

Remarks by the Honorable Ray Mabus
Secretary of the Navy
Truman National Security Project
Rayburn Office Building
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Mike Breen, thank you, and again my apologies that you were turned down at Annapolis.

[laughter] I'll quit. I've gotten to be friends with Mike and I appreciate deeply the opportunity to come speak to the Truman Project and Operation Free, but also on a personal note thank Mike for his service in Iraq and Afghanistan to the United States, and thank all the veterans who are here today for what you have done for this country and what you continue to do. And thank the Truman Project and Operation Free for bringing such needed attention to some of these crucial issues that we are facing.

As the Secretary I am responsible for recruiting, training, and equipping the almost 900,000 Sailors, Marines, and civilians who spend every day working to defend the American people and our national interests. Every day Navy ships, submarines, aircraft and Marine units are deployed worldwide to protect and defend America. They are there around the clock, far from our shores, far from home, and far from their loved ones. They are in every sense of the words, America's away team.

In this job I also oversee the purchase and maintenance of our ships and our bases. As I look at how to carry out those responsibilities, that kind of fuel we buy and how we use power is a strategic and tactical question and vulnerability. Our ability to get it and our ability to pay for it impacts our national security and our ability to be there to provide for our national defense.

Being there matters. In military speak, that a lot of you recognize, “being there” translates to presence. In the business world American companies are around the world in overseas markets because being there matters. The State Department has embassies in nearly every country on the globe because being there matters. And that is why your Navy and Marine Corps are always there. When North Korea threatens a missile launch, our ships with Ballistic Missile Defense capabilities are there. When the earthquake hit Haiti in 2010 and the tsunami hit Japan in 2011, we had Navy ships delivering relief within hours because they were already there.

Being there requires the right people, with the right tools, in the right place at the right time. To accomplish those things, I focus on four priorities: People, Platforms, Power, and Partnerships. Now some folks keep asking “why is power in there,” why is energy in there? But it ought to be obvious: Without the energy to power our platforms, we might not be there when it matters.

DoD, the Department of Defense, is the largest single consumer of fossil fuels on the face of the earth. The vast majority of our power in the Navy comes from fossil fuels, specifically oil. Now, oil is the ultimate global commodity and it is traded sometimes on speculation and rumor. Supply shocks, like America experienced in the 1970s, are not very frequent but they remain a really strategic concern. But price shocks, price shocks happen way too often. They are caused by anything from pronouncements by hardliners, national or trans-national instability, or threats to disrupt supplies and maritime choke points.

Because we purchase our fuel on the open market the impact of this world price for oil has a major impact on our budget. Every time the cost of a barrel of oil goes up a dollar, it costs the

Navy and Marine Corps \$30 million in additional fuel costs. In Fiscal Year 11 and 12, just those two years, our fuel bill was almost a billion dollars higher than we budgeted because the price of oil went up quicker than anyone had anticipated. Now, these extra funds are mainly paid out of operational accounts, meaning that pilots spend less time flying, ships spend less time at sea, and Marines spend less time in the field.

And you're seeing a lot today about the renaissance of oil and gas production in the United States, which is great. But, once again, oil is the ultimate global commodity. Even if we were able to produce every single drop that America needs inside America, we could not control the price. Those price shocks would be there regardless because even in peacetime the threat of some unstable regime...and I use the term "unstable regime" because my Public Affairs Officer Pamela Kunze told me I had to quit using the term "Yahoo." Here she is... So the threat of some Yahoo in some obscure place...[applause]...I'm going to pay for this in ways you probably can't imagine...may drive prices up and may affect our budget and our readiness, and there are more dramatic costs. In wartime, threats to our energy supplies are vulnerabilities that can and do cost lives. During the height of operations in Afghanistan, we were losing, killed or wounded, one Marine for every 50 fuel convoys which came into theater. That's absolutely unacceptable.

Now, to help address these fiscal threats, military weaknesses, and threats to our combat effectiveness, in 2009, as Mike pointed out, I established some energy goals for the Department of the Navy. These goals drive the Navy and Marine Corps to strengthen our combat capability by using energy more efficiently but also by diversifying our sources of power.

One of the big goals is that by no later than 2020 to have at least half of all energy used by the Navy and Marine Corps, afloat and ashore, will come from alternative fuel. To help us achieve that we are trying in the Department to develop the next generation of energy innovation and that's drop-in, advanced biofuels. Exploring new ways to power our ships is absolutely nothing new for the Navy. We've got a long history -- and those of you who have heard me speak before have heard this -- but, from sail to coal, coal to oil, and pioneering nuclear. From the 1840's and 50's to today, the U.S. Navy has led in changing energy use. We haven't done this because it was the latest fad, and we sure haven't done it because the new supply was cheaper. It's hard to beat cheaper than free, which is what the wind is. Just look today at the costs differences between a conventionally powered sub and a nuclear powered one.

At the end of World War II the Navy embraced the then revolutionary idea that nuclear power could be used to drive ships and submarines. There were folks everywhere that were skeptical that it would be an improvement. They challenged it on safety, size, practicality, and cost. But the Navy did it because of its impact on warfighting capability. Those critics, it turned out, were wrong, absolutely wrong then, and now more than six decades later nuclear power is still giving us the edge in carriers and submarines. Today we are on a similar course with things like biofuels.

At the direction of the President, the Department of the Navy has teamed up with the Departments of Agriculture and Energy to fund the Advanced Drop-in Biofuel Initiative to help the development of multiple, geographically dispersed biorefineries. Last fall, DoD issued a multi-stage procurement solicitation under Title III of the Defense Production Act. DPA has

been around since 1950, it says that if for national security the Department of Defense needs something that America does not produce in sufficient quantity we can invest in it. Energy is specifically called out. What we're trying to do is construct or retrofit through public-private partnerships multiple, commercial-scale next generation bio-refineries, geographically dispersed and capable of producing cost-competitive, drop-in biofuels that meet military specs.

DoD is negotiating with several companies that can do just that. I have made a commitment and DoD has a policy that we will not buy operational quantities until they are cost competitive. Having said that, I am absolutely confident that it will be cost competitive when we begin buying those operational quantities.

As Mike referenced, last summer, in 2012, during the biggest naval exercise in the world, Rim of the Pacific, RIMPAC, the entire NIMITZ Carrier Strike Group, everything from surface ships to every type of aircraft that took off from NIMITZ were flying and steaming on a 50/50 blend of biofuels and aviation gas or marine diesel. The big news out of that exercise was that there was no news. We didn't change a thing. We bought these biofuels, and it had some unused cooking oil, we put it in our normal logistics chain, got it to Hawaii, put it on a now misnamed oiler, took it to sea. We didn't change a single engine in a single aircraft; we didn't change a single setting on anything. It was absolutely seamless, absolutely transparent. The engines, the aircraft, couldn't tell the difference. And that's one of the keys, only the source of fuel should change. Because, we've got almost all of the fleet, either at sea or being built today, that we are going to have in 2020. We've got most of the aircraft that we will have in 2020. To change our engines to accommodate other fuels, like liquid natural gas, would be incredibly and prohibitively expensive, and would cost a whole lot more than pursuing this drop in solution. Now we're

pursuing alternatives, we're pursuing them in this biofuel initiative, we're pursuing them on shore with things like solar, geothermal, hydrothermal, wave, wind.

All of that is critical, all of that is incredibly important. But being better about how we use fuel is important too; doing the same missions, the same things, just using less fuel. Our newest big deck amphibious ship, USS MAKIN ISLAND, is a great example. These big deck amphibs, 40,000 ton ships, 3000 Sailors and Marines aboard. They carry helicopters, naval landing craft, and a MEU, a Marine Expeditionary Unit. MAKIN ISLAND is unique in that it has a hybrid propulsion system. It's got an electric power plant for speeds under 12 knots.

Last summer MAKIN ISLAND came back from its maiden deployment. It had a \$33 million dollar fuel budget. It only spent 18 million, came back with \$15 million in fuel savings from one deployment. So plans for our next two big-deck amphibs, USS AMERICA and USS TRIPOLI, include the same hybrid system and we are working on a similar system to retro-fit into our DDG-51s.

Now, the Marine Corps, and I have to say that when you think of Marines you generally don't think of ardent environmentalists, but I'll tell you, they are so far ahead in proving that renewable energy increases combat effectiveness, particularly in actual combat in Afghanistan. Using their ExFOB, Experimental Forward Operating Base program, they have developed alternative energy sources from the private commercial sector that help reduce their dependence on these fuel convoys and on traditional sources of fuel like fossil fuels and like batteries. In the fall of 2010 Third Battalion, Fifth Marines deployed. They deployed to Sangin, in Helmand

Province where some of the hottest fighting in Afghanistan was going on. They went with things identified by this ExFOB process and saw a dramatic impact. What it allowed a foot patrol to do was operate for three weeks using solar blankets to power their radios and GPSs and not batteries, so they could go for three weeks without a battery resupply, instead of every few days. They shed 700 pounds of batteries. Those 200 Marines didn't have a hump that extra 700 pounds.

The equipment, once they tested it, and they tested it in combat, it got turned around and put into production and it's a standard part today of a Marine Corps unit's kit. Entire battalions in Afghanistan are equipped now with these energy technologies like solar blankets, LED lights for tents, and solar generators at forward operating bases. Because of this new equipment in Afghanistan the Marines are putting 208 fewer trucks on the road and saving 5.4 million gallons a year. That means fewer convoys and fewer Marines needed to protect them.

We're not the only ones working on this. We're not the only ones who realize how important developing alternative fuels is and [how important] being more efficient in how we use [fuel] is. Our friends and allies around the world are exploring similar projects to increase their combat effectiveness and strategic flexibility. The Australian Navy who participated in RIMPAC, and the Australian Fleet Commander flew one of his helicopters, landed on the NIMITZ and it was refueled on biofuels. We signed an agreement to cooperate on the development of biofuels. When he was asked about was he committed to the program, he said "well I'm about to get on that helicopter, so yes." The British Army, partnering with Marines in Afghanistan, is using alternative energy equipment developed by the Marines that they now operated in theater.

All the technology, all the engineering, and all the chemistry, is great but I think the best part of all this initiative is watching how quickly Sailors and Marines have understood and embraced this change. It's a cultural change, and it's going on across the Navy and Marine Corps. It's happening "on the deckplates" as Sailors and Marines come to grips with the fact that these programs help them become more effective warfighters. They help them do their jobs better.

Getting locked into things because either it's "the way we've always done things" or "we've never done it that way" isn't a rationale, it's an excuse. If you joined the Navy or Marine Corps it usually means you already got some of that adventurous spirit, you want to see what is out over the horizon, you want to see what comes next. You want to be a part of that change. That same spirit creates Sailors and Marines who look for new and innovative solutions, who want to find better ways to do things.

I went and visited MAKIN ISLAND during her deployment, and one of the places I always try to go on a ship is Engineering Department. Number one, because nobody ever goes where the engineers are. It's usually hot, but you can talk to a Third Class Petty Officer or a JG standing watch down there and you can find out a lot about how a ship operates. While I was there I talked to the Engineering Officer that was on watch. He was a Lieutenant Commander but he was a Mustang, he had enlisted service first before he became an officer, and one of the things he said was that he was proud of the new hardware, and he was proud of how well MAKIN ISLAND was doing, but he said that the reason is not just the hardware. The reason is we are now competing to see who can save the most fuel. We're competing to come up with ideas that

the Third Class Petty Officers, that the most junior folks who live and work in the engine rooms every day and understand their ship better than anybody, and they were the ones coming to him and saying “Boss, I got a way we can do this better.” The Sailors have taken it on themselves to get better and make their platform a better warfighting platform.

To encourage efficiency and energy saving ideas every year I award the Secretary of the Navy Energy and Water Management Awards. All sorts of people, ships and shore installations around the world, apply. Last year MAKIN ISLAND won the big ship category, but ships like the PHILIPPINE SEA and the KLAKRING, in the medium and small size ships, combined to save almost 40,000 barrels of fuel just through better planning and conservation methods.

As we in this country transition from two land wars in Central Asia to the very maritime-centric defense strategy announced by the President in January 2012, our Naval Forces are going to be even more critical in the years ahead. That strategy focusing on the Western Pacific, the Arabian Gulf and on building partnerships requires a forward deployed, flexible, multi-mission force. That is a description of the Navy and Marine Corps.

We’re here in Congress, and we’ve got some complicated fiscal realities, and that requires us to balance our missions with our resources. We’re going to have to make some tough decisions and we’re going to have to be strategic in our thinking and our planning. One of the things I get asked sometimes in hearings defending the budget is “is this the right time to be investing in stuff like alternative energy?” My response is we can’t afford not to now. If we don’t do it now, with the spikes that come with these price shocks, we’re not going to have the money to do the

operations that we need. We're not going to have the money to build the platforms that we need. This is absolutely imperative now.

So the four priorities I talked about: people, platforms, power, and partnerships; are being used as the guide in how we make those decisions. The energy to fuel our ships and fuel our bases is a central challenge for our future, just as it has been for our past. It helps guarantee our presence, and it helps guarantee our ability to respond and give the President flexibility and options to any crisis that may arise.

That spirit of adventure, that willingness and wanting to know what is over the horizon, is the reason that our Navy and Marine Corp remain on the cutting edge of innovative ideas. Those are the characteristics that will help ensure that the Navy and Marine Corps continue to protect the American people and continue to do the work of this country around the world.

President George Washington, not a navy man, Mike, said at the end of the American Revolution: "It follows as certain as that night succeeds the day, that without a decisive naval force we can do nothing definitive, and with it, everything honorable and glorious."

Thank you all very much.