

TELE-SEMINAR
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NIUSR

Barbara Muller: Good, so we're all set. I'm Barbara Gaughen-Muller, the host for today's NIUSR Internet Journal and conference call and on line we have Lois Clark McCoy. Our first speaker is Terry Ryan. Terry you're going to talk about new disasters in the age of space, which gives me an opportunity to say, thank you! So without further ado, Terry, could you introduce yourself and go right into it?

Terry Ryan: Yeah, hi, this is Terry Ryan and I've been with NIUSR now for awhile, over a decade, probably 15 years or so, but the topic today is interesting because there's been so much attention about cyber world and smart grid technology that we, as an organization, need to be mindful of where the technology's going and how it affects the people in this country in terms of disaster and response and really going back to when I first joined with NIUSR, we worked on the XII, the Extreme Information Infrastructure, so as in the organization, we were probably well out in front of the government in terms of thinking about vulnerabilities and accessibility to the infrastructure and how it could be used to help in emergency response and also in our XII, I think we discussed the vulnerabilities of putting everything on a grid.

Now as we know, this administration, in particular, has come under fire recently as some of its progressive movements toward smart technology and putting billions of dollars into that technology and some of the critics are saying with that technology, we do achieve some efficiencies over time, improve life, but also expose ourselves to really not well-understood threats and vulnerability. That's kind of what I want to talk about today is what is the government doing about it? Who do we work with in government as an organization? There may be some things that we can do to help the government in its quest to achieve better collaboration between the private and public sectors around this area.

I'm out here in San Antonio today at a conference that we've had. Congressman Rogers, the Chairman of the House Intelligence Committee, "Dutch" Ruppertsberger, he is also the Minority Chairman on the House Intelligence Committee both spoke today and I have the pleasure of knowing them very well, but also the pleasure of serving on both the House and Senate Intelligence Committees and I know that this committee, in particular, has taken cyberspace as a serious challenge to us as a nation. I think it was Chairman Rogers that spoke first and mentioned that just from a losing IT, we're losing probably maybe as much as a half a trillion a year in intellectual property. The amount of aggressive attacks on our US infrastructure is becoming more lethal and just the pure escalation of that, there's just threats at some very large scale that cross many industry sectors.

So what's going on in DHS and what are they doing about it? First of all, in DHS, there's an Office of Infrastructure Protection so it's the IT. It's not intellectual property, but infrastructure protection and their job is really to look at protecting critical

infrastructure and just to remind everybody this infrastructure is really the assets, the systems and the networks that are critically vital to the United States and so when they're incapacitated or destroyed, it would have very debilitating effect on our security, our economic posture and public health.

And you recall after 911, DHS, one of the first things they did was they stood up the Homeland Security Presidential Directive 7, HSPD-7, which is a policy and guidelines that designate certain sector-specific agencies and each sector has its own plan and policies. I think there's about 17 sectors and it's 15, 17 sectors in, for example, around information technology, public health, communications, manufacturing, transportation, water, banking. I think there's even one for dams. So each one of those sectors has their own coordination council and they were created to share data and information and best practices between the government and the private sector. So it's really a collaboration framework and I don't know any of the people that lead each one of these 17 sectors, but it seems to me that DHS is putting more emphasis around the responsibilities of these sectors.

Barbara Muller: Are the sectors government led right now?

Terry Ryan: Yes, they are government led.

Barbara Muller: Okay.

Terry Ryan: And I think one of the things that pushed it up was certainly the 2003 incident where 15 million went through the blackout in the Midwest and then certainly Lois got a lot of information with us on what happened on September 10th this year where power was lost to tens of millions of people in the Southwest and Mexico and so, potentially, I guess it was a single utility worker just doing some ordinary routine job, a minor job.

Lois Clark McCoy: I don't believe that.

Terry Ryan: Yeah, it's, yeah, I think it's suspect as well, but one of the things the DOE did was they've done their own tests out of their Idaho National Lab and they've already demonstrated they could blow up a generator by cyber attacks. And so it's technically possible that a cyber attack could hit a transformer or a power station and unexpectedly do major harm, but what I want to talk about was some of these sectors.

Barbara Muller: Thank you.

Terry Ryan: Now what areas can we focus on? In the critical infrastructure protection around IT, I think there's a lot of soft leadership and there's a lot of energy. When Delmiros (?) was over there, he put a lot of energy around protecting the power grids and specifically around transportation and the banking areas. One of the areas that I think is where, well let me step back. So each one of these coordination centers has an ISAC, and I think some of the NIUSR members have been part of some of these ISAC's.

Barbara Muller: Can you spell that?

Terry Ryan: Yeah, ISAC's are Information Sharing and Analysis Centers.

Barbara Muller: Oh, excellent.

Terry Ryan: These are the public and private sectors information-sharing environments. The ISAC's were set up to create this partnership for shared information and intelligence guarding potentially cyber threats, physical and cyber. So there's many, many ISAC's and I think there's probably an ISAC for each one of the 17 sectors, but one of the ones I think that's probably least understood where there's potentially some major significance in terms of damage to the United States that's probably being ignored a bit and that's the national health ISAC. There's a national health ISAC. I think you can go online and sign up to be a member, an individual citizen can sign up to be part of this, and you will get the critical infrastructure security alert notification email. So in this critical infrastructure security alert notification system call the SAM, is I think associated with each one of these ISAC's and I think, as a group, we ought to sign up and at least get some of these alerts. With it, they also get, again, these are automated emails [inaudible] alert [inaudible—9:07]. I think we're familiar with some of the services that, if you sign up for it, you get emails. You get some bulletins. Twice weekly, you can get involved in technical conference calls. There's monthly newsletters that are posted out by these ISAC's.

Barbara Muller: And why did you say as the least understood of them all?

Terry Ryan: Of the national health one, it just seems from the ones I looked at a couple weeks ago that it was the one that had, again, the least amount of I would say government and private sector involvement and I don't know why that is.

Barbara Muller: And we're talking about germ warfare and those kinds of dangers?

Terry Ryan: It could be anything like that. It could be epidemics. It could be anything like that.

Barbara Muller: Would you think that WHO might be a member?

Terry Ryan: I'm sure.

Barbara Muller: Okay.

Terry Ryan: But see, you could be anonymous or it can be attributed to submission. You can do it either way.

Barbara Muller: Got it.

Terry Ryan: But as an organization, it's just one of the things that we may want to look at is how do we participate in some of these ISAC's and maybe even take a leadership position. The sense is that the government's going to continue to have to cut back and for the services areas and they may rely more on some private, I'm sorry, some more of the, some private organizations that will step up and offer assistance in leading some of these things. It's just that it may be a crazy idea, but it's something that we ought to look into.

Barbara Muller: Well, it certainly would get a lot more followers for NIUSR because people do know that health is paramount when it comes to a nation.

Terry Ryan: Right.

Barbara Muller: I'm right on with you. My husband, Dr. Robert Muller who was at the United Nations was very aware of potential disasters that can happen in that area.

Terry Ryan: So, again, so because it...

Lois Clark McCoy: I would like to also look closely at the electric grid. We had another outage somewhere on the East Coast where every signal light, stoplight went out some 500 or something and it absolutely shut the whole town down.

Terry Ryan: Yeah, it does, Lois, and those things will happen kind of natural and manmade, whether it's an intentional or unintentional accident, but I think what's interesting me as I've done some of this research with the power grids and I'm not dismissing the importance of the power grids or the vulnerabilities, but with the power grid, you can basically when it's down, in most cases you turn it back up, but it's just a matter of time of how quickly whether it's seconds, minutes, hours that you can turn that power back on. But when I look at health and a major epidemic in terms of collaboration sharing and warning and emergency response, how do you just turn on something? It just seems to be that it's more persistent, more long-term damaging if you don't have the right notification and collaboration systems in hand.

Lois Clark McCoy: Yeah, I agree.

Terry Ryan: It's something you just may want to look at and, again, I think that adversary would understand the importance of attacking our critical health infrastructure. I think every year, there's probably 10 million, 12 million electronic health records that are intentionally attacked and so it's just, I think it's something as citizens that we've got to be mindful of from a protection of the data and then, number two, in case of major outbreak or epidemics, how is the alert notification? How does that affect emergency response? Is it going to be fire? Is it going to be police? I'm not sure it's all well thought out or exercised.

Barbara Muller: So you're saying, there's a two-prong issue. One is the millions of health records that could be attacked and the second one is alert notification if we do have an epidemic of some sort?

Terry Ryan: Yeah, I don't think we're in anything about the protection of electronic health records [inaudible-13:22] just shows the vulnerability of [inaudible] and in the case of a natural disaster, how does the responder, how do you access? So everybody's going to eventually have maybe electronic health records in a cloud. Again, you're reaching for the technology to do that because and achieve efficiencies by doing that, you need less manpower or people to physically go through health records, but if there is a major outbreak of something, how do all those records become accessible to the responders, the people that need that? I don't know.

Barbara Muller: Well, I understand.

Terry Ryan: Anyway, so that's my few thoughts on that. Let's just throw some things out there and see what people think.

Barbara Muller: So you're talking, again, more of the emphasis being on alert notification.

Terry Ryan: Yeah, well I think the first step would be for the organization, I'd be willing to do it, is to meet with the director of the ISAC or Health Information Sharing and talk with him for awhile.

Lois Clark McCoy: Just go and do it, do it. You've got the baton, Terry.

Barbara Muller: I like what you're saying also, Terry, because it's very understandable and it's also very needed and then Lois gave you permission to go forth. Is there something that NIUSR needs to do to make that possible for you?

Terry Ryan: Well the thing is we already have Eric and Dave, who are well versed in the key issues, so it gives us some credibility given all the stuff that they've done over the past decade in emergency response, in where health is a major issue. So people, in terms of there's the life-saving, but there's also nearer-term and longer-term health effects that need to be, some attention needs to be drawn towards that and I don't know how we do it from a collaborative environment. Maybe there's some networks or more alert systems that we could help set up, but until I talk to the guy, I just don't know what their key shortfalls and major hot buttons are, but I think it's an area that's adjacent to our core capabilities as an organization that's not far stretched to step in and offer to help in the assistance of our social network that we have and to share our experiences that we've had over the last decade.

Lois Clark McCoy: Well, if you want Dave to share the burden with you, I know he would be very willing to do it, but hasn't he left again for Afghanistan? I think you're the one that's here.

Terry Ryan: Yeah, he's been here involved in the stuff with Lou [16:10] in the Startide (?), but I think he's still here this week, I think, in Washington.

Lois Clark McCoy: Well, if you could get him to work side by side with you, fine. If you can't, if he's too busy or overseas, why they you've got the baby.

Terry Ryan: Okay.

Barbara Muller: You know, Lois, this just is a minor little pod that might give us some insight. You were at Burning Man. How did they communicate with 55,000 people who were there?

Lois Clark McCoy: I don't know, but Dave does.

Barbara Muller: Because that's a little pod that doesn't have, you couldn't use your computers. You couldn't use your cell phones. What was the communication technique?

Lois Clark McCoy: Oh, you could use...

Barbara Muller: Let's suppose somebody got the flu and it spread like hell. How do you tell each other? Was it all word of mouth?

Lois Clark McCoy: I don't know. We all knew what was happening.

Barbara Muller: Yeah, very interesting because I thought that would be such a, like a small pod of what could happen if we ever needed to communicate and we didn't have the electronic systems in place. It's just a thought. Think about it, Lois. You might come up with something. First of all, everybody knew who you were even the mechanic at the airplane when you got on it after Burning Man.

Lois Clark McCoy: I know.

Barbara Muller: Maybe you're just the moon that everybody looks for, who knows?

Lois Clark McCoy: I don't know. Terry, how did we communicate?

Terry Ryan: I don't know. I don't know how you would say if there's a flu outbreak or something there.

Lois Clark McCoy: Well, Dave knows.

Terry Ryan: Yeah.

Barbara Muller: I was just curious because if there's an outbreak, even think about neighborhoods or you think about communities or cities or states. I know I am on the Goleta alert system and we're given an automatic phone call when something comes up and it rings automatically and if we're not home, we get it on a message machine, but that's very archaic, but it works.

Lois Clark McCoy: Well, I think in Burning Man, it was word of mouth. It passed from one person to another like lightning.

Barbara Muller: And you were all together. None of you were in structures that couldn't be talked through, right?

Lois Clark McCoy: No, you could talk anywhere. Nobody had any trouble talking.

Barbara Muller: That's what I mean. You weren't behind a closed door with a lock.

Lois Clark McCoy: No, no, no, no.

Barbara Muller: Okay, well I really like what you're saying, Terry. I think Lois is giving you the permission to jump into it.

Terry Ryan: Okay.

Barbara Muller: And I would love to keep you on whenever there's any bit of news, just email barbara@rain.org or Lois at nisur@cox.net because then we'll put you on the agenda for an update because this is what really keeps people coming back into the teleconference when we have something that's really action oriented and this definitely is and it has a great benefit for society.

Terry Ryan: Okay, well I'll let you know how it goes. I got to drop off. I apologize, but it was good talking to you.

Barbara Muller: Well I sure appreciate it and say hi to Congressman Rogers for us and tell him you're going to help him out.

Terry Ryan: Okay, thanks, bye.

Lois Clark McCoy: Thanks, Terry.