

*Update on the Gulf of Mexico  
before the  
Scientific Advisory Committee*

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# Environmental Review of OCS Drilling

1. EIS from 5-Year Leasing Program

2. EIS at lease sale stage

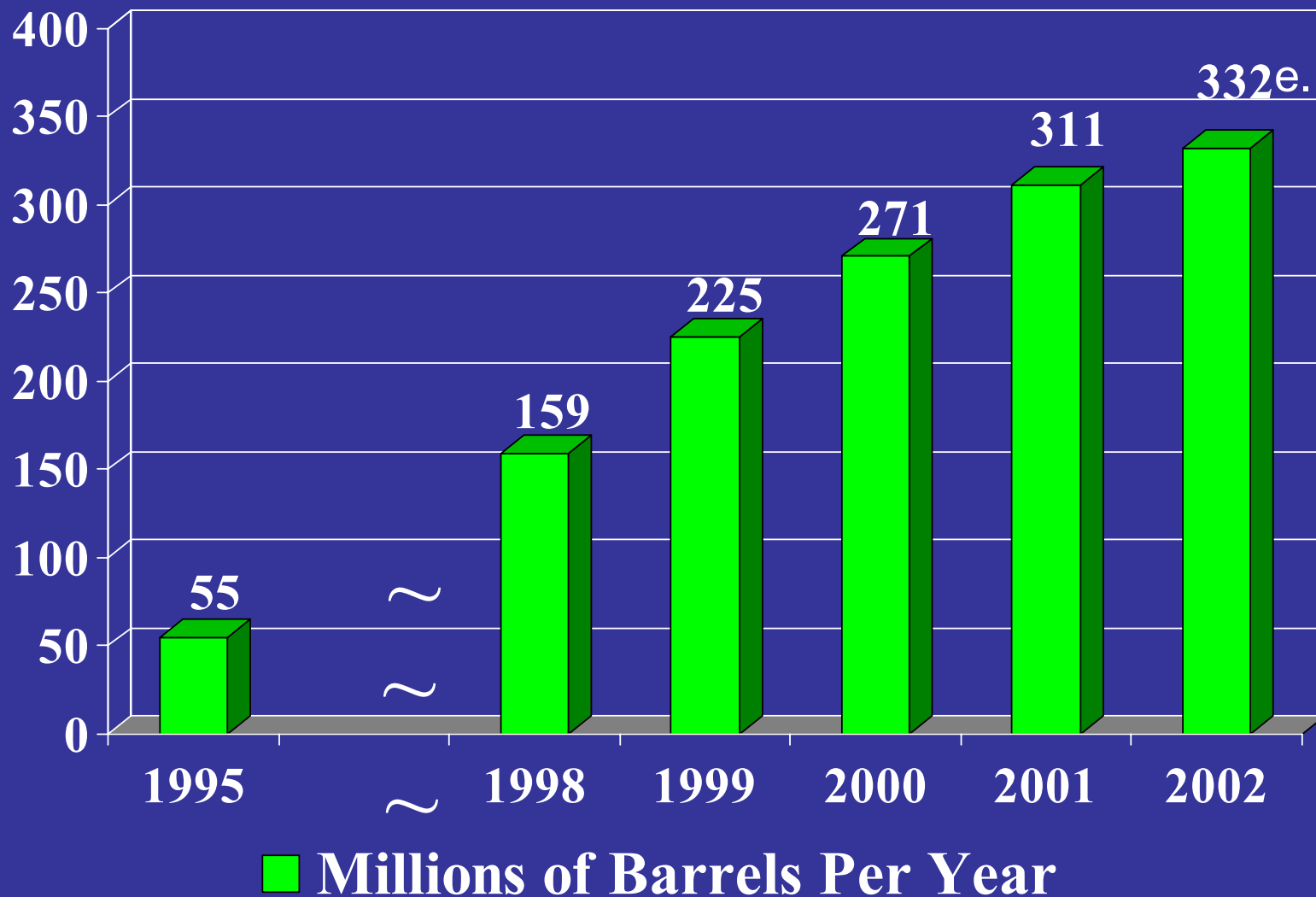
10 Sale Multi-Sale EIS - Central and Western

2 Sale Multi-Sale EIS - Eastern

3. EA's of exploration plan

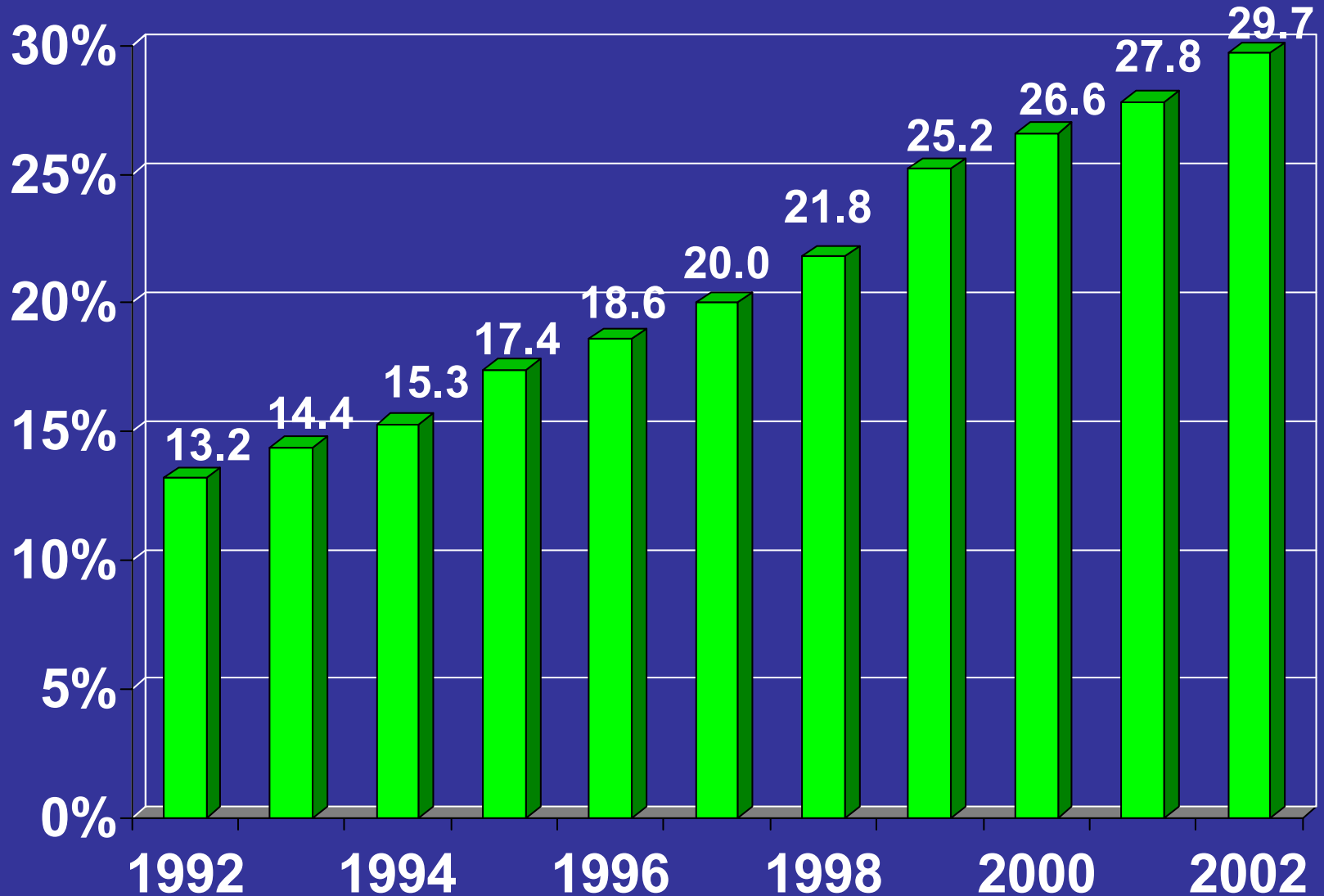
4. EA's of development plan

# Gulf of Mexico Deepwater Oil Production



# OCS Oil Production

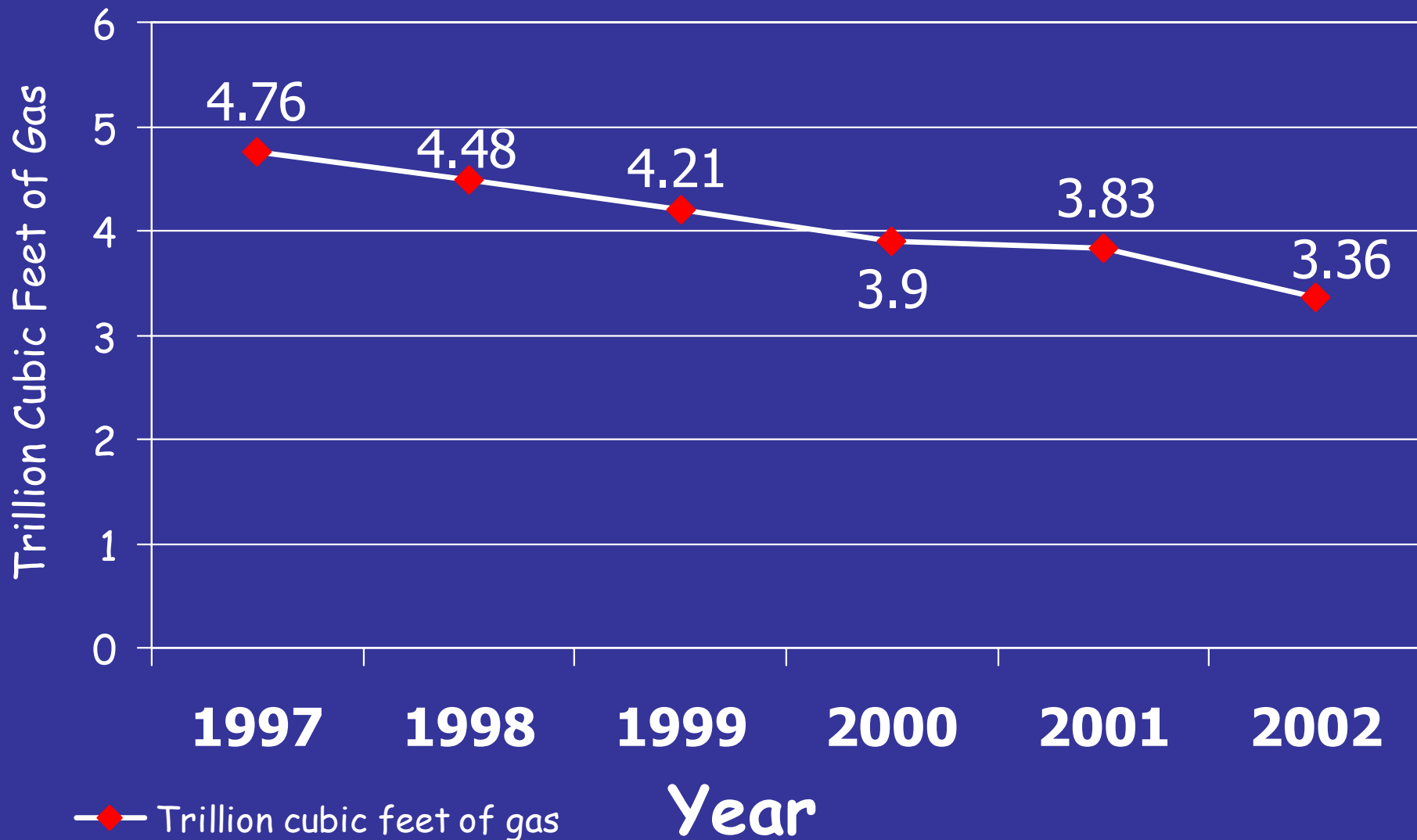
(Percentage of Total Domestic Production)



# OCS Oil Production in the Future

- Deepwater oil production up 535 percent (1995-2002)
- May reach 40 percent of domestic production by 2010

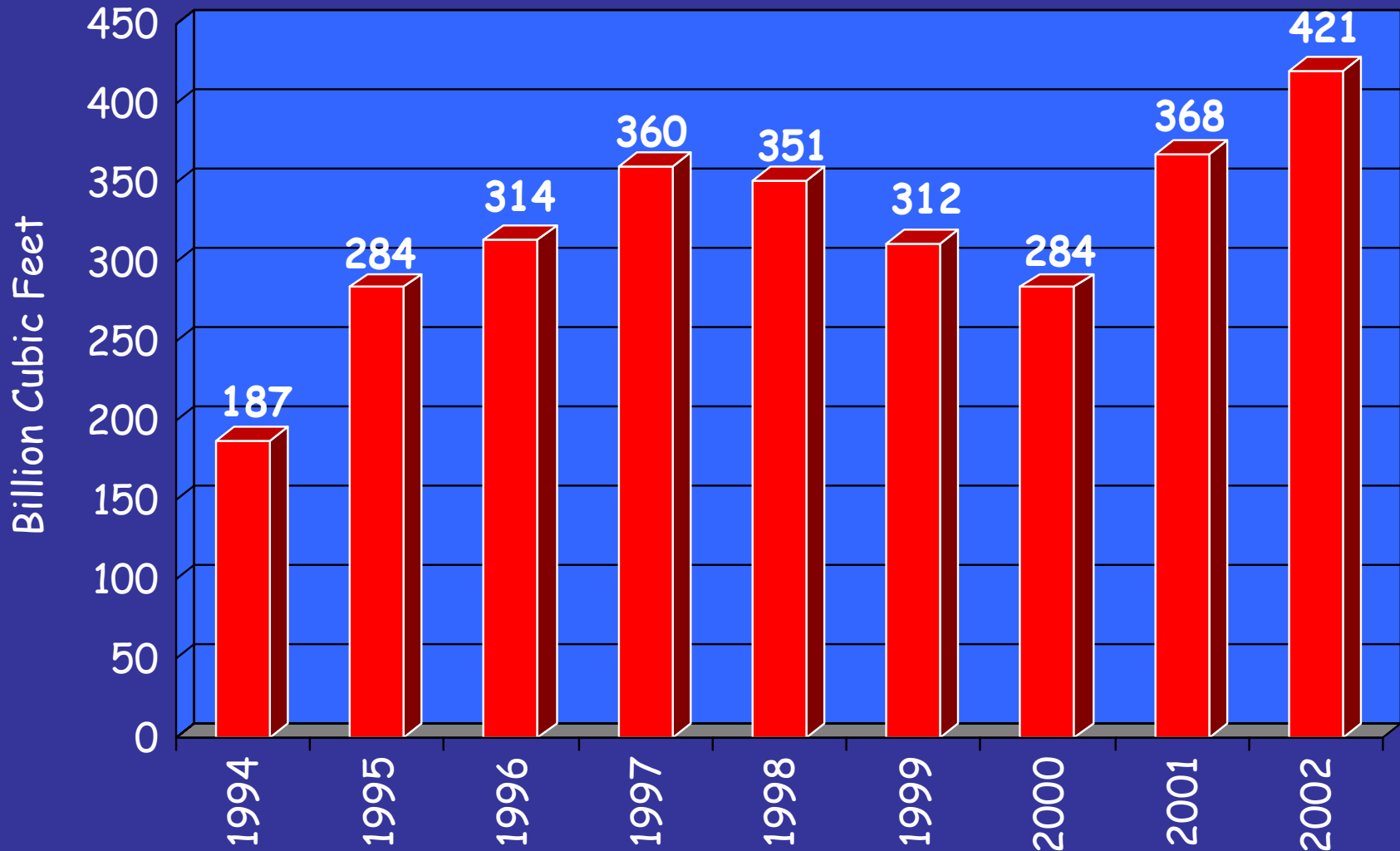
# Gulf of Mexico OCS Shallow Water Gas Production



# Changes - Deep Shelf

- Areas in shallow water but below 15,000 TVD are largely unexplored
- MMS estimates this area could have as much as 55 TCF of natural gas potential
- MMS has offered new lease incentives and has a proposed rule to apply incentives to existing leases
- Several recent discoveries are significant

# Gulf of Mexico Deep Shelf Gas Production 1994 - 2002





# Deepwater in the Gulf

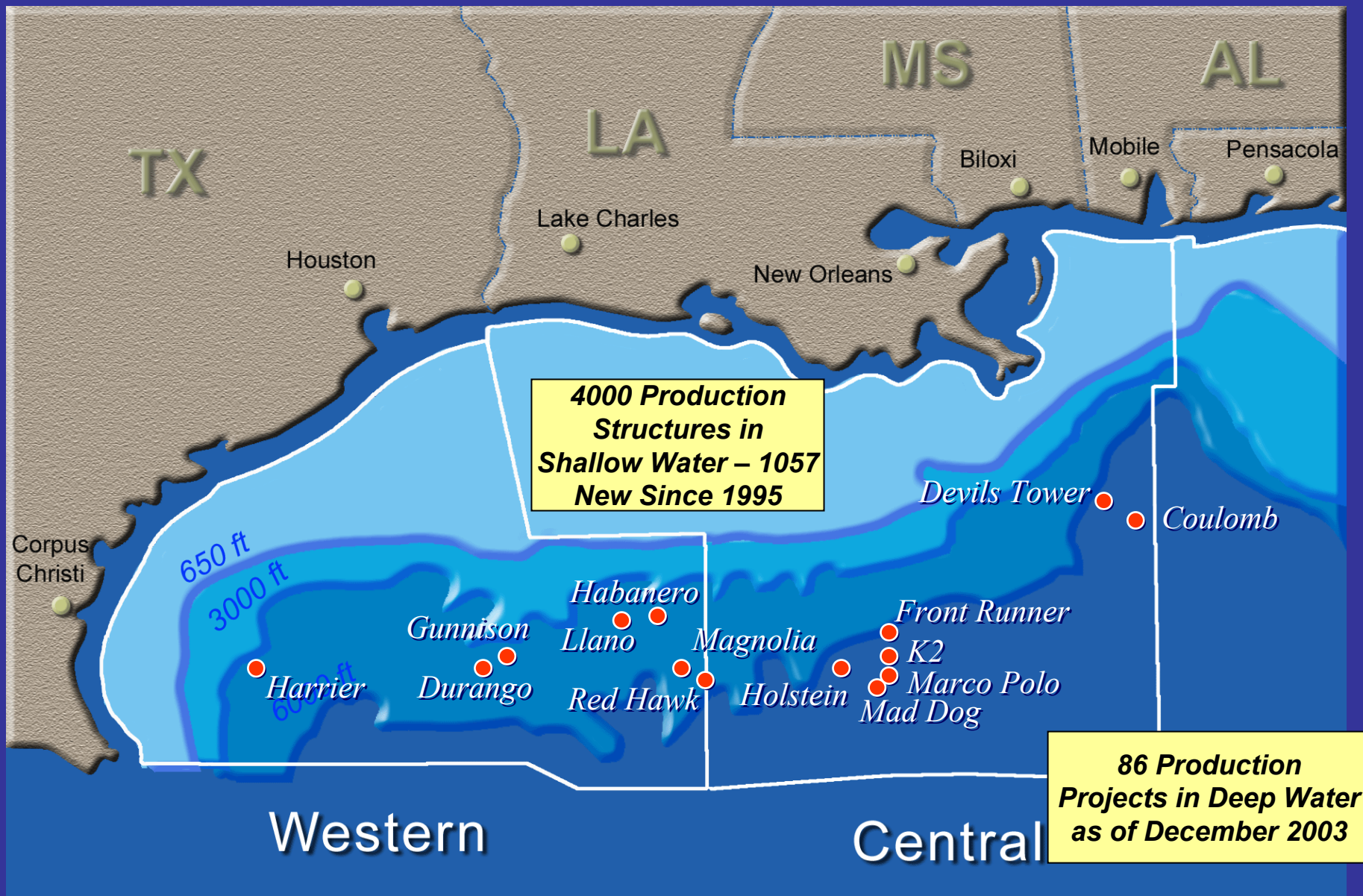
# Gulf Deepwater Discoveries-2003

Prospect	Operator	Area/Block	Water Depth
Atlas	Anadarko	LL 50	9,000'
Chinook	BHP Billiton	WR 469	8,830'
Jubilee West	Anadarko	AT 349	8,800'
St. Malo	Unocal	WR 678	6,853'
Constitution	Kerr-McGee	GC 680	5,000'
Champlain	Unocal	AT 63	4,418'
Tubular Bells	BP	MC 725	4,334'
Harrier	Pioneer Nat. Res	EB 759	4,200'
Hornet	Kerr McGee	GC 379	3,850'
Perseus	Marathon	VK 830	3,376'
Lorien	ConocoPhillips	GC 199	2,177'
Goose	Spinnaker Expl.	MC 751	1,600'

# 2004 Projected Deepwater Production Starts

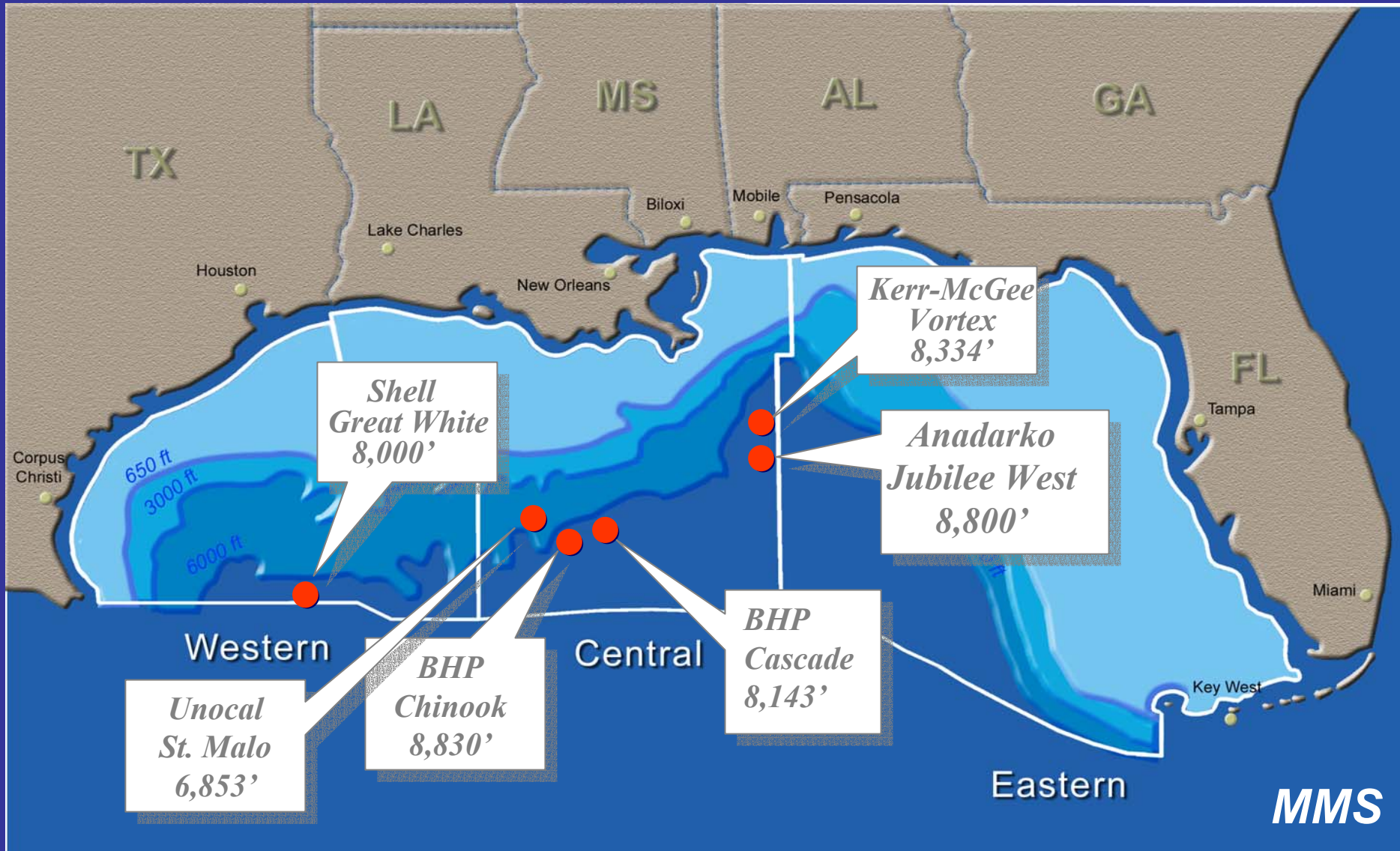


# Overall Changes in the Gulf 1995-2004



# Gulf of Mexico

## Significant New Discoveries

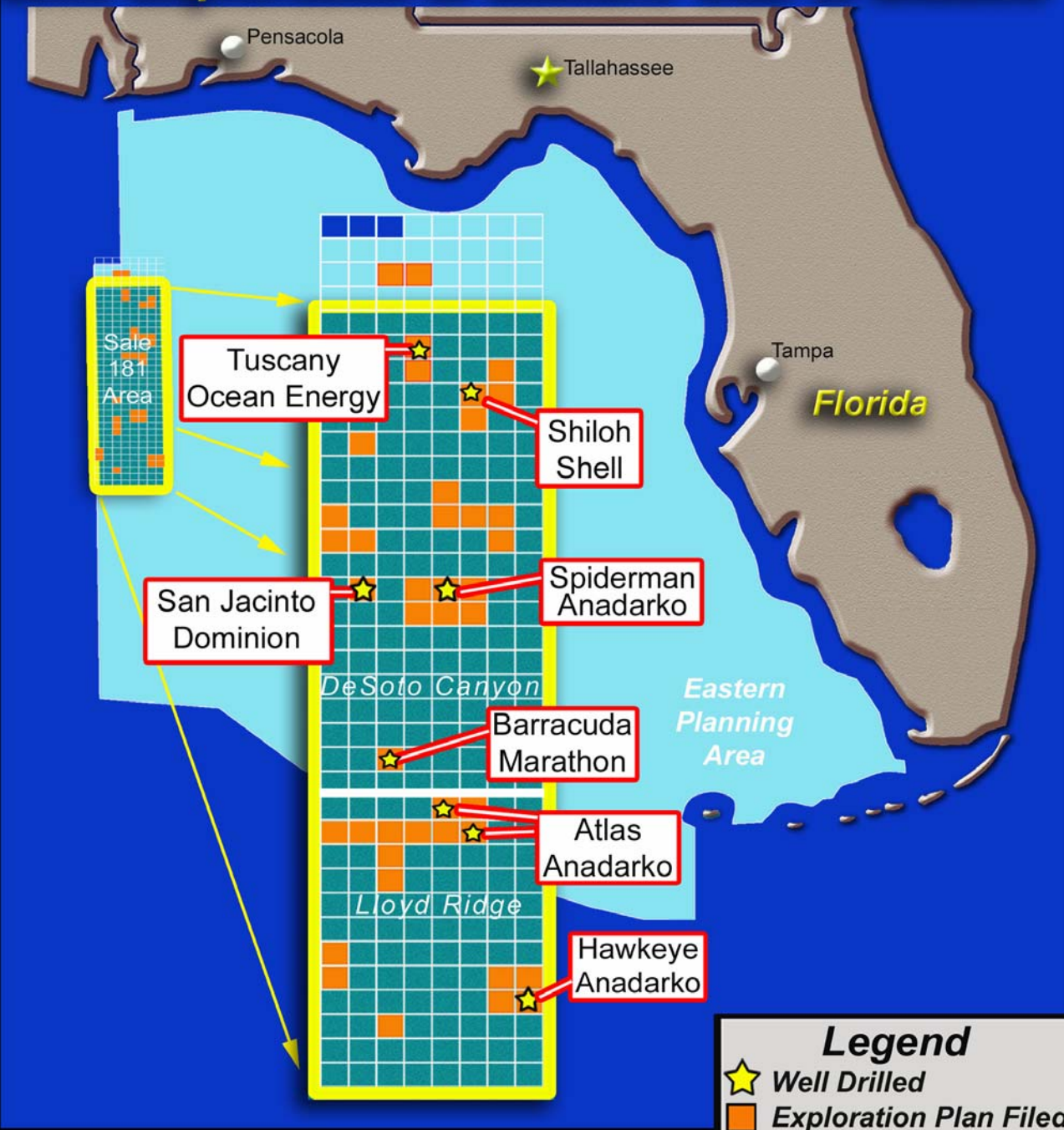


MMS

## 2003 Exploration in Eastern Gulf of Mexico



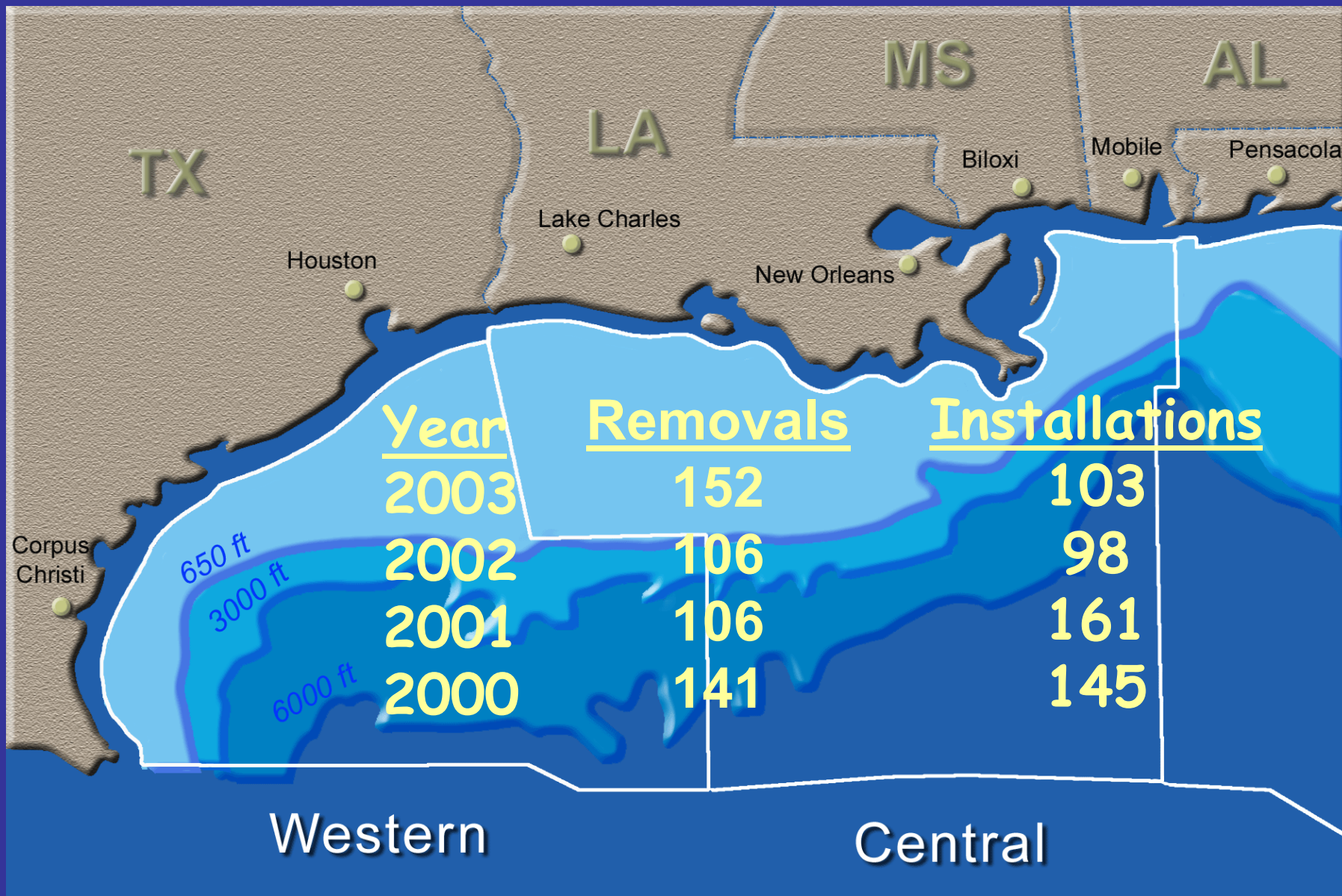
# 2003 Exploration in Eastern Gulf of Mexico



# Shallow Water in the Gulf



# Platform Removals and Installations



# Recently Completed Studies

- Stability and Change in Gulf of Mexico Chemosynthetic Communities
- Northeastern Gulf of Mexico Chemical Oceanography and Hydrography Study
- Deepwater Physical Oceanography Reanalysis and Synthesis of Historical Data
- Social and Economic Impacts of Outer Continental Shelf Activities on Individuals and Families

# Studies Nearing Completion

- Northern Gulf of Mexico Continental Slope Habitats and Benthic Ecology
- Exploratory Study of Deepwater Currents in the Gulf of Mexico
- Cooperative Research on Sperm Whales and Their Response to Seismic Exploration in the Gulf of Mexico - (Sperm Whale Seismic Study - SWSS)
- Effects of Oil and Gas Exploration and Development at Selected Continental Slope Sites in the Gulf of Mexico
- The Archaeological and Biological Analysis of World War II Shipwrecks in the Gulf of Mexico: A Pilot Study of the Artificial Reef Effect in Deepwater
- Long-term Monitoring at the East and West Flower Garden Banks
- History of Offshore Oil Development in the Gulf of Mexico

# Challenges

## Deepwater Ocean Currents

- Several project installations have been delayed by high currents
- MODU's could not disconnect/contribute to incidents
- Premature replacement of export riser (fatigue)
- Industry's design criteria was formulated in 1980's - early 1990's

# Challenges

## Deepwater Ocean Currents

- MMS is preparing a new NTL building off requirements in regulations
- May require full water column measurement by facilities and MODU's

# Proposed LNG Projects

