Dr. William LaPlante "Air Force Acquisition" AFA - Air & Space Conference and Technology Exposition 16 September 2014

Dr. LaPlante: I didn't catch the end of the Chief's speech, but it sounded like people inside were singing, is that true? You will not be singing at the end of this talk. That's at least not planned.

Hello, everybody, welcome to the afternoon session to talk about the state of Air Force acquisition. And thanks to AFA for doing a great job for this conference. I think it's even better than last year. I'm told there were 50, 50-plus more organizations here. And all of you are probably not getting many email because everybody is here, right? So it's really kind of nice. Either that or our email's not working.

What I'm going to do is first give a state of play in where we are in Air Force acquisition. This is my first address at AFA as the Assistant Secretary, so I'm going to use this as an opportunity to kind of level set everybody about where we are and then talk about the strategy, the Air Force acquisition strategy, and specifically how it maps right underneath the strategic agility strategy that the Air Force has. Then go through what we're doing about it.

The strategy of Air Force acquisition is really the what -- what we want to do. In some ways, what we want to do is not that hard. We want to have a good, effective, fast acquisition that delivers to the warfighter capabilities that will be with them for years to come, that are sustainable and economic.

But the question is of course more than that. How do we do it? How do we do it in a way that doesn't repeat the issues we all know about? How does it exploit the goodness that's going on now? And there is a lot of goodness going on in Air Force Acquisition. Then how can we do it together? Because we're in this together. It's not government versus industry or versus academia and FFRDCs. We're all in this together. If you're in industry or in an FFRDC or whatever, if Air Force acquisition

doesn't do well, you don't do well. And vice versa. If it does well, you do well. That's why we're all in it together.

To begin with, I'll just give a little bit of recent history. As probably many of you know, for maybe over a year, Air Force acquisition was being run by two people -- General CR Davis, a military deputy in AQ; and Secretary Mike Donley. Every Friday nominally about 11:00 o'clock, General Davis would walk into Secretary Donley's office with a few packages, two or three issues, and they ran Air Force acquisition during that hour. Of course CR Davis and the PEOs did it for the rest of the week. That was Air Force acquisition. It was remarkable what they were able to do in just keeping the lights on and keeping the projects and the programs going with the PEOs and the program managers and the AQ staff.

So when I came into the job first as the Principle Deputy, I said to people I was just winning points by breathing and going to meetings. But pretty soon we were able to start to chip away at getting out of just the triage mode of dealing with the urgency of the hour and begin to start looking more long term at a strategy.

I'm pleased to say now we're at a point with the team, the leadership team we have in AQ as well as with our PEOs and PMs that we're at full strength. And we're at full strength for the first time in five-plus years. So we're now tackling not just the execution but we're tackling strategy and we're tackling moving together to where we need to go in Air Force acquisition. So that's the recent history of where we've been.

Again as I said, General Davis single-handedly was carrying Air Force acquisition on one hour a week with Secretary Donley. In June we were very happy to have General Pawlikowski relieve General Davis when he retired.

So let me go to the next chart.

Everybody knows who General Pawlikowski is. If you don't that's her. She's sitting here in the front row.

Here are some remarkable things about General Pawlikowski. I want to embarrass her a little bit. You probably know that she was the commander of SMC/PEO Space. She has a PhD and she's got common sense. Those two do not go together at all. I can tell you that. [Laughter]. And here's the thing that's pretty remarkable. She was elected to the National Academies of Engineering. That's a huge honor and she is an NAIAA Fellow. Oh, and she's also a three star general.

That's our military Deputy in Air Force acquisition. And Ellen being Ellen, has been in high demand, is a high demand resource in the Pentagon in the last month on a few of our space issues that we have. So she spends half of her time doing acquisition and half of her time perhaps doing space issues for the Secretary, and keep in mind, half of her time is probably a full week. So that's a lot of time. A remarkable person, remarkable talent.

Next chart.

Rich is the Principal Deputy. Many of you know Rich. He has more than 35 years' experience in Air Force acquisition. As an Air Force programming comptroller, he's worked at the depot. He knows everybody in the Air Force. He gets stuff done. He's a great, great talent.

So the three of us together are finally the full staff of AQ.

The next thing I want to point out is what's happening within the AQ headquarters. As many of you know, we've had a very successful organization alignment within the Air Force spearheaded by General Wolfenbarger of the five center construct. The five center construct of the centers under General Wolfenbarger at AFMC. The many benefits behind the five center construct from acquisition perspective are that the PEOs of the Air Force own the life cycle sustainment as well for their systems. That's a very very important thing. It's a difference in mentality, culture, and outlook. If you've ever

worked for programs, which most programs are, that have sustainment responsibilities, there is a difference in mentality. When you have to live with what you're building and you have to live with the legacy systems that you're replacing, it gives you a totally different perspective on acquisition.

That's what we now have within our PEOs and under the five center construct of General Wolfenbarger. We have in one place the acquisition side as well as the sustainment and logistics side for the portfolios. That's a big deal. That's a big deal. Now what are we doing? Well in the pentagon headquarters we're moving to do a similar construct within AQ, bringing in sustainment and life cycle support into AQ to match the field. We'll be there pretty soon, maybe in a matter of weeks. But what that means is we now have a common approach to thinking about when we're putting a program together what's the most cost-effective program not just for the near term, not just in the development, but in the life cycle.

What it means is our young PEMs in AQ will have to learn about life cycle support and life cycle management as they get into acquisition.

So I think what you're seeing is a very strategic shift where the Air Force is going to be frankly leading ahead of any of the other services in having both our PEOs and our headquarters mindful of not just the acquisition but the sustainment.

I want to mention one other thing as we went through and am going through this process of bringing these things together. We very much heard, both within the Pentagon and on the Hill, the kudos to the Air Force in its management of the depots. The Air Force is viewed as far as its depot management to be the best among the services. So of course the first thing we want to do is build upon that success, don't take away from it.

The second thing I have to give credit to is General Bruce Litchfield. He is doing remarkable things with our sustainment and with our depots that again we're going to be teaming with as we bring these functions together in headquarters.

So there's a lot of goodness, and what I want you to take away from my opening state of affairs is we're at full strength; we're having time to put a strategy together and align it with the Air Force strategy. We're aligning it with the field of life cycle sustainment and acquisition, and it's coming together. So a lot of good things going on, a lot of momentum. This is actually a great time in Air Force acquisition in the next few years.

So we go to the next slide and talk about strategy for a second. We now have a chance to think about a strategy. You've heard, hopefully, and read the Air Force strategy for the next 30 years. What we're now talking about is what does that mean to acquisition? What does it mean to acquisition?

We are putting together a 20 year strategy for acquisition. The centerpieces of that strategy, what the elements are going to be. What are the systems we're going to buy? What are the characteristics of those systems? What are the capabilities we need? What's the human capital element of it, working with General Wolfenbarger in organize, train and equip? What are the industrial base implications? And what do we need to do to improve the acquisition skill set, the blocking and tackling of our acquisition work force? That is all being put together and we already have this in draft form, aligning it right underneath the Air Force strategy.

As you can see in the bumper sticker on my slide, it really aligns under strategic agility and adaptability.

Now I'm biased. I co-chaired a Defense Science Board study about four years ago that looked at all aspects of adaptability in military systems. I'll tell you what, the Air Force strategy of strategic agility is exactly in line with all the deep thought that's been put into this area. It is exactly what we and many others have studied, and it has direct implications to acquisition, direct implications. I will give you more specifics later in the talk.

This is not just something where we looked at the new strategy, found the words strategic agility and then mapped what we're going to do into it just to map it together. No. They are actually inextricably linked. We're going to talk more about that.

This is what we're going to start to achieve. Now I'm going to go through and talk to you about the how. I'm going to talk to you about the how in terms of the Air Force acquisition priorities and in each priority I'm going to talk about what's going on in the area. I'm going to try and be as honest and direct as I can as to what's going on that's going well, what things we still need to do better, and hopefully you'll get a sense of where we are.

Next chart.

These are the five priorities. I'm a believer in keeping priorities simple and keeping them consistent, right? We don't want requirements creep in acquisition programs. Let's not have priorities creep. Okay? Don't keep adding priorities. There are five of them.

The first one is pretty self-explanatory. We get judged on our big programs, our important programs. Get them right, particularly early on. Second, transparency in relationships. Third, own the technical baseline. I'll talk more about what that means for our important programs. Fourth is built upon AT&L Better Buying Power as well as improving our business acumen. The last bit is getting back to this adaptability and strategic agility. Build the systems, procure the systems, and sustain the systems for the Air Force strategy of the future. What does that mean? We're going to talk about that at the end.

First, let me go through the big programs and keeping them on track. I'm just going to go through kind of a highlight film and if you wanted the more detailed F-35 brief you should have heard Chris Bogdan yesterday or General Thompson for KC-46.

It's always hard in AFA to try to be a newsmaker when you're speaking after General Bogdan, but I'm going to try to. [Laughter]. I say that with love in my heart, Chris, wherever you are.

Next chart.

Get the high priority programs right and keep them on track. Well, we all talk about the big three programs, right? KC-46A, JSF, LRSB. Let's just rattle them off and go through them and I'll speak about a few other programs in a second.

Next chart.

What can we say about F-35 you haven't heard? IOC for the Air Force two years away. Challenges are ALIS, availability, reliability, keeping the parts moving. 3I software still needs to be finished but it looks like it's still on track. 3F software is somewhere between zero and five months behind.

Yes, we had an engine fire this summer. That has had some impact perhaps on the near term schedule. As of right now it doesn't look like it's impacting our IOC. We have issues as we always do in negotiating the next lot. We have issues, and these are the real serious issues that we all are still getting our heads around, on how is it going to be our global sustainment strategy. Those are all real. Every one of them has had progress against them and every one of them has setbacks. More progress than setbacks. But as far as we can tell, we're still, as best we know, on track for that IOC. And recall, the Air Force IOC is with the software 3I, but what the Air Force wants and so does the Navy and the Marines, of course, is called 3F. That's where we bring the full capability of the F-35, all the data fusion, all the weapons in that first development program. That still is one that we all have our focus on.

So F-35 is fascinating. If you want to have another career, you can go into Defense News and write about F-35 because there will always be a story about F-35. But it's actually in some ways

been remarkably stable in the year and a half. It's just the dial ups and downs are what are interesting.

Next chart.

KC-46A. This is the fixed price development contract based upon the 767 out of Boeing. Right now out at Everett they're building the green airplanes, getting ready for first flight of green airplanes. Scheduled right now for middle November. Then the KC-46A, the first EMD model that's fully outfitted, is still scheduled for April or so, March or April of next spring.

Challenges in the program. You may have seen some of it in the press, in getting to first flight with some wiring/bundling issues. They seem like they're largely past, and it's particularly on the first green airplane, but there will be more things like that as the program goes along. Probably the most challenging phase will be the integrated testing phase where we are doing a hybrid model of testing. Not the commercial model, not the military model, but a hybrid where we bring together the OT, the DT, and the FAA and we try to get all the testing done. So that's going to be an interesting time.

Lots of interesting challenges in this program. It's moving along. It's still on track. But there's always going to be something, particularly as we get into the testing.

The next program, the next slide tells all I can say about it, which is the bomber. I can say a few more things but it's the same things you always hear.

We're in the competitive phase for the LRSB. We put the final RFP out I want to say about a month and a half ago. We're looking to award at the end of the competition, early first quarter say of next year.

The bomber is based upon the 80 percent solution. We're talking somewhere between 80 and 100 of them. We're talking a KPP, price per plane, APUC of about \$550 million. Now you have to give all the caveats. In FY10 dollars. If somebody asks the

question and says well gee, what if you built more of them than 100? Well, we're not planning to but, if we did, I bet the price would go down. What if you build less than 80? We're not planning to but, if we did, I bet the price would go up. But we're not planning on building less or more, and we're not planning for anything other than a \$550 million goal for the price.

So that was my little speech to see if we can once again give the talk about the bomber without somebody thinking there's something new we're saying. There's nothing new. We have kept that cost, we have kept the 80 to 100 and we're in the beginning phases of that program.

The other point about the bomber is that it's being designed as an adaptable model. The idea behind adaptability is we have to have our systems be able to be used and modified in ways that we may not even anticipate now. The threat's going to change, technology's going to change, warfighters are going to discover different ways to use their equipment. So you have to build that in. What does that mean? It means an open architecture, which we have. It means hooks and hardened spots on the wings and other places to allow different weapons, different sensors to be put in, and they're going to have to earn their way on in future builds. So it's the classic A model. It's what we did in F-16. It's going back to basics. That's the approach here. It's as simple as that.

I'm also going to mention two other programs because it's on everybody's mind at least it seems when you walk through the convention hall, at least when I walk through it.

One is JSTARS Recap. So JSTARS Recap is budgeted in the Air Force budget for the next few years to get started. We are refining the acquisition strategy for that program, working it through. Then we're bringing it back and forth with OSD at this point.

The idea behind it is using mature technology, replicate the performance more or less of the JSTARS. Take the money from the

investment of divesting JSTARS now to reinvest for JSTARS recapitalization in the future.

As the Chief has pointed out, sustaining the JSTARS today is costing upwards of a billion dollars a year when you include modifications that will need to be done. It's not sustainable. So we need to take the investment today to begin to build the new recapitalized airplanes.

The airframes for JSTARS are on average 45 years old, so it's just something we're going to have to do.

The other program is TX. We're starting TX nominally in about FY17 in terms of awarding and getting into the major part of that work, although we're wrapping up the requirements now. That program is going to be a non-development program. Again, use existing planes and systems that are out there is the idea.

I probably can't be here without mentioning space. What do I want to say about space?

I think as you've seen in the news there's been a bit of interest in thinking about alternatives to the Russian engines that we have on the Atlas V's. We have an RFI out. General Greaves has an RFI out from PEO Space and Space and Missile Command to look for alternatives, not just liquid hydrogen or [LOCS] hydrocarbon, but solids as well, to what would a domestic propulsion type program and possibly launch system look like? We're in the process of doing that. Of course the drive behind it is the issues that have been involved with our Russian friends and some of their behavior and getting our reliance off.

We're also beginning the first phase of the competitive part of space launch. Phase 1A as we call it. We have an RFP out for the first competitive launch which is planned for early next year. So there's good work going on in space and there's never a dull moment in space.

I think the only thing that is more "exciting", and I put exciting in quotes, than space in acquisition is the F-35. You

can go to any meeting at the Pentagon and an F-35 meeting will break out. It's kind of like a hockey game breaks out. So those two programs take up a lot of our time.

That's the main programs that we have to get right and we have to stay focused on. Let me move ahead to the next chart which is transparency.

One of the things that I found when I came into this job was a disparate view of ground truth as you got into the programs and really looked at them first-hand versus what perception was. Maybe like a lot of you outside in industry, I felt I knew Air Force acquisition at least reasonably well. I knew the reputations. I thought I knew what was going on. I found out of course I didn't. A lot of perceptions were simply not true.

For example, the perceptions that there were lots of protests going on. The perception that all the IT systems were not going well. I don't think we've done a very good job at talking outside the acquisition community. Acquisition is very hard to talk about. You want to go right to talking about silver bullet solutions, or you want to talk about throwing out 5,000 or something, and then you can always have that discussion. But then when that ends you still say okay, what do we do?

When you actually look at what's going on in Air Force acquisition, there is a lot of goodness, but there's also things that we need to explain to people. A number of protests, I always use that one. The number of protests I think last year was in the single digits that were successful. Out of 110,000 awards, there were about 140 protests and like four of them were successful. It just doesn't happen. It's statistically very rare.

There are areas that are challenges. We talked about F-35, we talked about ECSS. Another challenge in the Air Force that we need to be transparent about, is development programs. Development programs take too long. We average planning for a five year development program and we end up executing a seven year on average, and that's true for the other two services.

That's not good. That's two years, in some cases, of a standing Army both in the government and in industry spending money on a cost-plus contract.

So again, those of you in industry, if you're coming in and pushing a concept that's going to get a development program one in three years, or four years, we want to hear about it. But just know the track record. Okay? Know the track record. The track record is plan for five, deliver it in seven. That's part of transparency, let's be honest.

Part of transparency is also data. We do a lot of acquisition by opinion. We do a lot of -- WE run these big programs, we do incredible tests, all types of analytics and yet we do a lot of the acquisition at the broad levels by opinion. We say I think fixed price contracting is the answer to acquisition. We say I think cost-plus is the answer to acquisition.

Frank Kendall has been starting to collect and publish data on all this stuff. He's done it now two years in a row. So for example, what we have learned from the data is that the fixed price versus cost plus is the false debate. It actually turns out that they both perform about the same, provided they're used on the right contract, which usually they are. What is statistically different is whether you use incentive or award. If you put incentives in in a cost plus or fixed price there is statistically better cost/schedule performance on programs than if you use award fee. We now have that data.

You're going to see, for example, because of that data, when Frank rolls out Better Buying Power 3.0 on Friday, he is going to emphasize when we can use incentive contracts. Use fixed price for production if that makes sense, but do incentive. Cost plus for development if that's what is appropriate, but use incentives.

So we're now collecting and getting more data and we're sharing it with you.

I hope all of you have been reading these reports. It's just data, and it may be boring, but I hope you're reading it and looking at them, because it's fascinating to look at. There are a lot of things in there that may destroy some myths. One is that we're taking much longer today on development than we were 30 years ago, but it's actually small. It's only about six months to a year. So it's not like we were great at it. The data doesn't show that. Anyway, that's another part of transparency.

The next thing in transparency is working with industry. We have to be able to work together as colleagues because we're going to have chances when government and industry are sitting across the table from each other when maybe we're not going to be on the same side of an issue. I'm sure that will never happen, right?

It's always better when you're working together, when you're used to working together on common problems. So when a difficult challenge comes up you know each other and you know how to work together. For that reason alone, it's a good idea for us to engage with industry.

So we have begun a process, General Wolfenbarger and myself, with the leaders of key industry players for the Air Force, of working together on common issues. We're calling it Bending The Cost Curve. I'm going to say a few words about that here, but there's going to be much more to follow. But part of transparency is working together, working with industry.

Let me talk about a few of the tasks that we've started with. These are at the tactical level. These are not at the strategic level. These are beginning to kind of sharpen our blades, kind of sharpen the knife a little bit. Get practice working with each other.

The first one we took on was time to award contract. We heard a universal up swelling of concern both from our PEOs and our industry partners about how long it takes to award contracts. Just take a sole source contract which should be the simplest.

From the initial RFP all the way to award, the average in the Air Force is 17 months. That's for a sole source. Okay? That's unsatisfactory; that's money during those 17 months.

I recently had a program that somebody characterized, as we rushed through, a sole source contract. I won't say what program it was, but it was one of the ones that was getting a lot of political attention. I looked at it and I think the number was 26 months. I was like that was rushed through?

So we put these teams together in the last six months. We teamed with NDIA, AIA, and have put together a whole set of best practices where we're going to try to bring that number down, maybe even in the single digits. I'll just give you an example of some of the best practices. It's going to be on the next chart.

These are just some. We have as many as 30. But there are a whole lot of things that we can do together with industry to make this happen faster. It's just unsatisfactory. Now the idea, by the way, is not to make the negotiation fast. The negotiation needs to be what it needs to be. But the question is, can we get to the negotiation fast? What I'm talking about a lot of times would take months or even years to get to the negotiation. So this was something that we started that we just had, it was a low-hanging fruit thing that we've already worked out. General Wolfenbarger and I are about ready to issue a memo to all our PEOs and program managers with a lot of these best practices. We're hoping to do the same thing with our industry counterparts, with their companies, so we can start to measure our progress against this.

Next chart.

The other thing we did was we started an initiative under the Secretary's guidance to begin looking at business systems. We know that the Department of Defense including the Air Force does not have a great track record on business systems, IT systems. This team co-led by Carl Shofner from our PEO for business

systems, as well as Craig Olson, our other PEO for C4I, worked with industry and the first thing they did was they went out and they benchmarked ourselves not against DoD business systems but non-DoD business systems, and not surprisingly they found something that was like a duh right in front of us. What they heard across the board was business analytics, understanding where your money is, understanding how you do your work flows, was the most important thing to the success of a business system. That's something we need to do a better job at in the Air Force. That's fundamental.

We're beginning a whole set of follow-on activities that I won't go into on the business systems, but the idea is to bring it back into the business systems we're executing today.

So now let me talk about what some of the next ideas are to work together with industry. We just had a meeting this morning with some of you that General Wolfenbarger and I chaired. These are the kinds of things we're talking about.

First of all, now we're talking about what are the strategic changes we can make that will really bend the cost curves. What are those? One place that keeps coming up that I know we're going to follow up on is something called cost capability analysis. Think of this as getting the work done before we have a requirement; where we bring the warfighter together with the acquisition community and we do the hard work. We roll up our sleeves and really try to get an understanding of what the warfighter wants to pay for and will pay for. We have not been doing this in the Air Force until very recently. We had stopped doing it. It's not being done in AOAs. People think it's done in AOAs but it's not. Yet, if you don't do that work up front, as we know, if you don't get the requirements nailed down and get them so good that they're firm and you can keep them firm and you can defend them against creep, your program's doomed.

So what we're going to do, we've begun pilots inside the Air Force on these cost capability analysis. All our new programs that are coming along are having them. We did it with F-15E [PAWS]; we're doing it now with TX; we're doing it with JSTARS

Recap. What we want to do is take it to the next level and we don't know how to do this yet, but we want to figure out a way to bring industry into that phase. Think of bringing industry in before we have the requirements figured out.

There's lot of people who are a little nervous about that. Can industry steer the program towards a requirement that helps them? Probably, but as somebody pointed out this morning, they're going to do that anyway. Right?

The second thing you'd say is will this preclude the industry team from competing in a later part of the program? It could if you don't set it up right. You have to set it up right. But the downside of not doing it is too great. How can we be asking industry for your best ideas and help us innovate when you aren't in at the front end as we're working on these concepts. We can't.

I heard from some of the CEOs at a roundtable meeting that Gen Wolfenbarger and I hosted a couple of months ago that it was actually easier to go overseas with your new concepts if you were industry than to bring them into the DoD or the Air Force. That's because you had other places to plug them in.

We really don't have an easy place for folks to plug in their innovation. So that's an idea we're going to do.

We're also going to take a hard look at FMS, working with SAF/IA. So lots of things in FMS we all want to make better. We want to make exportability designed in. We want to deal with some of the definitization issues. There's some good work to be done there.

Then the third area General Pawlikowski calls matchmaker concepts. We have these bright spots within Air Force acquisition. F-35, there's great collaboration between the contractors on bringing the cost per plane down. It's called the blueprint for affordability. It's Lockheed Martin, BAE, Northrop and Pratt & Whitney. It didn't come from government. All the government did was hold some meetings and get in the way

for a while. But now we have this program where industry's investing money, their own money, and we have a cost-sharing agreement and the goal and the objective and the incentives are aligned to bring the cost per airplane down by '19 to perhaps even in the \$70 million range, mid-70s. Including the engine.

Why can't we export that model to other programs? That's the matchmaker idea.

There's more to follow on this. I just want you to know in the spirit of transparency that's what we're doing. If you have not been involved I ask you, and you want to, get involved. You can get involved through AIA; you can get involved by AFA, NDIA. We're going to be using AFCEA on the business systems. So there are plenty of places for you all to get involved.

Next chart.

Own the technical baseline. This is pretty straightforward. What it says is in our programs, particularly our important big ones, the program office has the models, the performance data from the tests, and the performance data from the field if it's a deployed system that's being replaced. That the program office has the integrated master schedule.

What does this mean? Does it mean that the program offices have to be gigantic and have to do this all with the government? No, that's what FFRDCs are for. You don't have to do it by government people, but the program office has that competency. It's very simple.

If the program office doesn't have that competency, I don't care how competent the industry partner will be, over time the industry partner will get a little duller. You need two teams to hold each other to the highest standards. I think we've all seen that, we've all lived it. I always tell people that the worst thing in the world when I was outside the government was to work for a weak program office. It's very frustrating to work for a weak program office. You don't know how to brief them. They micromanage you, then they ignore you. Somebody can

come in and sell them something that makes no sense and derail the program. We need strong program offices. We need to own the technical baseline.

We're going through an audit and checking our major programs on where they are in owning the technical baseline. This is all consistent with the acquisition work force rejuvenation efforts that have been made over the last several years.

Next chart.

Build on Better Buying Power. I'm going to talk about a few things in Better Buying Power that have been the most use for the Air Force.

The first is "Should Cost". Does everybody understand what Should Cost is? Probably. Maybe not. I always ask that question.

Here's the way I'll define it. We have what's called independent cost estimates in acquisition. They're mandated now by law. We can't start a program unless we have an independent cost estimate, either by the service or CAPE or both. That's what goes into the budget, the independent cost estimate.

What Should Cost is where the program office teams with the contractor to attack that estimate. They look and say where can we have savings? Where can we do market research to find cheaper ways to do it? What has changed in our assumptions about the supply chain? What kind of savings can we take out of the program?

The next key part of Should Cost is when you do achieve those savings the first place that we try to put those savings is back into that portfolio. Right? It's all about incentives. If I work really hard and find savings, and then it's just taken from my program, I might not be as enthusiastic next time.

So this has been a real success story in the Air Force.

Next chart.

Here's just one example. This is from General Scott Jansson's program down at PEO Weapons. This is, you can see here, realized savings from 13 to 19, almost half a billion dollars. And you can see some of the best practices on the left that he's done. But look at what's on the right. Scott and his team have been able to put this money right back into the programs to buy back weapons and airplanes. This is tangible stuff that we're turning right back into the programs.

When you look and you see what Ellen Pawlikowski and her team did out at Space and Missile Command and some of the Should Cost savings they had there, and how they plowed it right back in, it's really an incredible story. This does not get enough attention.

Next chart.

Let me talk about another piece of Better Buying Power. Affordability. Let me define affordability in Better Buying Power. Affordability is the college discussion you had with your kid. Unless you get the scholarship, hon, which you won't, we can only afford up to the University of fill in the blank, or fill in the blank University. Or fill in the blank state university. Right? That's affordability. You have to fit your program into what the family can afford.

What affordability isn't is your kid coming back to you and saying you know what, though, I got into this school. I know it's really expensive, but let me at least do the first year and then I'll figure out in the second and third year if I can get a job and maybe get my tuition cut. Some parents might let them do that. But we try not to do that. We're not going to do that in the DoD. We don't just let you start a program if it's not affordable. That's what we're changing and that's what affordability is.

We also have to do affordability caps on the sustainment side. And that means sometimes looking out 20 to 30 years.

What's happening now? Better Buying Power 3.0 is going to be unveiled on Friday by Frank Kendall. BBP 3.0 is going to emphasize innovation and planning for the future. Some of the future's here today which is the pure adversary where we're contested in cyber, electromagnetic spectrum, space. How do we deal with that? How do we deal with the innovation? How do we maintain technological superiority in 2030? That's what Better Buying Power 3.0 is about. What you're going to see in Better Buying Power 3.0 is an emphasis on experimentation, an emphasis on concept work by industry, particularly in the early part of a program like I said earlier in cost capability. That's the next phase of Better Buying Power and it's exactly aligned with what the Air Force is putting out as its strategy and where we're headed as well.

Let's talk about this future for a second. The first thing you can say is, to quote Secretary Gates in 2010, "We've been perfect about predicting the future in the first ten years of this century. We were wrong every time." Anybody heard of ISIS a year ago? Anyone know what an RD-180 was a year ago? They probably would have asked me when I was getting my job interview. I don't know, but it sounds like oil for my car or something.

So things change in the world very fast, and they change in ways that are not predictable.

That's the world we're in. It doesn't mean we don't plan. It doesn't mean we don't do scenarios. But assume that the future is going to be unpredictable in ways we cannot plan exactly for.

That sounds obvious, but what does it mean to acquisition? What does it mean to strategic agility?

The first thing I want to do is I want to talk about something that Richard Danzig put out, if you haven't read it, called Driving in the Dark. I'll admit it, I'm biased by this because

he took some of the work that I was involved with a lot of others and he took it to the next level.

Danzig goes through the historical argument about why we overpredict in DOD. He basically says best practice is prediction and planning. Don't stop doing that but, instead focus on adaptability and agility. Place premium on flexible requirements. Anticipate use in ways that you cannot imagine.

The B-52 is an incredibly adaptable and agile program. It's being used today in ways nobody ever thought of 50 years ago. Was that an accident? I don't know.

Design for resilience. These systems have to operate against a threat; they have to operate against a smart threat, cyber, space. Design for degraded operations.

Plan for and facilitate field modifications and develop equipment leanly.

Being adaptable for a system and agile could be a Swiss Army knife, provided the Swiss Army knife works. We have some interesting DoD acquisition programs that took the Swiss Army knife approach and failed miserably. Maybe they would have been better off having a knife, fork and spoon made out of plastic. So you have to think about what it means to be adaptable.

What does it mean to us? This is my last chart.

What does it mean in terms of capabilities?

Frequent block upgrades. Make sure that there's continuous block upgrade. If your capabilities are not mature enough to make it into this block, wait for the next train. The capabilities have to earn their way onto a system.

Make sure there is a next train. Don't hold the train up for a passenger. If you don't make it onto this block you're going to have to wait 18 months.

Open systems. Operational cadence. That means if you can, try to align the delivery of these capabilities to something meaningful operational. If there's a deployment going on, if there's a real world operation, align it to that. Something real that the enterprise can organize around.

Continuous prototype and experiment to inform the future. This is where we need to go. This is what we're going to be pushing in Air Force acquisition, aligning it with the Air Force strategy.

So I hope that in this talk I've been able to give you a sense of where we are, how we're coming up to full speed, how we're putting a strategy in place, and how we're going to get where we want to go.

Thank you.

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