Spill Response Modeling

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Spill Response Modeling Outputs and Utilization

- Modeling Outputs
  - Oil Trajectory – Where oil is going and when it gets there
  - Oil Fate – How oil's characteristics change through time
  - Mass Balance – Compartments where the oil is located
  - GIS – The location of the oil relative to response equipment, access sites, communities, etc.
  - Sensitive Habitats - The location of the critters and special habitats
  - Response – The optimum performance of response equipment

- Utilization of Outputs
  - Selection and placement of response equipment – Pln and Ops
  - Protection of critters and habitats – Pln and Ops
  - Optimization of response equipment - Pln
  - Quantification and reporting of mass balance – Ops and Pln
  - Maps for PA, operations, and briefings - All

Model Inputs

- Inputs and Source
  - Spill location – RP/Surveillance
  - Oil type or characterization of spilled material - RP
  - Volume and duration of spill - RP
  - Surface hydrodynamics and associated data – NOAA/OSR Plan/?
  - Wind and weather forecast – NOAA/NWS/CNN/?
  - GIS Data – Regional OSR Plan/NOAA/?
  - Response Equipment – Regional OSR Plan/RRT/RP/?

- Reliability of Inputs?
  - Spill Location
  - Characterization
  - Volume and Duration
  - Hydrodynamics, etc.
  - Wind and weather forecast
  - GIS Data
  - Response Equipment

Improving Data Inputs and Modeling Accuracy

- Are new sources of input data available?
- How can the data be found and communicated?
- Have you got the appropriate modeling tools available?
- Are the data compatible with your model system and platform?
- What remedies are available?
- What is being overlooked?