

**2010 Homeland Security S&T Summit
South Central Region
LIVE INTERACTIVE WEBCAST
2/10/2010 FROM SANDIA NATIONAL LABORATORY
KEYNOTE: Mark Borkowski
Executive Director,
Secure Border Initiative (SBInet),
Customs and Border Protection (CBP)**

MARY HANSON:

Now, how many of you saw Mark Borkowski 60 minutes in January? He demonstrated his resilience, I think. He really handled that interview well under difficult circumstances and he is here today to tell us about his role as Executive Director for the Secure Border Initiative, SBInet which is part of customs and border protection, CBP and he was named to the position in 2008. He oversees implementation of SBInet at CBP and basically they are continuing efforts to develop border security resources to provide enhanced situational awareness, particularly for the front line CBP people along the border. There is a full biography in the folder. And Mark Borkowski, thank you for joining us.

MARK BORKOWSKI:

Thank you for joining me. I'm going to drive the camera operators not because I can't stand behind these things. We are going to talk about the secure border initiative. Go to the first chart. Maybe not so great. Well, if you have it, you would see a map you -- they --. If you have it, you would see a map. Fortunately we did not have to do a chart of 60 minutes or so. There we go. The goal is to secure the borders. I like to start this discussion with this chart because it depicts the way we measure securing the borders and the borders are many things we are focused on between the ports of entry and I think you are aware there are ports of entry and art focuses between the ports of entry, if somebody crosses the border, it is illegal, that is what we are focused on. This chart, is all because this is a public forum so I don't want to provide the correct but this chart is the border patrol map and assessment of the various levels of control and the various levels of the border. If you look at this chart, you will see there is color coding. For example, over here, you will see oranges and blues and greens and whites. On the side, oranges and blues and greens and whites. Each has meaning with respect to how well controlled that part of the border is. Our goal is to increase the level of control to the borders of the next chart please do --. Normally I schedule 2 minutes per chart but I have a feeling, okay. Border control, we achieve border control through the mix and match of three sets of resources. Three types of resources. Technology is one of them and we will focus this briefing on a technology part of it but personnel, are very key. Customs and border protection, for example this is immediately increasing the number of personnel devoted to this mission. Technical infrastructure. Many of you are player with dense, that is one element of technical infrastructure and technology. The idea is to put the right mix of those things to get to conditions. First is we know what is going on and second is we can do something about it. When those two things are true, we say to control the border. So the secure border initiative, the program that I had is designed to contribute and

border security by providing technical infrastructure and technology and those things provide knowledge and enhance our ability to respond. I want to say something because we sometimes call this SBInet the virtual FENCE

. I hate that term and Steve Kroft loves it because I hated it is not a virtual FENCE because it does not do the same thing a FENCE is designed to delay the process and technology is designed to tell me what is going on. Those are two fundamentally different things. So if people say can technology substitute for a fence, we say no. They are two different things. Next chart. We're going to talk about technology. It is interesting, when I first built this briefing, I had these charts towards the end because I built the briefing not -- chronologically. Chronologically in terms of what we did first, second, third and fourth grade we did this last week what is the mission and what capabilities do we need? We started building stuff first. That is backwards. To make us look better, I change the order in a briefing great operational capabilities. What is it that we want to do with technology? We want to provide capability. That capability supports mission elements. The way that the border patrol secures the border, and the rest of CBP, it starts, and we have a strain, we start by detecting and identifying and classifying an extra welcome to give every we identify the capabilities that we would like to have in order for them to enhance our effectiveness in performing those missions. That really is the start of a dialogue with the SMT community. What is it you would like to be able to do? We want to track objects, we want to manage assets and want to recognize or item of interest characteristics start by detecting and characterizing, by and then respond. And then resolve. This is the way that our operators respond and deal with what is on the order, detect identify respond to resolve and we want people to predict to deter and communicate. You can see here we have now outlined the number of capabilities that we are interested in and enhance the ability of our personnel to secure the border. And SBInet was part of that, SBInet contributes to that -- and SBInet contributes to that, primarily in the at detect and identify part of this equation.

We talk about SBInet technology, it has several pieces. The first is SBInet block one. We will show you more and give you more detail about what that is. That is the thing that most people are reading about. That is the thing people are calling the virtual fence. It is the system we are trying to deploy in Arizona and use it to give us a wider persistence of the border. It is the first generation. We are building the first two areas of responsibility now, in fact, the first one is built. The block one implies something, doesn't it? It implies there might be a block to RA Block three or a block for. Our planning has always contemplated that there might be. It is not defined. The idea is to learn from block one what might be necessary or desirable to enhance in future blocks. That is block number two. Block number 2+. We are doing spiral development, that is what that means. The technology opportunities are in the spiral development approach we the focus is largely been on SBInet blocks but we also procure and maintain a stand-alone technology, I like to call commodities have had this discussion with the chief of the border patrol. I buy stuff for you, it is like buying toilet paper. The chief of the border patrol asked me to buy something and complains it doesn't work very if you asked me to buy you a Ford F1 50 I will buy you a forte of 150. If it does not work, that is

because you did not want a board at 159 and something that I did. Same as if he asked me to buy toilet paper. I had to spend time on the discussions and now the border patrol asked me to buy a commodity, we have a discussion that you are going to get whatever you're going to get. We get back. We buy a lot of those, for example remote video systems. Those are systems -- cameras mounted on poles. I will show you a picture shortly and many others.

We also provide communication capability. Some of you are familiar with the standard called P. 25. We are trying to get the holes border covered with the standard called P. 25 and we refer to as tactical communications. It includes a handheld radios that the agents had. On the Southwest border, that tactical communications capability is part of my blue verse tracking in SBInet so SBInet this tactical communications on the Southwest border. Another part of CBP handle s the northern border, and finally, we have other demonstrations and development. I will show you examples of those and it is another opportunity where there is a tightly caged with a science community because guess what, they did the same thing. They demonstrations in development. Those are important and it is important to understand they are because again, those are not listed capability. It is a commitment to check something out. In the past, only to demonstrations and developments for, demonstrations and developments for the border patrol, they would expect the thing to work and be maintainable and supportable and all this other stuff and we were just checking stuff out. So we had to learn to communicate that more clearly and you will see examples of some demonstrations and developments we are working on.

What is our deployment approach? A baseline is and has been, cover all 2000 miles of the Southwest border with the SBInet block one system or something like it. All 2000 miles.

When the program started in 2005/2006, it was to have it all done by 2009. We are down in -- we are now at 2010. We are one area of responsibility that covers about 20 miles else in the next 30 miles under constructions, so we are a little bit behind. It has been planned and still is the baseline plan so we have to be prepared to execute it. We also are applying the stand-alone technologies, a couple of reasons we are doing it, that SBInet one is not where we needed it. Airport to the border that were counting on it, the three pillars, technology, infrastructure, personnel, the border patrol plan to have this available by now. If size is force according to that. It developed and built technical infrastructure based on that. It is not there. So stand-alone technologies do several things. Number one, they can hold the fort. They can meet unique local requirements where SBInet block one does not quite it today. They can linebacker. Maybe they can substitute and this is the new dynamic. The original plan was put SBInet block one everywhere. Remember I told you the technological operations capabilities came after we started to build the thing. When you think about it, as you start but that thought into your program, what capabilities do I need and where? It causes you to ask how do I know that was the right thing to do? If I did I had the assessment of operational capabilities and I did not have an analysis, what many think it would be the right answer to just build the system all over the border. So, we are. To build all over the border and we are also in parallel with that rethinking to make sure that is the right answer or if it is not, I meant the answer. The

stand-alone technologies become part of a Chinese menu where we can pick and choose what is right. That is what the last thing talks about. We're in the process of reviewing in adapting the baseline plan to we are prepared to do it, but we will be reviewing the wisdom of doing it as we go. You must talk about SBInet block one, a set of fixed towers. This is the capability to have a persistent omnipresent surveillance capability that covers a wide area. It starts with the hardware, the tower configuration and these are 40 to 120 feet to -- Heidi they are modular towers. The enclosure area is 50 x 50. He has several types of sensors, nothing terribly advanced it is all commercially available Stephanie day and night cameras, commercially available raider, systems to condition the signal, receivers for unattended ground sensors and those receivers can link to Texans from those two detections from radars. We have an environmental shelter, equipment, solar panels to recharge batteries and so forth. These are self-contained individual towers. The interesting thing about SBInet is the net part, the network part. What we want to do is link these towers together to give us a wide area surveillance. We have a big area. That comes through the next chart, the common operating picture. What we do in the area of responsibility, we could have the number of towers we think we need to cover that area and we link them all together in a common operating picture and we provide this kind of a display to our agents. It is awfully bright, it is hard to tell. I will try over here. This is the detection side. Remember we talked to identify and classify, here is the text inside the yellow dots are detections. They can come from raider, they can come from unattended ground sensors, they can come from an agent calling in and saying I saw something and these are detections and we run tracks and these are the cameras, those of the identified part. The way the system is set up, an operator can click on one of these detections and automatically slew the best camera to go and see where it is. That is a big deal in border patrol. Will use radar and unattended ground systems before. But it is a cow that -- but if it is a cow, that is a problem. In the past, there is protection from an underground sensor and it will be in an area where nature has to drive for 45 minutes, get out of the car, walk for another hour and find a cow. That is a problem. The cameras allow us not to go chasing cows. They do something else. That we can categorize as we see people, are they carrying stuff, light guns? It is a big deal to the border patrol. That is what the system is designed to do over a wide area.

This is a depiction of how it gets deployed in a wide area. This is an area called Tucson one, this is the area that is built and is a. It has nine cents or towers. -- Nine cents or towers we on the site, good luck. Believe it or not there is a red icon here, a red icon here, there are nine red icons. Those are sensor towers and what I showed you, blue icons are -- what we do it for -- border patrol as they tell us in this area, it is 55 passed, we deploy these towers in such a way that we have a likely -- high likelihood of somebody living on the past. That is the way the system works. Next chart. I told you we have stand-alone commodities as well. This is a mobile surveillance system. This is a pretty powerful system. It is truckmounted, has an extensible mast about 20 feet, radar, day camera, night camera. Sounds like -- it sounds like they fixed towers he has the same suite of equipment we inside the café; has a common operating picture. The trick is, it is not linked to any other

mobile surveillance system, it is a stand-alone capability. This is a powerful thing to the border patrol and they love it because they can move it around. And they have advantages and immobility and disadvantages but it is not linked, it is one agent covering one truck and any other depiction, 325 agents will cover the entire area. And survey the entire area. We try to mix and match these systems a little bit. Right now, we use them were SBInet has not yet arrived but in the long-term it will be a backfill.

We have some other commodity deployments. There is a lot of activity on the northern border in terms of custom and border protection and security but the northern border is a much different environment. The secure border initiative has not been a big part of that to this point. The Congress and press and they say you are not spending the money on the northern border therefore you do not care about if that is not true they spend a great deal of money on the northern border. The Coast Guard is at the, the Navy, there are a whole bunch of things that we do contribute but what we have started to do based on the border patrol interest is by some of the existing systems come with a remote video surveillance systems, the mobile surveillance systems to start deploying them in areas of northern border. Partly to get experience. What do I mean by that? If you look at illegal traffic at the border, 99.5% is on the Southwest border. Very few people illegally enter the United States between the ports of entry on the northern border. So we put a lot of focus on the Southwest border. But we know the area on the northern border is vulnerable to that kind of thing. One of the purposes of these SBInet investments on the northern border is to start with to collect some data because we know we are vulnerable. But I think the vulnerability is being widely exploited. This will give us an opportunity to check out how often the vulnerability will be exploited. Those things are under construction. There may be in some ways a more interesting activity, we call it increment to because on the northern border common operations and integration along state and local law-enforcement the other part the DHS, the Coast Guard has traditionally been a big part of border enforcement. They are part of the northern board he were a border patrol station is a dispatch center for all the local law enforcement in the area. On the northern border, increased enforcement, one of the increased opportunities there for increased operational integration. On the northern border we are building a prototype, we are building a laboratory. The colony operational integration Center. We tried hard not to pick a name anyone else is using because we do these demonstrations and people expect us to sustain and maintain. This is just a test. We're going to build a building, the season the building for anyone who wants to sit there. State police, county sheriff, local police, Royal Canadian mounted police, coast guard, all of the elements of CBP. We're going to bring in, about every piece of data we could think to bring in. We are not accusing any of it. So imagine a building with 1000 TV monitors. I might have traffic cameras, I will have the remote video surveillance systems, we have airplanes flying around, coast guard systems, going to bring all that entry are going to watch the operator she said. They're going to use that to determine are there opportunities and requirements for data integration and data fusion? In the past, people like me would have these great ideas about how we will use the data. It is a fun engineering challenge. You actually

watch the operators, and put thousands of TV monitors, they will put three of them. They will ignore the other 197. That is what we want to learn. That is northern border in committee.

Pilots. I spend 3 to 6 hours a week talking to vendors or members of the Department of Defense. Or laboratories at what capabilities they have to offer. We are very interested, I made the mistake, we are talking to, popular science, and they made the mistake of say I welcome people coming in. At popular science was to publish the article in April and when I said that, my public affairs pursuant I am screwed. We do try to talk because remember, we are trying to collect the Chinese menu, right? We want the Chinese menu. I created an organization that didn't used to exist their representative integrates the needs of all of our operational -- the border patrol, the people at the ports, our air and Marine people. When these people come in and they give me these briefings on the capabilities and the ideas and technologies, a hand at all of this group and they come every three or four months, the delicate border patrols, all of the operational entities as they does any of this sound interesting, anything you like arrested by two or three ab and maybe we'll buy it for two or three or four different vendors need to play with it a while and tell us if you like. That's what pilots are. We're in the middle of the first round of it reads you can see the first list of the six areas of technology that they came back and said please go buy me a couple of these. We're past request for information base at about two -- the idea here is to collect the Chinese menu. I am an acquisition guy. I am focused on stuff that I can buy today. But we do have a problem because I have a lot of people that want to come in and talk to the about stuff that is not quite ready that it might be really neat if developed. That is where SMT comes in. We have the science and technology folks participating with us in this pilot. We are attempting to do is get a little bit better definition of roles, -- one through six and -- plus we will manage. We are in the process of building up of those pilots are going to help us do that.

We have also, this is probably about 20% of the list, but I want to show it to you for the sake of letting you know. We have started to map against the capabilities and against what we know. What are the technology needs that we perceive? This is a draft. Nobody else has ever seen this. I decide a couple of weeks ago because my folks were working on it. We have a list of stuff here with a range of TRL. This is going to become the basis of a more deliberative discussion with our friends in the science and technology community as we divvy up who does what it covers which of these things so again we are building the processes,

And that gives me to what has been a science and technology support to SBInet, first of all science and technology has had a lot of support to customs and border protection. The problem is, at least when I took with my friends in science and technology that science and technology has trouble finding who they can plug into. There is a missing level. There is a science and technology, technology developers and the border patrol agents for example and any good robust mature system there would be an in between function and the system developers, that has not existed and still frankly does not completely existing customs and border protection but the secure border initiative does that. So, what are the kinds of things that we

are way to work with, well, we are finding a science and technology led effort to improve our mobile surveillance systems. By the way, that does not sound like much that is new at DHS. The acquisition community in science and technology community getting together and sharing resources and management. To reduce radar clutter and improve video tracking, automated tracking if you will because we are looking for motion on the television screen. By the way, that is extensible to SBInet block one. Test beds, the science and technology has been doing this forever. They have been doing it by going out to the border patrol and saying what would you like in the border patrol says I would like the camera. Scientists technology folks have been buying and doing their own pilots. We have not connected that very well but at least it is there, something to build on. We are using science and technology is that it at her experts to the pilot process we talked about. By the way we have problems unattended sounds -- ground sensors and a science and technology has been working on that for years to we're taking advantage of the expertise. We participate with DHS in science and technology on the federal coordinating technology that advises the investments. There is the beginning, I think you would agree with me that it is not all the way there, but there is a beginning of a tighter relationship to what we are doing for technology and with science and technology is to technology and development.

I think it is worth talking about, these test beds, what are they? Science and technology by the system, put them in the operational environment is feedback from users. It is pretty neat. In some cases, they have been met with TRL 79 systems. I should start doing that to him and let them take the 123456 systems. But we get a lot of support from DHS on these test beds. For example, we are interested in this, Northeast testbed. The point is, remember I told you, way back when, we need to think about what is the right system and various different environments, we start tailoring this day. Science and technology has been starting up is you can see here the northern border is completely different from what SBInet is doing on the Southwest border. That is additional opportunities to work with science and technology.

I have to caution you, I get all these great technologies coming in. They all cost an arm and a leg. I was given a presentation at a conference once, I had just in a press conference and they got a question from a reporter. We heard that your radar is Vietnam era. They wanted an answer to that. An answer was, who cares? It works great I have people trying to sell me stuff I don't need. We are interested very much in cost effectiveness and cost benefit trade so as you get involved with CBP

and SBInet, understand the cost is important. I have heard more people out of my office who told me they had the greatest system. I don't care of it the greatest system. I want to talk about why your system is the best cost effective contribution to my needs.

So, just to sum up, we do have a strong technology program. We are focused on SBInet block Wonderware started to open the aperture for all the reasons I describe. We are in the process,, and the operational capabilities restriction, need for technology, we are starting to build the linkage which has not existed before. We have

an history of support which we hope to leverage at the bottom, don't forget cost as a driver. I think I probably have a couple of minutes for questions, if there are any. Can is Steve Kroft?

No. One question from the Web, we are running behind. We went to get a little discussion. Regarding the mobile sensor vehicle, clarify that.

Verify what?

Mobile sensor vehicle, them over civil vehicle, can you clarify whether they are later now. They are not linked into the SBInet network, they are stand-alone systems so there is an operator sitting in a cab of the truck, they have radars and camera.

I hope that answers our Web question.

Two quick questions, one, is there any interest in Hawaii or Alaska with SBInet and the second question is because our talk to us about the aircraft because of the low cost operating ability and Billy to stay in one place. We have interest in him?

We do. We have people who come in a brief on the light aircraft. We are interested in technologies to handle the threat of ultralight aircraft coming across the border. We want to do something about that. We get those then and when I take it to the operational working group I describe, they have to bubble to the top. We can do five or six things at the time we have several that we are looking at. In terms of why in Alaska, those are parts of the border, it is not an area where the border patrol is currently deployed which is the focus of our activity here, with her that were to the Coast Guard at this point. That is why you're not seeing a lot of dialogue CBP about that. Go ahead.

With all the operational capabilities you guys have inventors coming at you and all sorts of interesting technology, is it a challenge for you to try to disseminate what it is that you guys are going to utilize your arsenal as far as your technology goes and what are some of the challenges that are associated with that?

It is difficult in one reason why is because it is hard to measure the effectiveness of these things. I should you be turned on border control and the border patrol has a way of making an assessment of where they are and making some predictions of what they need to get to the next level. With the border patrol has not been able to do is say, and let me put into that mix different options of things that I am used to. Building the measure of effectiveness that allows us to do the trades has been a challenge. Right now, we are doing stuff based on subject header, expertise, we are trying to build capabilities for alternatives that is a challenge. We do our best. We do have some limited alternatives that we have done based on subject matter expert judgments. We have not gone to the point we have good quantitative analysis yes it is a big challenge.

You talked about

Of your questions quickly

You talk about demos and you mentioned we asked field agents how works. I assume there is a little more rigor in their in terms of figures of merit data quality objectives are met.

Yes, as part of the organization, I build, I told you that we built, they represent the users, they are the ones responsible for creating was a test and a valuation strategy for these things. There are standards. The SBInet is going to go to a very formal test and evaluation, something the department of defense would recognize, and we are building with the lower level efforts would be for each one of these efforts and we have the functions assigned to the matrices and efforts of the sleigh.

In the head and come up to Randy. This is one of the key elements of the program.

We started late.

Yes we did.

Yeah talking about lots of exciting technology. The technology is only used by humans, on board of Troy, creating threats, management, other issues, feet of information, which that brings us, but what about the research and other efforts that you have need for or arguing to deal with the human element?

The secure border initiative, you're talking about the internal threats. The secure border initiative --

Background talking to >> He said he is asking how you integrate.

It is one of the reasons that northern border operational integration is such a big deal because that is what it is designed to do, to watch what they do, we are talking about having some pros at this, some experts stand back and watch because we don't want to receive what the border patrol, what they think is a good idea, we will people to stand back and say he did not identify this opportunity that you have. As part of the reason we are focused on Matt on the non-border. In terms of internal threats, we have an internal affairs organization. I don't support them directly but they do look at the kind of technology you are talking about to find internal threats as well.

We have a question of you.

My question is similar to the last one, he was viewing the cop?

We have to go to the certification and accreditation NBC LP is viewed by border patrol agents at this point, border patrol agents were trained. The border patrol hires police to call dispatchers, sector enforcement specialist, nonuniform but members of the border patrol, over time we expect the sector in Forstmann specialist also will operate the COP because it is a dispatch function. All it is personnel, border patrol agents or enforcement specialist.

I am wondering, this will be the last question, tunnel detection and a pilot and the collaboration on that rapid reaction to detection R2-D2 capability, technology demonstration, 30 million bucks are you involved in that?

The total detection, -- the tunnel detection, we have people coming in with capabilities. But besides the technology is working on a we have customs and border protection working on and this is the thing that frustrates industry, they don't know who to talk to the, talk to me our operators are interested that we would develop with what science and technology is doing a where LSF, our laboratory that is daytime attention activity. This is an example of a rule provide resources and linkage to those areas that we will not duplicate what is being done in other places.

Which is the point of this regional summit is linkages. We will move on shortly. Thank you very much.