

**ExxonMobil**

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# Oil & Gas Overview

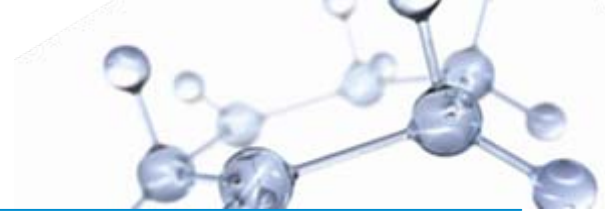
Mark C. Gentry, Ph.D., P.E.

ExxonMobil Upstream Research Company

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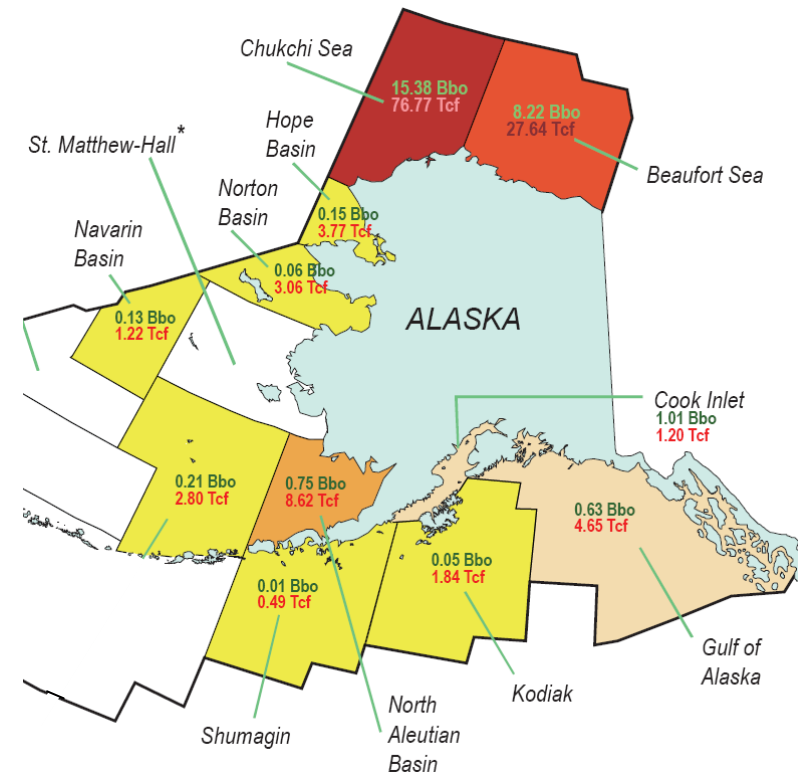
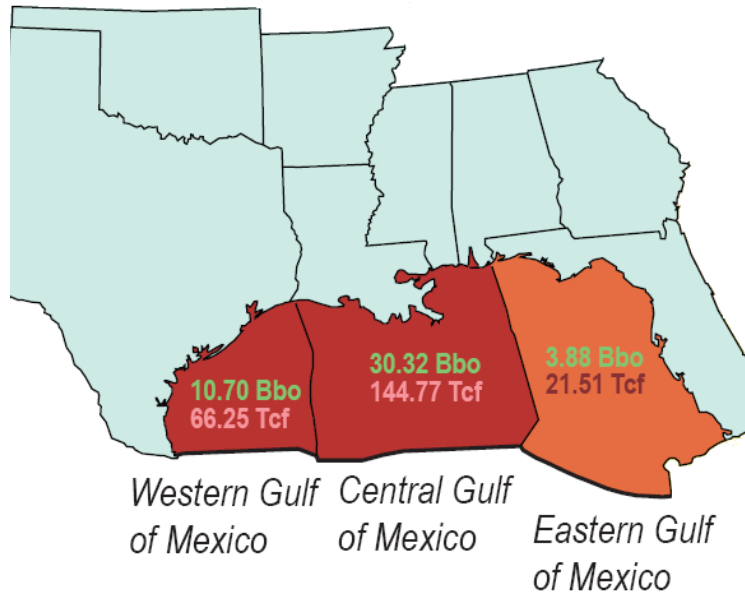
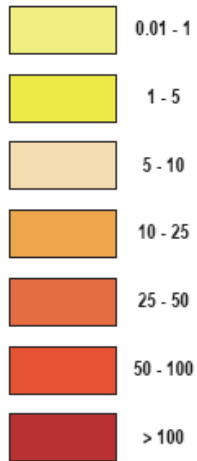


# Resource Base Potential



- Large hydrocarbon resources in the Arctic and deepwater Gulf of Mexico
- High-level interest from the Oil & Gas industry
- Added complexity due to challenging offshore environments

Oil and Gas BTU Equivalent  
in Quadrillions ( $10^{15}$ )



Source: MMS Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2006

# Deepwater Marine Activities



## Floating Drilling

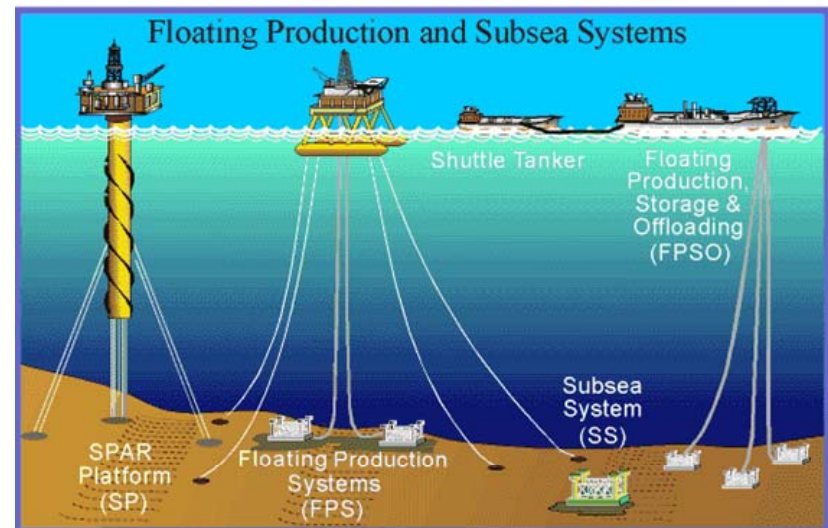
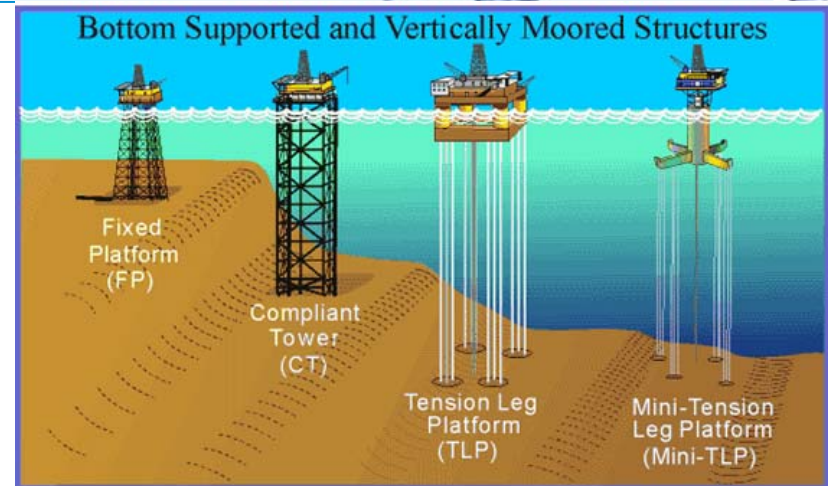
- Stationkeeping
- Re-supply
- Well maintenance/workover

## Floating Production

- Stationkeeping
- Well maintenance
- Offloading

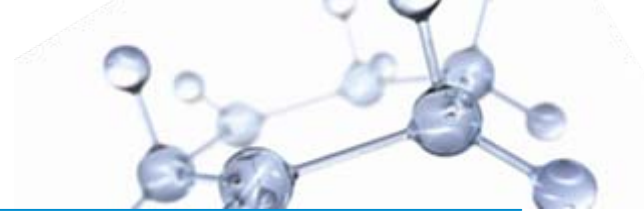
## Subsea Production

- Well reliability
- Well maintenance
- Subsea equipment



Source: MMS webpage, Deepwater Development Systems

# Offshore LNG Terminals



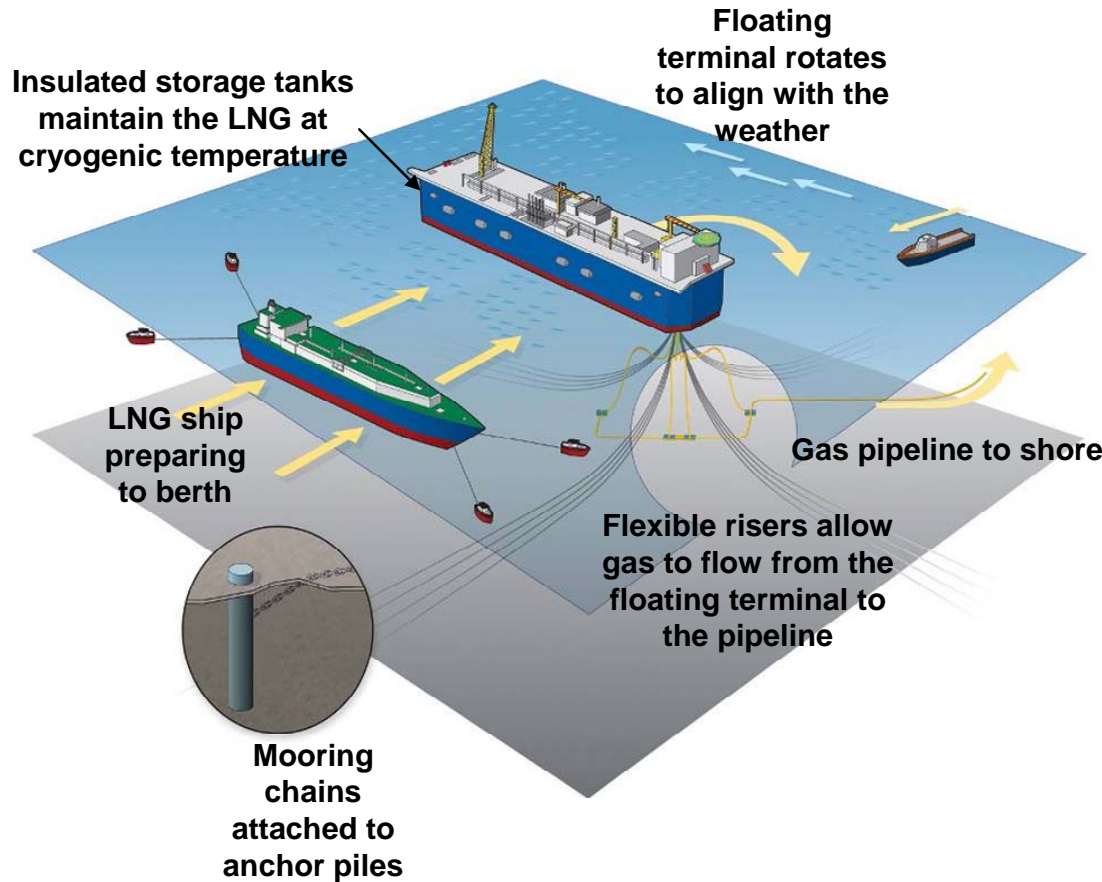
## Offshore LNG receiving terminals as an alternative to onshore terminals

- Potential to provide additional energy source to key markets
- Especially in regions where onshore terminal sites are not readily available

## Offshore siting considerations include:

- water depth, metocean conditions
- shipping lanes, commercial and recreational fishing
- environmental impacts

## Marine safety and security considerations include safety and security zones and coordination of marine operations



## ExxonMobil BlueOcean Energy Project offshore NJ/NY

# Arctic Marine Activities

## Seismic Data Acquisition

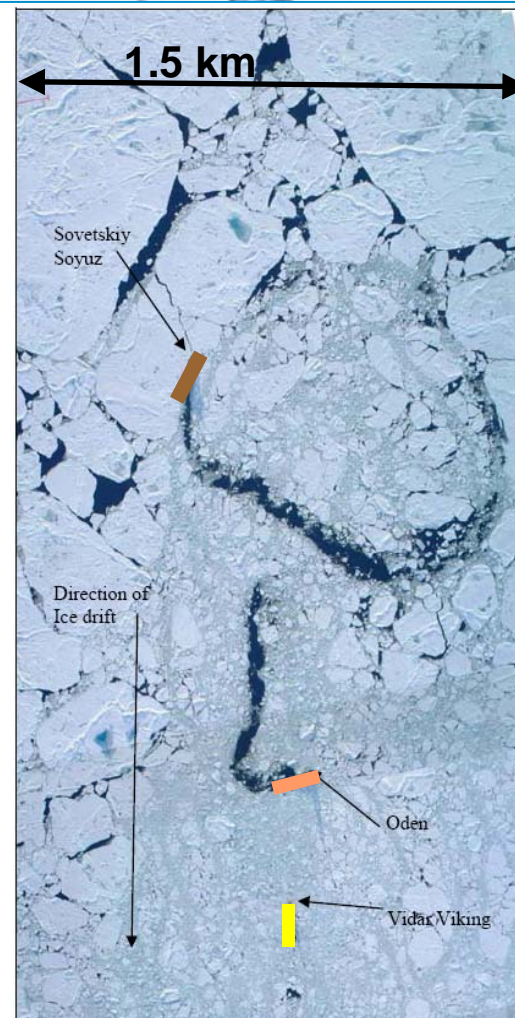
- Seismic acquisition vessel
- Support and scouting vessels
- Icebreaker escort for entry/exit

## Exploration Drilling

- Arctic drilling unit
- Icebreaking escort and ice management vessels
- Re-supply and crew change vessels
- Helicopter ice reconnaissance

## Arctic Construction Support

- Sea transports to support pipeline projects
- Barges, tugs, icebreaker escort



ACEX2004: Geotechnical drilling operation with ice management



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