

Mr. Robert Work
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MR. ROBERT WORK: Good afternoon. As the last speaker on the last panel of the day, I've been asked to speak about finding the proper operational mix for our naval forces. However, it's very clear that you are all thinking of what operational mix you might get at happy hour, so I will try to make this as quick as I can.

Whenever you talk about operational mix, at some point in time you have to address ship numbers. And when thinking about numbers, I come at this a little bit differently than Seth. I think Paul Johnson's book, *The Rise of the Modern World Society: 1815 to 1830*, has some lessons in this regard. The book covers a time when Britain ruled the seas and had to worry about a resurgent France, had to worry about a rising Russia, and had to worry about a very bothersome state across the Atlantic called the United States. And it ruled a worldwide empire with a maritime strategy. It had 349 ships in condition for service and only half of those were in commission, all the rest were laid up in reserve. There were only 178 ships active at any given time. About a third, or 76 ships, were always on home station, which left 102 ships to patrol the entire globe. These ships were divided among a total of eight global fleet stations, or about 12 ships per station. They were largely small vessels: 33 frigates, 60 sloops, and only 9 ships of the line. With this small navy, Britain ruled its empire.

Now, fast forward. The U.S. Navy is creating its own maritime strategy and I applaud it. Anything that has improved the intellectual rigor in thinking about how naval forces help the United States and the world is a really good thing in my book. This new maritime strategy supports a new book, which we might call *The Rise of the Globalized World Society: 1992 to 2007*. The purpose of this new maritime strategy is to help maintain this globalized world. To support this strategy, as Seth said, the Navy has 278 ships in active commission. All but 14 are in the active fleet, the others are in reserve.

However, these numbers understate our true maritime power. I think in terms of a national fleet, which includes the US Coast Guard and US Marine Corps. If we count the Coast Guard's 12 high endurance cutters, about 30 medium endurance cutters, 40 patrol boats, and another 100 patrol boats and patrol coastal ships, we have 456 ships in our national fleet, and that doesn't count those in our ready reserve fleet. We also have three Marine division-wing teams of enormous capability. So our national fleet is quite amazing. Twelve of the fifteen carriers in the world are operated by us. Ten of seventeen carriers that operate vertically launched aircraft are operated by us. We will soon have 84 large multi-mission combatants, which is at least a two navy standard for "ships of the line." However, these numbers understate their capabilities. When all 84 ships are in commission in 2011, they'll carry about 8500 VLS cells; the Japanese Navy will be the next closest navy with 712. We have more nuclear attack submarines than the rest of the world combined, the largest combat logistics force fleet in the world, the largest amphibious force fleet in the world, and 95 percent of the world's military useful sea lift.

This is an enormously capable fleet. And the threat to the global sea lanes is probably lower than at any time since 1890. I would therefore argue that we are in a delightful spot. Moreover, 15 of the 17 next largest navies are democracies who have a huge stake in making sure the global sea lanes remain open. If any threat rose to the sea lanes, there is no doubt in my mind that we would be able to generate another three or four hundred ships to counter it. So I really do believe we're in a good spot.

Now, we've spent a lot of time discussing how we'll use this Navy to maintain the peace, and this is something the Navy has always thought about. Peter Swartz, from the Center for Naval Analysis, has written eloquently how the Navy's deployment strategy in peacetime is central to its being. It doesn't matter whether the Navy's capital ship is a frigate, a battleship or a carrier, the Navy is always forward. It is always engaged. It is always working to keep the peace. Even when our Navy was much smaller than today, it was remarkable, how many ships we were able to maintain overseas, patrolling the sea lanes

But, whenever we talk about deployment strategies, up to this point, it's always been tied to a military aim. In the 19th century, we had global fleet stations of our own, but they were dispersed so that they could disperse themselves to fight *guerre de course* in time of war. When we shifted to a battleship Navy, CNA wrote a very, very great monograph called *The Battle Fleet Trains While the Gunboats Fight*. While the battle line stayed concentrated in home waters, we formed the Banana Fleet and the Asiatic fleet. , We remained “over there” with smaller ships, with the big heavy fist of the concentrated fleet ready to sail forward when necessary. Then, during the Cold War, we kept “combat credible” forces forward. Carrier battle groups, marine amphibious units, ARGs, submarines—they were always there, both to deter enemies and to respond immediately to crises. But always, they were ready to launch attacks along the periphery of the Soviet empire. The point here is that while we always build a Navy to win our wars, they are used most often to protect our national interests in peacetime.

But here's the problem: in the past, we've always had a clear enemy to plan against, like the Imperial Japanese navy or the Soviet navy. Now, however, given the great strength of our Navy, the naval threat is much less obvious. In the past, we would design the fleet for the worst case big, big war, and everything else we used it for was considered a lesser included offense. But now, the potential naval threats are so diffuse and we have we have such a blurring of operational requirements that the operational mix that we choose in the active fleet is probably more important than any time in our history. And that is why any effort to try to come up with the strategy to tell us what that operational mix should be is well worth the effort.

So, what are the military problems that our fleet has to be prepared for? The first thing is it must be strong enough to underwrite our evolving expeditionary posture. Having most forces in CONUS or on US territory with relatively few bases overseas is the normal US posture. The Cold War, with many bases and forces overseas on foreign territory, was a historical anomaly. Of course, we have a lot of forces right now in Iraq and Afghanistan, but sooner or later, we will start to withdraw some, if not most of these forces. In the

end, we'll only have about four combat brigades in all of Europe, a single brigade on mainland Asia, and a regimental combat team in Okinawa. These forward-based forces, plus the residual forces in Southwest Asia, will be backed up by a lot of rotational forces, moving through a lot of forward operating sites and cooperative security locations. In essence, we are creating a global "coaling station" network for U.S. expeditionary forces. Under these circumstances, the U.S. Navy, Marine Corps and Coast Guard—the national fleet—will automatically rise in relevance and importance. We will truly be an "enabling force," because most of our combat power, located on sovereign bases, either in the continental United States or in Alaska, Hawaii or Guam. To get to any future fight, the joint force will need to go a long way, and in this regard, buoyancy counts as much as it always has.

Therefore, sea control will be as important as always because of the enormous advantage it gives us in global freedom of action. Being able to move things by the sea and denying our enemies the same privilege is a capability we don't want to lose. Naval maneuver—as defined by Wayne P. Hughes, who I consider to be one of the greatest tacticians the Navy has ever produced—will also become more important. I use the term naval maneuver rather than forcible entry because for some reason people in OSD glaze over when you talk about forcible entry. They immediately start thinking about Tarawa. Naval maneuver is using the sea to move forces faster than the enemy to put him in a horrible spot. Naval maneuver in a world which, as General Amos said, access is uncertain will once again be relevant, even if different than in the past.

Jacque Davis said this morning that the 2006 QDR had lot of problems, and I think she was right. But I do believe the QDR is very, very good for one reason. It listed the four operational problems that the President has asked the Navy, the Marine Corps and the Coast Guard (as well as the other services) to be prepared to counter. These four problems are defending the homeland in depth, fighting the Long War, preparing for a world of more nuclear powers, and shaping the choices of countries at strategic crossroads. General Amos today, and General Mattis before him, have said that we're probably not going to see any one of those four problems. Instead, we'll be faced by

hybrids of all of them. We might have to fight or prevent irregular enemies from getting their hands on nukes. Or, you might have a rising China using proxy forces to create mischief in Africa. Or, you might have some type of homeland defense problem involving state-sponsored terrorists with high-technology weapons. Future wars will likely be hybrid wars, so our operational mix must be able to create hybrid solutions.

So, what to do? First thing is, even when you have a force about 500 ships--a force which makes us by far and away the greatest naval power in the world, whose capability gap over other navies is, if anything, widening—don't duplicate. The Navy should not try to become the Coast Guard. Let the Coast Guard be the Coast Guard. We need to exploit each the strengths of each of our sea services.

On homeland defense, the Coast Guard is often first line of defense. The Navy and the Marine Corps fight the away game.

In the Long War, the operational mix should include capabilities from the Coast Guard, the Marine Corps and a small portion of the Navy. I like a recommendation made by Frank Hoffman, from the Center for Emerging Threats and Opportunities that we should rename the NECC—the Naval Expeditionary Combat Command—the Naval Engagement and Cooperation Command, and make this the primary naval arm for the Long War. Under this construct, as General Amos said, and General Natonski before him, the Marines would send theater engagement MAGTFs and training units out and about, the Coast Guard would do law enforcement, and the Navy would establish global fleet stations made up of small combatants and riverine forces (just like Great Britain did). That's the way naval forces should fight the Long War.

The proliferated world is primarily a Navy and Marine Corps problem. Taking on a nuclear-armed regional adversary is a tough, tough problem that we need to think far more about.

Then, when it comes to shaping countries at strategic crossroads, the Navy needs to think first and foremost about a rising China, and what that means for the Navy. When it comes to China, I think we are being way too coy. I mean, here's a quote from a Chinese strategist, "Oceans are our lifeline. If commerce is cut off, the economy would plummet. The Navy needs to go wherever China has economic interests. Economic globalization entails globalization of the military means of self defense. With these complex and expanding interests, the risks to China's well being have not lessened, but have actually increased."

The Chinese want to be a great power, and they are going to build a great navy—because that's what great global powers do. This does not mean that it is preordained that we will fight the Chinese Navy. But it does mean the Navy must be prepared to fight them if they challenge us. Is this so unusual? Any number one navy—whether it be the Athenian, Venetian, Dutch, English, or American Navy needs to consider rising naval powers and ask themselves, if the unthinkable happened, and we found ourselves at war against them, how would we deal with that problem?

As the range of these problems suggest, getting the national fleet's operational mix will be very hard, perhaps harder than any time in the past. Moreover, all of the problems require distributed operations. You have to distribute to find the bad guys when they fight an irregular campaign; you have to disperse for defense when you're threatened by nuclear weapons; and you have to distribute for offense and defense when you're threatened by a powerful navy like the Chinese Navy which operates distributed battle networks using guided weapons. This means you need adequate numbers.

So when I look at it, the US Navy is at 278 ships today. The Navy has said it wants to go to 313. At this point, that seems about right. Of course, if confronted by a major global maritime challenge from China, I think the nation would have to respond, and the number would likely have to go up. But I don't think we're there yet. We need to concentrate on getting the 313 before talking any bigger steps.

Indeed, we have some slack here. Remember, the Navy is not the only service with ships. When you add the Coast Guard's planned deepwater fleet, the number of warships would go up over 400. Add in the RRF and sealift ships and the number is well over 500. We have plenty of ships. We just need to get the operational mix right.

And don't forget the Marine Corps. As we shift back to an expeditionary posture, the Navy and Marine Corps team should come back together and embrace themselves. During the Cold War, the two services drifted apart. With access relatively assured, the bond that had long tied them together was broken. As a result, the Marine Corps became focused on expeditionary readiness, and the Navy became focused on strike. Well, now we're back to a world in which the Navy/Marine Corps team along with its Coast Guard brothers and sisters will once again go overseas and fight together as a team. We need to make sure that happens.

I have no specific recommendations to make today about the national fleet's proper operational mix. Instead, I'll simply pose some questions, and perhaps we can discuss them during the Q&A.

- We know that carriers right now are being filled up with short range aircraft. We know the Chinese are building the means to shoot at carries up to 1600 nautical miles away with ballistic missiles. Shouldn't we be looking ot put aircraft with longer legs on the carriers to let them fight from long range?
- We also know that our large surface combatants, who are also threatened by these missiles, now are getting up to about three or four billion dollars apiece. Let's assume they're \$3 billion, which are the Navy numbers. You multiply \$3 billion by the requirement for large combatants—88—and that's over \$250 billion just for the battle line. We seem to be on the wrong side of the cost imposing equation here. Should we rethink our plans for these large combatants?
- For example, what about shifting more of our Navy under the sea? Well, that's problematic, too. There's a possible undersea revolution going on with autonomous underwater vehicles, wired littorals, quiet diesels, and the like. What's the best way to go?

- Then, what is the proper mix for small combatants. In a national fleet, if we could get the Coast Guard and the Navy to operate one or two of the same combatants, wouldn't that be powerful? In this regard, I hope the well-publicized problems associated with the LCS and Coast Guard cutters are all resolved. We need a small combatant, just like the British needed a small combatant, to patrol the world. You don't need to have a \$3 billion cruiser off Somalia chasing pirates. You need an LCS with Marines and Coast Guardsmen aboard.
- With regard to sea basing, the question in my mind is do you optimize the sea base for the big war and then try to disaggregate it for the Long War? Or do you optimize it for distributed Long War operations like the ones General Natonski and General Amos told you about, and then aggregate it up when needed for something bigger? The former might argue for the MPFF, the latter for amphibs.
- I agree with Admiral Williams, another big question is: what should the Navy due with respect to national missile defense?
- Finally what are we doing to maintain our R&D and design base? Our industrial base? Our education and training? We can't forget these, or we will never get the operational mix we decide upon.

I see I've gotten the hook. I'm very humbled to be here, and I look forward to your questions. I'll see you looking for the proper operational mix after the panel. [laughter]
[applause]

Q&A for the Entire Panel

GENERAL HOWARD: I'd like you to do me a favor, for two reasons. I'd like to give General Amos a hand because I moved onto the next speaker before we could. And also, I think I've attended 10 or 11 of these conferences over a number of years, and sir, you gave the most succinct presentation that I have ever heard.

GENERAL AMOS: You told me to.

GENERAL HOWARD: So could you give him a round of applause?

GENERAL AMOS: I don't need a round of applause.

GENERAL HOWARD: And you might compliment the whole panel because they came in right at the right time, so give them a hand. [laughter] We have about a half hour for questions. However, General Amos has to leave in exactly 17 minutes. So if you do have questions particularly for the General, would you raise your hands and we'll entertain those first?

GENERAL AMOS: Oh, great, I'm out of here.

GENERAL HOWARD: Now, questions for the entire panel. I don't recognize names from here, I'm a little sight-impaired, but yes, ma'am?

AUDIENCE: Paula Gordon, Gordonhomeland.com. My question is about China. I was very pleased by the comments that both Mr. Work and Mr. Cropsey made. And I wonder if you would comment on Constantine Menges' book, *China: The Gathering Threat*, which was published after his death. I wonder if you are aware of that book, and if you know of the analysis that he gave about the extraordinary threat that is posed by China, which many people in the west seem to be totally oblivious to?

GENERAL AMOS: I'm not familiar with the book.

MR. WORK: I'm not familiar with the book, but I've read a lot—I'm neither a panda slugger or a panda hugger, I'm a navalist. And from a historical perspective, great navies always look at rising navies. It's a little known fact that the United States had a war plan to fight against the British Royal Navy all the way up through 1924, after we had fought World War I with them.

Now, China undoubtedly is building capabilities specifically designed to deter a United States intervention in case of a miscalculation over Taiwan. You can pick up their equivalent of *Popular Science* and it might have a story entitled, "How to sink a U.S. aircraft carrier." I mean, they're very open about it. And the U.S. Navy needs to think hard all the time about how to deal with this threat. That's why I was so pleased with Admiral Williams comments. The Navy really has paid for those first 18 ballistic missile shooters with MDA—Missile Defense Agency-- money. The Navy has yet to spend a lot of its own money on missile defense. They need to. Missile defense will be a problem in case of a break in against the Chinese Anti-Access Network.

The fact that I think the Navy should think about confronting the Chinese does not mean I think that a war with China is inevitable. I think that putting our hand across the table and trying to work with the Chinese is the way to go. But I do think it's prudent that we do think about the evolving nature of the Chinese maritime threat and how we might counter it.

MR. CROPSY: ... (inaudible) with the spirit of that remark. The PLAN is showing all the correct signs of a naval organization that wants to have greater reach. Its senior officers are visiting more places, its ships are out and about the world. They're specific in their doctrine. Their ideas are directed to being able to achieve all weather night capability, extend their range, so on and so forth, building some impressive vessels. They say that they want to be a great power, and there's no reason that they shouldn't have such an ambition. And their view of a navy is entirely consistent with that and with their geographic position and their commercial interests.

And I don't think people here, especially in this room, don't take that seriously. How well that's known outside of this room, outside the national security community, outside the Navy, I'm not sure. I am sure that that understanding needs to be there. Again, not because I think there's any inevitability to war with China or enmity or anything else like that, but they're serious and we ought to take them seriously. And by we, I mean not just the people here, but the people in the United States.

GENERAL HOWARD: Next question. Yes, sir, right here in the fourth row?

AUDIENCE: Robbie Harris here. Listening to the CNO speak this morning, Admiral Shuford this afternoon and various others, I don't think it's very well hidden that the conclusion of the new strategy is going to be that the U.S. Navy and Marine Corps, Coast Guard, would be more active in the future than it has been over the past decade. It will be more places doing different things than it has over the past decade and I would be surprised if those three services don't argue that we don't have enough ships either in the Navy or the Coast Guard or enough marines to do the things that are implied by this new strategy. Mr. Cropsey seems to agree with that.

On the other hand, I think I heard Bob Work say between, or among, the U.S. Navy, Marine Corps, Coast Guard, and the other democracies, that we have quite enough ships, thank you. Bob, would you like to comment on that?

MR. WORK: I believe we have enough ships to deal with any near-term threats to world sea lanes. There's no question in my mind that all of the world democracies, which generally have the next best navies, would join with us to meet any threats, because their stake in the globalization is as much as ours, if not more in some cases.

In the case of the Long War, ships are not the only means to fight. I think the Marines are starting to look at—and General Amos, I'm sure, will correct me if I'm wrong--, at fighting this war with distributed forces. Instead of sending out MEUs, just as the General said this morning, you might send one ship with a special purpose MAGTF down to South America,, or you might put a platoon on an LCS, or you might put a reinforced company on a specially modified MPF ship that is specialized for seabasing operations.

In other words, the Marines are starting to think in terms of distributed operations of a lot smaller packets of forces. This allows you to fight the war in a more indirect manner than when you just send out rotational, regimental combat teams. And you have

enormous leverage when you do that. In fact, I think that is exactly the right way to think about this.

In the end, however, we may not have enough ships. But first we need to get to 313, and to test the ships we have planned, before saying, “Wow, we really have to increase the fleet.” I’d like to see the 55 LCSs, for sure.

GENERAL HOWARD: General, would you like to comment on that?

GENERAL AMOS: Well, I think it’s important to kind of put all this in the context of where you think the world’s going to go in the next 20 years. I do think that’s important, and that’s why the comment I made about access and influence, and really the maritime strategy talks, and it does a great job of talking about it from my perspective. It recognizes that the world out there probably in the next 20 years, 20 to 30 years, is going to be a world where the population—Let me throw this figure out. By 2035, over 70 percent of the world’s population will be less than 40 miles from the coastline. Now, we’ve said figures like 80 percent of the world’s population live within 300 nautical miles of the coastline. But in 2035, it’s postulated that over 70 percent of the world’s population is going to live within, let’s just say, less than 50 miles of the littorals.

I mean, that’s significant. So you think about what power’s going to be able to influence that? I will tell you parochially speaking, I think the naval services will be the best postured force. I mean, it’s not the—If the Army and Air Force were in here, they’d argue with me over this thing. But naval forces will have the capability to have that forward presence that Bob Work is talking about. And we need to change our thoughts on what that forward presence looks like. Right now, our paradigm is the carrier strike group pulling off the coast on the Adriatic. It’s a marine and naval expeditionary strike group made up of five ships, three amphibious ships and a couple of others. So that paradigm has got to change if you’re going to be out there and you’re going to influence and you’re going to—You’re actually going to try to prevent wars from happening instead of always reacting to wars.

It's going to take a shift of how we deploy ships. Right now, for instance, we take a marine expeditionary unit and we sail it off the west coast of the United States. And it goes on cruise for six months. It takes a little bit more than a month to get over into the Persian Gulf, it takes a month or better for it to come back. So what you have is you've got four months, at best, and probably more like 3 ½ months of useful time. And I'm not saying that it doesn't get used en route. But I am saying that we need to change the way we look at doing business if we're going to take the numbers of ships that we have, whether it be 313 or whether it grow to 400, and how we use those ships to influence the world in the future. And I don't think there's a force out there that's better than the naval force. And I agree, I think this is the time for our two services—Or actually our three services—To come together. I think it's right, and I think the climate's ripe within the Navy and the Marine Corps leadership and certainly I believe in the Coast Guard.

But I'll tell you, the issue is how do we get out there and influence the world? And you're going to do it a different way than we're doing it right now, and you're going to have to make the decisions that are important, and I think it is. And the natural friction point, by the way, is money. You know, we sit there and I worked with it this morning through the—You know, the Marine Corps investment piece of naval shipbuilding, and it's an investment and where are we going to spend our money, and what's the threat going to look like? I'll tell you, you could probably make a case with about five or six naval nuclear attack submarines, could probably contain the Chinese fleet pretty well, I would suspect. And I'm not saying we shouldn't build, we shouldn't react and we shouldn't be prepared to go to war with China. I am saying if you just take a look at the capabilities we've got, I would say that probably half a dozen attack submarines could probably wreak havoc on any Chinese fleet. So where do we want to put our money?

GENERAL HOWARD: Yes, sir, right here in the middle? I'd like to challenge our microphone holders there.

AUDIENCE: Eric McVadon, the Institute of Foreign Policy Analysis. I want to play devil's advocate for just a moment and raise the question with each one of the speakers that I thought was kind of left unsaid. General Amos, would you address sea basing vulnerability? And Seth, in our system, can we sell both engaging and cooperating with China and being ready to deter and defeat China? And J. D., what do you say about with respect to offensive missiles, high numbers and decoys and penetration aids as far as the effect on our ability to defend against them? And Bob, I see it as not the overall power of the U.S. Navy and U.S. forces, but rather whether the Chinese can go against niche vulnerabilities.

GENERAL HOWARD: Sir, you want to take that? Did he ask you a question? I think you need to leave pretty quick, Sir.

GENERAL AMOS: You know, I think if I look at—That's a good question. In our dealings with trying to take a look at MPFF, which again I consider to be kind of the heartthrob of sea basing, I guess you could have a sea base out there somehow without MPFF, but when you think of the connectors and you think of the ability to offload and that kind of thing, you're going to have to—That's a critical part of marine maritime pre-position—Not marine, but maritime pre-position ships future. So you have to have that.

When we looked at that and we said, “Okay, not only what are we going to have, what's going to make up, but how are we going to protect it?” which goes back to your question about vulnerabilities, we've become convinced at my level, and I think the senior level of the Marine Corps, that the Navy with sea shield will form our protection for the sea base. Without sea shield, the long range ballistic missiles are absolutely going to wreak havoc in a sea base, there's no question about it. Part of the reason why we've had all this discussion in Washington over the last six, seven months about the expeditionary fighting vehicle and coming from 25 miles from the sea, was to get outside of the range of the shorter range missiles and to get out into a protected zone.

So I tell you, we're hanging our hat on sea shield because you take a sea base itself, and it's going to be made up of—I mean, it's going to have some great bottom ships, it'll have some black bottom ships in there, you'll have ships from our allies, you'll have ships from—You could easily have ships from the U.K.N.L. in there. And those are not necessarily well protected. So I think the sea base is vulnerable, but we're designing this thing, mentally at least, to be able to pull inside the sea shield protection zone. So I don't know whether that answers your question, but that's what we're hanging out hat on.

MR. CROUSEY: Well, again, a good question. I think that if the American public can keep two ideas in its mind at one time, that it's possible to do both, which is to say to tell people that although war is not envisioned or desired, or expected, that prudence requires taking what the Chinese are doing seriously. I think that if the American public can understand what a President means when he says speak softly but carry a big stick, two different ideas, but they are connected with each other, that that shows an inclination and ability to grasp that. I think that if the American public can grasp what a President means when he says trust but verify, it's another indication that people are able to, if proper explanation is put in front of them, accept something which isn't immediately obvious. In other words, we're going to war next week. Or we should just simply treat them as England.

So I think it's possible, but it comes back to what I believe is absolutely critical to any kind of maritime strategy going forward, and the Navy's future. And that is being able to communicate outside of this room effectively.

ADMIRAL WILLIAMS: I think what you're probably asking, I assume, how would our missiles do against advanced technology missiles? Is that what you're talking about?

AUDIENCE: And a lot of them.

ADMIRAL WILLIAMS: Well, the “lot of them” is the reason why I recommended that we need at least 300 SM3s, and assuming what Bob said about the Chinese missiles, and

I don't want to say assuming what you said is true, but assuming that is true, the SM3 would handle that missile. But 150 won't handle all the missiles China's building. Now, what I didn't mention very much today, which is also a recommendation, I remember when—I won't say it. I think I know who was the key guy that calls the cancellation of the Navy's terminal block 4A program back when that was done. But no matter what it was, I wrote an op. ed. piece. I think that was a national disaster because a terminal missile is the only missile to handle the short range missiles. The Navy does not have the capability against those short range missiles. It only has the SM3, will handle long range missiles.

So we need an MDA, finally, and I told them in my piece, I said, "Hey, it would take at least four or five years and several billion dollars to develop another missile." And at that time, General Kadish, "The Navy doesn't need that." Which is somewhat surprising from a guy who headed up NDA at the time. NDA now under General Obering, has put some money in the budget to build a terminal missile for the Navy. We still don't know what kind it's going to be. We need to do that, I'd say, on the urgent basis because we may need to protect the sea base against the shorter range missiles before we'd ever get long range missiles coming at them. So we need to do that on an urgent basis so we'll have some defense against the shorter range missiles. And I would say missiles under three, four hundred kilometer range.

MR. WORK: The Chinese problem is really two different problems. The first is a potential Chinese global maritime challenge. We're nowhere near having to worry about this problem; it will develop over the long-term. However, the second problems is dealing with a potential miscalculation over Taiwan in which we would have to go in to counter a Chinese invasion or use of force. Unlike in the Cold War where the Navy was on the offensive and could use the mobility of its carrier forces to strike the Soviet Union at times and places of their own choosing, the Navy would be tied down to defending a specific geographical location which would rob its carrier forces of one of their greatest advantages..

The Chinese are building forces to exploit this vulnerability with their ballistic missiles and their submarines and anti-ship cruise missiles like the SSN27 Sizzler, which you've written much about. And they have a concept which I think most the people in this room know about called shashoujian—I think I pronounced that pretty close—made up of the characters kill, hand, and mace or sword, which is most often translated as assassin's mace. In essence, assassin's mace capabilities are those that avoid a superior adversary's strengths and attack its vulnerabilities, and the capabilities that the Chinese are developing follow this approach very, very effectively.

Under these circumstances, the Navy needs to get back to thinking about cost imposing strategies. We're trying to push in and fight maybe three or four hundred miles from Taiwan right in the midst of their anti-access/area denial network. I think a smarter strategy would be to fight from range, which would make the Chinese ISR problem more difficult and make our defensive problem easier. How how would you do that? Well, I just came back from a war game where some people said, "Hey, the way to do that is to fight the carrier from 1500 nautical miles with a system called the unmanned carrier combat air system, and to put submarines in close and have them do the SEAD (suppression of enemy air defense) mission, which would roll back the Chinese network and allow us to start bringing the carriers closer.

Thinking about this does not mean we're making China into an enemy. I think the Navy admirals at PACOM get this. I think they follow the "no better friend, no worst enemy" type of thinking, which is: let's have transparency, please join us as a global partner; while at the same time demonstrating that we can pretty much overcome anything the Chinese throw at us.

In sum, I think the Navy just needs to get back into thinking about cost imposing strategy. Is building a small number of \$4 billion ships to try to catch two or three or four hundred inbound missiles a smart thing? I'd rather throw the problem back at the Chinese.

ADMIRAL WILLIAMS: Let me add one thing. I agree with the general comments, having spent much of my time in the Navy on nuclear submarines. His understanding what submarines could do to the Chinese surface navy is right on. That's the kind of thing, one of the many things we need to think about if we ever have to go to war with China.

GENERAL HOWARD: Way in the back? Let us know who you are, where you're from?

AUDIENCE: Chris Nichols, General Dynamics. Part of the mix is what we would call capital ships, and history shows us that if you start building capital ships at the start of the conflict, they don't make it to the fight. I'd like to have the panel's views on the necessity of capital ships, your vision of what constitutes a capital ship and the infrastructure necessary to build the capital ship.

GENERAL HOWARD: Who'd like to take that? Seth, you want to start?

MR. CROUSEY: No. [laughter]

GENERAL HOWARD: Admiral Williams?

ADMIRAL WILLIAMS: Yeah, that's a good question. We all probably have different views of what a capital ship is, but having to look at the vulnerability of ships, I'm not including submarines in this because when you submerge down deeper than, I guess, the classified depth is 400 feet, but we go deeper than that, you don't worry too much about vulnerabilities. But as far as the other ships, and I think I'm still correct, basically the larger the ship is, it's more protected. I would put a capital ship of anything over about 30,000 tons and you build a larger ship like the LHAs and like the large amphibious carriers, that's a capital ship. And it would take a lot to sink a capital ship.

So the whole Navy shouldn't be capital ships, but you need the right number of large ships in order to fight whoever ends up being our enemy, whether it's China or eventually Russia again. Who knows? We really haven't been very good in the past of predicting who the enemy's going to be until it's too late. And I agree with your comments, if you don't start building the larger ships, it ain't going to make the war. It'll be over, and it's not going to fight very well sitting in a shipyard except it makes a good target. So that's kind of what I consider—You could kibitz about the tonnage, but it needs to be a large ship, and that's how you get your protection.

GENERAL HOWARD: Seth, do you want to say something?

MR. CROUSEY: Yeah. I think that the idea of a capital ship had much more heft when the competition between navies for blue water was the most prominent form of naval competition. I would not say—I don't say that capital ships are gone, that the future is gone or anything else like that. But I think that one of the things that comes out of the changes in the world that have taken place after the Cold War clearly is diminished importance of competition between navies for blue water—For control over blue water. And I think that that has not yet had the effect on the shape and size of large ships that I expect we'll see in the future.

GENERAL HOWARD: Bob?

MR. WORK: The Navy is in the midst of a grand transformation from what I'll call the total ship battle force, which is the way the Navy has traditionally judged itself—by counting the number of ships in the battle force—to what I refer to as a total force battle network—which includes all of the ships in the national fleet, from Coast Guard patrol boats all the way up to 100,000 ton carriers.

In a battle network, the idea of a capital ship, as Seth said, really starts to go down and the idea of nodes goes up. However, what you have are nodes that are more valuable than others. I consider any one of the 84 Aegis VLS combatants that we will soon have

as being very important node in the network. I think the Navy made exactly the right decision in the 1990s not to go with the arsenal ship and 500 VLS cells on six ships. Instead, they put almost 9,000 cells on 84 ships—a much smarter approach, with enormous flexibility. For example, if you gave every one of those 84 ships the capability to go after ballistic missiles, you would have an extremely powerful missile defense network.

Your point on the infrastructure to build the replacement for these ships is a good one. I believe that in the last two or three years, that the Navy has blamed too much of the problems in shipbuilding on industry. The Navy needs a “competition strategy” to make sure it has the R&D, design, and industrial base to build the replacements for these ships—and more if necessary to meet a concerted challenge. I believe the Navy and industry can do better, but I do believe the Navy has put too much of the burden on industry on saying, “You are the cause of the problems,” when most of the studies show that a large part of the problem is constantly changing requirements on the ships.

As we shift to a total force battle network, is replacing these ships with very large, 14,000 ton ships which have a lot more passive survivability but are extremely more expensive the best way to go? Or should we become even more distributed, sacrificing exquisite protection for the protection afforded by larger numbers of nodes? Which would be the better way to keep the industrial base hot, so if we are faced with a serious challenge, we can start to build even more ships? We have no good answers to the questions, but we need to get to them quick.

GENERAL HOWARD: We have time for one more quick—

ADMIRAL WILLIAMS: Let me add a little bit to that, and I would agree with what Bob has to say. But I think as we go to what the proper mix is, and I don't have anything to do with that now except on a minor basis, but I don't think I have a lot to do with it, but I think it's important to keep the right number of large ships, or just what I said, to not have the vulnerabilities that a small ship has. And I agree that the right protection is a

mix of smaller ships, which are LCS, and the Aegis and then you can build networks today, or the net centric warfare, really does work with that—We call it, I guess, Marine or maritime domain awareness. And that's where you get your protection, by a whole force of ships, small, submarines and Aegis, right on up the line. But eventually having had Sixth Fleet, and when I was introduced to amphibious ready groups, and I want to tell you, I wish the Marines—I guess they have some, but you want some Marine—Is having had the big helo deck carriers over there, I want to tell you, there's nothing more powerful in tomorrow's world than having a number of those ships, and I would have about the same number as I do of the carrier. What you can do with those is more than you can do with a normal carrier as far as helicopters and medical evacuations. Just all kinds of things that gives you the capability to do, what you can't do with a small ship.

So as we go into the next—Whatever the sea power strategy turns out to be—The right mix, choosing that right mix, is just as important, if not more important, than it was before.

GENERAL HOWARD: We're out of time. The only thing between you and a Miller Light is me. So my closing remarks will be brief, and like the General, succinct. Best quote of the day, “Spot welding can repair a ship. It wouldn't make a very good one.” Think about it. If we as a nation give up our weapons procurement capabilities, if we outsource everything, what are the chances for gearing up for a major international war like World War II?

My final thing I want to say, I'd like to thank Bob Pfaltzgraff and Jacque Davis and IFPA for making this conference possible, for putting it on as they have for so many years. I know of no conference in the United States or even overseas that brings in so many high level decision makers who sit before an audience and talk very candidly about their profession and about the future. So Jacque and Bob, good for you, thank you very much. And let's thank our panel.