



RESPONSE TO SHORELINE OIL SPILLS

The primary goals of the course are to provide an understanding of Shoreline Response Programs and the SCAT process so that field data can be used by the Planning Section to develop the work orders for shoreline treatment strategies and tactics and to show how to create consensus treatment endpoints that enable shoreline cleanup to be completed on a segment by segment basis.

This course has been designed to provide a basic grounding on coastal processes, shoreline character, the fate, behavior and effects of spilled and stranded oil, oiled shoreline assessment surveys (SCAT) and shoreline cleanup issues as they relate to the coastal environments of a particular region.

Information gathered by shoreline assessment surveys (SCAT) is a critical element of the response decision process and the development of practical operational plans and strategies. SCAT involves a standardized methodology for the documentation and description of oiled shorelines. This data is used by strategists and planners within the ICS decision process to develop a shoreline cleanup plan. SCAT teams are involved throughout the response operation from the initial field surveys to inspection and the sign off process.

Classroom materials are supplemented by field trips to nearby sites to provide practical experience on how to describe and document different shore types.

The course is designed specifically to provide an understanding of:

- the character of the regional shore types and the processes that act on those shorelines;
- how to evaluate the fate and behavior of stranded oil;
- how to document and describe oiled shorelines;
- what factors are important to define response priorities and objectives and how to develop consensus treatment endpoints;
- which response techniques are practical and effective for the different shoreline types and coastal environments;
- the function of the Environmental Unit (EU) and the role and responsibilities of the EU Leader within the ICS
- how SCAT teams are involved in the decision process, inspection surveys and the cleanup completion signoff process:
- how to generate a Shoreline Response Program (SRP) Plan: and
- how to generate information to develop work orders (204 forms in the ICS system during Tactic Meetings).

According to the needs of the client, the course has been adapted for:

- lake, river and inland spills
- arctic and ice/snow conditions for coastal/lake/river environments
- temperate and tropical environments



This three-day course is presented by Owens Coastal Consultants (OCC), whose trainers include:

Ed Owens has over 40 years of experience worldwide with spill response operations, training and strategic planning and who originally developed the OCC Shoreline Response training course for Environment Canada in 1977. The training materials have since evolved with experiences on many spills and the course has been presented worldwide from the Arctic to the tropics. Dr. Owens is the President of Owens Coastal Consultants and is an internationally recognized expert on oil spill shoreline response. He has conducted oil spill related missions as a United Nations Expert Consultant for the International Maritime Organization on (IMO) projects in the Caribbean, South America, and Africa and was a technical consultant for the UN Claims Commission on the 1991 Gulf War claims. Dr. Owens has worked on spill-related projects throughout North and South America, the Middle East, as well as Russia, the Caspian, Australia and has developed area-specific response strategies for pipeline projects and other operational activities in the Arctic, North-South America, Africa, and Russia. Recently, he was the Shoreline Treatment Program Technical Advisor for BP on the Deepwater Horizon response.

Helen Chapman Dubach, who has been involved with oil spill response and environmental management for 14 years and formerly was a senior technical advisor at ITOPF, attending and advising on over 35 oil and chemical spills worldwide. Her spill response experience has included the provision of on-site technical and scientific advice on effective response options to ship owners, responders and government representatives. Field activities have ranged from aerial surveillance, shoreline (SCAT) surveys, assessment of the fate and behaviour of oil and other pollutants, environmental and economic impact assessment, advising on the most effective clean-up techniques and waste management options, to providing advice to potential claimants and insurers on international conventions and national laws for compensation for losses associated with an incident including assessment of claims for technical reasonableness. She has also acted as a facilitator between Federal and State Trustees and the Responsible Party during the Natural Resource Damage Assessment (NRDA) process in the USA.



Generic COURSE OUTLINE

1. PHYSICAL PROCESSES AND COASTAL CHARACTER
2. BEHAVIOR OF SPILLED OIL IN THE COASTAL ZONE
 - oil movement on water
 - weathering and fate of spilled and stranded oil
 - effects and recovery
3. SPILL MANAGEMENT - RESPONSE DECISION PROCESS
 - Spill Management (Incident Command System - ICS)
 - management by objectives
 - The Environmental Unit (EU) and the EU Leader
 - roles, responsibilities, expectations
 - Unified Command
 - co-management and coordination of response decisions and activities
 - shoreline response decisions and the environment
 - Minimum Regret strategy
 - environmental sensitivity/vulnerability, priorities, and Net Environmental Benefit
 - shoreline treatment end points and program completion
 - Developing a Shoreline Response Program
4. SHORELINE CLEANUP ASSESSMENT TECHNIQUE (SCAT)
 - Oiled shoreline assessment objectives
 - SCAT forms and terminology
 - SCAT team roles and responsibilities, team composition and agency participation
 - safety, field survey design and remote area surveys
 - data management
 - shoreline treatment recommendation forms and SCAT interface with the spill management process: Operations support
 - inspection surveys, the sign off process and treatment completion forms
 - how to create a Shoreline Response and SCAT Plan
5. RESOURCE AND SHORE PROTECTION
 - on-water containment and recovery
 - protection priorities
 - protection at tidal inlets
 - submerged and sunken oil
6. SHORELINE TREATMENT TECHNIQUES
 - treatment objectives and strategies
 - decision process - management issues
 - treatment techniques
 - remote area response operations
7. RESPONSE OPERATIONS
 - waste minimization and waste management
 - field operations



CASE STUDIES (selected)

Ocean 255 – Tampa, Florida (buried oil on recreational beaches)

M/V *Cosco Busan* - San Francisco Bay CA (response in a large urban area)

M/V *Selendang Ayu* - Unalaska Island AK (response in a remote area)

Deepwater Horizon - Gulf of Mexico