Sharla Rausch is our division head for human factors, and I think we have seen threaded throughout today the importance of how we operate and how we have to bring the human element into technology. And as we've said earlier that the integration on the seam of human behavioral social sciences, physical science, we have to

look at all of that together, and if we look at the importance of biometrical information and other things, these are some of the things that Dr. Rausch has looked at, is looking at with her portfolio. So I think she'll have a lot of very interesting things to share in terms of the importance of our investments in the science of human factors.

DR. SHARLA RAUSCH: Good afternoon. Good afternoon and thanks again to the Swedish Civil Contingencies Agency for hosting this conference. And welcome to all our various international friends out there. It's an awful lot of fun to see all of you. Hey. What keeps me awake at night? People. I'm not talking about my boss. He doesn't keep me awake at night. I'm talking about the extremists plotting a violent action. I'm talking about facilitating the travel of law-abiding citizens and visitors to this country. I'm talking about the people who are impacted by either a man-made or a natural disaster. Chris Doyle focuses on the critical infrastructure of buildings, and we focus on the social infrastructure, the social and psychological impacts to people of an event. I like to say that our division is responsible for the harder science: People. And as part of our mission we ensure that practitioners and intelligence analysts and policy makers have

science-based, effective, usable and where it touches the public, and almost everything does, acceptable capabilities that will help them to identify violent extremism well before there's an act that jeopardizes lives or critical infrastructure. And as part of that is our violent extremism program where we're looking for those indicators and signatures that will help U.S. identify those threats in months, if not years, ahead of an act occurring. And if you want to know any more about that you have to come to the breakout session tomorrow because it's going to be good.

We also are responsible for identifying known and unknown threats at over 400 U.S. ports of entry. I don't know if you're aware, but we have over 400,000,000 people cross our borders in a given year, and we have about 1.2 million pass through our airports on a given day. Now, as you all know, when you're having to go through those ports of entry, you want to move as quickly as possible. So the challenge for U.S. with our biometrics program is to be able to identify in near real-time an individual's identity to determine whether that is a legitimate traveler or whether it is a threat to our country. And the challenge for U.S. is that it's not always optimal conditions. We're on the ocean, we're on the southern border, which is desert, we're on

the northern border, which is cold. We're mobile and we have to do it quickly and we have to do it accurately, because if we have a false positive, somebody goes into secondary screening. If we have a false negative, somebody gets into the country who shouldn't have. So we have to be as good as we can on that. And then there are the unknown threats, and that's where our suspicious behavior detection capabilities come into play, and that's where we look at various physiological cues, whether it's changes in skin behavior, whether it's pulse or heart rate or the behavioral cues, looking at things such as microfacial linkages or emblems. Again, fast, accurate, noncontact, a tool that the screener is able to use to enhance his or her own capabilities. And we're concerned with identifying capabilities to enhance community resilience. And we look across the whole spectrum in terms of preparedness, response and recovery. Ideally we would like to see communities have those capabilities well before an event occurs so that if something happens they're able to bounce back, not even at the level they were but even at a higher level and a stronger level. So our concern is strengthening that social fabric and avoiding tears in that fabric. The messages I think I would like to leave you with is that it does all boil down to people. I don't care what

you're talking about. It's going to boil down to the human being and everything we do. Part of what I do with my colleagues, for instance, is a community perceptions of technology panel, where they bring their technologies in and we have a panel of a variety of people: Different types of lawyers, different types of public interest groups. For Anh's group we looked at border technologies, and those were along the border with Canada. So we brought Canadian groups in to look at those technologies, and to a one, the program managers have said I didn't think of that. It gave them a new perspective on how they approach that technology, and that's important. The other thing I'd like to leave you with is that every single challenge we've talked about is a global challenge, and that means it's going to take a global solution to this. What we need are partnerships, good strong partnerships, and I know my division has benefited greatly from partnerships with just about every country represented out there. Thank you.

DR. STARNES WALKER: Thank you, Sharla.