

**Mr. Daniel L. Smith**  
**Presentation**  
**IFPA-Fletcher Conference**

**DANIEL L. SMITH:** Good afternoon. I was going to have everybody get up and stretch, but I didn't want you to look at the clock and see when the next train leaves. But I do want to thank you for sticking around long enough to get this panel in. I don't have much new to say, that hasn't been said by any of my distinguished colleagues up here, but I would like to take a tad different approach, because I don't think the navy needs us industry guys to tell them what their war-fighting strategy is. On the other hand, the navy needs us industry guys to tell them how they can achieve what they need, in the best way, the most economical way, the most affordable way to achieve that.

I had the opportunity, over the last several months, to review the maritime strategy, as it's developed. And, as I understand it, it rightfully reflects on significant changes in the domestic and the international environment. In my world, we operate on three different continents around the world with what we call landed companies around the world-- So we get a big picture of what the international market is like, and what the domestic market is like. So there are three realities that I would offer you that need to be thought about. The first one is that globalization has produced an inter-connected world. An inter-connected economy that is increasingly vulnerable to local disruptions happening anywhere, any time. That's a truth. The second reality of our life, no nation or service can do it all alone, and there's a corollary to that, here in the U. S. Joint acquisition must support joint war fighting. We can't continue to buy in-service stove pipes and service missions and expect that to go out to the fleet, or out to the troops, and turn in to something that works jointly. The third one I would offer, and I think, in some ways, most of the rest of us said this, there's a real good book out. I don't know if Larry's read it yet, but if you haven't, I would encourage you. It's a simple one that applies quite well to this. It's called, *Hope is Not a Strategy*. And so, if we're going to have a strategy, we

need to have the details, and the meat underneath that over-arching document that really sets up all of the stake-holders to participate and contribute in a new way. There are only three points I want to make that I think are relevant, that haven't been said before.

The first point, and I don't want to talk any more about the environment, the first point that I want to make is it's now time, if we're going to execute this, to recognize that the domestic and the international defense marketplace is much different than it has been. It is at least as challenging and changed as the geopolitical or geo-war fighting environment is. And as we're putting our strategy together, if we don't consider what those impacts are, and Admiral Landay talked about some of those things, about what students get taught where, about what technologies you can use where, the strategy is hollow. The strategy is not going to happen. And I'm glad that I now know who to go ping on as the guilty guy in all of this.

So that's the first one. And if you think about it, and you think about the old *I Love Lucy* cartoon that's really famous, where Lucy and Ethel are sitting at the bottom, stuffing chocolates into their box and the chocolates keep coming and Lucy keeps popping them in her mouth, and they go like this. That's the way it used to be. Today, there aren't enough chocolates coming down, the line is moving at a snail's pace and, lo and behold, Ethel got lost in the last BRAC, and so we can't get there from here.

Point number two: Now is the time to develop these new and innovative industry partnerships that have to take place. And they have to take place on a global scale. What we need is a model that's much better suited to the times we live in and the times we're going into, than the rules and regulations that Admiral Landay talked about, that he has to live by, to try to be the technology leader that his charter is to be. First, we have to acquire it, if we're going to change it. You've got to make a decision to acquire it jointly, look at the demands, look at the requirements, and say "Marines need this, navy needs this, and army needs this, buy the system once. Don't buy three different versions.

Recognize the Cold War's over, and also recognize that our allies understand, and our non-allies in the international market understand, the Cold War's over. Change the attitudes on both the industry side, and the government side, from what it is today, we versus them, Yes, I'm a slimy contractor, I'm also retired navy, and spent most of my life in this industry, and I think, on the industry side you'll find most of us have that same kind of feeling, deep down in our stomach. You've got to change that to "we," and "us." And we are going to gather together the strengths of this country to make it.

To John's point, we have to transform the role of industry, and we have to find a way for the government to open up its arms to embrace a system engineering process to what we do. And you've got to have the industry players involved in that, big and small. You have to understand industrial capitalism. I've spent a lot of time, over the last year, having contracts and finance folks out of the customer set come and try to learn how what really drives a private industry business.

You know, on one hand, your job, if you're in the defense industry, is to maximize the shareholders' wealth and, on the other hand, your job is to make sure that our war fighters have the best equipment they can have. And it's on time, and it's on cost, and it works every time.

So, we have a much different model and, quite honestly, I'm not sure that we understand each other well enough. I can tell you many times, and some of you may have actually had this experience, that after you retire from the service, and you go out to private industry, after about the first six months you say, "Holy God. This isn't what I thought it was." And I can see some heads shaking in the audience, and smiles on your face. It's a little bit different real-time pressure that we get into.

I'd like to offer an example of a model that I think is the leading edge, in terms of getting there. I'd offer that the Royal Australian Navy's air warfare destroyer program is the next step of how to create these kinds of things. And the background-- And it's actually articulated fairly well, although it's not named, in the strategy itself-- The background

goes like this: The Commonwealth of Australia, and the government of the U. S., wanted Aegis capability on these ships. Great concept. No questions asked. But Australia wanted the DDG51, or the cruiser system tailored to meet their needs. Now, the needs in Australia may not necessarily start with war fighting. They might start with numbers of jobs in country. That's a big deal in all of these international markets.

So the story is that U. S. government, with the help of their Lockheed friends and, by the way, I will point out, for those of you who are engaged in the defense realm, Lockheed and Raytheon sit beside each other for over an hour in the same room. We're still alive. With the Lockheed help, it's transitioning Aegis systems down to Australia. The Commonwealth, and Raytheon Australia, and ANC Shipbuilder, in an alliance contracting mode, is taking Aegis system, the tailoring pieces of it, which would include the sonar, those kinds of things, and creating a war ship.

So, how does everybody win, one would say? Well, the way you win is, Australia gets a RAN, a Royal Australian Navy application of Aegis technology, with hundreds of jobs. The U. S. gets a firm ally even firmer in camp, and the potential to have another ship in the battle group that has inter-operability at its maximum extent. So, I think that's a good example of how we get there from where we're at.

Another example, and point number three is, we have to have a better industry system, in terms of regulation and execution of technology transfer. We are dealing with the archaic, and I know I'm talking to the choir. So let me just give you a couple of examples that we thought about.

One thing is switch from every transaction being a licensing opportunity. License at the system level. Don't license at the widget level. Create rules and ...(inaudible) for selling specific classes of U. S. technology to designated categories of countries. The U. K., the Australia special agreements that we've just executed, absolutely the right path. I would ask you why there's two. Why don't we have the same thing? I got asked that in Australia, a couple of weeks ago when I was down there. When we recognize the

diminished numbers of producers, remember the last supper in 1993? All the big industry players got called in and said, "Guess what? A few years from now, there's not going to be as many of you at the last supper. The next-to-last supper."

So we don't have the numbers of players we had before. That's okay. We've right-sized ourselves in our own kind of bracket, and we've created, or should create, expertise that is specific. And we should recognize that. John's going to really smile now, because I think, or I would propose or offer, that maybe the U. S. government says, in partnership with Lockheed Martin, "We're going to promote Aegis, and we're going to team with Lockheed, and we're going to sell...Aegis where it's appropriate around the world. No questions asked. Raytheon doesn't get to stand up and cry, "Foul," Northrop-Grumman, etc. Maybe we do the same for Global Hawk. Maybe we do the same for other things, but we get rid of this. Because we are competing in a market space, every one of the industry players here is competing in a market space where the government of our competitor is, in fact, their partner. And they're not only promoting the product, they are funding the promotion of the product. And the offsets and all that stuff that goes with them. So, if we're going to compete, and we're going to be in this cooperative, inter-operative mode, we've got to do those kinds of things.

To sort of summarize my remarks, so we can get to some questions, the new strategy should be a bold departure from where we've been because, since the last one, the world's changed three times. We need to recognize that, we need to respond to it. The first order, important thing we must all do, is recognize what needs to be done. I think we're on that path. Then we need to sit down and find a forum, and maybe this is the start of that forum, where we can have candid conversations about the issues we see, and the pathway forward to fulfill the goals that are lined out in this document.

The course the maritime services have set for themselves is, perhaps, right. It is also, perhaps, wrong. For the future uncertainties we face, the globalized economy, and fragile security environment that we share, is going to get worse, from the perspective of trying to hold this world together. The foundation of my message to the sea service folks here,

to the industry folks here, is sea service is the military. The government can't do it alone. So, if I spoke on our behalf, I just borrow a slogan from Home Depot, "You can do it. We can help." Thank you very much.

### **Q&A for Entire Panel**

**DOMBROWSKI:** Well, I think that was the first set of presentations that raised a whole lot of issues that I'm sure there's many questions on, so I'd like to open the floor to start. And please identify yourself and where you're from, and if you have a particular person you want to identify, direct your question to. Please, from the floor, in the middle, in the yellow tie. I'm sorry.

**TONY LEGWRICK:** Hi. Tony Legwrick (?), former classmate of Robbie, if that's worth anything. I was intrigued by Mr. Ferren's ideas, particularly as a game changer, so the question is really for my compadre, Admiral Landay. If you're in the game changing business, are you investing, at the S&T level, in 6-1, 6-2, in ideas like Mr. Ferren's here, that would have potential, as a game changer?

**ADMIRAL LANDAY:** We think so, yes. The question, of course, is what are the other potential game-changing ideas that maybe you haven't invested in so, as I say, we are actively looking for ideas and technology solutions and, you know, my job is really to be that naval incubator of ideas. To try to take ideas, such as Bran's, and others, and start walking them down the path. In fact, we were in Bran's place three or four weeks ago, looking at a number of technologies coming out of there, where they were funding specifically that approach-- I probably can't say because I'm still trying to make sure I understand it. But I do think that those are exactly the kinds of areas where we are, in fact, taking a look at the whole concept of sensors, and how you think about sensors-- Is really an area that we're all taking a very hard look at. So, I would say, "Yes, I think we are," but, again, there's probably other ones out there, as well, that we're not, and it's generally because we haven't found them yet.

**LEGWRICK:** Thanks. While I've got the mike, a second question, if I might. Of the notion that there's the "We, them," and it's government and it's not government, and this sort of an opportunity to comment. I'd suggest that there are actually three parties out there. The "We" is actually two. There are those who were in acquisition. There are those who were not in acquisition. And then there is industry. Each of us has been painted differently. And then, would you think about, for a moment, and comment on the fact that we have a great enthusiasm for the non-acquisition guys to be in charge, and if they are in charge, they'll fix it. If you would comment.

**DUMBROWSKI:** Does anybody have a comment on the second question?

**A:** Tony, I'll comment. Number one, if there's only three, we're lucky. Number two is, I don't know about a lot of, and I don't resonate with a lot of fever around the non-acquisition guys. I think it's fairly clear; we have issues in the acquisition world that have to be cleaned up and have to relate. You can read the Washington Post any day and see a new announcement. So, my whole message is, we have to work together, whether you're on the waterfront, you're in the Pentagon, or you're in the Washington Navy Yard, to make these things work together. And you can't just write an over-arching document that says, you know, my "Hope is not a strategy" comment. It's got to have some meat to it.

**DUMBROWSKI:** I saw Robbie Harris next, and I'm catching eyes.

**ROBBIE HARRIS:** Robbie Harris, classmates of Tony and Larry Cavaiola. A question for Admiral Landay. Sir, what's this strategy, this new strategy, you've rolled out? How do you align the S&T community, and its priorities, with this new strategy, and how do you fold industry into that?

**ADMIRAL LANDAY:** Well, from a science and technology community answer, first, it's exactly what our mission and our goal is. We've just recently kind of, in advance of this strategy, and we'll update once this latest version of the maritime strategy comes out, we particularly focused on what were driving the requirements and investments we were

making in science and technology. And what we found, as we looked at it last time, is there were a lot of different inputs and masters, if you will, that we were trying to satisfy. And we made a decision, in this last strategy, which I think prepares us very well to walk this maritime strategy, to say, "It's really only three customers for me." It's the CNO, the Commandant, and the Secretary of the Navy.

The CNO, the Commandant, and the Secretary of the Navy, will figure out the role of the navy and the Marine Corps, and the joint fight, the national security policy, the maritime strategy. That's what we're paying them to do, and I'm going to believe they do it pretty well.

What we're going to do is align the science and technology strategy to those key elements that they believe are important, and really is the vision for the navy and the Marine Corps. So our current strategy is aligned very specifically, based on inputs from Sea Power 21, the Palm 08 Naval Strategic Plan, Marine Corps 21, Marine Corps S&T Strategy, Enterprise S&T Strategies. When this strategy rolls out, one of the tasks that we already have in place is to go take a look at where the strategy wants to drive us, and do a connection to where we're going.

Our goal, we think-- You know, it would be kind of a check for us-- Is that we should, quite frankly, in most cases, try to be out ahead of the strategy. And so, hopefully, what we're going to find is that many of the areas that the strategy wants to go in, we've already started some work in those areas. And it's more a matter of a reallocation of resources to further emphasize other areas. But, absolutely, for us to be effective to that, we have got align ourselves strategy. And that's what really prompted my comments, or my points and my comment, is that that strategy really is going to have a significant impact in the whole way that we think about science and technology. And I think we're well equipped to do that. We've spent the last year taking a hard look at many of these issue, just internally, to kind of prepare ourselves for whatever comes out of the strategy. And I guess I forgot what the second part was.

**Q:** ...(inaudible)

**ADMIRAL LANDAY:** I think, again, one of the key things that we've tried to do, from a naval S&T perspective, is-- I don't think in the past we did a great job of trying to explain to people where we wanted to go. Where we thought science and technology should go, in support of the CNO, and the Commandant, and the Secretary. So, you had to kind of figure it out yourselves. And sometimes you did it well, and sometimes you didn't, because we weren't really doing a good job of telling you. In our current strategy, we're trying to be very open, and saying, "This is what's important to us. This is where we're making our investment in science and technology. This is how we see those investments furthering the navy and the Marine Corps, consistent with where they want to go. And if you think we've got it wrong, we'd love to have that dialogue with you. The kind of discussion that we're trying to have with industry, you know-- The folks up here and others-- Is really one that says, "Here's what the vision is, as we see it. Where does the defense industry see it?" Because we contend we don't have the market on all good thought. So we very much want to sit down and collectively decide where we think we need to go, from a science and technology for both of us.

But the starting position is, I have to lay out and say, "This is where I'm going. If you agree with it, great. Let's do it together. If you disagree with it, then come in and let's have a discussion of it. And I think in the past we probably have not done that as well as we could have, and that's very much-- And we'll do the same thing I think the strategy. When it comes out, we'll have a discussion with ourselves, and everybody else, of whether we're aligned. If we don't think we're aligned, where we think we need to change, and we will promulgate that, and say, "This is where we're going now, and let's have a discussion if you think we've got it wrong."

**SMITH:** Could I comment on that? Because I think there may be a difference in the way the government looks, and the way industry looks. When we do planning for investments and, please, any of my colleagues jump in, but in my world, we develop the strategy, and then we target our investments to fulfill the strategy. We don't develop the technologies,

those kind-- We don't invest to develop the technologies and then say, where can that take us? That's how we used to do it. Because we used to go to guys like Bill Landay and say, "I got this great black box, and you need to figure out how to use it."

But, over the years, as we've gone through this consolidation, etc., we started (?) to change the mode and tried to set up the strategy as the driver to where you place your investments. And that might be a difference now in how we work at a disconnect, in trying to make the collaboration.

**LANDAY:** If I could jump in. I don't think that's necessarily different than the approach that we're taking. There's a fundamental of it, is at least in the navy, we've made a commitment that we're going to have a significant investment in basic research. So we need to invest in basic research. There are pieces of this where you're trying to advance the technology, maybe in advance of the strategy. Because, in some cases, you're trying to help the navy understand that, through some possible uses of technology, it may influence your strategy. But other than in some of those basic research investments, that's exactly what we've been certainly trying to do in the last year. It really is about the vision of the CNO, and the Commandant, and the Secretary, and where they want to take the navy and the Marine Corps, and then what is our contribution as part of that to get us there. We're a piece of it. But I agree with you, Dan. I mean, that's exactly right, and that's why we felt it was important to articulate it, so that not only did we understand it ourselves, but the navy and marine corps understood it, industry understood it, and if people thought we had it wrong, we could then recalibrate ourselves. So, I think we're very much consistent with ...(inaudible)

**A:** Could be.

**DUMBROWSKI:** Another question from the floor? At the risk of delaying Bob Pfaltzgraff's closing, I will take my prerogative as chair, since we have a couple of minutes left, and just ask two general questions. I guess one prompted by Dan Smith's comments, and you raise the issue of systems engineering. I've heard that talk both at

dinners, and lunch, and around the corridors. What I'd like to ask you, and this is an academic perspective remember, is who should do the systems engineering for many of these programs? Is this an industry function, is this a government function, is it an SSFFIBC function, or is it some admixture? Because, it seems to me, there are delicate choices there, with big implications for how successful we are in the long run.

The second question is prompted by Bran Ferren, but I guess it's also more general. Is-- You propose sort of an alternative way of actually looking at the entire problem of acquiring the sensors necessary to implement the strategy in the long run. To me, and this is a non-expert, the traditional-- You haven't answered some of the traditional objections. For example, about the security questions associated with that, the question of the proprietary. How do you make money under such a system? Now I know this, in the GPS world, and in the Internet world. Some of these things have been solved, and some haven't. And I wonder if you could address those and, at least if you see where I'm coming from, or anybody else in the audience. So, with that, I'll get off the stage and let you answer, and then I'd like to have a round of applause for the panel and their excellent work at the end of the day. Then I'll turn it over to Bob Pfaltzgraff. So, please, if anybody has any thoughts they'd like to share.

**A:** I guess, since I fostered the question, and as I copied it down, the question was, "Who should do the system engineering?" And my simple answer is, "We should." Because it's not as simple as saying, "The lab should...." Or, "Industry should...." Or "Small industry should...." Because if you get down to that level of question, you've already failed to system engineer the problem. And you've got to system engineer the problem from the top. And I'm talking about system engineering much more as a thought process and a methodology, than a guy who comes out of MIT with a system engineering degree. Or a guy who comes out of any other university, or a guy who comes up through the fleet and gets all of his navy schools and does all this stuff, and may make the best system engineer in the world. But he didn't get the degree that he needed to be called an engineer. So it's a whole different thought process we need to put in this. I mean, that's my take on that question.

**A:** I'd reinforce that, in another odd Lockheed-Raytheon agreement.

**A:** When we talk, we agree a lot.

**A:** Where we fail, where we get into trouble, is when we don't work the system engineering assets. Let's mention a multi-faceted problem. All right? When we fail, it's when we don't engage as a "we" in the engineering of whatever it is we're trying to do. One party has more responsibility than is warranted, or what have you. So I fully endorse what Dan said about "It's a 'we'" and I don't think you can break it down.

**FERREN:** Relative to the questions of security, mandating labeling doesn't change anything about security because you either can control the access or not, just the way you have in the past. What I would argue is, when you start believing in network effects, you want to share and you wish to share, providing you have controls in place. The notion is the netted data gives you those controls to basically say, "You have access to this. You don't have access to this."

But that's not fixed. It's dynamic. So, for instance, in time of war, you might flip a war switch, and all the rules change, based upon a pre-determined set of conditions, or such. So, on one level, security doesn't change. Two, if you look at the business of intelligence and communications, the points of the other speakers, there is no line anymore between open source, etc. The vision of all sources is how you have to look at everything and, as a result, the ability to play well in an all-source environment directly affects your ability to extract value from it. And, clearly, if you have this notion of ubiquitous labeling, and opportunistic, agent-based functions that can work against that, that makes that better.

Finally, I would argue, if we start thinking, every time you are responsible for a sensor system, of what is the queue, what is the load factor, meaning what contribution does your sensor make, not just to solving your problem, but to the greater good. And, in fact, you fund against that, so that the funding profile's in a truly joint basis, or directly tied to

the metrics that say, "This is the contribution it makes." Doesn't preclude you from being able to have your own stove pipe that connects to nobody, but don't expect a lot of help in paying for it.

At the same time that the other sensor, which satisfies what you need to do. You say, by the way, this is a missile defense sensor, so at a certain moment when we're using it for that, nobody has access to it, go away, we're doing our job, great. But in exchange for that, the rest of the time, you all can use it to drive down the costs of your program and drive up the national capability, and the global capability. I would argue that there's a very strong economic model behind it, as well as, frankly, to the points of how do you get new little companies, and other folks, involved. You end up with an open standard which anyone can invent against and apply. The government, the entities involved, still has ultimate control. They can flip the switches to make it available, share it or not, and I would argue the experience from the commercial world, and now in the intelligence community, dictates that there's an enormous pressure to share, because the perception is that there are enormous benefits to do that.

**DUMBROWSKI:** Thank you very much. Without further ado, please join me in giving a hand to our panelists, and I guess I give you Doctor Bob Pfaltzgraff of Fletcher School and IFPA.