



Oil Spill Model and Response System

OILMAP™ provides rapid predictions of the movement of spilled oil. It includes simple graphical procedures for entering both wind and hydrodynamic data and specifying a spill scenario.

Applications for OILMAP

- Oil spill response decision support
- Oil spill response training
- Spill drill exercises
- Contingency planning studies
- Litigation support
- Management of spill related data
- Communicate spill scenarios

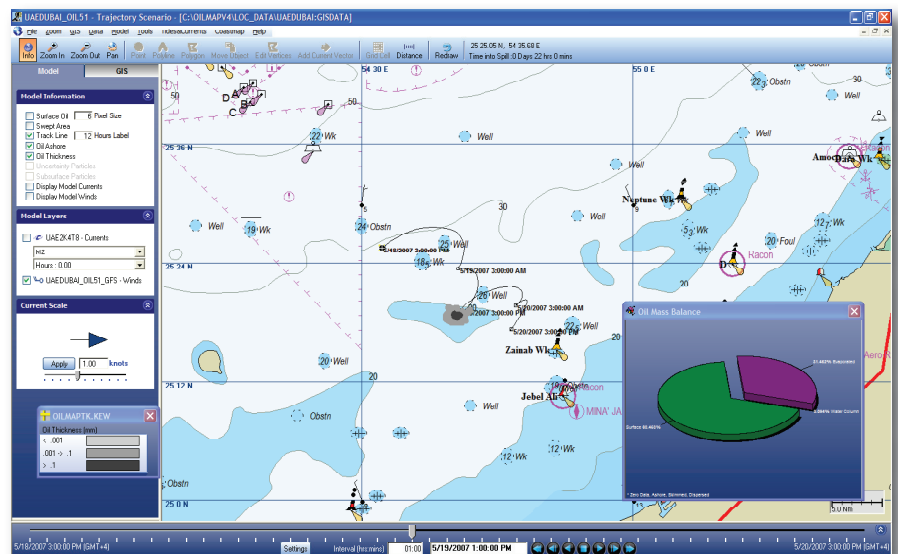
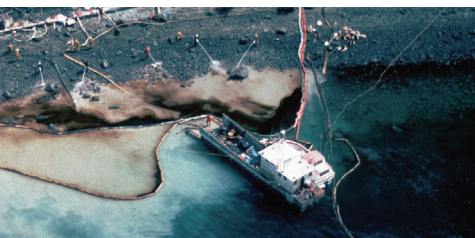
Features

- Uses ASA's own GIS or can be used in other GIS software such as ArcView®
- Updates predictions with over flight data
- Incorporates Boom-Oil interaction
- Dispersant Application
- Use of NOAA's Adios oil database of nearly 1,000 oils for weathering calculations
- Develop Coastal Planning and Management Data Bases using the interactive GIS
- Capability to integrate response plans
- Online web map and metocean data services
- Seamless integration of ASA's EDS: Environmental Data Server™ real-time and historical global environmental data from top data providers



OILMAP Model Highlights

- World-wide capability
- 2D and 3D capability
- Weathering and surface/subsurface transport of spilled oil
- Predicts the probability of key areas being impacted from a given spill
- Backtracking to determine the likely spill site position
- Risk assessments for important resources
- Oil model interactions with shoreline, reed beds, and ice coverage
- EDS: Environmental Data Server™ integration

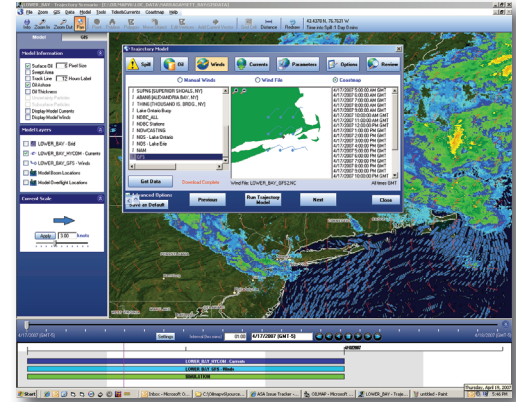




Model Modules

Trajectory and Weathering Model

- Predicts oil trajectories for instantaneous or continuous release spills
- Includes algorithms for spreading, evaporation, emulsification, entrainment, oil-shoreline, oil-reed bed, and oil-ice interaction
- Animation of surface oil movement, identification of shoreline impacts, graphical and tabular listings of weathering mass balance results, and display of GIS resources impacted by the spill



Stochastic Model (for Risk Assessment and Oil Spill Contingency Planning)

- Determine most likely spill paths for spills on a monthly, seasonal, or annual basis
- Probabilities of oiling the water surface and shorelines in the vicinity of the spill site, and contours of oil travel time

Receptor Model (for Oil Vulnerability Analysis)

- Determine vulnerability of a particular site (e.g. Desalination Plant) to oil spills based on lightering sites or tanker traffic routes
- Determine possible sources of oil when oil has been observed at a particular site

Subsurface Transport

- Predicts the subsurface transport of entrained and dissolved oil

Other OILMAP Applications

OILMAPLAND

a land and surface water spill model system for oil and chemical releases from pipelines

OILMAPDEEP

provides rapid predictions of the movement of spilled oil from sub-sea releases



ASA has built a wide range of computer modeling applications to solve various environmental problems. ASA's family of environmental modeling tools are available for licensed use and customization and include: AIRMAP™, CHEMMAP™, HYDROMAP™, OILMAP™, SARMAP™, SIMAP™, MUDMAP™ and WQMAP™. For more information visit our website at www.asascience.com.



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