

Offshore Oil-Drilling Primer for Concerned People of All Ages [new textbook's chapter]

Contributed by Jan Lundberg
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David E. Newton, a science professor and writer who has been extensively published, contacted me as an alternative oil industry analyst to write a new textbook's chapter on offshore oil drilling. The publisher, ABC-CLIO of Santa Barbara, CA, Denver, Colorado and Oxford, England just issued the book, *World Energy Crisis*. It is ambitious, authoritative and yet contains controversial positions.

ABC-CLIO gave permission for Culture Change's website to present my chapter, "Offshore Oil-Drilling Primer for Concerned People of All Ages." The book is subtitled "A Reference Handbook." The series is "Contemporary World Issues: Science, Technology and Medicine."

The book has many, diverse contributors, including a few pro-industry sources including peak oil denialist Mike Lynch. Such things are commonly done for scholastic balance or to please special interests. But the true thrust of the book is its concern over a "crippling fuel-supply catastrophe in the future," as made clear in the publisher's webpage for the book.

When editor David Newton contacted me and said the textbook was for young people, it was from this that I included in my chapter title "people of all ages." This would be best restated as "for young adults and the older generation," because young children would have a problem reading my chapter, although it is more simply written than most of my works.

Jan Lundberg's chapter Offshore Oil-Drilling Primer for Concerned People of All Ages in *World Energy Crisis*:

Petroleum is a natural substance beneath the surface of the Earth that is in two forms: crude oil and natural gas. Oil has been of inestimable importance in the transformation of both rural and urban living and of the landscape. There is more paved surface, mostly of asphalt made from oil refining, in the U.S. than of cial Wilderness.

The amazing applications of petroleum and its popularity, as oil discoveries and extraction approached their all-time peak, have started to be questioned. So far it is often in the form of attempting different propulsion technologies for cars, even though they would still use the same road system that contributed to unsightly, inefficient urban sprawl. There are two main reasons for this shift in attitude about oil: (1) environmental damage, such as from the infamous BP blowout in the Gulf of Mexico in 2010, and (2) the beginning of the end of the "Age of Oil," since that maximum supply has peaked globally (many say in 2005). So, society needs to decide what is truly "sustainable," and not just "green" from a corporate marketing standpoint.

First let us consider the ecological crisis to which oil has contributed so much. We can trace the beginning of new awareness about oil's danger to 1969, when Santa Barbara, California beaches suddenly became fouled with toxic oil from an offshore oil rig's blow-out. This made international news, setting into motion not just strong feelings by passive animal lovers seeing a tragic die-off of sea birds, but an historic

movement to protect our whole natural environment. All that was needed was a catalyst, and the Union Oil Company's accident off Santa Barbara was it. The first Earth Day followed months later in 1970.

Unfortunately, the problem of oil spills -- whether from ships going aground or oil rig failures -- has never been solved. The approach of government and its influential friends in the oil and shipping business is only to "mitigate" or "address" pollution, not stop it. So, one reform has been to double-hull the oil tankers so that wrecks do not so easily result in disasters for the ecosystem -- and bad publicity for the oil industry.

Stopping offshore oil drilling, at least in one's "viewshed" (what people look out on and see), is a common sentiment, but much less common is the opposing of oil exploration all together. Even less common is a lifestyle of deliberately boycotting oil. Whether people will decide to end oil dependence voluntarily or wait until finding themselves without oil or related products such as gasoline, is oddly a question seldom discussed.

When young people consider offshore drilling of oil as something either necessary or bad, it's often without much consciousness of the driving lifestyle, of the "plastic plague" from petroleum, oil wars, or political corruption of the government by industry interests. Some oily practices right under our nose, such as driving to the store for just one item -- when one could have walked, skateboarded or bicycled -- have their days numbered. Even non-oil propelled cars are included in this assessment, for reasons of "scalability" of alternative fuels, the poorer net-energy from them compared to the much depleted cheap oil of yesterday, and the still oil-dependent aspects of the whole car "infrastructure" of today's industrial society.

When someone who imagines herself or himself as an environmentalist, and objects to offshore oil drilling -- while clinging to a lifestyle centered around the car -- there is clearly a need for some deeper thinking. Educating ourselves on the issues of energy is crucial, but we need to pay attention to our feelings as well: violence and pollution caused by cars are essential to recognize if we are a society making conscious decisions. We need to ask ourselves questions such as, "Can nature withstand more and more oil spills?" And, "Is there another way to live that is less costly, more efficient, and kinder to Mother Earth?"

Offshore oil drilling is getting more intensely pursued because the easy oil extraction from shallow wells on land is dwindling fast. In fact, to try to drill for oil in difficult conditions -- say, roughly one mile under the surface of the sea, as the BP Macondo well was, or in the harsh Arctic -- means the best oil reserves are depleting. And the new, expensive wells do not yield as much net energy for the energy applied, compared to wells' former average efficiency. This ratio is worsened dramatically with the potential for massive spills, as with the BP Macondo well that released nearly 5 million barrels of oil and about 100 million standard cubic feet per day of natural gas. (Congressional Research Service)

Despite the historic oil spills of Santa Barbara Channel and BP Macondo, and other spills or blowouts around the world, the U.S. government is all for more drilling. One reason might be that BP has been the biggest U.S. military contractor for oil to Afghanistan. President Barack Obama has not advocated cutting our oil use except to call for eventual renewable energy dependence, even though there are many ways to halt wasteful oil consumption now.

Depending on how an offshore oil rig is defined (there are various types, and few "rigs" are deep-water), and depending on the fluctuation of utilization of rigs and platforms, there are a few dozen to several dozen offshore oil drilling rigs and platforms near the U.S. There are another few hundred elsewhere in the world. There are few inspectors and little oversight, and not all accidents or catastrophic events are reported.

It is for the new generation of aware world citizens to decide if this state of affairs will be tolerated or opposed and terminated. Critical thinking demands that we see that the world environment is a closed system. Therefore, a spill, blowout or fire on land in one part of the world ultimately affects the health of the oceans far away, in part because of the rapid acidification of sea water due to carbon dioxide emissions. And industry activity at sea affects inland ecosystems and climate. Offshore oil extraction is just one form of fossil fuels industrial activity degrading the biosphere. It profits few people, provides conveniences to more, but it affects everyone and everything long term.

Here are sources of information on pollution from offshore oil pollution, and what to do about it:

- Committee Against Oil Exploration