

**Remarks by Air Force Secretary Deborah Lee James
at the Air Force Innovation Forum
San Jose, California
Monday, 17 October 2016**

SECRETARY JAMES: Well, thank you very much, Camron, and hey, everybody out there. I'm so sorry that I'm not with you in person. But as I'm sure Camron has described to you, Mother Nature still gets a vote, and, unfortunately, the weather has turned bad here in Colorado. So we have been grounded. Since this is the California Innovation Summit I want to just give a quick shout out to all the innovative people who have helped bring this to place today. That we'll able to at least do this VTC.

We'd like to think that innovation is in our DNA in the Air Force and certainly the Airman who are on scene here with me in Pueblo, Colorado have demonstrated that, so I really, really appreciate it. Flexibility is the key to air power, so we're just going to power on. I want thank all of you for taking time out of your busy schedules to come and spend this time with us.

I don't know if Assembly Member Chiu or Senator Wieckowski are there as yet because I realize we've shifted around the program for today. But I did want to thank them and give them a shout out, and just say, as a general proposition as well that our U.S. Air Force has, what I think, is just an incredibly close relationship with the State of California.

There's many reasons why this is so, but for one, we have, of course, much of our space enterprise that is managed from Los Angeles Air Force Base, and then subsequently a lot of it, not all of it, but a lot gets launched out of Landenberg. Then we have the fact that almost every air craft that enters service is tested at Edwards Air Force Base.

If that's not enough, when it comes to our global reach mission, so this is our mobility mission, Travis is a critical enterprise for us, and then, of course, we have Airmen at

Beale who are providing near time, real time intelligence, surveillance, and reconnaissance in support of our commanders all around the world. So California is a big deal for us. All told, if you add it all up we have about 39,000 active duty, National Guard, Reserve Airmen who are based in California, and that's right at the top of the heap. One of the top states for us across the nation.

Of course, all of this is made possible by the incredible support that our Airmen receive from our elected representatives. So once again, a shout out to those who are going to be with us later today. I just can't tell you how much we appreciate that support. It's really extremely important for our Air Force.

I also want to give a special thank you to Brocade because you guys have made possible the meeting area today, all of the IT support, and also, a special shout out and thanks to Governor Brown's office for really convening this event today. Because just like the Governor, we in the Air Force are really committed to deepening the ties that we have with start-ups and non-defense companies, and other partners who I will just simply say have traditionally not done business with us in the Department of Defense.

Whenever I get to go to California I'm reminded why we are so deeply committed to this and why we really believe in building these type of links. That is because there's just some amazing, amazing work going on, and certainly that is absolutely true of the Bay Area. It's a monument to the can do power of Americans when you bring together world class thinkers with the deep pools of capital, and a culture of risk taking. Well, all you have to do is sit back and look at the results. They're truly incredible.

I could go through industry, by industry, by industry. There's just been a revolution in technology that has transformed many industries. Everything from manufacturing

to the healthcare industry. We like to think, in the United States Air Force, that we are transforming too. So just one case in point. That is our space enterprise.

So I know everybody who's assembled today knows quite well that California's very own SpaceX has been approved to launch our national security payloads, and will be doing so in the not too distant future. The first off will be a GPS satellite. Thanks to SpaceX, SpaceX has basically helped us to return competition to the arena of space launch, something that we haven't had for quite some time.

That's really important to us in the Air Force and we really embrace competition, big time. Because you see it accelerates innovation and we're also really believing and hoping that it brings down our costs.

Finally on space, I will say it's really important, and SpaceX is bringing this to the table as well that we have not one, but at least two, and more than that if possible, but two separate pathways to space. That's important because you never know if something might go wrong, at least go wrong for a certain period of time that would affect one of those pathways. If we have at least two that means we can always access space which is truly important for our national security enterprise.

We're seeing the same type of thing all over in other areas, like I said a moment ago. New companies are coming up with solutions and technologies that we believe can help us solve some of our complex and emerging problems in the Air Force. But here's the deal, at the same time, we're facing certain dilemmas.

First of all, our requirements in the Air Force, the requirements, of course, are the descriptions of what contractors need to be able to deliver in our request for proposal. These requirements have literally ballooned over time. They can run, easily, up to hundreds of pages

worth or text, and they can require armies of lawyers to interpret them. And what all of this means, it sets up a very high barrier for new firms to be able to enter into this space and to be able to do business with us.

As a result, even a start up that may have a really good approach or a really good product and could, perhaps, produce for us in the best way and at the best price they have a lot of trouble getting their first foot in the door. Even if they do succeed in competing at the RFP stage it then takes us quite a bit of time, traditionally, to approve and then develop, test, and eventually deliver a major system into our enterprise.

So much time that a small firm ends up, if you're not careful, burning through all of the capital long before the system actually enters into service. So, of course, that's another dilemma, the length of time that we traditionally take.

So today our state of play is we have a relatively small number of very large firms that do most of our business in DOD. That system has served us well, particularly for large exquisite systems, which as I said earlier, take years to build. But it's not good enough for the future because in addition we need to develop more rapid capabilities.

So the bottom line here is we need to make ourselves more accessible and more understandable if we want more innovation. And, very importantly, we need to speed it up.

Now, this is not a series of dilemma that are isolated to the Air Force, by the way. This is reform and these are dilemmas that we're going to need to work on across the Defense Department. I would add it really affect all of us in the Executive Branch of government, and it's going to take time. We've been working on it for some time. It's going to be continual process improvement, I'll say, but we've got to continue to come up with new approaches.

Just by way of background, when I took this job on about three years ago I set out

three top priorities which have really guided my time in the Air Force. Those three priorities are, first and foremost, taking care of people. Number two is how do we get the right balance between our readiness of today, that's what do we need to do our jobs today, and our modernization needs. The new technologies and the new equipment of tomorrow.

Then the number three priority for me is what I call make every dollar count. So this is a priority which says how do we become the most efficient Air Force possible. Because after all, we're dealing with tax payer dollars here and the budgets are tight, so we can't afford to waste any of those dollars.

So making every dollar count is something I take very seriously. Part of my previous life was in the business community, so I get this. The missions that the Air Force is called upon to do, we are, believe me when I tell you, in incredible demand around the world.

So we're reassuring our allies in Europe against a resurgent Russia. We're performing freedom of navigation operations in the South China Sea. We're deterring Iran and North Korea. We're doing humanitarian assistance wherever we're called upon around the globe to provide it. Such as most recently in Haiti or right here at home in the aftermath of the hurricane on the East Coast. Of course, we're conducting combat operations as we speak in the Middle East against ISIL.

So no one really expects these missions to go away anytime soon or even, particularly, get scaled back. But it's also clear that that tight budget situation I spoke about is going to be with us for this foreseeable future. So, in addition to the need to speed it up, in addition to needing more innovation from all sources, we also need to focus on getting more bang for the buck, and changing some of the ways that we do business is part of getting that extra value for the dollar.

So now let me try to wrap this all together and offer you a few efforts that we have ongoing that are directed at these areas. The first one relates to energy. So the Air Force is investing in cheaper, cleaner sources of power for our bases. For example, we have solar farms at Davis Monthan Air Force Base in Arizona and we're using wind power at Joint Base Cape Cod.

At Altus Air Force Base, Oklahoma we've made our air drop and air refueling training missions more efficient, and air mobility command recently launched initiatives that will allow our cargo planes to fly 9 percent further on the same tank of gas. So when you add up all of these efforts and the outputs that these efforts are producing for us we're saving the tax payer tens of millions of dollars every year in energy cost, just from these initiatives that I've listed.

In addition, we recently launched a pilot program, still on energy now, and it's called Forward Operating Base or FOB of the Future. By the way, we're the military so we like acronyms like FOB. Let me explain what this is all about. Just by way of background, a FOB is where our Airmen live and work when they're deployed to a high risk location overseas, in or near a combat zone. These FOBs are generally very austere and they are run by diesel generators that provide either primary or backup power.

Now, here's the catch, the fuel for these bases needs to be flown, or shipped, or trucked in which is a process that is not only expensive, but frankly, it's very dangerous. We've had people die in convoys trying to get the fuel to the forward operating bases. So under our pilot program we're using commercially available renewable energy systems like solar cells, and advanced batteries, and smart power controllers to turn our FOBs into largely self-sufficient nanogrids, and reduce their diesel requirements by 85 percent.

So that is going to cut our operating cost and, very importantly, it will cut the

risks to our people. We believe it will have no negative affect on the mission. So you put all of that together and that's my idea of make every dollar count.

Another approach we're taking is through a series of initiatives we call bending the cost curve. These initiatives, by the way, are coordinated through our Office of Transformational Innovation which is the office Camron Gorguinpour leads. I'm sure he's already talked to you some about this series of initiatives earlier today. If he hasn't I'm sure he will get to it later on in the afternoon.

But basically, bending the cost curve is all about deepening our engagement with the business community, especially trying to deepen engagement with the firms that don't usually do business with us. It's about getting new technologies and platforms into the hands of our Airmen more quickly, and we want to do so at a lower cost to the tax payer.

Now, not every initiative under bending the cost curve will have all three of those properties, but that's, essentially, what we're shooting for. Now, obviously, expanding the dialogue with industry is the whole reason why we have come together today. We participated in the first of similar innovation forums in Cambridge, Massachusetts in April. The feedback that we received there, from people much like all of you, businesses, startups that are located in that area of the country was really quite positive.

What we heard is we were told that we need to expand our educational and communications' opportunities with people like you, firms like your firms, to be able to build these relationship. We were told increasing flexibility in acquisitions is a very important element in order to allow capital to move towards suppliers earlier in the process. We also heard that farming startups instead of hunting startups was something that we ought to look at more and more for the future.

So we have heard loud and clear about the need to try to build a culture of a little bit more risk taking in our acquisition model. We don't have very much of that at the moment and we, of course, need to speed things up and simplify our processes. So these were all of the messages that we heard when we were in Massachusetts.

We're currently working on a memorandum with Massachusetts to outline how we're now going to go forward and build on the partnership that we established, and to also continue to interact with the innovation sector there. My guess, Camron just gave me a little bit of a preview on the telephone, and I'm looking forward to catching up later. But today's conversation sound like we're also getting extremely important and good and valuable feedback.

So anyway, we're happy that these bending the cost curve initiatives are starting to produce some results. So let me, once again, just give you a case and point. Software intensive distributed information systems procured by DOD, without question, are crucial to a lot of the work that we're doing in DOD. But these same software intensive systems are notorious, they are notorious for running over budget and failing to meet timelines.

So we identified one system in particular. It's called the Distributed Common Grounds System which, by the way, what does that mean? That's a critical communications hub that provides real time intelligence updates to our war fighters. We identified that one system and we took a challenge on. We said, let's try something new.

So first of all, let me explain what the problem was before we intervened. The problem with the DCGS system was that it was taking way, way too long to upgrade it. Hold on to your hats, it was taking on the order of something like seven years every time we tried to introduce and upgrade to the system, seven years on average. And so without question, we felt like we were falling behind the innovation curve.

So here's what we did. We used a special authority granted to us by the Congress, but it isn't very frequently used. We'd like to start using it more. It's called the other transaction authority, and through this we were able to streamline the processes for DCGS, and in the last upgrade instead of taking somewhere on the order of seven years we were able to get it done in seven months. So that's a huge, huge improvement.

The streamline process that we developed is now called Open Systems Acquisition or OSA for short. This year we were able to expand our use of the OSA process by creating a permanent contracting vehicle to go with it. We now have more than a dozen projects in the queue for FY-17. You add those up, they're worth about \$24 million and more projects are being added to the OSA queue all the time.

The permanent OSA process takes advantage of a specially formed industry consortium. The members of which are pre-vetted as qualified to compete for the rapid turnaround prototype projects which become the opportunities on the vehicle. Then once you get one of those opportunities we're going to make every effort to transition the successful prototypes to a streamline production and sustainment approach.

So to sum it up, what's in it for our industry partners? Well, for starters, we have, what we believe, are straightforward descriptions of our Air Force requirements. They're written in a simpler way. We're trying to make it plain English so that people who don't regularly do business with us can understand, and that our partners can tailor the responses to our needs. So if do this right that means a whole lot fewer acronyms and less legalese to work through. Then there's also reduced paperwork time and cost for competition and award.

Traditional firms will be able to find innovative non-traditional partners to work with, and brand new firms, brand new to us anyway, non-tradition can look for traditional primes

who know the ropes and maybe think about partnering with them. We also have a simplified intellectual property rights approach.

Normally it's about 25 pages of federal acquisition regulations that you have to work through when it comes to intellectual property. We've reduced it to about five pages which is much more alike with what the commercial sector does.

Lastly, for those who participate you'll have greater access to Air Force offices that are actually willing to try something different than the usual lengthy process that we've all grown up with, and to work with non-traditional partners who can meet, possibly, our needs more quickly.

So let me just give you one initiative that we're working on through OSA that I think is particularly exciting. It has to do with position, navigation, and timing in our GPS systems. Now, as I'm sure everybody there is well-aware, PMT or Position Navigation and Timing is what makes GPS so valuable for everything from geotagging in our social media posts to guiding our aircraft to be able to strike targets accurately.

Now, because our adversaries over time have come to realize just how important GPS is, believe me, they are looking for ways to use cyber and electronic means to disrupt GPS signals, so this is actively something that is under consideration by our potential adversaries around the world which is why I think this is an urgent challenge for us to take on.

So we are launching, stick with me on this because it's a mouthful, the Air Force Cyber Campaign for Resilient Embedded GPS and Inertial Navigation System Initiative. Let's just call it Resilient EGI for short. We estimate it will involve an Air Force investment of \$50 million over four years and it will be handled under this existing OSA consortium.

By setting up a standard open system version we hope to leverage third-party

alternative navigation application providers, updated in a few months rather than a decade or more. So once again, leveraging the innovative companies that are out there that don't typically do business with us, cut the amount of time. That we get this capability out there in the field from years down to months or a much shorter period of time. This, of course, we hope will help keep us ahead of the threats and protect our ability to operate in a contested environment.

Now, if you'd like to find out more about the things that I've talked about here. You can certainly talk to Dr. Gorguinpour, but you can also check us out at transform.airforce.mil which is the website of our Office of Transformational Innovation.

So all in all, I hope in these few minutes that I've been able to convince you that the Air Force, that we're taking this seriously, and that we are trying to not just talk about it, but come up with some concrete steps to really put our money where our mouth is and to get going with actions to deliver on this desire for more speed and more innovation. We recognize that innovation truly has changed hugely over time. As computing power has become more distributed the ability to achieve technological breakthroughs has moved out of the big labs, in many cases, and into the small firms which is why we consider it so important that we reform our current process.

I'll call it the Industrial Age Acquisition Process because we have to be able to keep a better pace in a digital world. We don't want to end up giving our war fighters yesterday's technology delivered three years from now. That would, simply, not be acceptable. So think of what we're doing here as a small down payment for the future where the Air Force and startups and other firms that have not traditionally done business with us can, indeed, partner and work more closely together.

We're looking for ways, bottom line here, to continue to advance the ball in this

process, and we certainly want to hear more from you about what's working, what's not working, what should we do more of and less of.

Now, on the subject of moving the ball forward, I do want to announce today that the Air Force is beginning the process to set up a new consortium focused on our space enterprise. So think of this as a brand new set up, similar to the one I described to you on OSA a few minutes ago, but this one is going to be focused on space.

The first step will be to find a not for profit manager who can organize the participants and, indeed, we're releasing a request for information to start finding this person as we speak. We're applying all the lessons that we learned in setting up the first consortium, the one that I told you we announced in Boston. So once this new consortium is up and running all kinds of companies will be able to join and provide options that drive innovative solutions in the DOD space community.

Incidentally, with respect to the first consortium that we announced in Boston, just because it was announced in Boston, companies from all around can participate. It's not just for the Boston companies. Of course, this new approach for space, similarly, will be open to all.

The mission of this new consortium will be to research, develop, test, and evaluation prototype projects that address Defense Department needs in space. We hope the setup will lower barrier to entry, accelerate the timeline from solicitation to award, develop intellectual property rights agreements, and eventually transition some successfully tested prototypes to vendor supported, off the shelf projects.

So our goal is to pick a manager as quickly as possible, and to launch the first initiative sometime in this fiscal year, 2017, as soon as we announce the choice of this new leader for the consortium. There are several potential initiatives, both classified and unclassified

that we're looking into for this. We'll let you know when that choice has been made, particularly about some of the opportunities that would be available through this consortium.

The RFI for the consortium manager is on Fed Biz Ops. You can see it at fedbizops.com, and it's been posted by the Space and Missile System Center in Los Angeles. So please have a look at it, provide any feedback so that we can help make these innovative acquisition processes the most effective that they can possibly be.

So I want to conclude at this point. Again, thank you so much for joining us today and thank you for giving us advice and talking to us about the ways that the Air Force can be more involved with the innovations that you bring to the table. Thank you.

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