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Great Green Fleet to Demonstrate During RIMPAC

"We have to be, and will be, relentless in our pursuit of energy goals that will continue to make us a more effective fighting force, reduce our military vulnerability and increase our nation's energy security. Our Navy and our nation can afford no less."

– Secretary of the Navy Ray Mabus

In 2009, Secretary of the Navy (SECNAV) Ray Mabus announced five energy goals to reduce the Department of the Navy's (DoN's) energy consumption, decrease its reliance on foreign sources of oil and significantly increase its use of alternative energy. One of the goals is to demonstrate and deploy the "Great Green Fleet," a carrier strike group powered by fuels produced from non-petroleum sources, including nuclear power and advanced biofuel blends. The Great Green Fleet (GGF) is named in honor of President Theodore Roosevelt's Great White Fleet, which helped usher in America as a global power at the beginning of the 20th century and comprised the most advanced ships of its time; battleships made from steel and powered by steam, and represented the greatness and innovation of American ingenuity and industry. The Navy is prepared to continue our long tradition of American ingenuity to provide greater energy security by powering the Fleet with alternative fuels.

The Navy's energy program is about enhancing our combat capability and energy security; it's vital to our ability to operate forward.

- Assured mobility of our platforms depends on our efficient use of all types of energy as well as diversification of energy sources. Our combined efforts to improve energy efficiency and reduce our dependence on foreign oil enhance our ability to accomplish our mission while addressing a significant military vulnerability.
- The Great Green Fleet demonstration advances the Navy's pursuit of a domestically produced alternative to foreign oil, which will increase energy security. Target initiatives are being evaluated to improve efficiency and reduce energy consumption of existing assets, while ships joining the fleet have the latest efficiency engineering advancements.

The Department of the Navy is meeting its goal to demonstrate a Great Green Fleet in local operations in 2012.

- The Navy will conduct the demonstration during the 2012 Rim of the Pacific (RIMPAC) exercise, the world's largest international maritime exercise. Participants include: USS Nimitz (CVN 68) and Carrier Air Wing Eleven (CVW-11), USS Princeton (CG 59), USS Chafee (DDG 90), USS Chung Hoon (DDG 93) and USNS Kaiser (T-AO 187).
- The Great Green Fleet demonstration serves as an important milestone in the Navy's thorough testing and qualification program of 50-50 blends of advanced biofuels and aviation gas in our aircraft and advanced biofuels and marine diesel in our ships. It also incorporates prototype energy efficient technologies to enhance the combat capability of our warships.

Investments in locally produced advanced biofuels and energy efficient technologies are smart investments.

- By relying too heavily on foreign sources of oil, we as a nation give countries that produce oil and affect its price an undue influence on how we operate.
- DoN investments in biofuel will encourage a competitively priced, and domestically produced, alternative to conventional fuel. Such investments help the Navy and the nation become less dependent on foreign oil, and thus less subject to volatility in oil prices that can directly affect our readiness.
- The biofuel purchased for the demonstration met the Navy's criteria that the fuel must be "drop-in" or compatible with existing technology, and derived from non-food sources.
- The fuel purchased for the Great Green Fleet demonstration is part of the test and qualification program; fuel produced from non-conventional sources for operational use will be purchased only at prices that are competitive with petroleum-based fuel.

Key Messages

- For more than 236 years, the Navy has led in energy innovation, moving from wind to coal, coal to oil, and then nuclear power.
- Navy is prepared to continue our long tradition of American ingenuity to provide greater energy security by powering the Fleet more efficiently and with alternative fuels.

Facts & Figures

- In Nov. 2011, 450,000 gallons of 100% "neat" biofuel were purchased for the demonstration.
- The biofuel blends are 50-50 mixtures of hydro-processed renewable oils made from waste oil and algae and petroleum-based marine diesel or aviation fuel.
- Ship efficiency measures installed include: solid state lighting, gas turbine on-line water wash, shipboard energy dashboard, smart voyage planning decision aid, and stern flaps.