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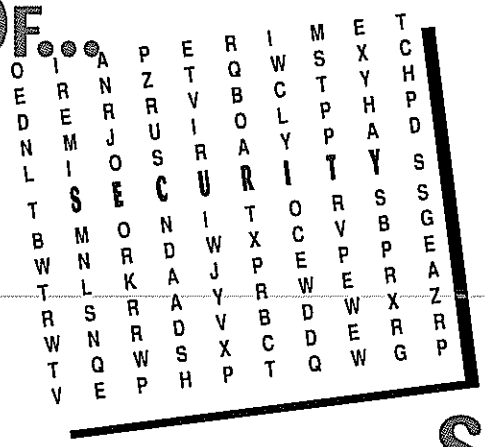

Boyd Stresses Importance Of Partnerships

Editor's note: *The following is an abridged version of an interview* CT *conducted on May 2, 1996 with David Boyd, Director, Office of Science and Technology, National Institute of Justice.*

CT: My first question concerns the corrections technology advisory council. Why don't you talk a little bit about the council, and give us an update on what it has done in the past year. And, you also could talk about what you have planned in the near future.

BOYD: Well, this is really based on something we started some time ago. We're beginning gradually to try to address all the elements of what people refer to as a criminal justice community. We've had a long history and a long tradition of working with the sheriffs and the police directly—primarily with the police. And, at first, that was the only segment of the community we were interested in—the community that needs technology. One of the segments we haven't gotten to yet is the next generation, and how we handle courts and prosecutors. We're gradually beginning to work with them, so we'll be following up with that as well.

But what we wanted to do was to augment our advisory council. We had the Law Enforcement and Corrections Technology Advisory Council, and we wanted to expand it, but we didn't want to just bring corrections in as kind of a subset of it. We wanted to bring it in as a major equal component, to show that it's a significant community by itself and ought to be treated that way.

However, we also didn't want to lose track of the fact that, especially when you're working with technologies, you're working with things that cross community lines. We want to be able to take advantage of partnership opportunities where, if we could produce something for one segment that also has application elsewhere, we can identify that earlier or identify the amount of modifications that are required and make it fit all of those things.

CT: By partnership, do you mean partnership with other parts of the government, or are you talking about partnerships in the private sector?

BOYD: The best way to describe our notion of a partnership is by saying that anybody who has a contribution to make is of interest to us. It doesn't matter whether it's government, private industry or an agency, or if it's a nonprofit corporation. We don't care as long as they have something to contribute and can offer some advantage and some value.

The first thing we did when we created the corrections component—National Law Enforcement and Corrections Technology Advisory Council—was make the word "corrections" very prominent. Then, we created a co-equal entity made up of corrections representatives from every state in

the United States and some of the territories that would meet, by itself, as a corrections activity.

That's what happened last year, and it will meet again this year. As part of our strategy, the law enforcement folks will meet as a law enforcement group, the corrections folks will meet as a corrections group, and then we'll bring them all together into one larger body.

We also made sure that they stayed tied together and that there was some exchange going on, because a number of the projects that we're doing for one—either for corrections or for law enforcement—have application to the other community as well. And so, we created the committee structure, which is designed intentionally to interlock the two so that the chairman and the vice chairman are drawn together [from different areas of criminal justice]. If the chair is from the law enforcement side, then the vice chair is from corrections. If the chair is from corrections, then the vice chair will be from law enforcement.

With the law enforcement component, the corrections component and others, we have what we call cross-over integrating committees. These are groups or committees whose purpose it is to look for things that cross the boundaries between communities.

Our next iteration is a little trickier, because the cross-overs aren't quite as clear. I mean, it's clear that prosecutors and courts play a significant role in both of these communities, but the cross-over elements are a little different. When we begin to look at our quick kinds of issues and our broader case management legal issues, [we know we have to integrate the unique needs of these communities as well.]

One of the critical functions of these advisory councils is to help us identify . . . the problems which might be addressed by technology. . . . We're working with them to develop a problem identification concept. We don't want them to come and tell us, "We need this technology," because at that instant, you've locked into a solution.

We want to work with [the advisory councils] to figure out what problems technology might be able to grasp. [Then we can] go out and challenge the scientist and come back with rational solutions. We'll go back to these groups and say, "Okay, here are some solutions that currently are being offered. Do they make sense? Have the people who are proposing these solutions thought the issues through to make them part of what we do when we go out and challenge a scientist?" We tell them, "Before you come back to us with a proposal, you really ought to give some thought to going out and talking to the people who have to live with this. You ought to talk to the corrections folks in the state you're in. You want to talk to the local police department. They'll help you find out what the real world requirements are." That's the first step. That's . . . what we should be looking for in a broad kind of way.

CT: Could you give an example of a problem that's been identified?

BOYD: I could give several, actually. One is the development of less-than-lethal technology—that is, technology you can use to control uncooperative subjects or inmates without injury to the inmate or to any law enforcement or corrections personnel or innocent bystanders.

We've also done some extensive work on the safety and application of things like pepper spray by looking at other kinds of technologies. [For example, we're trying] to determine whether we can use aqueous foam, which is very low density foam. You could use it to try to control or reduce riots or use it when a major disturbance occurs. There's almost no moisture in it; you can breath it. [However,] it has the effect of isolating people from one another.

We're curious about whether it can be used for law enforcement, [although] its application is pretty limited. If there's a light breeze, it blows right away.

[And, we've studied pepper spray,] and we've recognized that there are significant differences in the way it's used. The circumstances under which you use it—whether you're in law enforcement or in the community—restrict how you use it. As a consequence, we've done extensive work looking at pepper spray in the law enforcement environment, evaluating its use as a controlling tool inside a jail system to determine . . . how useful it is and what the appropriate limitations are.

Another category of technology, which initially started as a concern for law enforcement but now has a very clear application for corrections as well, is concealed weapons and contraband detection. In the law enforcement community, this project . . . has an interesting history. The president read an article called "What to Do About Crime" by James Q. Wilson, which appeared in *The New York Times* back . . . around October 1994. It had a single paragraph that said, "Maybe there are technologies available that will allow a police officer to tell whether somebody is carrying a weapon concealed under clothing. . . . And that might be a big help." The president circled this paragraph and asked what [could be done about it]. He sent it to the attorney general who, of course, sent it to us. . . .

Out of that, we initiated a major project, which we started with three separate technologies, all funded out of the 1994 Crime Act, to pursue three different kinds of approaches. We didn't want to put all our money into one. We since have been successful in persuading not only the Defense Advance Research Project Agency that they ought to participate in this, but also in creating five new projects—five different technologies. They've acknowledged that it's appropriate that we manage all of them, so we make sure they're all coordinated within the requirement.

And so, the projects cover not only law enforcement, but also a whole spectrum [of people] who are interested in technology useful to the police officer on the beat, useful in improving the [technology] in airports and courthouses, and useful in prisons to examine people who [are] coming through. . . .

Another one of our projects has to do with telemedicine. We know that one of the most rapidly rising cost areas in prisons right now is medical care. Our question was, "Can we maintain a solid level of medical care and reduce costs dramatically?"

We've initiated a project that will be undertaken initially in federal prisons as a test site to look at telemedicine [when

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you have] consulting services available elsewhere. You have instrumentation and all kinds of fancy equipment inside a clinic in a prison where you can bring the patient and a technician or clinician who can help operate the equipment so the consultant can determine whether the person needs to go to a hospital, or can be treated adequately there. . . .

In fact, in 1995, we did some research and found more than 30 instances of "escapes via hospital"—as we call it. And so, not only does [telemedicine] help with the problem, it helps protect the correctional officer who has to escort the person . . . [and protects the public] from those cases [in which the inmate] creates an illness in an attempt to set up an opportunity for escape. We can help reduce these, and help enhance safety for inmates. . . .

These are only a few of the things we're trying to look at in the corrections area, as well as in law. . . . We ought to look for technologies that can address problems which exist in any part of the communities we're concerned with. . . . Although the ideal solution is hard to come by and rarely applies, the ideal solution is to find a technology that fits everybody without modification. This almost never happens.

So then, the next level is [to figure out] how we can find the technology that meets the broadest possible number of needs and requires the least amount of modifications so we can keep costs under control. . . . And only then do you start looking at technologies that address problems that are unique to one of the communities.

CT: Is that a paradigmatic shift from five or 10 years ago?

BOYD: I don't know that I'd call it a paradigmatic shift. I would argue that there hasn't been a paradigm before, so we can't have a paradigmatic shift. The notion now is that we're going to try to create a whole new paradigm that addresses how you go about developing technology uniquely for law enforcement, corrections and criminal justice issues.

Before, it's always been a "Whatever we find, we'll put out there [attitude]," or "We'll pump large amounts of money out and hope it attracts enough flies." That worked reasonably well, largely because we didn't have enough money to attract interest any other way. But we do now, and we don't want to waste money, so it's time now to develop a more systematic approach to deciding what we should be developing and how we should go about getting those new technologies into the field.

The second [issue that we're dealing with] is that even when we have thought about equipment and technology for the community, in the past, we've always thought of it as being for law enforcement . . . for the cop on the beat. And, we've tended to leave out the fact that that's only a single component in a very large and complex system. In an odd

sort of a way, if we make that component extraordinarily effective and efficient, it will help make the courts, the prosecutorial system and the corrections system equally efficient and capable of handling it. . . . So, it's crucial that we address it as a very broad system all at one time.

CT: Well, the aqueous foam and some of these applications that you're talking about . . . how close are they to actually being used?

BOYD: The aqueous foam already exists. It's in place. I'm kind of hard-pressed to answer [how extensive it is,] and I'll tell you why. One of the problems we encountered in the development of technology to law enforcement and corrections communities is that they are very, very conservative communities, but we try to enhance the environment they work in. As a result, one of the things we've discovered is that we have to do a couple of things to make this work. We have to demonstrate that they have pay-offs in value, which means we're going to have to make arrangements to fund putting them in to do an experiment. In fact, we'd hoped to be able to do some testing this year. There were some budget problems that had set things off for about a year, so it will probably be next year before we can start doing these things.

We also have to invest a lot of energy into helping this community understand what technology can [and can't] do. You kind of have two strains when you talk to people about technology. You have one group who believes technology can solve everything. We maintain technology isn't a solution to anything. It offers tools which can be part of the solution, [but they themselves] don't solve problems. It's sort of like developing spectacular new medical tools. The tool doesn't cure anything, but it now makes it possible for the practitioner to do a better job of curing the patient, and of applying his art and his science to doing that. That's the way we view tools.

We [don't] view technology as a solution. [We know it won't solve certain problems in the community,] so you'll never hear us say that. What it will do, we hope, is improve substantially the capability of the institution itself to be able to do its job. That's a key component of what we're looking at as we try to introduce technology. Part of this also means that, as we do that, we have to begin to help the community understand, believe in and look for where technology can actually be of value.

And so, part of what we're also trying to do is help communities think broadly about what they need. This whole area has never done a good job of articulating its own needs. There are major research and development activities which address military requirements and do things for the military. They also look at environmental issues and problems. The medical community has lots of these kinds of activities and lots of federal money to help support them. Every major professional area has a major R&D (Research and Development) capability at the federal level that helps address these issues.

We're the only community that doesn't. In fact, to give you an idea of how bad it is, [let me tell you that] we're

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currently the largest technology development R&D funding activity in the United States devoted to law. Contrast that with the $37 billion in R&D committed by the Defense Department, or with the total annual national investment of some $67 billion and you begin to get the picture. Some observers have noted that, of every $100 Federal research and development dollars spent in the United States today, only seven cents—seven pennies—go for the entire law enforcement, corrections and criminal justice system. So our challenge is a tough one.

CT: It sounds as if this is going to be a long-term process. You're talking about [changing] the conservative nature of . . . corrections. . . . And, we're in an election year right now. How do you keep this going? I would think it's going to take some time.

BOYD: Sure it is. It takes Defense, on average, about 18 years to take technology from a concept to a product. American industry takes about eight and one-half years to do this. Japanese industry takes about three. We want to try to come closer to the Japanese model, and we'd like to be able to see things in three to five years—still fairly long, but much shorter than the normal R&D process.

As a consequence, this has to be a bipartisan, broadly supported activity, and it is. . . . There's strong bipartisanship in Congress. And, the attorney general is a strong supporter of [these improvements]. The vice president personally hosted the ceremony where the Memorandum Agreement we have with the Defense Department was signed by the attorney general and by the deputy secretary of defense, for strong administration support.

This is something that we're going to have to begin to institutionalize as a long-term process, and we want to do it right. If we go back to the Law Enforcement Assistance Administration (LEAA) days, a major component of that was introducing new technology to law enforcement. Development wasn't so much a part of it, but it was getting technology to law enforcement. Nobody tried to develop a process to identify when and how it should be introduced so practitioners could actually make use of it. How do we make sure that what we're introducing doesn't create bigger problems than the ones we're trying to solve? We've created no mechanism to do this. And so, the one thing I would suggest to the community is that you've got to be patient, because we need to do this right.

Look at what happened to that effort in LEAA. We're still trying to live that down. I mean, there were good things that came out of LEAA. We have a more professional community and we have better professionalized corrections service. We have more professional, better educated police officers, but there are still some very, very hard knocks that the whole community took out of LEAA, because we didn't deploy technology equipment properly. So let's do it right this time. Let's not be so impatient that we demand everything a week from tomorrow.

The typical police officer today is equipped very much as Wyatt Earp was. And I would maintain that it's also true of correctional officers today. Now, a correctional officer for the most part carries no technology at all, because nobody's developed any technology that a correctional officer can use that won't create a larger hazard for him.

CT: As a final question—and this goes back to the conservativism issue—[let's say] I'm a warden or I'm an administrator. I'm even line staff. I'm wary of technology. It sounds as if you're going to need an educational effort.

BOYD: Part of it's educational. Another part [is the fact that] they have good reason to be wary. Let's face it. They really are hired to be conservative [and] careful. This is not an area where you want to take risks, because the risks you take are risks to the public's safety. So you want to be careful about that. It seems to me that not only do we have to educate about opportunities and involve them as we develop it, but we also need to begin to create a way so we can go through some diligent testing—real operational testing where we single out an institution, take very careful steps . . . and introduce a technology after we've done enough testing and we've done all the conceptual work to try to determine if there's a likelihood that this technology is going to be successful. [The results will] provide meaningful information to the wardens so they don't have to take serious risks in trying to introduce the technology. That's a rational part of the process, because we don't want to introduce new technologies until we've worked through all these issues and made sure, first, that the technology works the way we want it to, and, second, that it actually makes a contribution to our tool kit that's worth the investment.

Or, in fact, we should do as Jim Falk, who chairs our liability council, has suggested. We should look at all the liability concerns for these technologies. Falk keeps reminding people that what we're trying to do is to make sure when we introduce a technology that we introduce something that will make it better, not worse. And, we want to make sure we don't make it worse inadvertently. Nobody means to make it worse, but we've got to do the homework and do it correctly before we put it in place.

The second thing we have to propose . . . is that we also have to help the corrections profession understand that we're not looking for the absolutely perfect, absolutely safe solution. We're looking for something which is substantially better than existing alternatives, because if we aim for perfection, we'll never get anything.

The alternative is . . . what can I do that's better than what we have now?

We need to develop a process so that we continue modernizing the whole field incrementally. Otherwise, we have the problem of trying to move from 1950 to the year 2000. That's very expensive. It makes a lot more sense if we can be doing this on an incremental basis at gradual intervals so that as technologies become available, or we begin to feed them into the system, it becomes easier to begin to introduce the next set. And, it helps [increase] the level of understanding of the professional folks who are going to have to implement the new technology. CT