



***USMC  
Mine Countermeasures  
Requirements for  
Ship-to-Objective Maneuver  
and Assault Breaching***

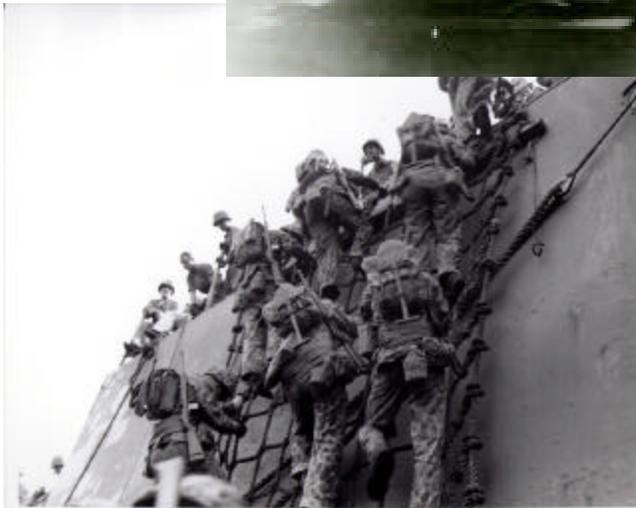
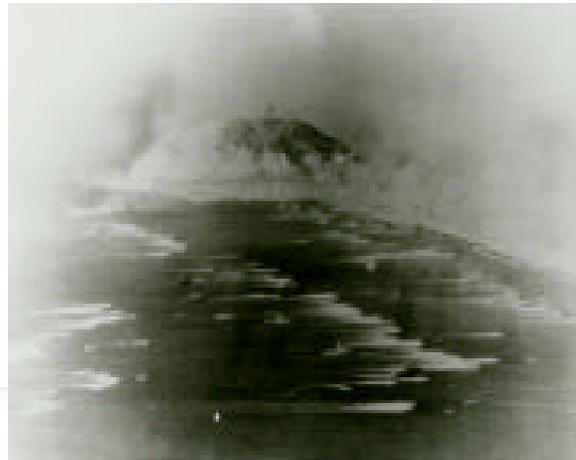
MGen Jan C. Huly  
Director, Operations Division  
Headquarters Marine Corps

11/04/99



# Amphibious Landings

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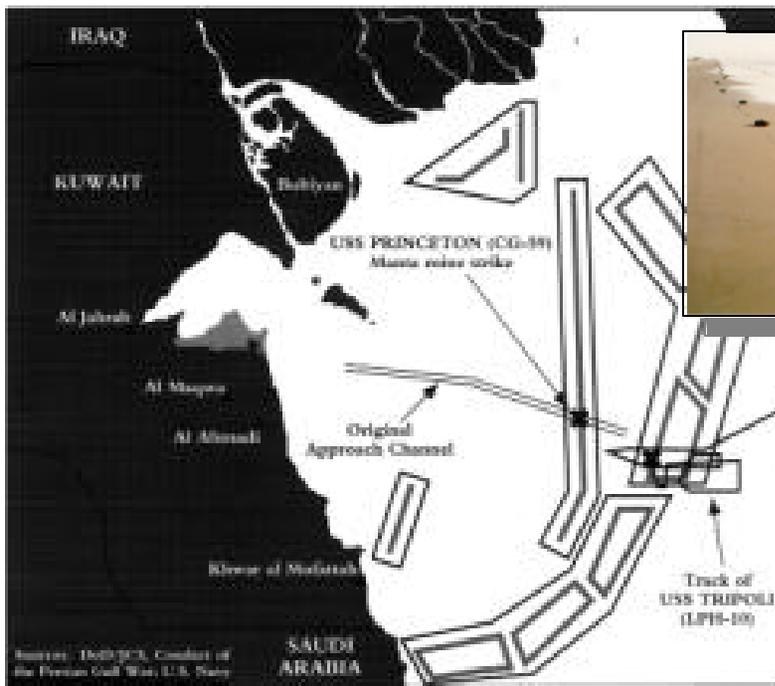


**The Decisiveness of Successful Assaults**



# The Problem

- Inadequate MCM Assets

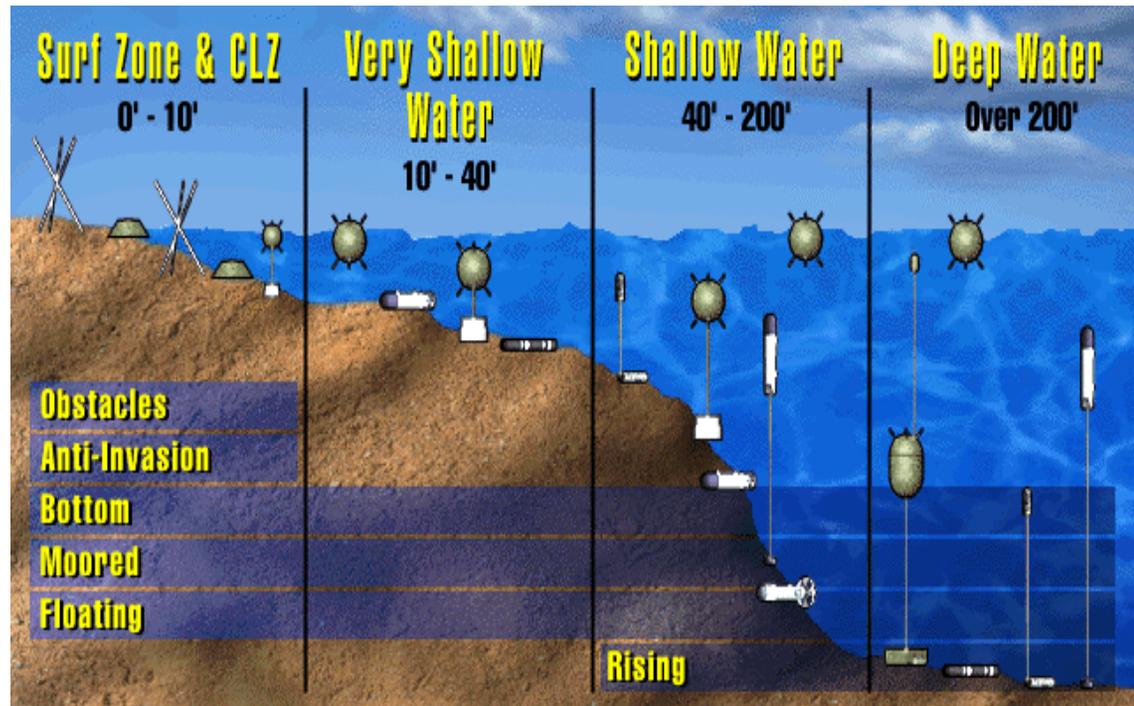
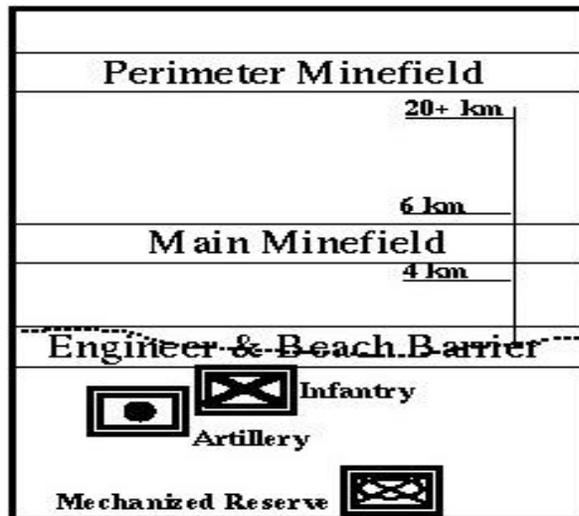


- Are We Any Better Off?



# The Threat

- No Assumption of a Benign Beach



- Increased Mine Proliferation
- Evolving Integrated Anti-Amphibious Assault Doctrine



# Our Mission

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...in any clime or place



**Marines = Amphibious Operations**



# How We Fight



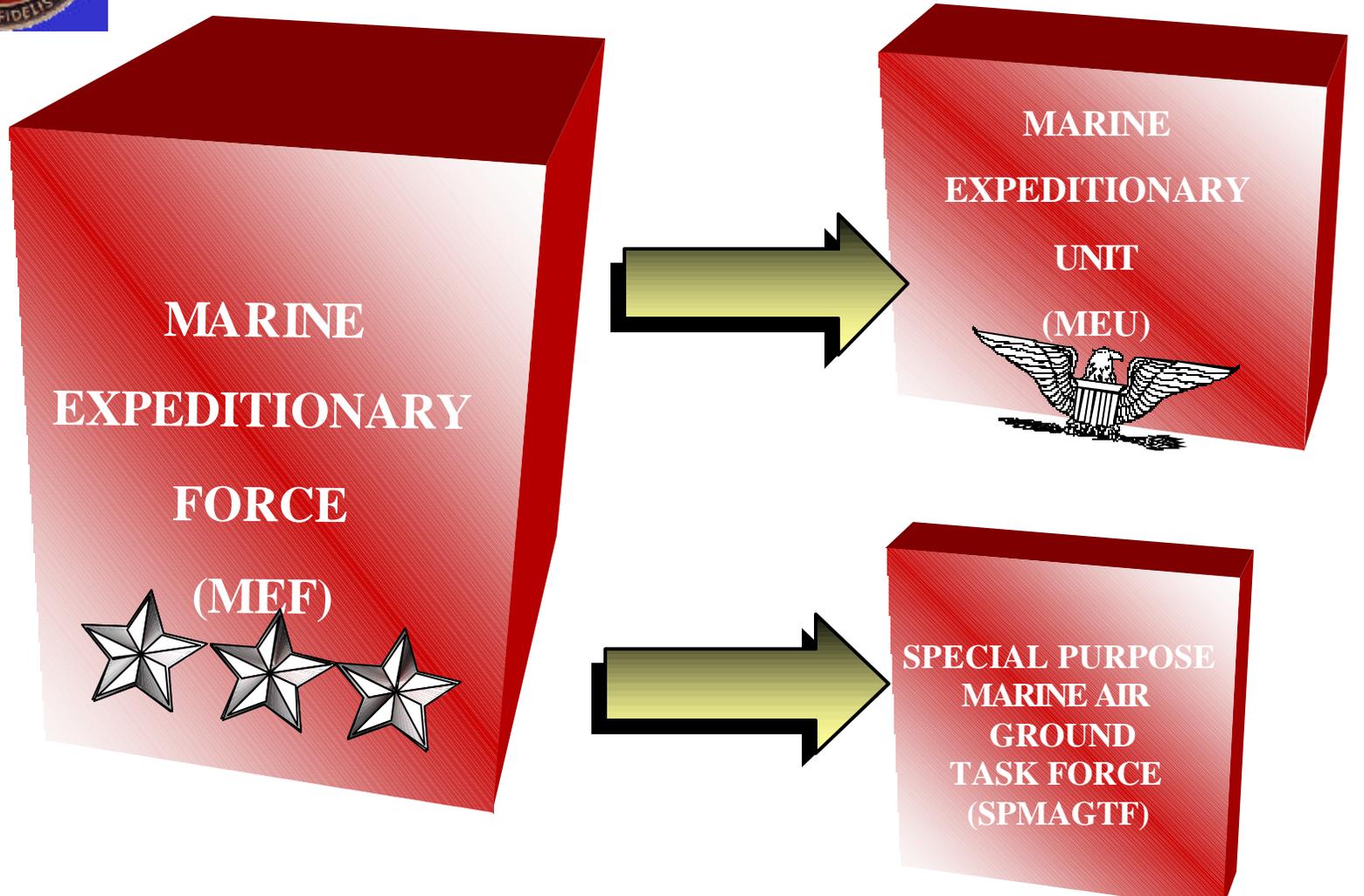
**The MAGTF**

- Forward Presence
- Sea-based
- Self-sustainable
- Forcible Entry





# Marine Air Ground Task Force Elements



(SIZE IS MISSION DEPENDENT)



# Marine Expeditionary Unit



COMMAND ELEMENT



**GCE**

*Infantry Battalion  
Reinforced*



**ACE**

*Composite  
Helicopter Squadron*



**CSSE**

*Service Support Group*

## MEU Lift Fingerprint

<b>Troops</b>	<b>2,800</b>
<b>Vehicles (X 1000 Sq Ft)</b>	<b>62</b>
<b>Cargo (X 1000 Cu Ft)</b>	<b>160</b>
<b>VTOL</b>	<b>47</b>
<b>LCAC Spots</b>	<b>6</b>



# Marine Expeditionary Brigade



COMMAND ELEMENT



GCE

*Infantry Regiment  
Reinforced*



ACE

*Composite  
FW/RW Squadron*



CSSE

*Service Support Group*

## MEB Lift Fingerprint

Troops	13,100
Vehicles (X 1000 Sq Ft)	300
Cargo (X 1000 Cu Ft)	560
VTOL	175
LCAC Spots	24



# Marine Expeditionary Force



COMMAND ELEMENT

## MEF Lift Fingerprint

Troops	36,200
Vehicles (X 1000 Sq Ft)	870
Cargo (X 1000 Cu Ft)	1,320
VTOL	405
LCAC Spots	78



GCE  
*Marine Division*



ACE  
*Marine Aircraft Wing*



CSSE  
*Force Service Support Group*



# MPF Operational Phases



- **MPSRON 1: Mediterranean**
- **MPSRON 2: Diego Garcia**
- **MPSRON 3: Guam / Saipan**



## Ground Combat Element

- Infantry Regiment
- 58 M1-A1 Tanks
- 72 TOWs
- 109 AAV's
- 30 Howitzers
- 25 LAVs

## Aviation Combat Element

- 73 Fixed Wing Aircraft
- 75 Helicopters
- 45 Stinger Missile Launchers

## Combat Service Support Element

- Supply/Maintenance
- Motor Transport
- Engineer
- Medical/Dental
- Landing Support



# Barriers...

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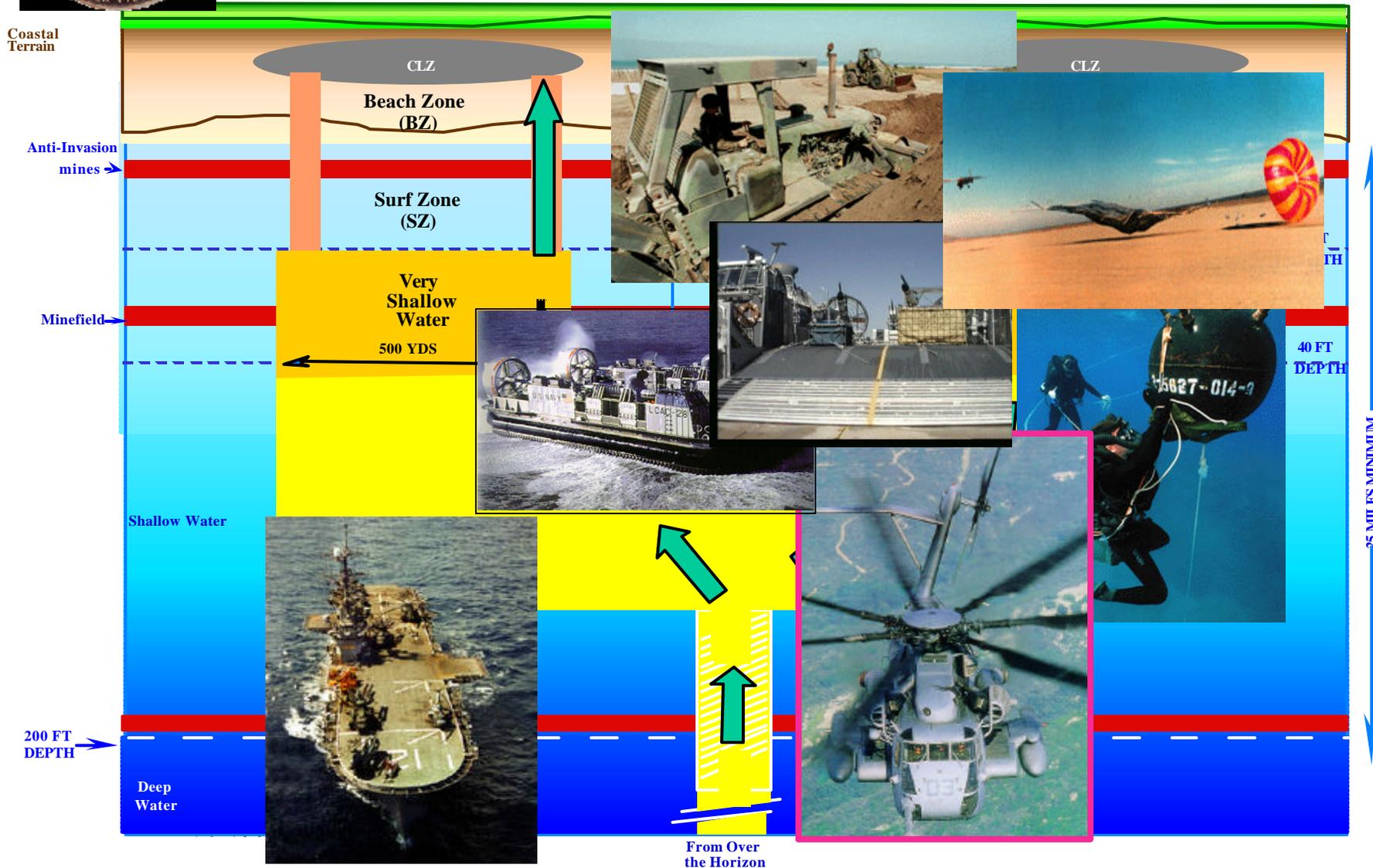
- Increased Operations in the Littorals



- Mine/Obstacle Threat Can  
And Will  
Affect Us Across the Spectrum



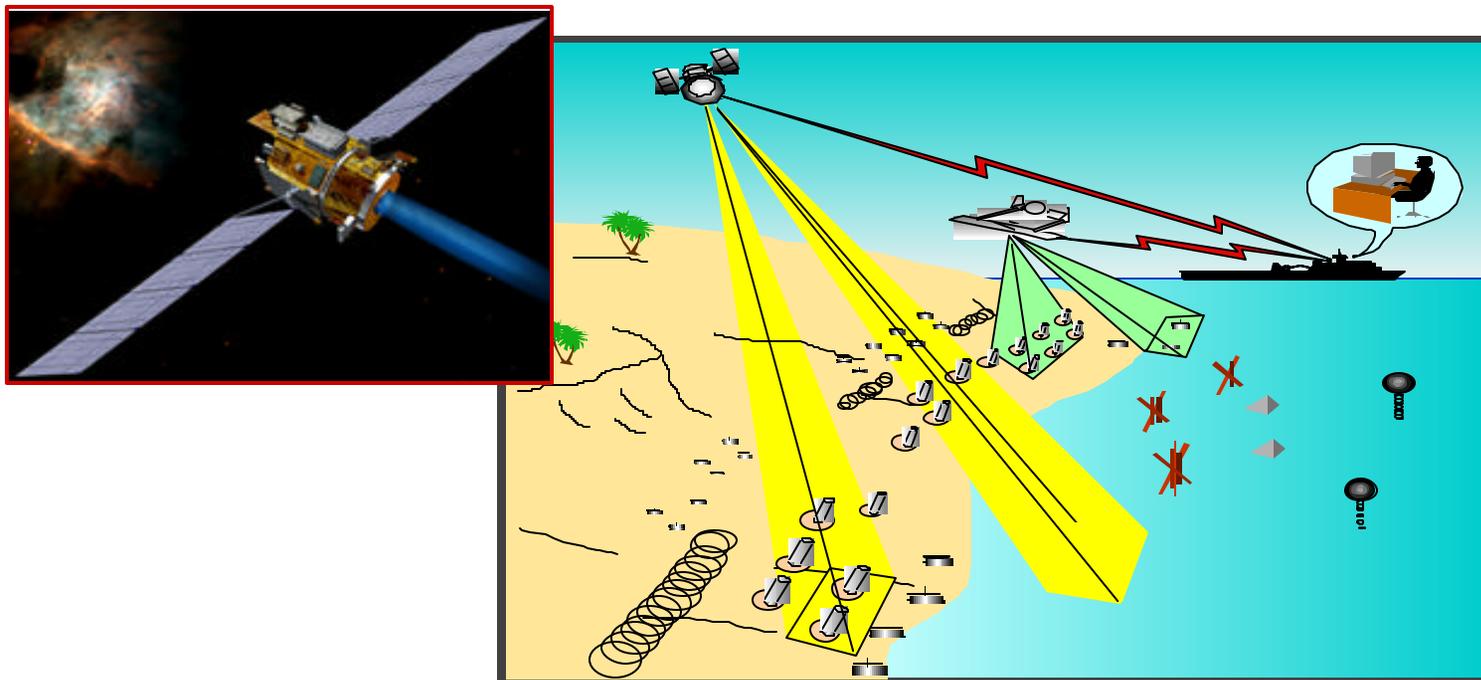
# Shortfalls





# *The Challenge to Industry*

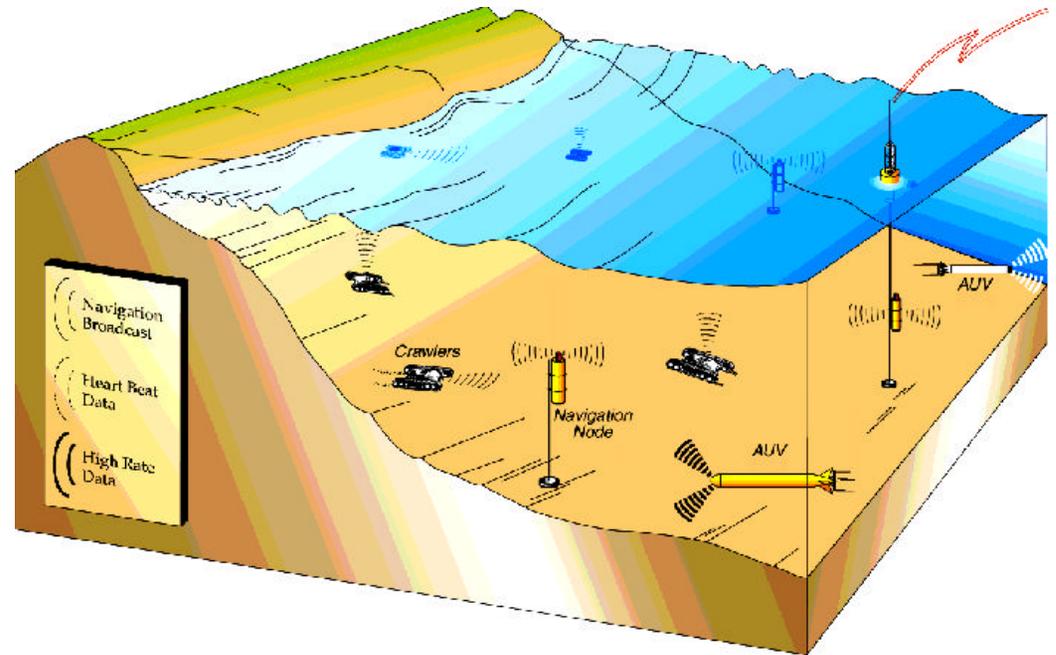
- **Wide Area Surveillance**





## *The Challenge to Industry*

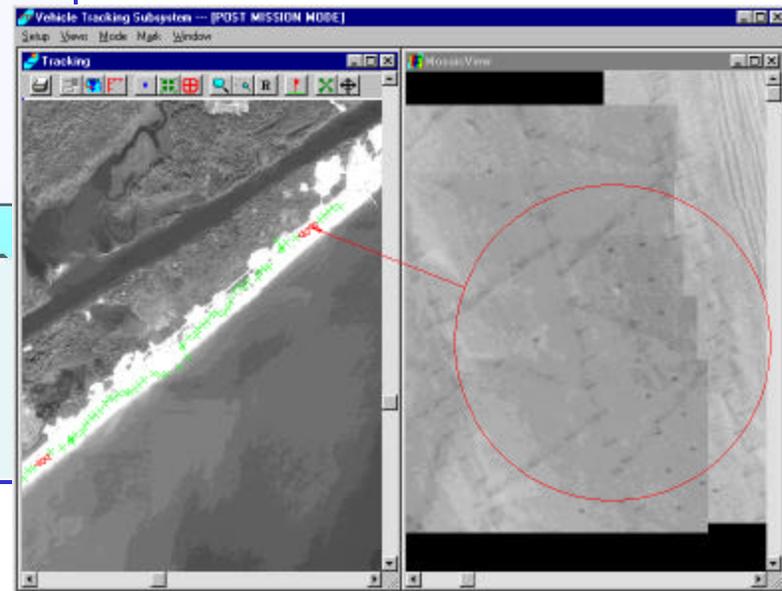
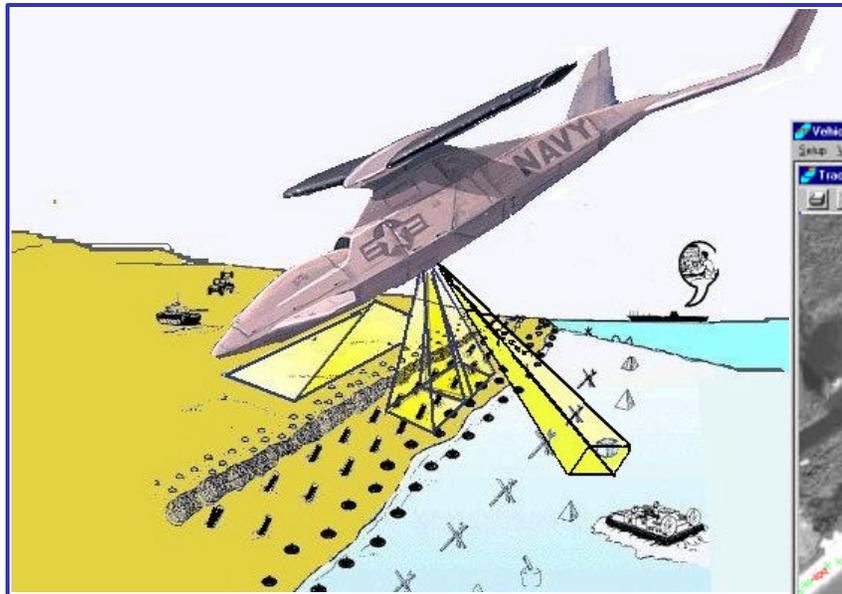
### • **Clandestine VSW/SZ/BZ/BEZ Reconnaissance**





## *The Challenge to Industry*

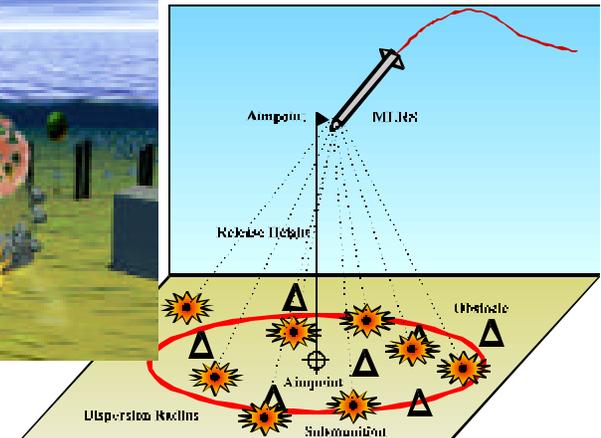
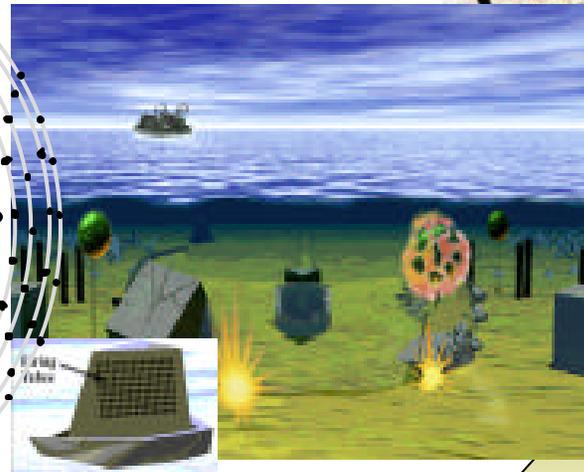
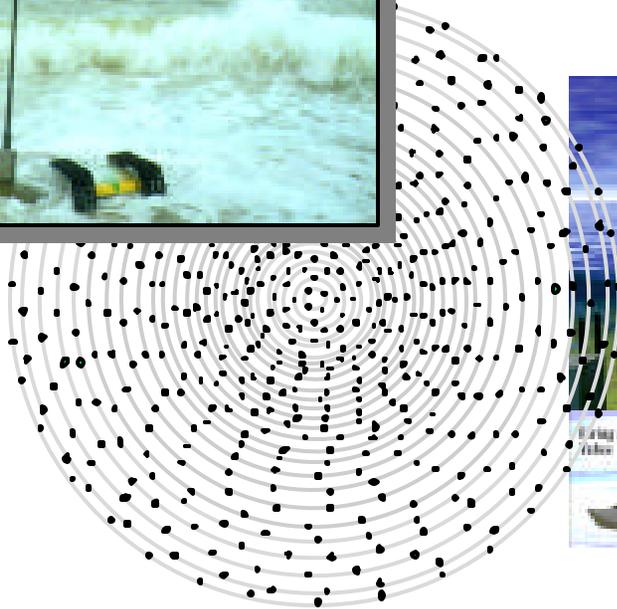
### **Rapid Overt VSW/SZ/BZ/BEZ Reconnaissance**





## *The Challenge to Industry*

- **Stand-off VSW-BEZ Breaching**

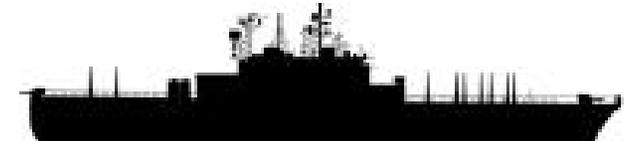
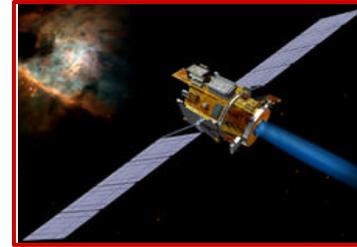


- **Rapid Follow-on Clearance**



## *The Challenge to Industry*

- **Data Fusion and CTP**



- **Precision Navigation and Marking**



# *The Bottom Line*

- **Challenge to Industry - Key to Solutions**
- **Must work Hand-in Glove**
- **Must Solve the mine and obstacle problem from the VSW region through the Beach**
- **Must field systems to enable unencumbered maneuver**
- **Must be affordable**

