Ocean Observing - Fed internal piece and "outsourced" piece

Integrated Ocean Observing Programs - assembles pieces into program

Ocean Observing Solving National Needs - executes program to spec
Environmental Information “Flow” on the Operational Decision Process: Risk Reduction Areas

DATA → INFORMATION → KNOWLEDGE → ACTION → OUTCOMES → IMPACTS

MetOcean Data and Models → MeetOcean Data Formatting → MetOcean Data Pre-Processing → MetOcean Information Integration → MetOcean Decision Support → MetOcean Information Evaluation

NMHS, Other Providers, Value-Added Service Providers

Supply=Demand Models
- Seasonal
- Annual
- Decadal

Operational Decisions
- Revenue projections, pricing
- Asset management, maintenance and replacement
- Enterprise wide contingency and financial planning
- Infrastructure siting
- Fuel mix determination
- Pump load forecasting
- Regional congestion management

Outcomes
- Improved profit
- Increased Efficiency
- Improved reliability
- Increased safety
- Decreased Liability
- Decreased Risk
- Decreased Exposure

MetOcean Information Integration

Measured Progress Towards Performance Targets and Development Goals

Weather Data Analysis and IT Services: Quantify, source, cost and reduce weather data error

Load Model Error Analysis: Improve Software and Support

Decision Analysis, Dependencies and Support Tools

Economic/Performance Valuation of Weather Error Impacts

Shareholder Value

Situational Awareness → Decision Support → Optimal Response
Defining the Program Elements Based on

Knowledge Transport Chain for IOOS on a Cyberinfrastructure Highway