Ocean Innovation Clusters – How Maritime Communities Build Synergy and Foster Growth in the Maritime Economies

Harlan Doliner, Verrill Dana LLP
MOTN President

WHAT IS MOTN?

MOTN is a 501c (6) trade association created in 1993 to bring members together to address new business opportunities; to foster partnerships between commercial, government or research organizations; to increase the market presence of members; and finally to enable members to collaborate on specific projects that they might not otherwise be able to address as a single entity.

MOTN GOALS INCLUDE:

- A business climate in New England that encourages early stage MAST companies and nurtures the growth and diversification of established ventures.
- A MAST industry cluster organized and focused around clearly defined goals, objectives, and economic targets for growth;
- New products that solve challenges and problems in the ocean environment that meet the existing and the emerging demand for innovation in the global markets; and,
- Jobs for the region and the Commonwealth.

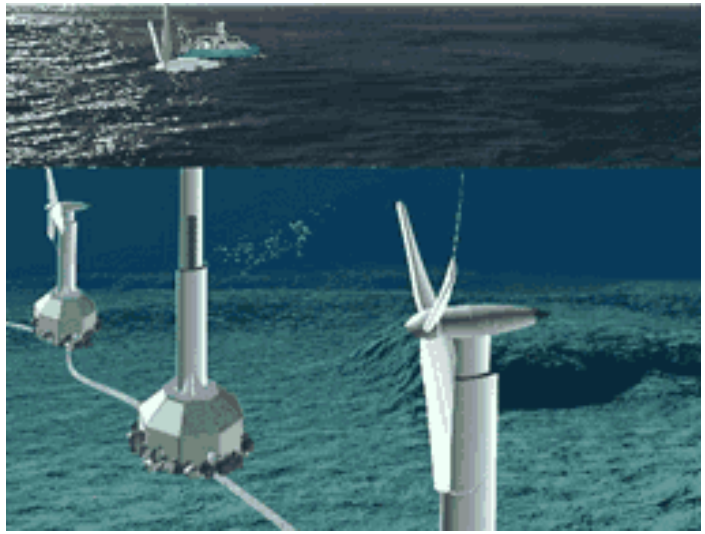
With Acknowledgement to:

Development of the Marine Science and Technology Industry Cluster in New England

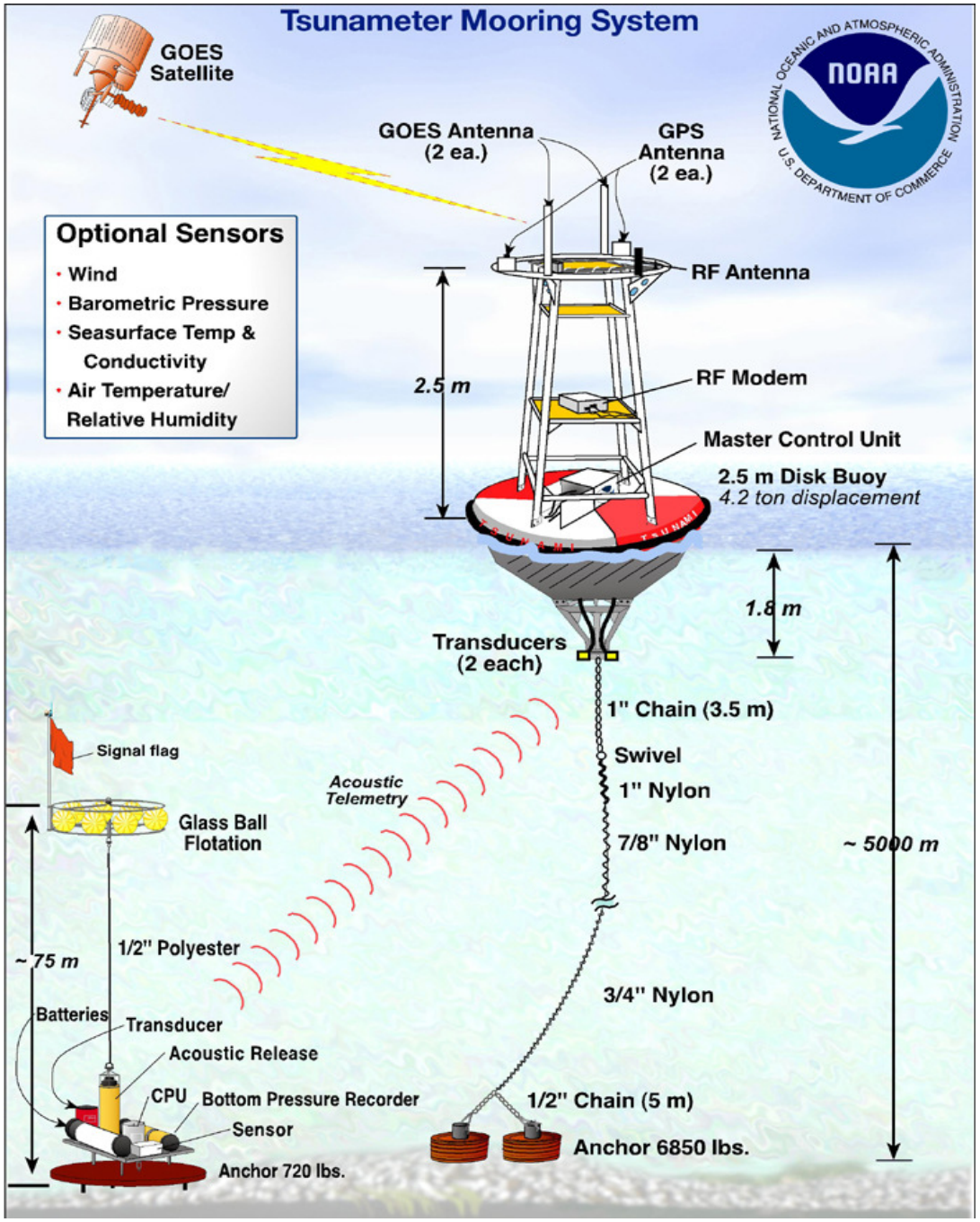
Thomas J. Curry Margaret L. Merrill Stephen P. Andrade Susan B. Peterson

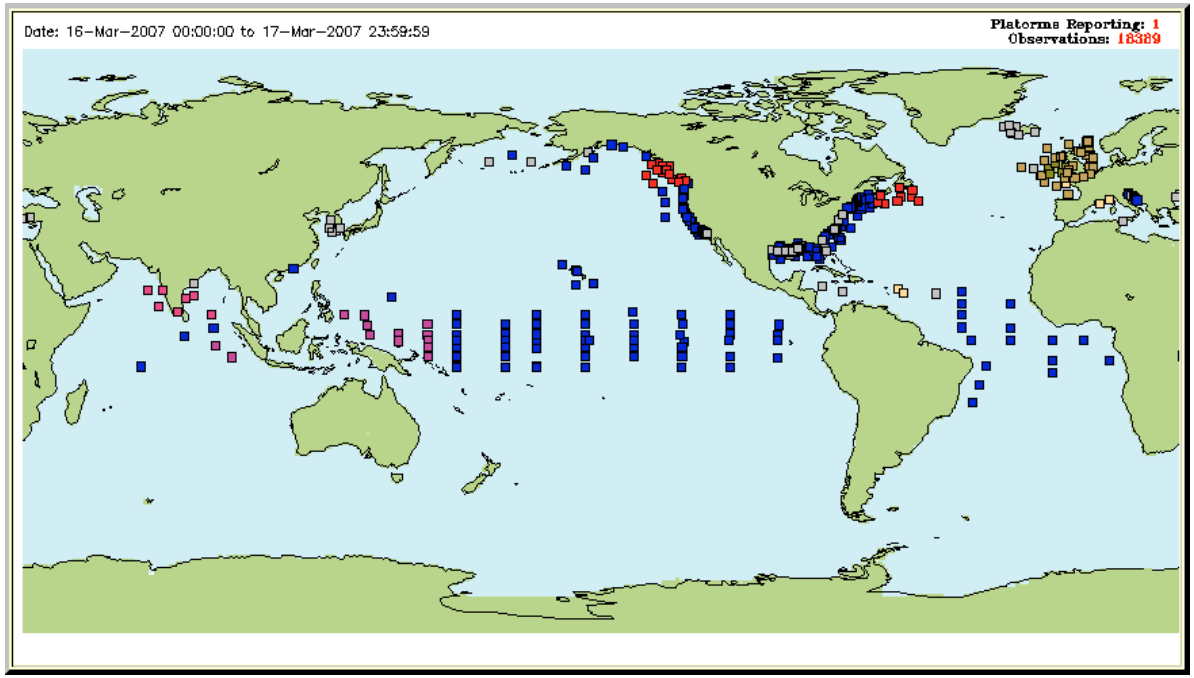
OPPORTUNITIES INCLUDE:

- Ocean Observation Prediction & Management Opportunities
- Offshore Energy Opportunities
- Port & Maritime Security Opportunities



OCEAN OBSERVATION


Tsunameter Mooring System
GOES Satellite
GOES Antenna (2 ea.)
GPS Antenna (2 ea.)
NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
Optional Sensors
• Wind
• Barometric Pressure
• Seasurface Temp & Conductivity
• Air Temperature/ Relative Humidity
RF Antenna
2.5 m
RF Modem
Master Control Unit
2.5 m Disk Buoy
4.2 ton displacement
1.8 m
Transducers (2 each)
1" Chain (3.5 m)
Swivel
1" Nylon
7/8" Nylon
~ 5000 m
Acoustic Telemetry
Signal flag
Glass Ball Flotation
~ 75 m
1/2" Polyester
3/4" Nylon
Batteries
Transducer
Acoustic Release
CPU
Bottom Pressure Recorder
Sensor
Anchor 720 lbs.
1/2" Chain (5 m)
Anchor 6850 lbs.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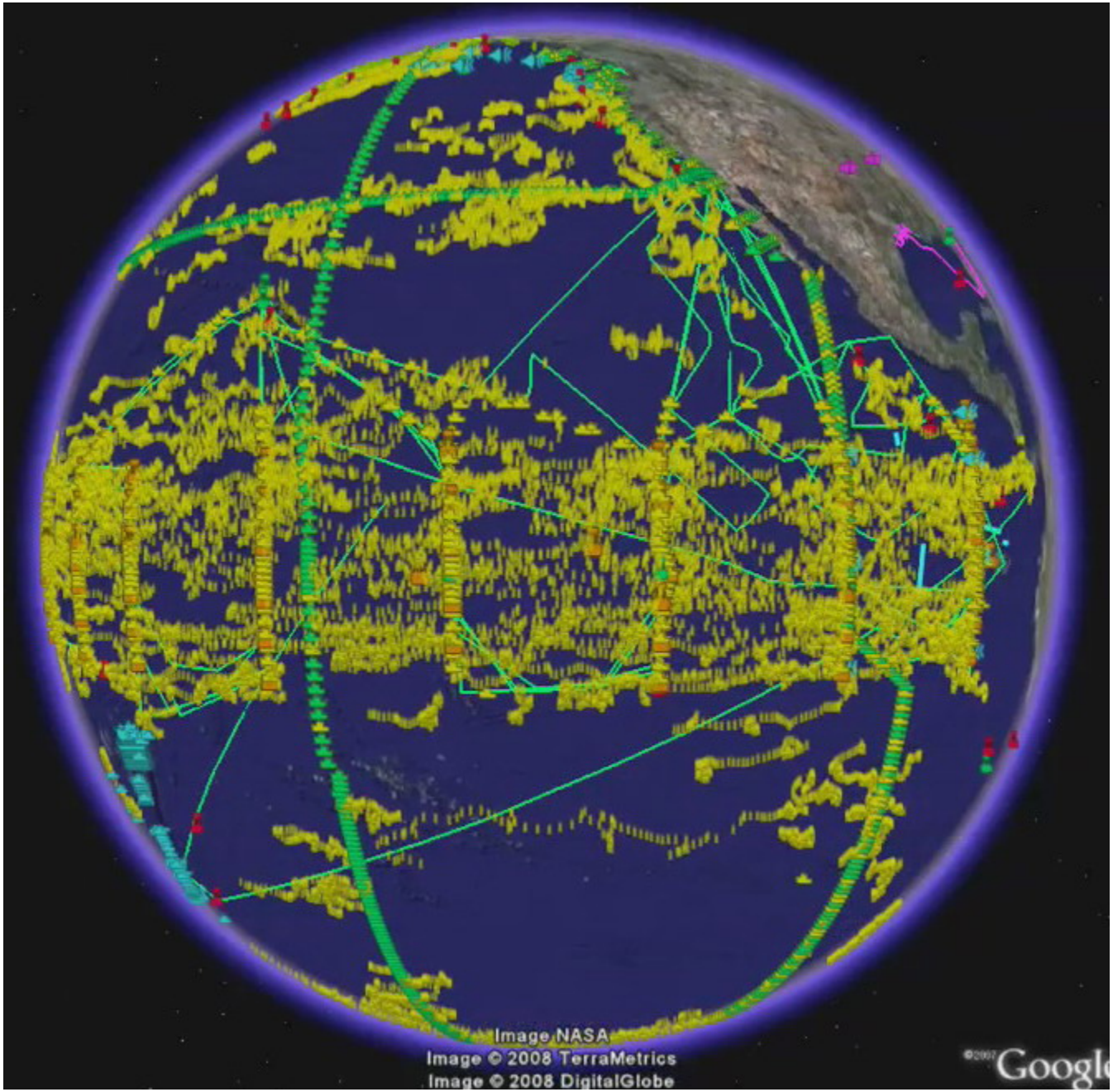
Image NASA
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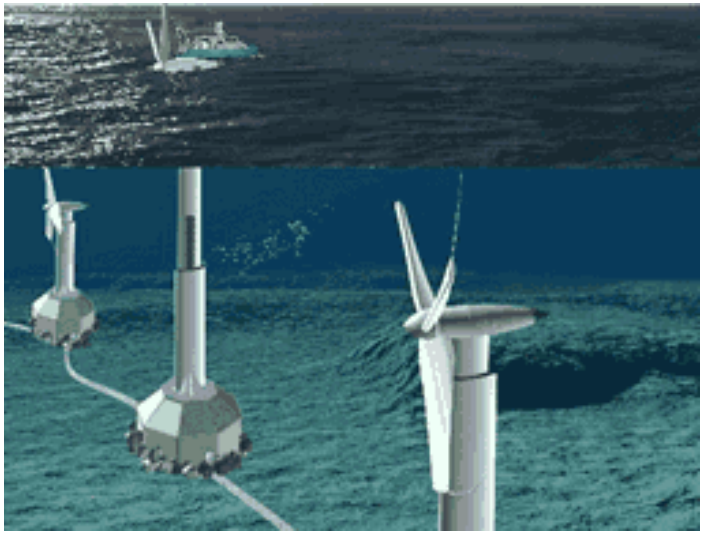
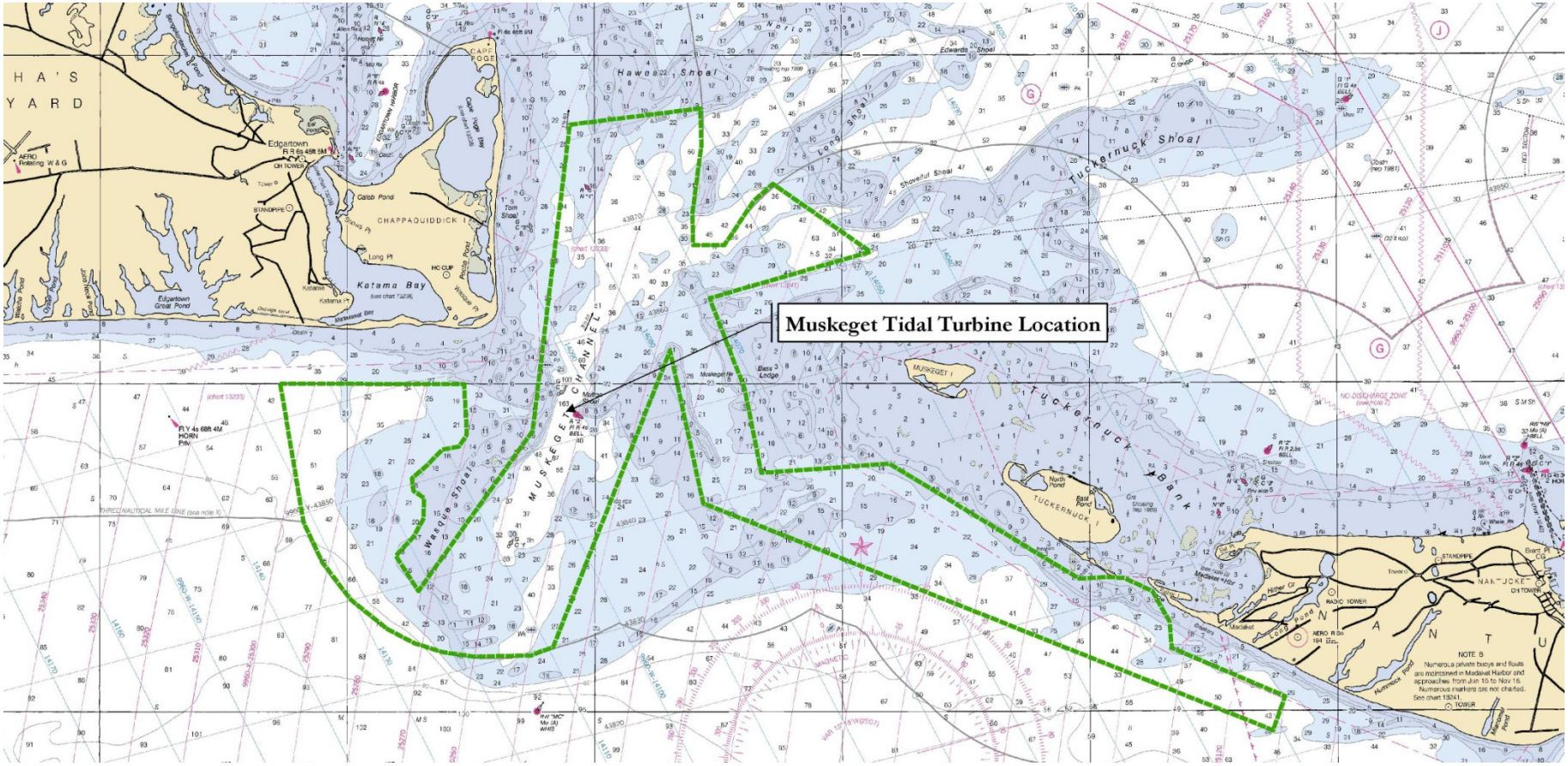
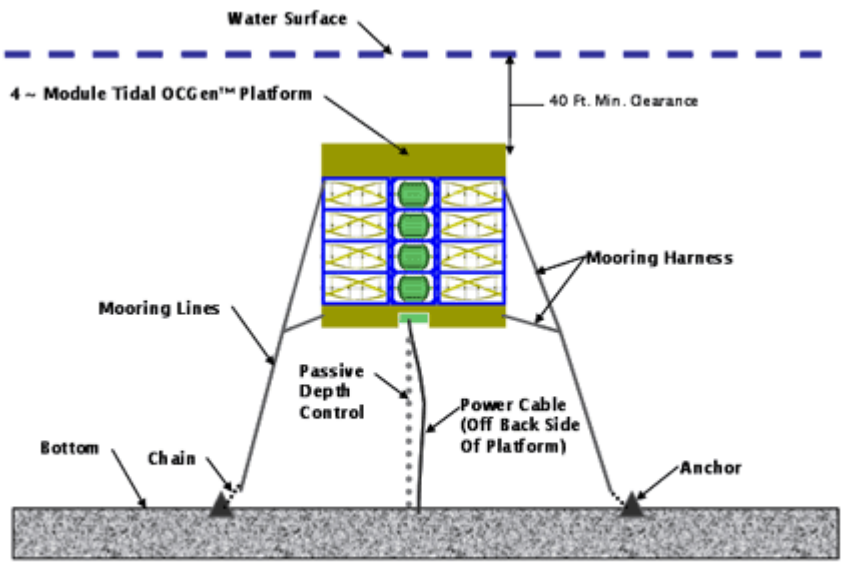


OFF-SHORE ENERGY

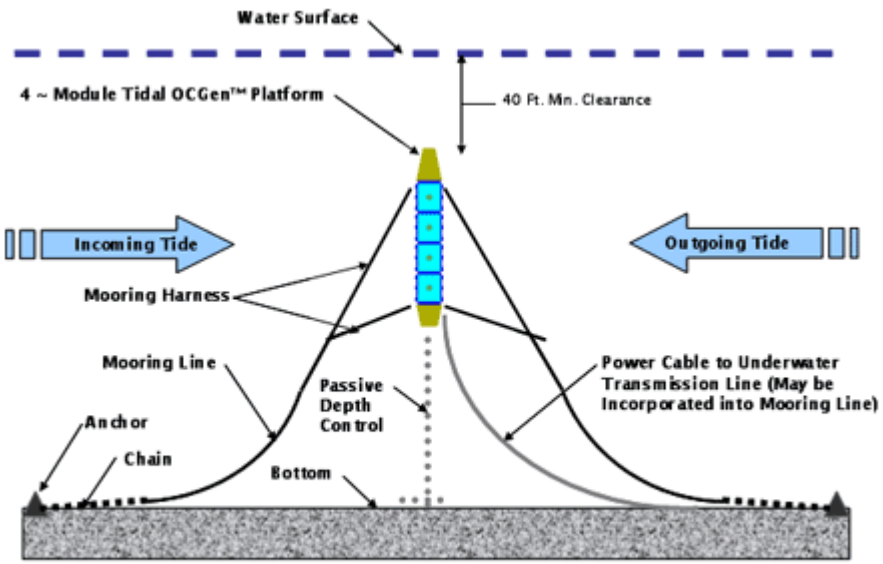
FERC Preliminary Permit



Turbine Energy Unit



Front Elevation



Side Elevation

ENERGY TIDE 2
Eastport, Maine, USA
2010 3 1

PORT & MARITIME SECURITY

WHAT'S THE PROBLEM?

- Potentially hazardous cargos transiting seaports pose significant environmental, safety and security risks.

- Terrorists threaten harm to US via its seaports

Risk of Maritime Terrorism in NE?

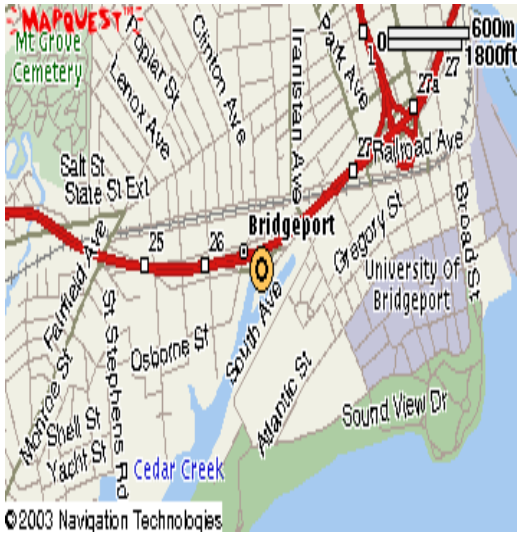
- NE Passenger Ferry
  - Suspicious Behavior
- TOPOFF III

  CT, NJ April 2005 (WMD)
- Evidence 911 Hijackers

  Traveled Locally
  - Activities tracked on Long Island

    and throughout the NE Corridor
- Waterfront Oil Storage Facilities (Bridgeport)
  - Reported suspicious behavior 2003

    Facility Located near active Mosque
- Trinidad 1990 Islamic Coup Attempt
  - Supplies 80% US LNG imports



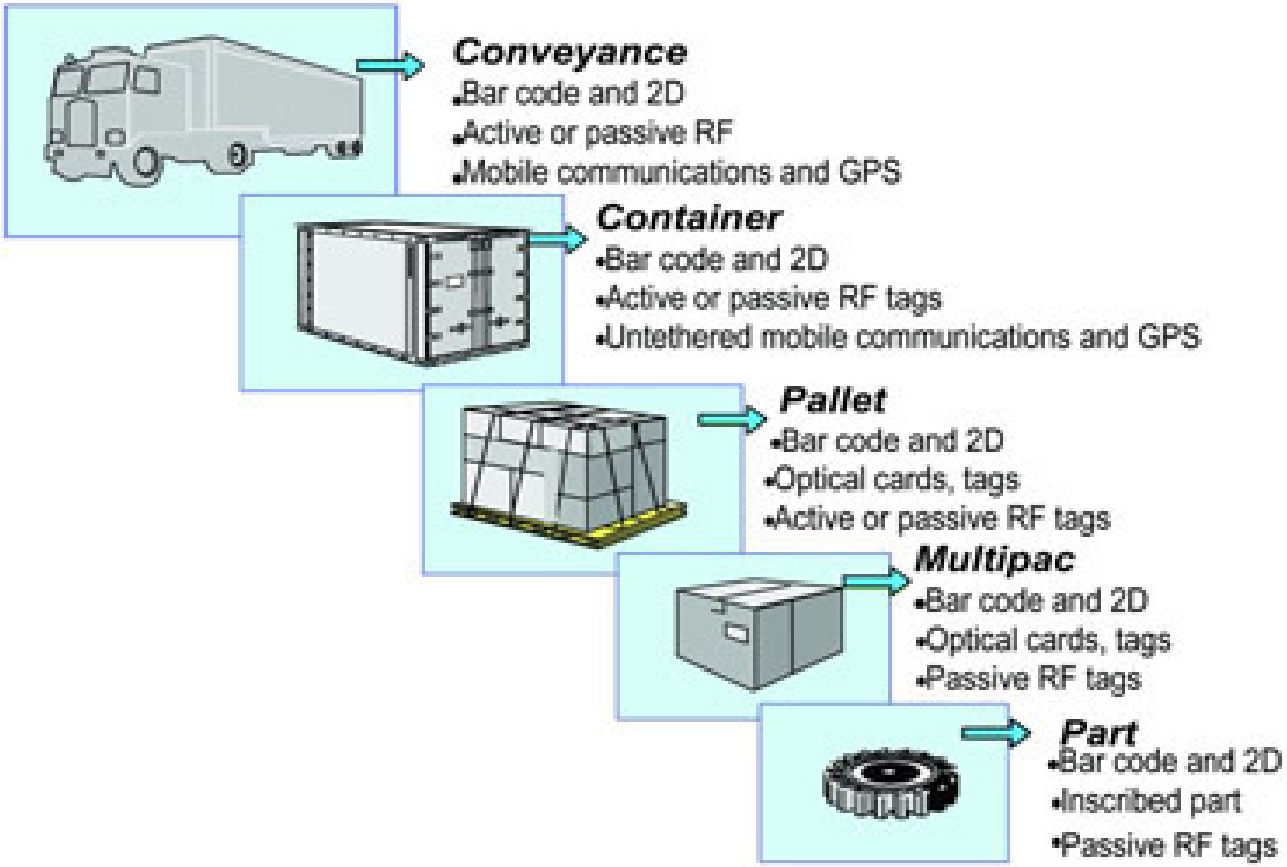
THE CONVERGENCE

1. IMPLEMENTATION OF NEW MARITIME SECURITY LEGAL REQUIREMENTS

2. MATURATION OF ENVIROMENTAL MANAGEMENT PRINCIPLES & PRACTICES

3. ADAPTATION OF TIME-HONORED MARITIME PRACTICES

Asset Tracking Technologies



Source: The North River Consulting Group