OILMAP

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MAKING COMPLEX EASY

OILMAP - OIL SPILL MODELING SOFTWARE

OILMAP - Oil Spill Model and Response System

OILMAP is a user-friendly, Windows-based oil spill model system suitable for use in oil spill response and contingency planning. It includes simple graphical procedures for specifying a spill scenario while integrating both wind and hydrodynamic data. OILMAP provides rapid predictions of spilled oil movement. An included, comprehensive 3D model tracks various hydrocarbon components on the water surface, in the water column, and in the air. For over 25 years OILMAP has been used by major oil companies and international governments to successfully support spill response, planning, drills/exercises, and permitting in over 100 countries. The OILMAP model has undergone major updates to algorithms, which now integrate years of applied research and experiences from real events such as, the Deep Water Horizon oil spill in the Gulf of Mexico. OILMAP includes algorithms for spreading, evaporation, emulsification, entrainment, oil-shoreline, oil-reed bed, and oil-ice interaction. Surface and subsurface oil movement can be animated to identify shoreline impacts. In addition, OILMAP outputs graphical and tabular listings of weathering mass balance results and a display of GIS resources impacted by the spill.

Features of OILMAP

- Fully integrated GIS, compatible with other GIS tools
- Incorporate observed overflight data into model predictions
- Apply response strategies – Boom, Buring, Skimming, subsurface dispersant injection (SSDI) and aerial dispersant application
- Map assets, sensitive areas, and facilities using the interactive GIS
- Online web mapping and on-demand met-ocean data services
- Seamless integration of EDS: Environmental Data Server real-time and historical environmental data from top data providers

Applications of 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
- Environmental assessments
- Risk assessments

Met-Ocean Data Integration

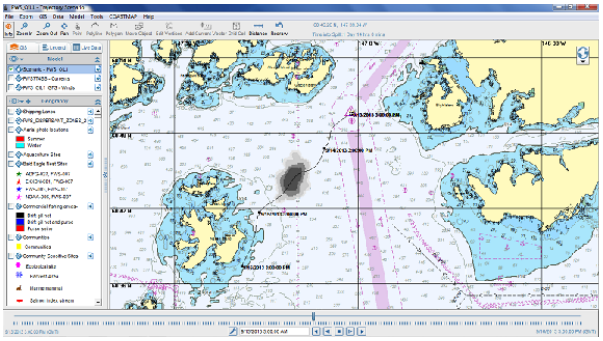
The Environmental Data Server (EDS) collects a wide variety of oceanographic and meteorological data that is used for marine response and crisis management as well as providing superior data sources to environmental modeling applications. EDS provides real-time and historical environmental data management, analysis, visualization, and internet-based distribution through Web services. EDS connects regional data to operational users. The system collects scientific data in disparate formats and makes available to operational users via standard web services.

OILMAP Modules

The standard OILMAP system contains an oil spill trajectory and fates model, oil database, environmental data tools, and visualization engine. The following modules can be utilized in OILMAP:

Trajectory & Fates

The trajectory & fates module is a far-field model, for surface and subsurface releases, that predicts the 3D trajectory and fate of oil for instantaneous or continuous release spills.

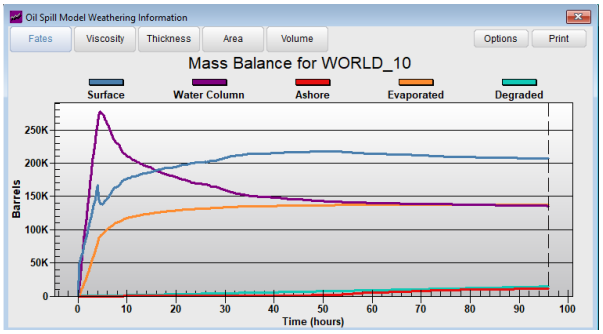


Stochastic

The stochastic module can be used for risk assessment and contingency planning. It helps determine the most likely spill paths and the minimum time for oil to reach specific points on monthly, seasonal, or annual basis.

OILMAPDeep

The OILMAPDeep module is a near-field model used to simulate subsurface releases of oil and gas. OILMAPDeep predicts the near-field plume characteristics and oil droplet size distributions for a specified release.



Airmap

The Airmap module is an atmospheric dispersion model integrated into OILMAP. It is designed to predict the trajectory and fate of oil in the atmosphere.

Environment and Climate Change Canada

Maritime and Coastguard Agency

Irish Coast Guard

Petroleum Development Oman

Saudi Aramco

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Oil Spill Response

EMSA

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