

Remarks by the Honorable Ray Mabus
Secretary of the Navy
Current Strategy Forum
Newport, RI
Wednesday, 8 June, 2011

Thank you so much for that introduction. I'm really happy to be here at the War College. One thing that Admiral Christenson did not say was my ship was homeported here in Newport on the pier, just down the way from the War College and I spent a lot of time in Newport 40 years ago, looking at the War College and being pretty envious of the intellectual pursuits that went on in here.

We've had a couple of anniversaries this week. This weekend was the 69th anniversary of the Battle of Midway and on the 6th was the 67th anniversary of D-Day. So many of the leaders of those two battles, which turned the tide World War II and of history, were educated here at the War College. So much of the doctrine that came to fruition during World War II first germinated here at the War College. This is a crown jewel of educational institutions, not just of the United States, but around the world. The future leaders of our Armed Forces and the armed forces of the world are educated here. I recently had this point brought home to me – we got back last night. We'd been to Liberia, Angola, Ghana and Spain all in 6 days. But I was in Ghana and the CNO there introduced me to one of his staff – a flag officer – who wore the crest of the War College on his uniform. He was a graduate of here and every CNO that I met with in those three West African countries and in Spain will be here for the international Sea Power Symposium in October which brings together more than a hundred CNOs from around the world. This institution, the bonds of friendship, the professionalism that it fosters, that it establishes, the debates that it encourages, and the intellectual rigor that it pursues, creates a far better atmosphere for the world and it creates a far stronger Navy and Marine Corps.

While I was on this trip, I got to do what I like to do best in this job, and that's visit with Sailors and Marines, particularly forward-deployed Sailors and Marines. In Liberia, Marines of Operation Onward Liberty are embedded as mentors to the Liberian Armed Forces. Liberia is a country not very long post-conflict, but one which has embraced democracy and transparency following almost two decades of civil war. And our Marines are there to help their army and marines be the protectors of that democratic system that is being so carefully built there.

One of the things they said about our Marines, which did not surprise me, but did surprise the Liberians, was that they did a course in jungle warfare. They said that before they had used some other trainers and the other trainers would tell the Liberian forces what to do when they got to the jungle and then would get a report when they got back. Our Marines went with them, into the jungle, lived with them, trained with them, and did what Marines do, and have the most fun doing – living hard, forward deployed. In Spain, I got to meet with the Sailors and Marine of our newest carrier, USS GEORGE H.W. BUSH, on its way to do combat air support over Afghanistan.

Those are two small examples and I know you're heard from our great CNO, Gary Roughead, and from Lt. Gen. George Flynn of the Marines about the incredible variety of the things that we do in the Navy and the Marine Corps. I told the Sailors and Marines on BUSH that the only thing certain about their cruise was that it would not go the way it had been planned. That they would have to confront something they had not planned for, something they had not done a work up for, something they had no notion was coming.

No other force can do what we can do. No other force could respond as quickly as USS RONALD REAGN Strike Group did going from heading to combat over Afghanistan to providing humanitarian assistance and disaster relief in Japan. Nobody else can respond as

quickly and as decisively to establishing a no-fly zone over Libya. We have had this ability to move from one thing to another, to be flexible, to be forward deployed, to give our nation's leaders options as to the American response for 235 years now. This is the legacy of the United States Navy and Marine Corps. It's sort of like my favorite Navy recruiting poster. It has a carrier strike group and the tag line says, "sometimes we follow the storm, sometimes we are the storm".

Energy is another challenge that we face and it's a challenge we cannot win on the battlefield, but if we do not win it, it will have profound implications for us on the battlefield. And a lot of you, I suspect, have heard me make variations of this talk over and over and over again for the past two years. And I know you've got to be sick of it. Let me tell you why.

Particularly here at the War College, one of the things that you do, is you look for vulnerabilities. You look for vulnerabilities in our potential adversaries. But you also, if you're smart, you look for your own vulnerabilities. What would an adversary try to exploit from us? Energy is a vulnerability of ours. We have to take care of that vulnerability to be better warfighters. We have to take care of this to be the Navy and Marine Corps that we need to be. This is not just sort of one of those passing fancies. This is not just, well that's the Secretary of the Navy's stuff, and as soon as he leaves we can get on with the real business at hand here. This is our main vulnerability. We use too much fossil fuel. And we buy it from either actually, or from potentially volatile places on Earth. We have to change the way we use, produce, and get energy. We have to do it strategically and we have to do it tactically.

This is something that this President and this administration cares very deeply about and something that affects our operations and affects our budget every single day. Our reliance on fossil fuels hurts our warfighting capacity, brings risk to national security, harms our

environment and negatively affects our economy. And you don't have to go any farther than just at the headlines.

CNO yesterday talked about how every dollar rise in the price of a barrel of oil means another \$31 million the Navy has to spend on fuel. The Defense Logistics Agency just raised their "fuel standard price" at right at \$39. What this means is that over the next year, \$562 million more will be spent for fuel in the Navy and Marine Corps than we anticipated. That's way more than the cost of another Littoral Combat Ship. That's what it's costing us. We don't have that money to spare. We certainly don't have that to spare in this fiscal environment.

Strategically we know we have got to change. Tactically, it's imperative, too. And a lot of you have heard me repeat these statistics. We import more gasoline into Afghanistan than we do any other thing. For every fifty convoys, we lose one Marine, either killed or wounded. And we take those Marines, guarding those convoys, we take them away from what we sent them to Afghanistan to do which is to fight, and to engage, and to rebuild.

I think it's imperative and I don't think we have a choice. We have got to do something about this. As Amory Lovins said yesterday, we have to reinvent fire. And I'm here to tell you the Navy and Marine Corps are doing exactly that. Twenty months ago, I laid out five energy goals for the Navy. And I am more confident today than I was twenty months ago that we are going to meet every one of those goals. The most overarching of which is that by no later than 2020 at least half of all energy the Navy and Marine Corps use, whether afloat or ashore, is going to come from non-fossil fuel sources. Now while we were debating these goals, there were folks who said, yeah, that's good, but we just can't do that. That's a little too aggressive. I think you live up to expectations. If you have a modest goal, then you will meet it and you will get a modest result. We're the United States Navy and the United States Marine Corps. We don't do

things in small ways. We have always, always been at the forefront of innovation in terms of energy.

We moved from sail to coal in the middle of the 19th century; we moved from coal to oil in the early part of the 20th century; we moved to nuclear in the middle of the 20th century. And every single time we did that, every time, there were a lot of folks who said what a mistake, what are you doing. You are trading something that you know works, you are trading something that you know how to deal with, we know how to operate with, and you're moving us into something new that's unproven. In fact, when we moved from sail to coal, there was a board of Navy Flags that blasted the decision and said it would never work. When we moved from coal to oil, the argument was made, we've invested so much in these coaling stations around the world, how can we just walk away from that infrastructure? They were wrong every single time, these naysayers. And they are going to be wrong this time, too, because we are absolutely going to meet these goals. Because I think we're on the edge of another energy revolution.

I'm from Mississippi. My doctor there, Little Woodliff, so not to be confused with his brother, Big Woodliff, was the – and this is completely an aside, but the way my staff knows, if it is a friend of mine and they call in and they have a name like Bob or Harry, they probably don't know me. If it's Catfish or Diamond Jim, somebody like that, it's a pretty good chance that they're a good friend. Little Woodliff was head of a speaking series and he called me up and said I want you to come speak to this group on chaos theory. Now I thought he was talking about my administration. I didn't know anything about chaos theory and he said it's an interesting theory and it's one of the topics this group has expressed an interest in hearing about and I want you to talk about. So I go out and start reading about chaos theory.

There is a more recent book called Tipping Point, which basically boils down to that systems tend to stay the way they are; they tend to move in very small areas. Things tend not to change much gradually, maybe a little bit at the margins here and there, but that systems tend to stay exactly the way they have been going until something happens. And then they change just like that. They change instantly and everywhere and you can see it. I went to Saudi Arabia as ambassador in 1994 and not a single person I knew had a cell phone when I left. When I came back, not a single person I knew didn't have one. Think of the way we operate. Think of iPads, smart phones. Think of how you communicate and how much that's changed in a blink of an eye. Think of the way you watch television – cable, satellite and the flat screen, which was a military innovation. And it changes just like that. And I think we're about to do that on energy, too.

President Obama has shown some pretty astounding leadership on this, and we have an opportunity to help create a new energy future and a new energy economy for this country. We have to do it. This country has to do it. We cannot trade our dependence on foreign fossil fuels for a dependence on foreign alternative energy technology. It has to be homegrown. We have to be in the leadership role in this.

I know that you heard from Lt. Gen. Flynn yesterday and when we started talking about energy, Marines, being Marines, took it on in a really aggressive, really enthusiastic way. They created two experimental forward operating bases, one in Quantico and one in California at Twenty-nine Palms. And they pushed results quickly to the Marines. Third Battalion, Fifth Marines took some of this alternative energy out – solar panels, wind, solar blankets to power things like radios and GPSs, they allowed for longer patrols, fewer batteries saves 700 pounds of equipment for a Marine Company that they don't have to lug in batteries. And we also save some

lives, make them better fighters. We cut them loose from their energy tether that they have and we even save a little bit of money.

It costs \$40 million dollar one time, and it saves up to \$65 million a year, over and over again. And it reduces resupply flights by 450 a year, just what we're doing now. 450 fewer flights have to go into Afghanistan and 180 fewer trucks, we get them off the road. Those aren't big numbers by Pentagon standards in terms of money. But you do this over and over again, and it is. And one Marine saved, one Marine not killed or wounded – that's a big number. That's a huge number.

In the twenty months since these goals have been set up, we've been really busy. We've flown an F-18 on a biofuel mix and we sailed one of our ships on biofuels. In August, we going to start testing in partnership with private industry, in a joint venture with Maersk, who has a representative here today, because we know that getting commercial buy-in is pretty important. While the military can lead, it is going to have to be industry that expands the market.

During one of its ship's standard runs between Europe and Asia, Maersk is going to look at algae-based biofuels and they're going to test various blends of algae-based biofuels and in cooperation and coordination with us, we're going to analyze the results and see the best way forward.

We're working with venture capitalists. Because what we can do, we can give them a market. We can sign off contracts, whether it's for solar panels, wind turbines, geo-thermal, or hydrothermal, whether it's for bio-fuels, it doesn't matter. And frankly, I really don't care what the alternative energy is. We may not even know what it is today. It's only got to have a few, very specific requirements. Number one, it's got to be a drop-in fuel because we have most of the Fleet we're going to have in 2020 today, and we have most of the aircraft we're going to

have in 2020 today. So we can't go around replacing engines and things like that. It's got to work the same way. Number two, we can't take any land out of food production. We need the food and those two things are not competitive. Past that, I'm completely neutral as to which way we go. I have meetings from time to time with Secretary of Energy, Steven Chu, who won a Nobel Prize. And I understand about half of what he says – that's not his fault, that's mine. But there are some incredible technologies that very smart folks are working on that are right on the cusp of being commercially viable. And that's what we can do.

Just to throw out some numbers, we have 100 MW of solar power on the drawing board. That's enough when we get it finished to power a city the size of Norfolk.

We're also working with the General Services Administration to be part of their electric vehicle pilot program. We're working on things like geothermal at China Lake. China Lake is now net positive to the grid, which means they give energy back to the grid. They make more energy than they use from geothermal sources. We're doing landfill-to-energy, we're doing wind power, wave power, hydrothermal. We're doing whatever technology looks like has a chance to work.

And while we are an expeditionary, sea-going service, we own 72,500 buildings in the United States Navy and Marine Corps and we're going to make those sustainable. For the past year we've been building to LEED Silver standards and we've begun installing the early numbers of what's going to be 27,000 smart meters in bases around country and around the world. Last month in Washington, I announced next year, 2013, next year in Pentagon terms, that in FY12 we're going to have a LEED Gold option but in FY13, it's going to be mandatory and at no additional cost. For the same money we're going to build to Gold Standards.

We have a lot of stuff going on. You've heard about a lot of it since you've been here. We have to do this and we have to be good at it. We have to do it because of the responsibilities that have been entrusted to the Navy and to the Marine Corps. We have to do it because we have to keep American leadership in this incredibly important area. We have to do it for strategic reasons; we have to do it for tactical reasons. We have to do it to make the Navy and Marine Corps better and stronger than it is today.

The Navy and Marine Corps of today is the most formidable fighting force the world has ever known. But we can be better. Our platforms can be better. This is the legacy of the United States Navy and the United States Marine Corps. This is the legacy of the War College. When our tactics were inadequate, we have changed them, when technology has been lacking, we have invented new technology. And when threats have arisen, we have evolved so that we can defeat them. For 235 years the Navy and the Marine Corps have been doing this. For 235 years we have been on the cutting edge of technology. For 235 years, we have been innovative in our tactics and our strategies. For 235 years we have had the best trained people on Earth and we continue to do that today.

I'm going to brag a little bit about the Navy and the Marine Corps. A little over a month ago, I, like the rest of you, watched the President of the United States stand up and say the world's worst, the most wanted terrorist had finally been brought to justice. And that was great day. The people who carried that mission out got a lot of publicity and deservedly so. But let me tell you, everybody who wears the uniform of this country, everybody who sails, everybody who is a Marine, has that same level of skill, that same level of dedication, that same level of courage, that same level of patriotism. This country ought to be incredibly proud of the men and women who wear the uniform of this country.

That's what we've got to do on energy. We have to be skilled. We have to be innovative. We have to be flexible. We have to adapt and overcome and we've got to because we have to come out victorious on the other side. Thank you very much.