

## **Oklahoma Innovations Radio Show**

**Air Date:** November 5-6, 2011

**Guests:** Major General Rita Aragon, Secretary of Military and Veteran Affairs for the State of Oklahoma

[ Music ]

>> From the OCAST Radio Network, this is *Oklahoma Innovations*, a weekly science and technology radio magazine brought to you as a service of OCAST, the Oklahoma Center for the Advancement of Science and Technology. OCAST is the state's only agency whose focus is technology, its development, transfer, and commercialization. OCAST's mission is to locate and fund promising technologies and allow Oklahoma to compete in a global market economy from our own backyard. This program features some of the state's most gifted and talented scientists and inventors, entrepreneurs, manufacturers, and business leaders who all have one common goal – developing technology-based economic growth for all Oklahomans. Now here are your hosts Gary Owen and Steve Paris.

>> **Gary Owen:** Thank you for joining us on this week's edition of *Oklahoma Innovations*, Gary O and --

>> **Steve Paris:** -- Steve Paris.

>> **Gary Owen:** That's right and we're back in studio after being on the road for a number of weeks. Wow, it's kind of hard to get back into the groove.

>> **Steve Paris:** Well, it is, Gary, it really is, but you know we have a special treat today.

>> **Gary Owen:** We do.

>> **Steve Paris:** Yeah, we have General Rita Aragon who is going to be talking with us about some of the tech that's being used today to serve veterans as they come --

>> **Gary Owen:** -- oh --

>> **Steve Paris:** -- not only as they come back from the theatres of war that we've been involved in in the last several years but veterans of all stripes. People who are serving in-state, people who are serving in the country and all around the world. So, she's going to talk to us about it.

>> **Gary Owen:** That's a Facebook technology.

>> **Steve Paris:** I know it; that's the fascinating, don't tell too much, don't tell too much about that.

>> **Gary Owen:** Oh, I won't, but I just want to hook the audience.

>> **Steve Paris:** There you go.

>> **Gary Owen:** If you're a Facebook person, this is very exciting and new for those who serve in our military.

>> **Steve Paris:** Absolutely.

>> **Gary Owen:** It's a very cool thing to be listening to.

>> **Steve Paris:** And the beta testing for this is happening right here in Oklahoma.

>> **Gary Owen:** Well like that. There's a lot of testing that goes on in Oklahoma about a variety of products and services.

>> **Steve Paris:** Absolutely.

>> **Gary Owen:** I guess we should, we don't want to call ourselves guinea pigs but I guess that's something unique about Oklahomians when they want to beta test it says we're active people. We get out and we like to take risks.

>> **Steve Paris:** We're on the cutting edge.

>> **Gary Owen:** We are; we definitely are. So some other things coming up at OCAST that we need to know about?

>> **Steve Paris:** You know there is. I want to remind everybody of the Oklahoma Sensor Summit. Well, okay, what's that all about? Well, we've got a lot of --

>> **Gary Owen:** -- for people who are sensitive?

>> **Steve Paris:** Well, sensors, we've got a lot of --

>> **Gary Owen:** -- oh, sensors, okay --

>> **Steve Paris:** -- development of sensors here in Oklahoma. A lot of it kind of started, well, it's been all over the state but it started at Oklahoma State university in Stillwater, but there's a summit that's going to be happening on November 8th, that's Tuesday, this coming Tuesday, and there's small fees you can pay, \$50, \$60 depending on your membership and some organizations that are involved here, but let me just give you the location. It's going to be the Presbyterian Health Foundation Conference Center. That's at 655 Research Parkway in Suite 100 in Oklahoma City. Some of the topics: overview of the sensor industry; the state of the industry in Oklahoma; funding opportunities for sensor-related companies; the Oklahoma Sensor alliance -- that's the organization they belong to; and opportunities for sensor companies within other industrial sectors. Now, we talk about sensors we're talking about a lot of things because sensors are used in the development of highways as we make war materials to be used in combat, they're used in health, they're used in practically every aspect of our lives; transportation and our cars. So a lot of sensor technology has been generated right here in Oklahoma and if you want to know more about that, then you need to make this summit. It says contact us, and I don't really have a lot of good contact information so I'm going to give you this; if you call OCAST at 319-8400, that's area code 405-319-8400, we'll get you hooked up so that you'll be ready to make this summit on Tuesday, November 8th. It runs from 9Am to 3PM. Be there.

>> **Gary Owen:** All right. Hey, by the way I want to mention this and of course we have bumpers that mention this periodically, but we want to tell you that if you have missed some shows or perhaps you've been gone out of town and you think I wonder what they've talked about lately? You can go to the OCAST website there's a radio link there and there's probably about six months' worth of shows and if you miss a show on a particular weekend, just know that it is posted the Monday following the weekend we air these shows. So you need to know that.

>> **Steve Paris:** Absolutely. And our guest today, General Aragon, was on not too many months ago back in the spring I believe it was.

>> **Gary Owen:** Right.

>> **Steve Paris:** And if you want to hear what she has to say after you listen to this show, if you want to hear what she had to say six months ago, she's still there.

>> **Gary Owen:** That's right. Well, it's time for our science and technology news. We haven't been able to talk about that in a while. Got some really interesting stories this week. Is it real or fake whiskey? Now listen up. You're not going to believe this but scientists have actually developed a method of detecting counterfeit whiskey using lasers, which can test samples no bigger than a teardrop using a ray of light the width of a human hair alcohol content is measured to determine whether the drink is genuine or not. I didn't know there was fake whiskey out there, but okay. The method involves placing a tiny amount of whiskey on a transparent plastic chip about the size of a credit card using optical fibers. The sample is illuminated by light using one fiber and collected by another. By analyzing the collection of light scatter from the whiskey the researchers at the University of Saint Andrews say they are able to diagnose the sample. A prototype of a new generation of weather satellites successfully launched from Vandenberg Air Force Base in California recently. In the pre-dawn hours, in fact, it was a week ago Friday I believe, the \$1.5 billion SUV-size craft carries five instruments that will monitor 30 features in the atmosphere, on land and in the ocean that affect daily and season weather patterns as well as long-term climate behavior known by its acronym NPP the 2.3 ton craft is designed to orbit earth around its poles 14 times a day to provide its measures in virtually unprecedented detail. Four of the 5 instrument packages aboard the craft are traveling to space for the first time although prior craft have carried hardware that has measured similar climate perimeters. While we're on the subject of space, you may recall a story several months ago about people who are locked into an isolated facility to mock a trip to Mars. Well, after spending nearly a year and a half isolated from the rest of the world on a simulated mission to Mars six volunteer astronauts returned home this past week. The hatch of the aircraft, which was really an isolated facility housed at the Russian Institute of Biomedical Problems in Moscow, was scheduled to open on November 4th for the first time since June of 2010 when the six-person crew embarked on their mock 525-day journey to the Red Planet and back. Can you imagine, 525-day trip? That would just, man, you've gotta be special brained for that.

>> **Steve Paris:** Daddy, are we there yet? [laughter]

>> **Gary Owen:** The Mars 500 Project as it is being called is being conducted by ESA and Russia's Institute of Biomedical Problems. The experiment which reportedly cost \$15 million aims to simulate Saturday complete manned mission other Mars from beginning to end. Researchers hope to use data calculated during the mock expedition to better understand the physical, psychological challenges that astronauts will face on real deep space missions. New research on brain cells could shed more light on neurological diseases scientists have discovered. Researchers from the Roslin Institute at the University of Edinburgh have found brain cells alter their genetic makeup during a person's lifetime. They have identified genes known as retrotransposers responsible for thousands of tiny changes in the DNA of brain tissue. Researchers whose work is published in the Journal of Nature found that the genes are particularly active in areas of the brain linked to cell renewal. By mapping the locations of these genes in the human genome, scientists say they could identify mutations that impact brain function and that may cause diseases to develop. Researchers have identified a certain gene associated with susceptibility to what we call cold sores. People who carry this gene may have more frequent and severe outbreaks of the small blister-like lesions that appear around the mouth. The researchers noted that their findings could lead to the development of new

treatments. Here's one, I thought this was cool, a team of diving archeologists say they have completed their mission to retrieve a cannon from Blackbeard's pirate ship. Aye! The Queen Anne's Revenge sank off the coast of North Carolina in 1718 when Blackbeard -- by the way his name was Edward Teach -- ran it into the ground while entering an inlet. The cannon known as C-13 is 8 feet long and weighs about 2,000 pounds. One of the largest of the ships 40 guns, cannon C-23, was the real prize of the mission but the team wasn't able to work it free on the ocean floor. C-23 is surrounded by a kettle, wooden dead eyes, a pewter plate, cannonballs and a number of unidentified objects. The team wasn't able to remove the cannon in time to raise it to the surface. Is that not cool?

>> **Steve Paris:** Yeah, he ran the ship aground is that right?

>> **Gary Owen:** Uh-huh, yeah.

>> **Steve Paris:** I guess he didn't have his GPS.

>> **Gary Owen:** I guess not. That's some of our news stories. Steve now has our innovations in history.

>> **Steve Paris:** Thank you, Gary. It was November 1st, 1848, the first medical school exclusively for women opened its doors to 12 students. The Boston Female Medical School was founded by Samuel Gregory. Twenty-six years later the school merged with Boston University School of Medicine becoming one of the first co-ed medical colleges in the world.

>> **Gary Owen:** Wow.

>> **Steve Paris:** Wow. Money orders were sold by the US Post Office November 1st, 1864, as a safe way to make payments by mail. The US Weather Bureau made its first weather observations November 1st, 1870. Up to that time the observations had been the responsibility of the Signal Corps of the US War Department.

>> **Gary Owen:** Hmm.

>> **Steve Paris:** There you go. The world's largest and wildest, excuse me, widest plane, it might have been the wildest too, but the widest plane ever built with a wing span of 319 feet 11 inches made its only flight November 2, 1947. It's pilot, owner and designer Howard Hughes. He flew the huge wooden plane over Long Beach Harbor, California, to an altitude of 70 feet. The flight lasted just one minute.

>> **Gary Owen:** Wow.

>> **Steve Paris:** Yeah. Hughes named the plane Hercules, but it was referred to by most as the Spruce Goose.

>> **Gary Owen:** [laughter]

>> **Steve Paris:** [laughter] He had some problems with that plane.

>> **Gary Owen:** Yeah.

>> **Steve Paris:** The \$25 million 200-ton plywood [inaudible] was more like a boat than a plane, actually a sea plane that contributed to war plane research over the next decade. The Spruce Goose is now in the Evergreen Aviation Museum near McMinnville, Oregon.

>> **Gary Owen:** Oh, my.

>> **Steve Paris:** I've been aboard that aircraft.

>> **Gary Owen:** Have you?

>> **Steve Paris:** Yeah. It was in the water. November 2nd, 1931, the DuPont Company of Wilmington, Delaware, announced the first synthetic rubber. It was known as duprene. The first successful automatic telephone system was introduced November 3rd, 1892, in La Porte, Indiana. Almon Strowger, the inventor, came up with the idea because the non-automatic system made it possible for his customers' calls to be intercepted by his competitor. Strowger ran a funeral parlor.

>> **Gary Owen:** Oh, that's wild.

>> **Steve Paris:** In 1846, an artificial leg was patented by B.F. Palmer of Meredith, New Hampshire, who got a leg up on all the other competition according to the US Patent Office.

>> **Gary Owen:** Oh, bad.

>> **Steve Paris:** November 4, 1873, Dr. John B. Beers of San Francisco, California, patented a gold crown for teeth and on the same date in 1879 James Ritty of Dayton, Ohio, patented the cash register. Cha-ching. Buy something today and try to remember how a cash register sounded before the age of computers. There you have it just a few of the remarkable innovations in history for the month of November, Gary.

>> **Gary Owen:** And you think about cash registers if you, you know, depending on your age today.

>> **Steve Paris:** I know.

>> **Gary Owen:** You think about the transition of cash registers from the heavy metal, gold-plated cash registers of the old days and then we went to the old-fashioned [making sound]. Used to they hit a button and it kicked the drawer out and then they went to the, what I remember in the 50s and 60s the grocery store, you know, punch, punch, punch and then hit the push button and then we went to the electronic age and now you just swipe your card, baby, make your purchase and you're gone, you know. Now you actually it will talk to you. Now the new registers you just walk up and make your purchase, weigh it and bag it and they talk to you.

>> **Steve Paris:** I want my old typewriter back. No, not really. [laughter]

>> **Gary Owen:** Yeah, well, we've seen yours. It's in the Smithsonian now, okay. All right. We're going to take a break and when we come back we're going to talk to retired Major General Rita Aragon, Secretary of Veteran Affairs for the State of Oklahoma, and she's going to be talking about some new technology for the military when we return to *Oklahoma Innovations*.

[ Music ]

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>> You're listening to Oklahoma Science Radio Magazine. *Oklahoma Innovations* on the OCAST Radio Network.

[ Music ]

>> **Gary Owen:** This week on *Oklahoma Innovations* we are delighted to have a return guest. Major General Rita Aragon and she is now Oklahoma's Secretary of Military and Veteran Affairs, and I'll tell you what she was, Steve, I remember her last visit she was quite a spokesperson and represented the department well.

>> **Steve Paris:** She sure did.

>> **Gary Owen:** I want to tell you I'm going to let her elaborate a little bit about her career, but 28 year military career. That's quite a career.

>> **Major General Rita Aragon:** That's a lifetime, you betcha, yeah.

>> **Steve Paris:** [laughter]

>> **Gary Owen:** Tell us a little bit about your background. My goodness. I'd rather you talk about it.

>> **Major General Rita Aragon:** Well, I was a teacher in Oklahoma City Public Schools with two little babies and had to figure out how I was going to actually pay bills. So I joined the Oklahoma Air National Guard and at times I wasn't in school I spent doing National Guard stuff, fell in love with it, fell in love with the 2,300 plus big brothers that I had there and they were very good to me. They coached me and taught me and I grew through the ranks and ended up getting to be the big mama of the whole shebang. Then I got to go to Washington, D.C. and play up there a little bit, but I always say I'm a jack of all trades and a master of absolutely nothing but had a great opportunity to work with some of America's very finest men and women who put service of others above themselves and Air Force core values, you know, service before self, integrity and excellence in all that we do. So, those three little things capture an awful lot of area.

>> **Gary Owen:** Well, President Obama announced recently that we were going to start bringing our military personnel home from Iraq. Very exciting news for all of America. Of course, you know when you're in the military and you're serving overseas you make a lot of friends. You make a lot of close bonds with people and then when you come home because we live in different parts of the world, different parts of the country, different parts of the state, wherever you're from, it's kind of like you get back to the real world and make adjustments but you don't want to lose those ties. We're going to talk here in a moment about some new technology that's being beta tested here in our state that has to do with internet technology and we want to give you a chance to talk about that. Steve?

>> **Steve Paris:** I want to say since the last time we had General Aragon on, I had the privilege of hearing her speak before a fairly large group of people at Oklahoma State University and she was talking about the difference between, you know, the troops from Oklahoma, the National

Guard who have been deployed into Afghanistan, and the mission they have today versus the types of missions they've had in the past.

>> **Gary Owen:** Yes.

>> **Steve Paris:** And, well, let me just say this there were, after she told her story and after she made her presentation there were not too many dry eyes in that audience.

>> **Gary Owen:** I'm sure.

>> **Steve Paris:** But I tell you what we need to be proud of the troops and what they're doing and the contribution the Oklahoma troops are making and if you would just for a brief minute talk about the difference because there is a difference in what's happening now with Oklahoma troops versus what used to be.

>> **Major General Rita Aragon:** Absolutely. When I joined the National Guard back in 19 hum, hum, hum, as a young airman, the National Guard and the Reserve were considered strategic reserves. In other words, they were, we were there just in case we went to an all-out war again like World War II. You had some training, you had some knowledge of military processes and procedures, but you really knew you were the second string. Today that's not the case. The Guard and the Reserve are called "operational reserves" and that means that men and women in the Guard and Reserves are trained to the same level that those that are on active duty are and to be truthful they deploy just about as often. This is the third major deployment for the Oklahoma Army Guard. The Oklahoma Air National Guard deploys constantly and it's really kind of sad because we don't have big send-offs welcome homes. We did when they went off when OIF first kicked off we had a big send off, but even that was not a big public thing. It was just a thing on base, but the truth is they're doing real-world missions. Now, the first couple of missions that the Oklahoma Army National Guard did the first one was in Afghanistan and it was after they had subdued the Taliban or kicked them out and they were doing a training mission. Training the Army and the police because it was pretty calm and pretty quiet. Then the second mission they had was to Iraq and it was a peace-keeping mission. War was over there basically and they were doing a peace-keeping mission. Today in Afghanistan they're doing a true infantry mission just as if they were an active duty unit. So that's one of the reasons that engagement is very hot, there are a lot of aggression from the outsiders, not from the Afghans themselves but from those who want to take back over Afghanistan as they held it for many, many, many, many years. So the mission that they do today is a very different one and it's one where they are in harm's way and are doing an active infantry mission.

>> **Gary Owen:** You know one of the things we don't get to talk about a lot on this program when it comes to the military is how technology has changed the way that we fight, the way we integrate on the civilian level. I mean there's a lot but whether it's warfare, whether it's communications, whether it's health, a lot of things that we don't hear about in the mainstream news about how technology is making our militaries jobs easier. Talk about that.

>> **Major General Rita Aragon:** One of the, you know, people ask me women are so much more engaged today and I say, yes, a quarter pound of pressure on a M-16 will equalize an awful lot of size.

>> **Gary Owen:** That's true.

>> **Major General Rita Aragon:** And the same is true of a quarter pound of pressure on the yoke of an F-16 will lift it off the ground and you've got lots of fire power there. So, technology

has changed the role that the military plays not just in combat but in peace keeping missions and as you said all of the types of things that we do with health care and so on. The biggest thing that changed the entire world of women and not quite so robust males is that fact that the different kinds of technology missions that the military engages in today whether it is cyberspace or cyber war as we talk about or if it is flying those wonderful unmanned aerial vehicles that do a lot of spies in the sky type things but also that young men and women are using a lot of technology in driving in convoy duties right now and the kind of surveillance that we have in order to be able to protect them. So it does; it's changed the world a lot. When I talk about women in the military, until 1976 Congress limited the participation of women to 2%.

>> **Gary Owen:** Sure.

>> **Major General Rita Aragon:** Today it is not and we talk about the capabilities of that individual. So, the military needs an enormous amount of capabilities and a lot of that is technology and so when you engage in that you have a tendency not to have to worry about how big you are.

>> **Gary Owen:** Secretary of Military and Veteran Affairs for Oklahoma, Major General Rita Aragon our guest. More to come on *Oklahoma Innovations*.

[ Music ]

>> This is *Oklahoma Innovations* on the OCAST radio network.

>> Hearing loss is not just a problem for the aging population. Soldiers involved in explosions and weapons training are victims of noise-induced hearing loss. Facing mounting disability expenses the Office of Naval Research provided funding to an Oklahoma researcher to help identify a treatment for noise-induced hearing loss. The solution? A pill that could reverse damage to your hearing. With the support of the Oklahoma Center for the Advancement of Science and Technology Oklahoma researchers have been testing combinations of chemicals in an effort to create a treatment that is as easy as swallowing a pill. OCAST is looking for Oklahoma researchers serious about investigating new products, services and processes that improve the quality of life and the autonomy for Oklahomians. For more information call OCAST toll free at 866-265-2215 or visit our website at [ocast.ok.gov](http://ocast.ok.gov).

>> We've all heard the old adage when life gives you lemons, make lemonade. Well, when life gives you Eastern Red Cedar trees, make mulch. These invasive trees are not a welcome sight for Oklahoma farmers and ranchers because they displace plants, can accelerate a spark into a catastrophic wildfire and are expensive to remove, but a new market for these red cedars could turn them from dangerous nuisance to profitable resource. With the support of the Oklahoma Center for the Advancement of Science and Technology, one company is researching how to transform these invasive trees into productive aesthetically pleasing garden mulch that pays for the cost of its own removal. Creating solutions, supporting innovation. That's what OCAST is all about. OCAST is looking for small business owners serious about investigating new products, services and processes. For more information call OCAST toll free at 866-265-2215 or visit our website at [ocast.ok.gov](http://ocast.ok.gov).

>> Research and development, technology transfer and commercialization creating high-paying jobs in Oklahoma is what OCAST is all about. This is *Oklahoma Innovations* on the OCAST Radio Network.

[ Music ]

>> **Gary Owen:** We really appreciate you joining *Oklahoma Innovations* every week. We know that every time you listen to this program you never know what kind of innovation story we're going to have. Our guests we find are always interesting and always had something awesome to share with us. In the State of Oklahoma, we just shine brightly when it comes to the various integrations of science and technology and thank you OCAST for bringing this program to our listeners.

>> **Steve Paris:** Yeah. And a very special thanks to General Aragon today because she's telling us things that probably we would never hear anywhere else.

>> **Gary Owen:** That's right. He's speaking of Major General Rita Aragon. If you've just joined us, she is Oklahoma's Secretary of Military and Veteran Affairs and we're talking about how technology is helping the military. Now there's going to be an announcement I guess coming up soon that you want to talk about, one of the career techs so talk about that.

>> **Steve Paris:** Let me just lead into that, Gary. General Aragon has told us about [veterancentral.com](http://veterancentral.com). Now what does that mean? We'll let her explain that but it's something that's starting out right now it's going to be a tremendous service for veterans as they come home, for veterans who are stationed here, it's not limited to any particular type of veteran but veterans who have served and Oklahoma is kind of the beginning, the grassroots part of this process. Talk to us about [veterancentral.com](http://veterancentral.com).

>> **Major General Rita Aragon:** A young man named Jonathan Lenardi is a geek, a good smart kid from the University of Oklahoma. He and another one of his buddies decided that their future lay in Washington, D.C. so they moved to Washington and they do a lot of contracts for the federal government and they came up with this idea after I had screamed and yelled and cried about we need some sort of way to connect everybody, to be able to, everybody has got a web page but the web page doesn't really speak back to us. So, he came up with a new concept of building an entire system like Facebook, a social network, that will allow Army to talk to Army, Marine to talk to Marine, as Air Force we talk to everybody anyway so that's okay, but it will not only allow that but everyone who wants to do something for the military will be able to go on and make statements just like they do on Facebook. If you have a service that you want to provide, you put it on there and people can go in and talk to you, you can talk back to them, it's interactive. It is actually the answer we've all been looking for in technology on how to help veterans because there's such a wide spectrum of need and Oklahoma is wonderful and I think most of the nation is in trying to respond to those needs but it's the communication piece that's been missing. How do we tie everybody together? [Veterancentral.com](http://Veterancentral.com) will kick off. It actually is starting up today but there will be a big announcement and, of course, 11-11-11 is a huge day coming up for veterans, Veteran's Day, and the governor will be announcing that Oklahoma is going to be the beta test because those young men are from Oklahoma. One of them their father is a vice president at Chesapeake Energy who has been extremely supportive of everything that we are doing for our military and our veterans of Oklahoma. They have kind of helped underwrite some of the startup for Jonathan but the VA as in the big VA called last week and said they'll put some serious bucks behind making sure this goes nationwide because our veterans are like all the rest of us they move around and they need to be able to find sources of support wherever they are. So, this is going to be a very exciting new innovation in how veterans talk to each other, how they talk to folks who want to help them and how they talk to, the system will talk back to them in order to help them find what they need.

>> **Gary Owen:** Great idea.

>> **Steve Paris:** Outstanding, right, you talked about the missing communications piece and that's what's being provided here.

>> **Major General Rita Aragon:** That's right; it's huge.

>> **Steve Paris:** And it's wonderful it's happening here in Oklahoma first.

>> **Major General Rita Aragon:** I'm very excited.

>> **Steve Paris:** And we want to point out who is going to be second, it's going to be California.

>> **Major General Rita Aragon:** California will be second.

>> **Steve Paris:** Well, I think that's appropriate, don't you? [laughter]

>> **Major General Rita Aragon:** I think they should always be behind Oklahoma. I didn't say that very hard.

>> **Steve Paris:** No, we're just having fun with it.

>> **Major General Rita Aragon:** But the truth is it really, I mean it is, it says an enormous amount about the culture in Oklahoma and about that support system they have for veterans and military here, you know, with our five active duty installations, the two VA hospitals we have, the VA Regional Center and the number of retired military that we have in Oklahoma, we have a great base to do all kinds of thing for it and it is a great, huge economic [inaudible] for the State of Oklahoma.

>> **Steve Paris:** Other states do too but Oklahoma has a tremendous history of people answering the call to arms when it's necessary and providing peace keeping forces when, you know, during times when war is not under way and there's quite a culture here of support for the military.

>> **Major General Rita Aragon:** It's true. The nation now is about 3 billion of us and we have 3 million or 1% that serves in the military today, but we find that as we're losing the veteran population from World War II at the rate of about 1,000 a day across the nation. Even though we have a very engaged and active military base, nowhere near the percentage of the population that World War II was. So, the veteran population is coming down pretty dramatically. That said the needs of those veterans are very different from the needs of World War II veterans and the Korean War Veterans.

>> **Gary Owen:** Sure.

>> **Major General Rita Aragon:** So, it's a test every day to try to find out, okay, what are the needs here? Of course, I've talked about those before with you. A lot of it is looking at vet courts, it's looking at how we bring folks back to go to work and the veteran population across the nation. Unemployment is about double what it is with the regular populace. So that's the reason this next piece is so very important.

>> **Steve Paris:** Absolutely. Want to talk about Career Tech. The announcement that Governor Fallin will be making on Veteran's Day will also include Phil Berkenbile, who is head of Career Tech in Oklahoma.

>> **Major General Rita Aragon:** That's right. Dr. Berkenbile is a man ahead of his time. I'm so excited. We've been harping about, oh, they have a veterans entrepreneur group that's going around small business administration is holding three big conferences this year. We've already

had one, we'll have another one this week at Cameron down at Fort Sill or the Sill area and then we're going to have another one here in Midwest City, but the biggest problem that veterans have when they come off is, okay, the largest number of people in the military are in the infantry. Those skills are I carry a weapon. So it's really hard for those guys to come back and say, okay, now I'm ready to go back into the population and I need a skill.

>> **Steve Paris:** Where's my M-16.

>> **Major General Rita Aragon:** That's right and there's not a lot of folks who really need you to come carry an M-16 somewhere.

>> **Steve Paris:** That's right.

>> **Major General Rita Aragon:** Which is part of the reason we have trouble with vet courts, but the biggest issue is that we do have a lot of folks who have great technology backgrounds and we talked about it when you talk about unmanned aerial vehicles or satellite surveillance or just flying aircraft. So Dr. Berkenbile has launched an effort to try to bring over the skills from the military and give them civilian certification. You say, well, they already had those skills. Yeah, they did but for many of those particularly if you're in technology if you don't have a certificate that says you are proficient in XYZ, you can't go to a big technology company or to any business and say I'm really good at this; I've been doing this in the military now for 20 some years. And they go, uh-huh, where's your certificates for this and this and this? So, Dr. Berkenbile is working with FHB Technologies and some other folks who are able to take the training records of the military, translate them and then actually give them an Oklahoma Career Tech Certificate that says they are able to go out and drive a semi or do whatever it is and by the way in Oklahoma right now we are in need of at least 800 heavy equipment or cross-country truck drivers and we don't have those.

>> **Gary Owen:** Wow.

>> **Major General Rita Aragon:** But we sure have them in the military and when they come off that will be a way to help meet the needs of our businesses in Oklahoma as well as now we can go hire those folks and put them to work.

>> **Gary Owen:** What a nice transition.

>> **Steve Paris:** What a great idea.

>> **Gary Owen:** Yes.

>> **Steve Paris:** Did that come out of Oklahoma? Or was this just answering a call?

>> **Major General Rita Aragon:** Actually this has come out of Oklahoma. Dr. Berkenbile and the folks that have been working with veterans' training issues all along looked at this and said this is a real need; we know that it has been. Now, that said an enormous number of dollars come into Career Tech through the GI Bill system.

>> **Gary Owen:** Absolutely.

>> **Major General Rita Aragon:** And that will stop that. So, I give him praise on many directions but the fact that they're going to actually say, well, those guys that we got paid to train before we won't get paid to train but we're going to do this because it's the right thing to do for our veterans.

>> **Steve Paris:** Not only does Oklahoma have a great military tradition we have one of the best career techs bar none anywhere in the country.

>> **Major General Rita Aragon:** That's true.

>> **Steve Paris:** And so this is the two of them getting together to provide some bridging the gap so to speak to help, you know, retiring or military troops find jobs after the fact, you know.

>> **Major General Rita Aragon:** Absolutely.

>> **Steve Paris:** Okay. You mentioned vet courts. We have just about a minute and a half here. Talk to us about vet courts. Go into some detail on that.

>> **Major General Rita Aragon:** Vet courts is a diversion court a lot like drug courts but when our young men and women come into the military we know that they are drug free because they're tested, they take psychological mental, emotional, physical evaluations and we know we have the very finest and the best because we're all volunteer we can do that. Well, they go off to war and they come back and some of them have some issues and they can't sleep, they can't think and they can't work and so they take other substances to be able to do that. That gets them in trouble. So, vet courts are stood up in order to say if you're a veteran instead of going through the criminal justice system, we'll send you back into the VA system and you get well. We get them psychological assistance, we get them medication assistance, and they go through intense counseling, which is what they should be doing anyway, but that's a way we save taxpayers in Oklahoma a great deal of money because it's a lot cheaper to send them through the VA system to get them fixed back to normal as opposed to incarcerating them. So, it's a good thing all around for everybody.

>> **Steve Paris:** Absolutely. I'm sure your position as Secretary of Military and Veteran's Affairs you've had a little bit of a role to play in getting that started haven't you?

>> **Major General Rita Aragon:** I'm very pleased and honored to get to help do that.

>> **Gary Owen:** That's fascinating information we're getting here. In our next segment, we want to learn a little bit more about the veteranscentral.com because we know those of you listening to this program probably have family members or know friends that are still in the military may be coming back from overseas and will want to know about this wonderful opportunity to communicate. We'll be back in just a moment. *Oklahoma Innovations*.

[ Music ]

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[ Music ]

>> **Gary Owen:** Our guest this week on *Oklahoma Innovations* is Major General Rita Aragon. She is the Secretary of Military Veteran Affairs and we are talking about some new technologies that involve veterans. One of them being [veteranscentral.com](http://veteranscentral.com) which will launch just prior to Veteran's Day. It's been designed by two OU grad students who are currently working in Washington, D.C. Basically it's a social media center for veterans of each branch of the military. Oklahoma will be the first to test it out; [veteranscentral.com](http://veteranscentral.com). Talk a little bit about the features of this communication system.

>> **Major General Rita Aragon:** Well, I'm not a real big Facebooker because I'm over 50 a day or two, but the truth is that we know that many of the young folks coming back are extremely engaged in social media and we know that social media even through presidential races has been very engaging and we know that's where the future lies in communications. These young folk want to stay in touch and the mental health of folks have told us that one of the very best things that we can do to help them with their mental health is to provide them the opportunity to talk back with other veterans and veterans that are like themselves whether we're talking about going to school or we're talking about the suicide rate of folks coming out of the military, which by the way is escalating at a ridiculous rate. They find that their very best mental health, their very best help in finding the services that they need to have are through social media. And so [veteranscentral.com](http://veteranscentral.com) will be standing up because it will help them go in just like Facebook. In fact, they've used Facebook technology to design this system. It is the first of its kind anywhere to be able to let there be a multi-level language or communications going back and forth between the veterans and everyone who wants to support them. That means if you have a service, and we talk about the Hugs Project, we talk about the VA, all of the services the VA offer, but all the services that the civilians, the workforce, Metro Tech, Career Tech, all of those types of things will be right there and they'll be interactive so that they can go in and talk to them and get real-time -- I love that term -- real-time assistance and response to folks and obviously you'll have the same ability to be able to post pictures, you can talk about events that are coming up and everyone has access to it. It really is going to be a huge answer to our problem of communications.

>> **Gary Owen:** You know when you talk psychologically about this for the military coming home, this is a great opportunity to not only stay in touch with people that they've been overseas with, family members, professional services, but it also is a great opportunity and I can see where the mental health benefit is that they can share stories and they can relate to one another within their own community.

>> **Major General Rita Aragon:** Exactly.

>> **Gary Owen:** Because it is a unique, unique, what do I want to say, community among all military. I think they all have similar values and similar experiences, you know, it's one thing if you're an Army or if you're Air Force or if you're Navy, it doesn't matter what branch, to be able to communicate across the bridge if you will. I think that is really going to be a cool way to communicate. Awesome.

>> **Major General Rita Aragon:** That's one of those things we tried to do at all the university and college campuses in Oklahoma is to setup at least a room where veterans can come together because they have a tendency to speak the same language.

>> **Gary Owen:** Absolutely.

>> **Major General Rita Aragon:** Regardless of their branch but it helps them because their experiences are not those of the regular university student. So it helps a great deal to be able to and they can do that either virtually or they can do it in person.

>> **Gary Owen:** And the resources are going to be available to them through Veteran Central.

>> **Major General Rita Aragon:** Absolutely.

>> **Gary Owen:** That's the key right there.

>> **Major General Rita Aragon:** Absolutely. One of the biggest jobs I had and one of the things that takes probably more of my time than anything is I will have organizations whether it's the VFW or the American Legion or we have by the way 76 different veterans groups in the State of Oklahoma that are 5013C or 5014C that are designed to serve veterans, but the problem is they have a difficulty talking to the veterans and the veterans have a difficulty saying, well, who do I go to? And the trouble is that veterans don't usually ask that. They'll talk among themselves but they don't go out and actually say, okay, where do I find this? We know we have a 2-1-1 system in Oklahoma it's usually across most of the states, 2-1-1 is a phone number you can dial and say I need help, I want to know how to find this, and they have a lot of those services that are available there, but a lot of people don't know about 2-1-1. So it's going to really be important that folks like you who talk to the community, who talk across the state are able to share that this is going to be available. By the way you can go to [veteranscentral.com](http://veteranscentral.com) today and you'll see a mockup of the system as it will be introduced.

>> **Gary Owen:** And let's point this out. This isn't just for military veterans. This is also for family members.

>> **Major General Rita Aragon:** Absolutely.

>> **Gary Owen:** The family members need to be advised of this, get involved in it, pass it along to those of you who have family in the military because I'm sure there are going to be services there as well for family members, right?

>> **Major General Rita Aragon:** Absolutely. A lot of things for children, a lot of things for the spouses and even for the parents because Blue Star mothers and Gold Star mothers will be on there.

>> **Steve Paris:** Oh my, and you know they've lost children.

>> **Major General Rita Aragon:** Absolutely.

>> **Gary Owen:** So how long will the testing go for this project?

>> **Major General Rita Aragon:** I don't know that they've given me a timeline, but I'm thinking somewhere in the neighborhood of 30-60 days before it will be launched nationally. Of course, a lot of that will depend on funding I'm sure.

>> **Gary Owen:** Absolutely.

>> **Steve Paris:** Well, yeah, but it's great to get it started here because this has the potential, you know, we've heard for years that veterans they get forgotten. That's not always the case; sometimes they fall through the cracks.

>> **Major General Rita Aragon:** That's right.

>> **Steve Paris:** And this is an effort, I see this as an effort to correct some of the things that, you know, we call them mistakes but how would you know? Nobody knew because most of you haven't lived through a war or lived through these difficult times before and then when a large segment of society goes through something like this and they come home and we start seeing the problems, the alcoholism, the family splitting up, all the different issues that you've discussed.

>> **Major General Rita Aragon:** That's right.

>> **Steve Paris:** And I see this as an effort to try to alleviate a lot of that.

>> **Gary Owen:** You know when you were talking a little bit ago about suicide rates 25% of all Oklahoma suicides are veterans.

>> **Major General Rita Aragon:** That's correct.

>> **Gary Owen:** And so when you look at a technology like this that could hopefully again as Steve said alleviate a lot of those or minimize that because here's an outlet that they don't have to wait for, they have immediate access to it.

>> **Major General Rita Aragon:** And they will also have immediate access to there are so many different groups whether we're talking Red Rock or whether we're talking individual therapists who are willing to give their time to veterans if veterans will just ask or if they can find them. This will be a way that we can help find each other in doing those kinds of things.

>> **Gary Owen:** Where do you see, I mean you've been at the helm a while now, you've seen a lot of new things coming about to help the military in technology. Projecting out you probably had some conversations of new things down in the horizon along this line that are going to benefit, be a great benefit to our military. Can you, where do you think we're going to be five years now with this kind of technology?

>> **Major General Rita Aragon:** Wow.

>> **Gary Owen:** Just looking beyond what kind of things do you think will help change our military?

>> **Steve Paris:** Let me come to your defense just a minute because you look to be totally immersed in finding solutions to the problems that we've been talking about today. You probably haven't had much time to look five years down the road. I know you do that but when you're totally involved and projects now it's hard to even think about the future.

>> **Gary Owen:** When you look at your background and where you are today and where technology has helped the military today, what are the prospects?

>> **Major General Rita Aragon:** Well, that is part of what changes the face of how the military operates. I believe that there is, you know, it's a progression of how rapidly we move into new technology and I think that's gonna be crucial in how we not only help veterans, how we fight the future wars, but I think it also has to do with how families and those that are as we say left behind make the transition into the future. Whether we're talking about social media, whether we're talking about the way we deliver medicine because today we do it telephonically or telegraphically. You have a doctor back in Texas who is talking to the doctor in [inaudible] on how to save and promote. I think technology will have a huge piece to do with those folks who are having to deal with amputations. We know that we're moving forward rapidly in that arena so much so that we never dreamed it would be here. I think the things will also be with all kinds

of the fields of communication and Oklahoma State University is on the cutting edge of looking at how unmanned aerial vehicles are able to save lives in the future because we don't have guys in the cockpit.

>> **Gary Owen:** We just did a show on that.

>> **Major General Rita Aragon:** Well, I, Dr. Steve McKeever is just, his brain is so big it scares me.

>> **Gary Owen:** [laughter]

>> **Steve Paris:** [laughter]

>> **Major General Rita Aragon:** He --

>> **Steve Paris:** Talking about the Secretary of Science and Technology for the State of Oklahoma.

>> **Major General Rita Aragon:** I end up saying, I sit on the board so that I can equalize the brain cells.

>> **Steve Paris:** Oh, now. Listen to that. [laughter]

>> **Major General Rita Aragon:** Wonderful, wonderful folks and so much moving ahead in technology helping the military and veterans.

>> **Steve Paris:** We're running out of time but I want to bring something up real quick. Had we not had any more wars after World War II, the Veterans Administration and all the services that they provide and that other groups provide probably would be going away, but we've had Korea, we've had Vietnam, we've had the Gulf War, we've had the War in Iraq, the War in Afghanistan, and there's some other smaller wars --

>> **Major General Rita Aragon:** -- few other places like Libya.

>> **Steve Paris:** Absolutely that really taxed us and forced us, taxed us not in the sense of being taxed but taxed the military forces. The demand for veteran services is on the increase, right?

>> **Major General Rita Aragon:** Always.

>> **Steve Paris:** Okay.

>> **Gary Owen:** We want to give this once again veteranscentral.com. Make a note of it. Also want to remind you Steve mentioned in the early part of the program if you're interested in sensor technology don't miss out on the sensor summit next Tuesday at the Presbyterian Health Foundation in Oklahoma City from 9 to 3. Had a good show. Steve, see you next week.

>> **Steve Paris:** Okay, Gary.

>> **Gary Owen:** *Oklahoma Innovations*. Have a good week.

[ Music ]

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