

THE NAVY'S ENERGY & ENVIRONMENTAL MAGAZINE

Currents

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Seeking Alternative Energy Sources Key to Navy Mission

AS WE MOVE steadily towards achieving the five energy goals I established soon after I took office, changes in the energy environment have impacted the conversation on alternative energy. The United States has significantly increased domestic production of oil and natural gas, and oil imports have decreased. Today, the U.S. imports only 45 percent of its oil, down from 57 percent in 2008 and down a million barrels a day from last year.

We can and we ought to pursue any domestic sources of fuel that increase our energy security, but drilling alone will never solve our national security concerns over foreign oil. The U.S. Navy and Marine Corps will still face the same military vulnerability created by our dependence on fossil fuels. We still buy too much petroleum from poten-

have less training time. If we siphon money from procurement, we have fewer funds to purchase new ships and aircraft and other technology. Some have argued that, in these budget constrained times, we must choose between investing in ships and planes and investing in more secure means of powering those platforms. That is a false choice.



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tially or actually volatile places on earth, and we are still subjected to price shocks in the oil market which directly impact readiness and operations.

Today, the U.S. controls just two percent of known global oil reserves, but we consume over 20 percent of the world's oil. And, even if we could supply all our energy with domestic fossil fuels, oil would still be a global commodity and we would still be subject to price shocks that result from markets that trade on speculation and rumor.

This year, the Navy is facing over a billion dollars additional in fuel costs simply because the price has risen faster than was estimated when the budget was passed. The Navy must find that money in the budget, and there are only a few accounts with funds that can be transferred to pay for this huge price increase: operations and procurement.

If we transfer funds from operations, our planes and aviators spend less time in the air, our ships and Sailors spend less time at sea, and our Marines and Sailors

In fact, we risk having fewer ships and aircraft if we do not develop alternative energy sources. Funds used to pay for unbudgeted fuel price spikes have a direct impact on our ability to power existing platforms, and have the potential to impact our ability to purchase new ones. A readily available and competitively priced domestic alternative fuel source would lessen our dependence on foreign oil and the impact on our budget of a highly volatile oil market.

The key to a viable alternative to foreign oil is price. The Department will not purchase alternative energy for operational use that is not cost competitive with petroleum. There are skeptics who argue that we should not be pursuing alternative energy because any new form of energy will cost more than existing types. If the argument that new technology is too costly had carried the day in the 1850's, the Navy would still be using sails. Nuclear submarines would never exist because they are still far more expensive than conventional submarines.

We already know from experience that new technology will become more cost efficient with increasing demand.

Today, the prices of several alternative energy sources are competitive with traditional energy, and in some cases are going to produce substantial cost savings for the Navy and Marine Corps.

We currently have three power purchase agreements in place at three of our installations in California that are going to save us \$20 million over the 20-year contracts. We are building on that progress by pursuing the production or consumption of one gigawatt of renewable energy generation on or near our installations, and without any additional cost to taxpayers. And demand has already impacted the cost of biofuel. Prices have come down dramatically since the Navy's first purchases for testing and certification.

This July, the Navy will use a mixture of biofuels and marine diesel and aviation gas in a demonstration during the Rim of the Pacific exercise. During the exercise, the largest naval exercise in the world every two years, alternative fuel blends will be used in operational activities such as underway replenishments and refueling of aircraft on the deck of our carrier.

Some have also questioned why the Navy is seeking alternative sources of energy, claiming that the effort is not part of the Navy's mission. I strongly disagree. The Navy is leading in this because it is one of our core competencies and energy security directly impacts our national security and our warfighting capabilities.

Throughout the Navy's history, we have pioneered the way we fueled the fleet. In the 1850's, we moved from sail to coal. In the early 20th Century, we left coal to transition to oil and we led the way to nuclear power in the 1950's. At the time of each energy transformation, there were doubters and naysayers who said trading a known source of energy for an unknown one was too risky and too costly. But the Navy pursued innovation because it improved the capability of the fleet and made us better warfighters.



The Great Green Fleet will signal to the world America's continued naval supremacy, unleashed from the tether of foreign oil.

This demonstration furthers our preparations to deploy in 2016 a "Great Green Fleet"—named in honor of President Theodore Roosevelt's Great White Fleet—which helped usher in America as a global power on the world stage at the beginning of the 20th Century. The Great Green Fleet will signal to the world America's continued naval supremacy, unleashed from the tether of foreign oil.

It is a goal that becomes more attainable every day as more companies in the U.S. and around the world investigate and invest in biofuel. Several commercial airlines, including the world's largest carrier, United Airlines, recently completed test flights on biofuel. Maersk Line, one of the largest shipping companies in the world, fueled one of its container vessels with 100 percent algal-derived renewable diesel. Increased demand will bring cost-competitive prices, and the Navy can help bring the demand side of the equation.

The critics were wrong then, and they are wrong today. The U.S. military, time and time again, has led in the introduction of new technologies, including the Internet, Global Positioning System, and flat-screen televisions. In each case, we pursued innovation because it strengthened our national security and our capability as a military.

We have to be and we will be relentless in our pursuit of energy goals that will continue to make us a more effective fighting force and our military and our nation more energy independent and energy secure. Our Navy and our nation can afford no less.

I have been extremely proud over the past three years of what you have accomplished and our Navy and our nation depends on your continued success. 🇺🇸

The Honorable Ray Mabus
Secretary of the Navy