Maritime Mining

Mr. Scott Burleson
NSWC – Panama City Division
Mine Delivery Platforms

- USN
  - P-3C
  - F/A-18
  - P-8 (future)
  - SSN 688 Class

- USAF
  - B-1B
  - B-2
  - B-52H

Leaders in Littoral Warfare and Coastal Defense
Quick-Strike Family

Characteristics & Status
- Magnetic, Seismic, Pressure Sensors
- MOD 3 (TDD MK 71)
  - Programmable
  - Modular
  - Pressure Sensor for all QS Mines

Future
- Command and Control
- Target Processing Algorithms
  - Fast, Low-Signature Surface Targets
  - Slow, Low-Signature Subsurface Targets
- Delivery
  - Stand-off Air Delivery
  - Clandestine

Leaders in Littoral Warfare and Coastal Defense
Mine Assembly Units

Global Support

Leaders in Littoral Warfare and Coastal Defense
Value of Sea Mining

- Low-cost Battle-Space Shaping and Force Protection
  - Keep the enemy where you want him
  - Force the enemy into areas he doesn’t want to go
  - Keep the enemy out of areas he would like to go
  - Disrupt an enemy’s battle plan
  - Attrite enemy forces

- Diplomatic and Military Leverage
Operational Limitations

• Delivery Options – Capability, Capacity, Risk
• Target Discrimination - Enemy, Friendly and Neutral Targets
• Friendly Force Area Maneuver Impact
• Command and Control (C^2)
• Dynamic/Flexible Re-tasking or Recoverability
• Immobile weapon - Stationary minefields can be circumnavigated
Traditional Mining
(strategic, autonomous, overt)

Quickstrike
SLMM (through FY12)

SHALLOW
INTERMEDIATE
DEEP

400 Traditional Mines

Autonomous

Deliver
Arm / Engage / Sterilize
Clear

Hours
Months
Months

Risky Delivery & Extensive Clean-up

Transformational AUWS
(tactical, controlled, clandestine)

LDUUV w/Sensors & Weapons

Three Products:
- Tactical Positioning & Fire Control
- Remote Command & Control
- Auto Threat Detection & Localization

SHALLOW
INTERMEDIATE
DEEP

1 Transformational Mine

Distributed Sensors

Remote Control w/ Supervised Autonomy

Deliver
Arm/DisArm
Engage
Sterilize
Extract

Hours
Minutes
Minutes
Minutes
Hours

Eases Delivery & Clean-up;
Provides Tactical Flexibility

Leaders in Littoral Warfare and Coastal Defense
Maritime Mining
‘The Parts Make The WHOLE’
Questions