

Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.

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A drilling disaster**



The Torrey Canyon, which went aground off the southwest coast of England in 1967 was one of the first major oil spills, releasing 30 million gallons.

There has not been much good news these past two weeks from the Gulf of Mexico well blow out. The three companies involved, British Petroleum, Halliburton, and Transocean are all arguing about who is to blame. The use of booms to contain the oil has been ineffective, and efforts to cap the well have been unsuccessful. There have now been outside analyses of the video of the leaking pipe suggesting that the estimates of 5000 barrels of oil being released each day are likely way too low, and that the spill has already exceeded the volume of the 1989 Exxon Valdez spill.

One of the first major oil spills was the wreck of the tanker *Torrey Canyon* off the coast of southwest England in 1967. The ship went on in rock reef in broad daylight as the shipmaster was taking a short cut to save time. This accident brought two issues to light: the problems of spill responsibility and the difficulties of cleaning up an oil spill in the ocean. The ship was owned by Union Oil, was chartered by British Petroleum, registered in Liberia, carrying Kuwait oil to

England, and had a German captain and an Italian crew. Whose fault was it? The 30,000,000-gallon spill ultimately covered over 700 square miles of sea surface, and fouled 120 miles of English coastline and 50 miles of French coast. The RAF dropped forty-two 1000-pound bombs, cans of aviation fuel and napalm on the slick in an unsuccessful effort to get it to burn. 10,000 tons of very strong detergents were also used to break up the spill but were believed to have done more biological damage than the oil itself.

Two years later in 1969, a well being drilled by Union Oil from a platform 6 miles off Santa Barbara in 275 feet of water blew out. Over the next 11 days about 3,000,000 gallons of oil formed an 800 sq. mile slick that took a large toll on marine life, particularly sea birds, as it coated the coastline of Santa Barbara with a black sticky goo. Many viewed this disaster as the event that gave rise to the modern environmental movement. The well continued to leak for months. Clean up efforts were again primitive and problematic. Straw was used in attempt to soak up oil on the beaches, detergents were sprayed in the water, and steam cleaning and sand blasting of the intertidal zone took place, with an additional toll on marine life.

Twenty years later we had the Exxon Valdez and clean up methods had still not advanced much further. Many scientists now believe that any efforts to clean up the tarry residue on the coastline are probably more damaging to marine life than the oil itself as they only remove the surface coating at best. In the Gulf of Mexico, the engineers are now talking about a “junk shot”, trying to plug the well with golf balls and rope! Is this really the best we can do in this industry?

Somewhat surprisingly, however, these highly visible spills, whether drilling accidents or tanker or pipeline spills, on average constitute only about 11% of all of the 30 million gallons of petroleum that enters North American waters each year. Nearly 85% comes from land-based runoff, polluted rivers, small boats and jet skis.

Attached Images:

The wreck of the *Torrey Canyon*, Seven Stones Reef, off southwest England 19th
March 1967

Platform A in the Santa Barbara Channel, January 1969, after blowout.