

Geography In The News™



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GULF OF MEXICO OIL SPILL

By now, the whole world has heard about the major oil spill in the Gulf of Mexico. When the Deepwater Horizon, an oil rig leased by oil giant BP (British Petroleum), exploded on April 20 in the Gulf of Mexico, an environmental disaster began.

Weeks later, the deep-sea well was leaking perhaps much more than the estimated 210,000 gallons (795,000 liters) a day into the waters near Texas, Louisiana, Mississippi, Alabama and Florida. If the oil continues to gush into the Gulf, it may compare to the 1989 Exxon Valdez accident that spilled 11 million gallons (41 million liters) in Alaska, the worst in U.S. history.

The Gulf of Mexico contains about 615,000 square miles (1.6 million sq. km) of water surface, the equivalent of more than 20 North Carolinas in total area. The Gulf's perimeter is a shallow continental shelf with demonstrated oil resources. There is relatively little

circulation of currents along the margins of the Gulf, but the warm Gulf Stream originates with the Loop Current in deeper waters. The Gulf Stream flows out of the Gulf, around the Straits of Florida and into the Atlantic Ocean.

Excluding a few small isolated sites, potential oil producing geologic structures in continental North America have been assessed already by exploratory wells. Where allowed, wells have tapped most of the positive sites, leaving little future

petroleum production potential on land. Even with the high technical costs and environmental threats, this situation now makes deep-water Gulf sites more attractive than ever for oil exploration and production.

Oil extraction is big business in the Gulf of Mexico and is accomplished by the use of offshore facilities, often called oil rigs or oil platforms. These very large structures house equipment to drill wells into the ocean bed. Everything is on the rig needed to extract oil and/or natural gas, process the extracted fluids and gas and ship or pipe them to shore. There are many types of oil platforms. They may be manned or unmanned and may be fixed to the ocean floor or float on the surface.

Deepwater Horizon floated, but tapped the Mississippi Canyon, an underwater trench. The well was the deepest ever drilled at 35,055 feet (10,685 m), including 4,132 feet (1,259 m) of water. Pressures at these depths are incredible.

There are about 6,650 active or removed oil platforms and rigs in the Gulf's waters, most located less than 50 miles (80.5 km.) from the shoreline in shallow water. Of these, 819 are manned. "Removed"

of natural gas per day, which is enough to supply more than six million U.S. homes. Such large and complicated engineering structures are the wave of the future, so to speak, but they remain costly and, apparently, risky enterprises.

The Gulf of Mexico normally pumps about 1.5 million barrels per day of oil for U.S. consumption. That figure is a quarter of domestic output and equivalent to nearly 2 percent of global oil production.

The recent oil spill disaster in the Gulf is just the type of accident that industry giants and politicians have feared. Although the engineering technology for deterring such spills is highly advanced, the recent spill is evidence that such accidents remain a possibility, particularly with deep wells and floating platforms.

While the oil leaking into the Gulf from the Deepwater Horizon well will invariably endanger marine animal and plant life, many people will experience its effects economically over the coming months and even years. With a fishing ban already in place, local commercial and sports fishing captains, who were moving into their most lucrative season, are pessimistic. The Gulf of Mexico provides a third of the country's

oysters and is a major producer of shrimp and other seafood. Analysts predict that the spill may cause a \$2.5 billion loss for Louisiana's fishing industry. Furthermore, Florida may lose \$3 billion in tourism dollars.

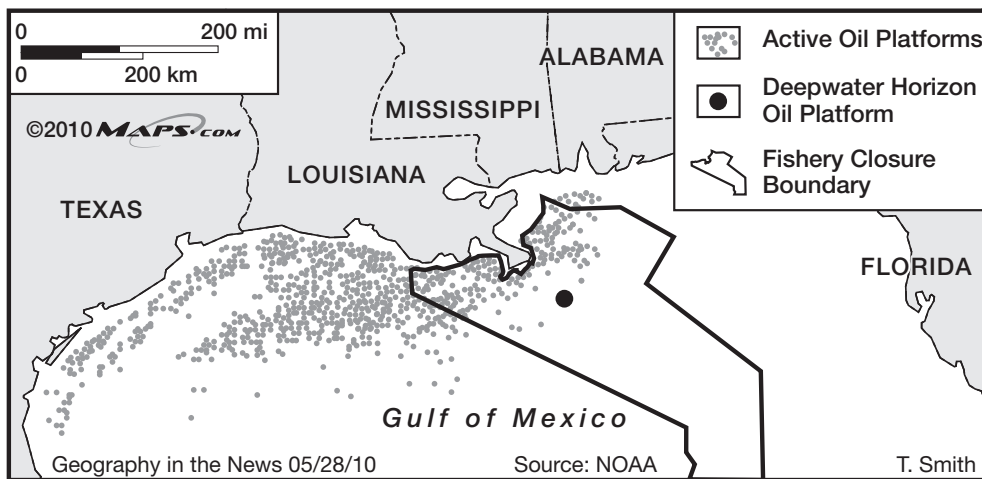
President Obama had been promoting offshore drilling as a way to provide more domestic oil and reduce the dependency on foreign oil. Now with political

pressure from the failure of BP's Deepwater Horizon, he may have to rethink his proposal and consider jumpstarting the development of more alternative energy sources.

And that is *Geography in the News™*. May 28, 2010. #1043.

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Oil in the Gulf



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platforms and rigs refer to those sunk, set adrift or removed after Hurricanes Katrina and Rita struck the region in August and September 2005.

One example of another giant oil rig is Thunder Horse, the largest producing oil rig in the Gulf that nearly sank during Hurricane Katrina. This \$5 billion platform is located 150 miles (241 km) southeast of New Orleans. It has a processing capacity of 250,000 barrels of crude and 200 million cubic feet (5.6 million cubic meters)