Full steam ahead for the Navy’s controversial “Great Green Fleet”

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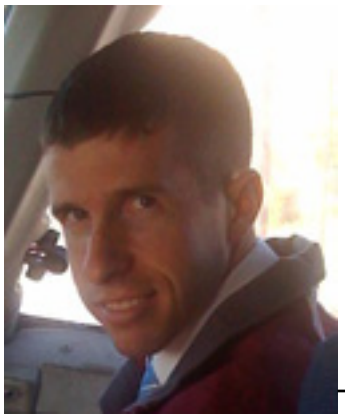 The Navy has embarked on an ambitious green energy program, which could cost upwards of $2 billion per year. Navy Secretary Ray Mabus must convince a skeptical Congress, Senate, and public that investing in pricey alternative fuels — in the midst of the worst recession in decades — will reap dividends.

Two weeks ago, the U.S.S. Nimitz carrier strike group participated in a demonstration [1] as part of the “Great Green Fleet” initiative, which aims to extract half of the Navy’s total energy from alternative sources by 2020. The maneuvers punctuated a three-year effort to test the viability of green energy in an operational environment.

The guided-missile cruiser USS Princeton (CG 59) is underway during the Great Green Fleet demonstration portion of the Rim of the Pacific (RIMPAC) 2012 exercise. Princeton took on a 50-50 blend of advanced biofuel and traditional petroleum-based fuel from the military sealift command fleet replenishment oiler USNS Henry J. Kaiser (T-AO 187). (U.S. Navy photo by Mass Communication Specialist 2nd Class Eva-Marie Ramsaran/Released)

Back in 2009, Mabus announced [2] an ambitious goal: By 2020, half of their total energy consumption for ships, aircraft, tanks, vehicles, and shore installations will come from alternative sources. Not coincidentally, President Obama has made the deployment of alternative energy a central tenet of his administration (a fact not lost on Mabus).

Toward that end, the Navy purchased 450,000 gallons of advanced biofuel — mainly waste cooking oil, algae, and chicken fat — for the planned 2012 "Green Green Fleet" demonstration. They combined this with traditional petroleum-based sources to produce 900,000 gallons of a 50/50 alternative fuel blend.

The $12 million dollar purchase [3] — $27 per gallon, or 8x the cost of traditional fuel — is 4x more expensive than old-school petroleum. Even the 900,000 gallon 50/50 blend — at roughly $15 per gallon — is substantially higher than the $167 the Navy pays for each barrel of oil. And the costs abound.

According to a congressionally mandated report [4], the Navy's commitment to alternative energy could impose an extra $2.2 billion in estimated annual fuel costs by 2020, a fact bitterly disputed by Mabus and Tom Hicks, Deputy Assistant Secretary of the Navy for Energy.

Secretary Mabus' primary justification for his (overly) ambitious alternative fuel plan was the volatility of the oil markets:

"Our dependence on foreign sources of fossil fuel is rife with danger for our nation and it would be irresponsible to continue it. Second, paying for spikes in oil prices means we may have less money to spend on readiness…"

Secretary of the Navy (SECNAV) the Honorable Ray Mabus speaks to media and crewmembers aboard the aircraft carrier USS Nimitz (CVN 68) about biofuel during the Great Green Fleet demonstration portion of the Rim of the Pacific (RIMPAC) 2012 exercise. Nimitz took on 200,000 gallons of biofuel in preparation for the Great Green Fleet demonstration during Rim of the Pacific (RIMPAC) 2012. (U.S. Navy photo by Mass Communication Specialist 2nd Class Robert Winn/Released)

Mabus and his supporters — including Hicks — went on the presumption that the Navy's massive investment in alternative fuels would drive down costs, while — owing to the ebb and flow of the market — oil prices would go up:

"DON investments in biofuel will encourage a competitively priced, and domestically produced, alternative to conventional fuel," Hicks said.

And in response to a scathing *Wired* editorial [5], Hicks reiterated [6] that the $2.2 billion per year figure for biofuels "assumes oil prices won't be higher in 2020, and

that biofuel costs won't go down. We just don't live in a world where oil prices never go up, technology doesn't advance, and economies of scale don't bring down cost."

Mabus also eschewed any political motives [7], explaining, "We're not doing it to be faddish, we're not doing it to be green."

But the President's opponents from across the aisle disagree. Senator Jim Inhofe (R-OK) bluntly stated [8] that the Pentagon "should not be wasting time perpetrating President Obama's global warming fantasies or his ongoing war on affordable energy."

Critics (including this humble editor) question the wisdom of pursuing a costly green energy agenda when the Navy budget is being slashed by $13 billion over four years.

House Republicans took action [9]: The House Armed Service Committee passed an amendment forbidding the DoD from purchasing biofuel that exceeds that cost of traditional fuel. The Senate followed suit.

These roadblocks, alone, could sink the Great Green Fleet. But Sens. Susan Collins (R-Maine) and Jeanne Shaheen (D-N.H.) announced their intention [10] to roll back the Senate Armed Service Committee amendment, which passed by one vote in June. And President Obama will almost certainly throw his weight behind the Navy's green energy campaign, especially with the general election approaching.

I spoke with ECN contributor M. Simon, a former Naval Nuke with a deep interest in energy (and especially Polywell Fusion), and his skepticism was readily apparent.

"Currently there are no economic benefits to using biofuels for the fleet," he said. "The problems [of biofuel] are at least dual, the cost of production and the volume of production. The cost will not be anywhere near the cost of oil for decades. And because of the cost of ramping up production with few buyers in sight (due to the cost of fuel), production volumes will remain at a pilot-plant scale for the foreseeable future."

What about the underlying need for alternative fuels?

"The only other advantage is CO_2 balance. But the idea that increasing CO_2 will burn up the planet is based on computer models and those unverified models are contradicted by real-world results. CO_2 has been rising steadily for the last decade but planetary temperatures have remained essentially stable," he said.

The merits of anthropogenic global warming — or "climate change" — aside, the Great Green Fleet's considerable price tag could derail the program. And if the House remains in Republican hands and the Senate Armed Service Committee stays the course, Ray Mabus' signature initiative could be outright defunded.

The Navy is embarking upon an extraordinarily tempestuous course. "Fair winds and following seas", indeed.

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