

MMS' Gulf of Mexico

New Horizons

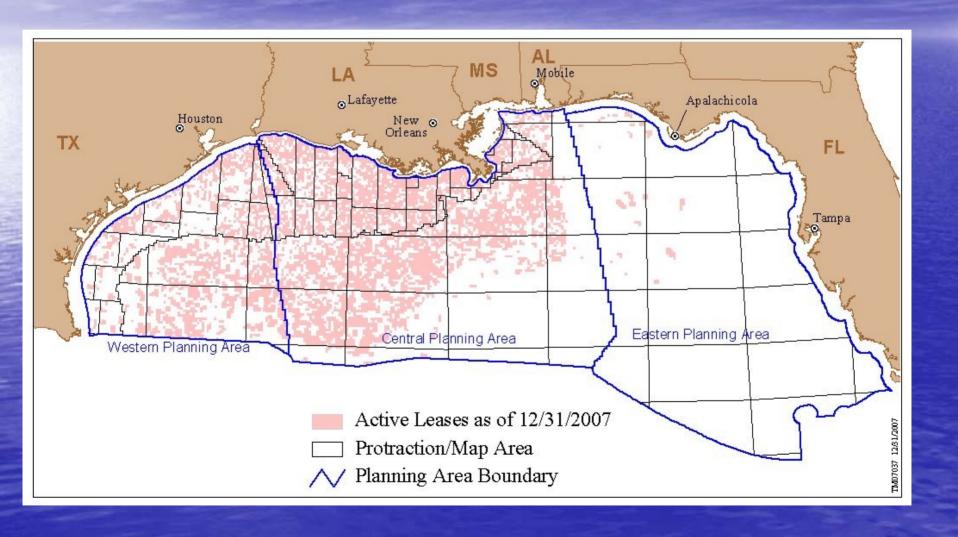
Lars Herbst Regional Director MMS, Gulf of Mexico

Outline

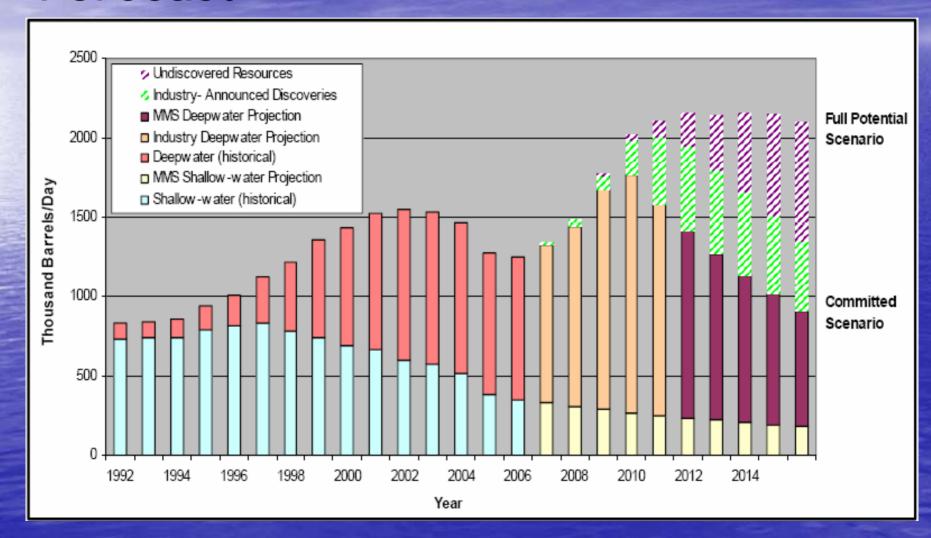
- Current Activities Overview
 - Status of GOM OCS
 - Energy Policy Act 2005
 - GOM Energy Security Act 2006
- New 5 year lease program
- Operational Issues/Challenges

Current Activities Overview

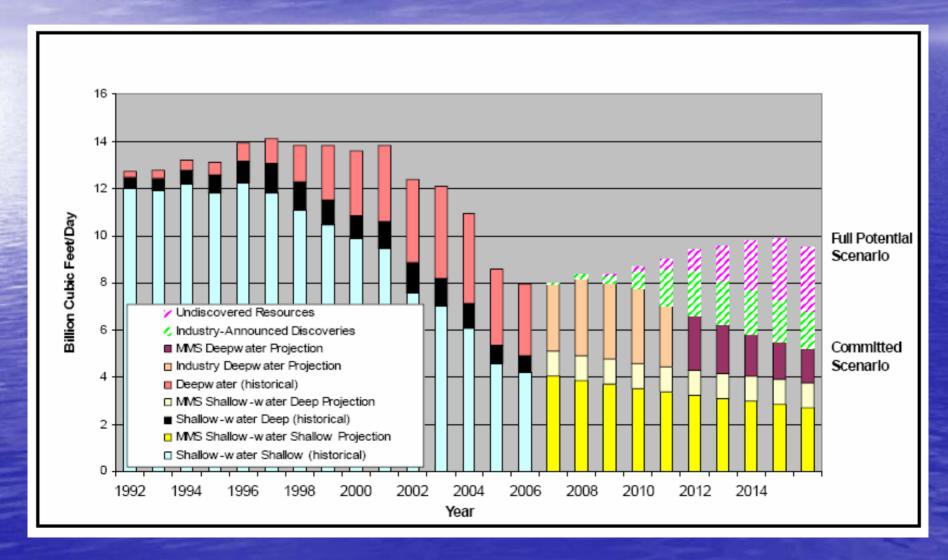
CURRENT ACTIVE LEASES



Gulf of Mexico Oil Production Forecast



Gulf of Mexico Gas Production Forecast



Gulf Deepwater Development Continues to Expand

- 13th year of major expansion
- 113 projects in production at start of 2008
- 6 new production projects in 2007
- 4 large projects to start production in 2008

Gulf Deepwater Production Starts - 2007

Prospect	Operator	Area / block	Water Depth
Atlantis	ВР	Green Canyon 699	6,133'
Atlas-Atlas NW / Ind. Hub	Anadarko	Lloyd Ridge 50	8,934'
Cheyenne / Ind. Hub	Anadarko	Lloyd Ridge 399	8,951'
Cottonwood	Petrobras	Garden Banks 244	2,130'
Deimos	Shell	Mississippi Canyon 806	3,106'
GB 302	Walter	Garden Banks 302	2,410'
Ghenghis Khan	Anadarko	Green Canyon 652	4,300'
Jubilee / Ind. Hub	Anadarko	Atwater Valley 349	8,825'
MC 161	Walter	Mississippi Canyon 161	2,924'
Merganser / Ind. Hub	Anadarko	Atwater Valley 37	8,015'
Mondo NW / Ind. Hub	Anadarko	Lloyd Ridge 1	8,340'
Q / Ind. Hub	Hydro	Mississippi Canyon 961	7,925'
San Jacinto / Ind. Hub	Dominion	Desoto Canyon 618	7,850'
Spiderman / Ind. Hub	Anadarko	Desoto Canyon 621	8,087'
Vortex / Ind. Hub	Anadarko	Atwater Valley 261	8,344'

2007-2008 Major Production Starts



Central

New Major Production in 2007

Project	Operator	Estimated Oil (BOPD)	Estimated Gas (MMCFPD)
Independence Hub	Anadarko		1000
Atlantis	BP	200,000	180
Total		200,000	1180

New Major Production in 2008-10

Project (year)	Operator	Estimated Oil	Estimated Gas
		(BOPD)	(MMCFPD)
Neptune (08)	ВНР	50,000	50
Thunder Horse (08)	ВР	250,000	200
Tahiti (08)	Chevron	200,000	180
Blind Faith (08)	BP	40,000	35
Cascade/ Chinook (09)	Petrobras	80,000	16
Shenzi (09)	ВНР	100,000	50
Perdido Host (10)	Shell	100,000	200
Total		820,000	731

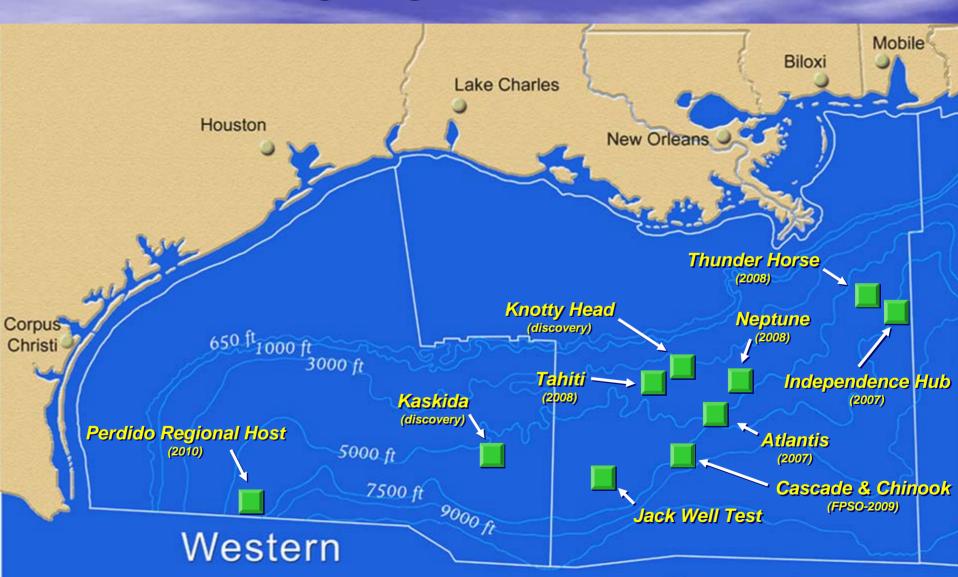
2007 Deepwater Gulf Discoveries (Announced)

Prospect	Operator	Location	Water Depth – Ft.
West Tonga	Anadarko	GC 726	4700
Isabela	British Petroleum	MC 562	6500
Magellan	Mariner Energy	EB 424	2767
Droshky (previously Troika Deep)	Marathon Oil	GC 244	2900
Noonan/Danny	Helix Energy Solutions	GB 506	2700

2007 Deep Gas Gulf Discoveries (Announced)

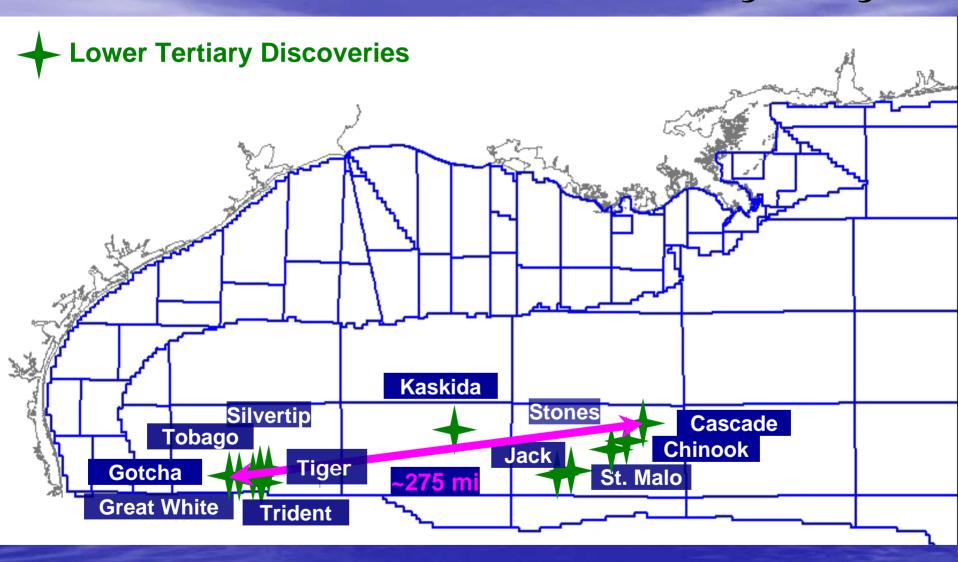
Prospect	Operator	Location	Water Depth – Ft.
Butch Cassidy	Bois d'Arc Energy	ST 81	61
Flatrock	McMoran Exploration	SM 212	10
Hurricane Deep	McMoran Exploration	SM 217	12

Recent Highlights

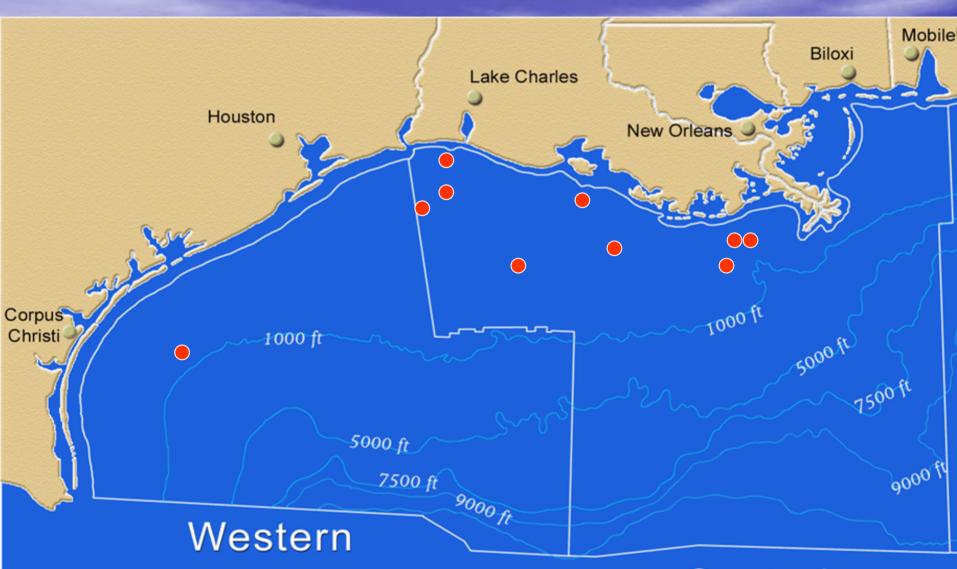


Central

Gulf of Mexico – Lower Tertiary Play



Deep Shelf Discoveries



Central

Energy Policy Act - 2005

- Three key components for MMS:
 - Alternative Energy and Alternative Use
 - Establish Coastal Impact Assistance Program
 - Create an Automated Royalty Credit System

Alternative Energy



- Issued a
 Programmatic
 Environmental Impact
 Assessment
- In the process of establishing program regulations
- Currently reviewing two wind projects

Alternative Energy

- Leasing
 - Technology Test/ Resource Assessment Lease
 - Commercial Lease
- Developing proposed rules
- Solicited area nominations
- GOMR will support leasing and permitting activities related to AE

Anticipated Potential Projects

Region	Technology
North Atlantic	Wind
Mid Atlantic	Wind
South Atlantic	Wind
Straits of Florida	Wave
Straits of Florida	Ocean Current
Gulf of Mexico	Wind
Pacific Northwest	Wave
Southern California	Wind

Coastal Impact Assistance Program

- Requires disbursement of \$250 Million for each year from 2007 through 2010
- Allocations for 2007 were announced on April 16, 2007 as follows:

	% Allocation	Total	State	CPS
Alabama	10.54%	\$ 25,551,607.04	\$16,608,544.58	\$ 8,943,062.46
Alaska	1.00%	\$ 2,425,000.00	\$ 1,576,250.00	\$ 848,750.00
California	3.07%	\$ 7,444,441.75	\$ 4,838,887.13	\$ 2,605,554.61
Louisiana	52.60%	\$127,547,898.57	\$82,906,134.07	\$44,641,764.50
Mississippi	12.76%	\$ 30,939,850.55	\$20,110,902.86	\$10,828,947.69
Texas	20.04%	\$ 48,591,202.09	\$31,584,281.36	\$17,006,920.73

Gulf of Mexico Energy Security Act Implementation

- 1. Add acreage to Central Sale 205
- 2. Conduct Eastern sale in 2008
- 3. Implement removal of Presidential withdrawal from area south of 181
- 4. Implement revenue sharing to coastal states
- Adopt regulations for bonus credits from existing Eastern leases

Leasing Moratoria in Gulf(2022)

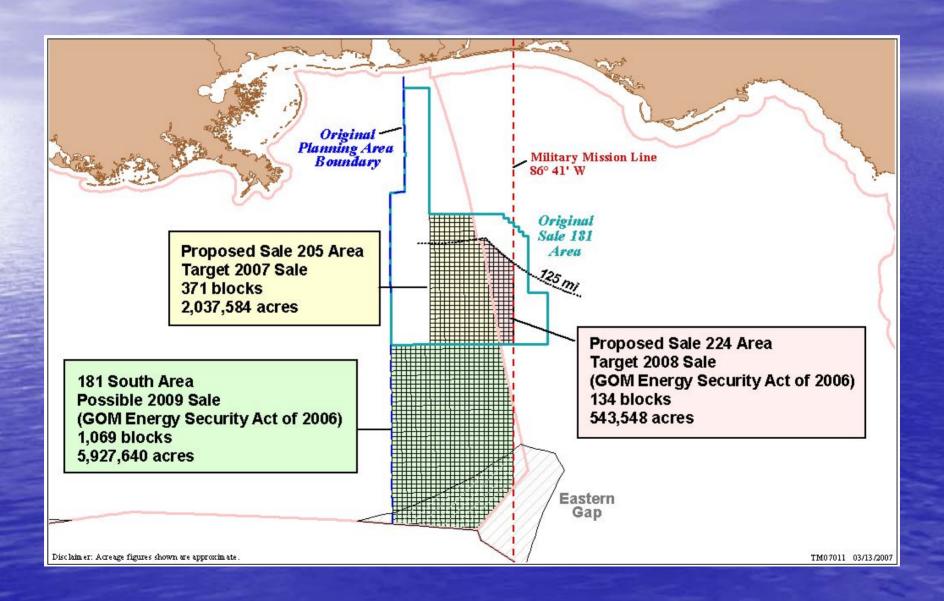
In Eastern Planning Area

- Acreage within 125 miles of Florida coast
- Acreage east of military mission line (86 degrees 41 minutes west)

In Central Planning area

Acreage in Pensacola, Destin Dome, and Desoto Canyon which are within 100 miles of Florida coast

GOMESA Areas



Revenue Sharing

- For 181 Area in Eastern Planning Area Sale 224 and "South of 181" Area the revenue sharing begins immediately
- For leases, in areas historically offered, entered into on or after the date of Act the revenue sharing begins in fiscal year 2017

Basic Revenue Sharing Formula

- 50% to General Fund in Treasury
- 37.5% will go to Gulf producing States
- 12.5% will go to Land and Water Conservation Fund
- Distribution to Gulf States will be inversely proportional to the distance between points on Gulf States and geographical center of leased tract
- Revenue Sharing is capped at \$500 million

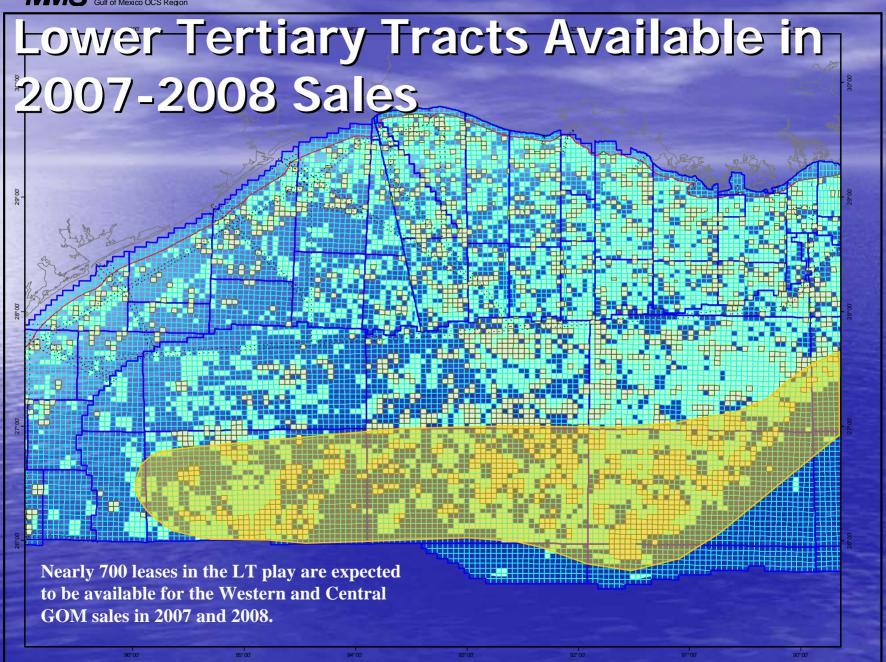
EGOM Credits

- May exchange leases for bonus or royalty credit
- Equal to Bonus bid and rent paid on leased tract
- Regulations have been drafted that will govern the exchange

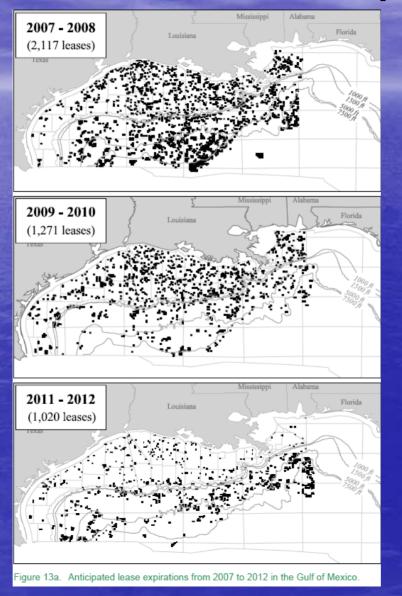
5 Year Lease Plan 2007 - 2012

Gulf of Mexico Sales in 2007

August 2007	Sale 204	Western Gulf
October 2007	Sale 205	Central Gulf



Anticipated Lease Expirations



Sale 204 Results

Total Tracts Receiving Bid	282
Total Number of Bids Received	358
Total Companies Participating in Bids	47
Sum of High Bids	\$289,953,066
Sum of All Bids	\$369,496,840

Sale 205 Results

Total Tracts Receiving Bid	723
Total Number of Bids Received	1,428
Total Companies Participating in Bids	84
Sum of High Bids	\$2,904,321,011
Sum of All Bids	\$5,245,583,944

Remaining Sales Under Current 5-Year Program

Sale Location and Number	Scheduled Sale Year
Central GOM Sale 206	2008
Eastern GOM Sale 224	2008
Western GOM Sale 207	2008
Central GOM Sale 208	2009
Western GOM Sale 210	2009
Central GOM Sale 213	2010
Western GOM Sale 215	2010
Central GOM Sale 216	2011
Western GOM Sale 218	2011
Mid-Atlantic Sale 220*	2011
Central GOM Sale 222	2012

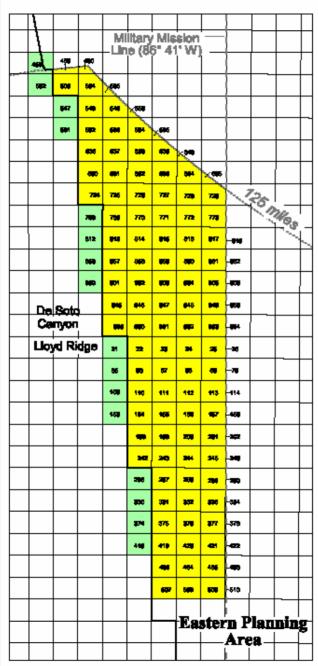
^{*}dependent on removal of Presidential withdrawal and Congressional Moratorium discontinued

Proposed Central Planning Area-Sale 206

- Includes blocks that expired, terminated or were relinquished since February 2007
- Sale is planned for March 19, 2008 at LA Superdome.
- Approximately 5000 blocks
- Royalty Relief with threshold of \$35.75 per barrel and \$4.47 per MCF
- Royalty Rate = 18.75%

Proposed Eastern Planning Area-Sale 224

- Sale is mandated by the Gulf of Mexico Energy Security Act of 2006 (GOMESA).
- EGOM Sale 224 will be held in conjunction with Sale 206 on March 19, 2008 in LA Superdome.
- Only sale for this area in 5 year program
- 118 whole or partial blocks
- Excluded from Deepwater Royalty Relief
- Royalty Rate = 18.75%



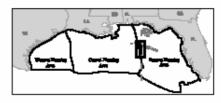


Revised Sale Area Map for Eastern GOM Lease Sale 224

- Blocks available
 - 118 blocks
 - 547,230 acres
- CGOM Block (portions were formerly in EGOM 224 area)
- - Military Mission Line (86° 41' W)
- Planning Area Boundary
- ----- 125 Mile Buffer from Florida coast
- Protraction Area Boundary

The may has changed alightly since the Sule 224 Call/NOI map was based, due to the decision that the boundary between the Eastern and Central Planning Areas would follow block boundaries as opposed to splitting blocks.

Unlessed blocks within the Sale 224 area currently number 118 blocks and cover 547,230 acres. They are located from 125 miles to 203 (set) miles offshore Funds and west of the Military lifestion Line (86° 41' West longitude) in water depths of 810 maters (DCS94) to 3113 (LL377) meters.

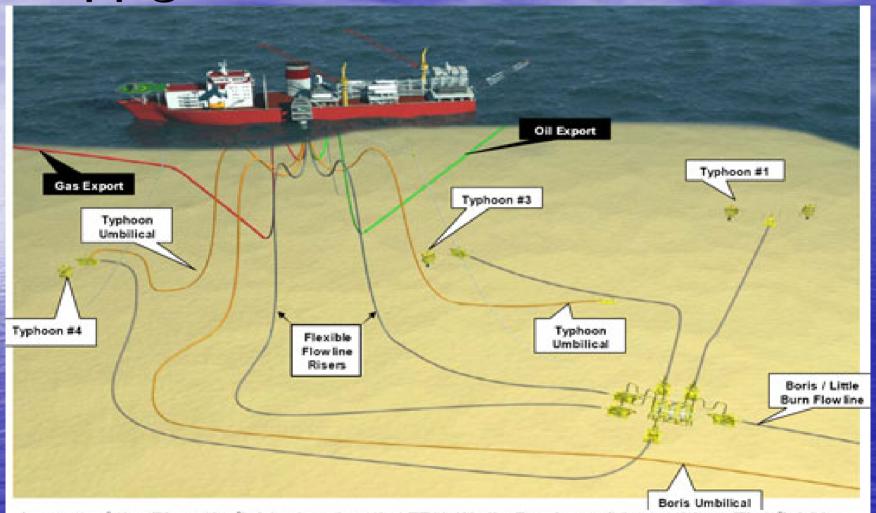


Challenges

First FPSO Project



FPU



Layout of the Phoenix field, showing the FPU (Helix Producer I) in position. The field is scheduled for a 3Q 2008 start-up.

Courtesy Helix Energy Solutions Group

High Pressure / High Temperature (HPHT) Systems

- High Shut-in Tubing Pressure
 - Subsea wells with SITP over 15,000 psig
 - Dry tree wells with SITP over 20,000 psig
- Ultra High Pressure (XHP) equipment rated for H2S
 - Material qualification \ selection is critical there is a lack of experience in this area.
 - Consideration of axial loads, pressures, temperatures and environmental loads must be addressed
- HPHT design qualification testing
 - There are currently a lack of facilities to provide this testing

Subsea Processing and Artificial Lift Technology

- Conventional sub-sea booster pumps
 - Three (3) projects have approved DWOPs with the use of subsea booster pump systems.
 - BP King
 - Shell Perdido
 - Petrobras Chinook/Cascade
- Conventional and Non-conventional sub-sea processing
 - One (1) DWOP has been approved for the use of nonconventional subsea separation in conjunction with subsea boosting.
 - MMS is not ready to approve any discharge to the environment or flaring.

Pipeline Issues

Riser performance monitoring / integrity management

- Riser / tendon fatigue due to VIV has become a significant issue for deepwater facilities.
- At least one (1) operator has notified MMS that several deepwater risers have exceeded 50% of the riser fatigue life (Loop Current and Hurricane effects)
- High Integrity Pressure Protection Systems (HIPPS) on long tiebacks
 - Conceptual approval was given on July 14, 2006 for the HIPPS technology
 - The are many concerns including valve leakage rate requirements, length of the fortified section, material selection, and valve testing / closure timing requirements

2007 Hurricane Season and Beyond

Abandonment Continues

- Approximately half of the ~800 damaged wells have been abandoned
- Work will continue through 2013 on well abandonment
- Only one fourth of the 118 platforms destroyed by Katrina or Rita have been removed or reefed
- Much work remains

MMS plans the incorporation of new API Interim Bulletins

IMMS proposes to:

- Issue an Interim Rule to incorporate the following API Bulletins into the regulations:
 - 2INT-MET
 - 2INT-DG
 - 2INT-EX
- And concurrently,

New API Bulletins for Design of OCS Platforms

- Issued a Notice To Lessees (NTL) 2007-G26 on December 15, 2007, stating that MMS personnel will reference the following API Bulletins for the review of platform design applications:
 - 2 INT-MET
 - 2 INT-DG

API Bulletin 2INT-EX for the Assessment of Existing Platforms

- MIMS will also propose an interim rule to adopt API Bulletin 2INT-EX as published
- MMS issued NTL 2007-G27 on October 1, 2007, to clarify the interim bulletin

Highlights of NTL 2007-G27

- Identify structures for an assessment
 - Operators had to identify by November 1, 2007, their Critical Facilities (A1/L1 platforms located in the Central and Transition Regions, Floating Facilities, and CVA Facilities).
- Approximately 65 facilities have been identified as critical and will need an assessment performed by June 1, 2008. This assessment should include:
 - A review of analysis procedures
 - Identification of mitigation alternatives
 - Propose a timeline for analysis and mitigation

<u>CHALLENGE</u> Idle Iron Removal

- We learned from the destruction from recent hurricanes that many facilities and wells that were lost actually had little or no future utility
- Costs for removal of toppled structures and wells is in the range of 10-15 times more than normal abandonment and removal

Idle Iron (Well Abandonment)

- Sec. 250.1711 When will MMS order me to permanently plug a well? MMS will order you to permanently plug a well if that well:
- (a) Poses a hazard to safety or the environment; or
- (b) Is not useful for lease operations and is not capable of oil, gas, or sulphur production in paying quantities.

Idle Iron (Platform Removal)

Sec. 250.1703 What are the general requirements for decommissioning? When your facilities are no longer useful for operations, you must:

- (a) Get approval from the appropriate District Supervisor before decommissioning wells and from the Regional Supervisor before decommissioning platforms and pipelines or other facilities;
- (b) Permanently plug all wells;
- (c) Remove all platforms and other facilities;
- (d) Decommission all pipelines;
- (e) Clear the seafloor of all obstructions created by your lease and pipeline right-of-way operations;
- (f) Conduct all decommissioning activities in a manner that is safe, does not unreasonably interfere with other uses of the OCS, and does not cause undue or serious harm or damage to the human, marine, or coastal environment.

Safety Alert- Abandonment of wells and Decommissioning Platforms



Safety Alert No. 253 August 1, 2007 Contact: Jane Powers (504) 736-2558

Plug and Abandonment of Non-producing Wells and Facilities

Following Hurricanes Ivan, Katrina, and Rita, a total of 123 platforms were destroyed on the Outer Continental Shelf (OCS) of the Gulf of Mexico (GOM). More than 800 wells were associated with these platforms. Despite these losses, there are still a significant number of nonproducing structures and wells that are currently idle.

A potential problem identified by the MMS is that a large portion of these idle structures may not be able to survive the environment where they are located. This belief is supported by the API Bulletin 2INT-MET's new hurricans metocean conditions, which take into consideration several major storms since 1993. If a facility and its wells are displaced or toppled, it can pose an immediate risk to the environment and the recovery of future production.

The regulations at 30 CFR 250.1700 (Subpart Q – Decommissioning Activities) state in part that when facilities are no longer useful for operations, an operator must permanently plug all wells and remove all platforms and other facilities within 1 year after the lease terminates in accordance with the lease stipulations. Also, MMS may order operators to permanently plug a well if that well poses a hazard to safety or the environment or is not useful for lease operations and is not capable of oil, gas, or sulphur production in paying quantities. Historically, MMS has granted approval to operators to maintain these structures in order to conduct other future activities; however, MMS has not seen a substantial increase in the reuse of these non-producing feetibles.

Therefore, MMS recommends that operators should review and evaluate their inventory of nonproducing wells and facilities to determine the future utility of these structures and the level of threat posed to the environment and human safety should a facility experience a catastrophic loss. MMS further recommends that operators reference the guidance of API Bulletin 2INT-EX - Interim Guidance for Assessment of Existing Offshore Structures for Hurricane Conditions (May 2007), when conducting these evaluations. Plans should be implemented for removal of these structures beginning with those that pose the greatest threat.

--MMS--GOMR--

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 Encourages operators to evaluate their current wells and facilities and decommission those that no longer have a future utility

¹ For purposes of this alert, the term "non-producing" is defined as any platform or well that had reported production volumes at one time, but it has not produced from August 2005 and beyond. Non-producing platforms could include facilities that have production cross them, but do not have any wells associated with the structure that report production.

Training of Offshore Operators

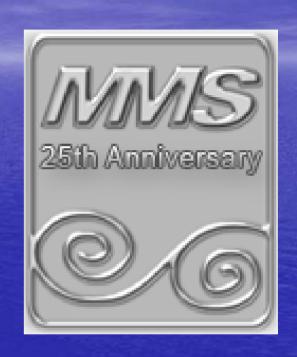
- Performance based regulations have been in place for about 7 years
- Change from prescriptive to performance based was to help raise the bar
- In many cases training has not improved and training related compliance issues are on the rise
- You set the "standard"

MMS Workshop

Possible SOO Regulations Related to HT/HP Equipment
New Orleans, Louisiana
January 23, 2008

Thank You!

Questions?



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