Debris or Vegetation
 - Animal Carcasses
 - Wastes Generated through the Response Effort*
 - Recyclables (corrugated cardboard, newspaper, aluminum cans, glass containers, plastic containers)
 - Sewage or Sanitary Wastes (toilets)
 - Trash (household/office items that are not recyclable)
 - Oily water from Decontamination Processes (wash-down water)
 - Hazardous Wastes (chemicals)
- Properly store all wastes as directed by the Waste Management Plan.



- Do not decant water from recovered fluids without a permit from ADEC.** If decanting is approved, document the amount of water that is decanted on a form provided with the permit and in your log (such as the ICS Form 214).
- Dispose of all waste in an approved manner. Necessary permits must be obtained for the transportation or disposal of any wastes. Unauthorized disposal will not be tolerated and may result in disciplinary actions.
- Maintain good housekeeping practices; keep work areas neat and clean.
- Document quantities of all wastes generated and stored or disposed in your log (such as the ICS Form 214).
- Ensure all personnel are briefed on hazards, PPE, and safety (see Safety Checklist).





STAGING AREA MANAGER'S CHECKLIST

Under the Operations Section Chief, the Staging Area Manager (SAM) is responsible for managing all activities within the designated staging areas. The SAM is responsible for tracking and accounting for all resources (people, equipment and material) entering or exiting the designated staging area. Review general ICS procedures and common responsibilities.

General Staging Area Manager's Checklist:

- Receive a briefing on the incident from Operations Section Chief per parent organization procedures.
- Identify/activate/establish Staging Areas, as required.
- Establish check-in procedures in coordination with Resource Unit.
- Organize the Staging Area(s) Layout (coordinated with and assisted by Operations (Site Safety, others), Planning (Environmental, others), and Logistics (Security, Medical, others):
 - Accommodate incoming equipment, yard equipment, Office/check-in area, break area/s, decontamination and donning, waste accumulation (per Environmental Unit), security/access, equipment storage and maintenance area.
 - Develop a traffic plan for the movement of resources into and out of Staging Area(s).
 - Post signs for identification and traffic control. Establish and maintain boundaries of staging areas.
 - Organize Staging Areas to segregate resources by kind and type. Plan and direct layout and setup of Staging Areas Office(s), and organize support personnel.
 - Report resource status changes as required.
 - Maintain Staging Area(s) in an orderly condition.
- Determine and request logistical support for personnel and/or equipment as needed:
 - Identify staffing and resource needs to operate Staging Area(s), such as sanitation facilities, feeding, security, lighting, etc.
 - Arrange for necessary equipment transportation support (including fueling). Request maintenance services for equipment at Staging Area(s) as needed.
- Respond to requests for resource assignments:
 - Receive and process resource assignments (resource orders, resource transfer requests) generated by field response personnel (including forms processing) per parent organization procedures.
 - Work with Communications Unit to establish necessary communications.



- Obtain and issue receipts for all response and communications equipment and other supplies issued or received at the Staging Area(s).
- Respond to requests for reporting and information as required:
 - Establish direct lines of communications with other Staging Area Manager(s) and the IMT, per parent organization procedures.
 - Work with Resources Unit and Staging Area personnel to update personnel, equipment, and materials check-in/out status (available resources).
 - Obtain and issue receipts for supplies distributed and received.
 - Advise Operations Section Chief/Field Command of all changing situations/conditions on scene.
 - Report special occurrences or events (e.g., accidents, sickness) per parent organization procedures.
- Reposition and/or demobilize as needed, and per any Demobilization Plan.
- Prepare and maintain a log (such as the ICS 214 Unit Log) for significant activities throughout each day of the incident.
- Maintain and submit all documentation, records, and logs to the Documentation Unit after the incident has been terminated.
- Demobilize staging area in accordance with incident Demobilization Plan.



OPERATING ENVIRONMENTS CROSS-REFERENCE TABLE

	Operating Environments									
	Water						Land			
	Open Water	Protected Water	Calm Water	Fast Water	Broken Ice	Solid Ice	Marsh	Tundra	Shorelines	Other
 Safety										
Site Entry Criteria										
Personal Protective Equipment										
Site Layout & Control										
Personnel Decontamination										
 Oil Spill Surveillance & Tracking										
Plume Delineation, Land										
Discharge Tracking On Water										
 Mechanical Response										
<i>Containment and Recovery Tactics</i>										
Containment Boom										
Dikes, Berms & Dams										
Pits, Trenches & Slots										
On-water Free-oil Recovery										
On-land Recovery										
Diversion Boom										
Marine Recovery										
Shoreside Recovery										
Passive Recovery										
<i>Sensitive Area Protection Tactics</i>										
Exclusion Boom										
Deflection Boom										
Beach Berms & Exclusion Dams										
Cold Water Deluge										
<i>Primary Storage/Transfer of Recovered Products/Wastes</i>										
Marine-based Storage & Transfer Systems of Oily Liquids										
Land-based Storage & Transfer Systems of Oily Liquids										
Pumping Oily Liquids										
 Non-Mechanical Response										
Dispersants										
In-situ Burning, Oily Vegetation										
In-situ Burning, On Water										
In-situ Burning, Pooled Oil										
 Logistics										
Staging Area										
Vessel Decontamination										