## Technology Today

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## **Electronic Frisking**

n the movie *Total Recall*, a hidden weapon is discovered when a character played by Arnold Schwarzenegger walks through a transportation gateway. In today's world of armed terrorists, and even armed children, the ability to frisk people electronically in public places seems to be a necessity. The equipment to accomplish such an electronic frisk has just been invented.





Photos courtesy of Millemetrix Photos

Millimetrix Corporation of Hadley, MA, has developed a new passive technology that is capable of detecting guns, non-metallic weapons, explosives, narcotics, and any other type of contraband that people might try to hide under layers of clothing. This is a peoplescanning technology that doesn't use Xrays or other "active" energy sources. In fact, it only works on living people by imaging any object (hidden contraband) that blocks sections of the body's own electromagnetic field. The Millimeter Wave Concealed Weapon Detection technology can't scan luggage, purses, or other containers because the imaging system relies on the natural electromagnetic emissions of people.

Millimetrix's new Gateway model will be available sometime during 1998. You can see a gateway scanner image in the photo included here. The image resolution of the human body is controlled to prevent the machine image from stripping away clothing in pornographic detail. To further protect Fourth Amendment rights, the machine will not display an image unless the scanner finds "probable cause," something hidden under the person's clothing.

Since this is a passive technology, a person receives no harmful rays during the 10-second scan. The system works because clothing and even walls can't block our bodies' natural millimeter wave emissions. On the electromagnetic

spectrum, millimeter wavelengths fall between the longer microwave wavelengths and shorter infrared wavelengths. Microwave is impractical for this type of detection because of the size requirements of the equipment, and infrared wavelengths just don't pass through most clothing.

This same technology will also be available in a hand-held, battery-powered model by the middle of 1998. This Passive Millimeter Wave Imager will allow police to search a sus-

pect without any physical contact. The current method of "patting down" a suspect can be dangerous to police officers if suspects have an AIDS- or hepatitis-infected hypodermic needle in their pocket.

Millimetrix expects to market a closed-circuit surveillance camera model during 1999. This model will allow the police to see what people are hiding under their clothing whenever they pass in front of a mounted camera. Here a person's contraband can be detected as far as 60' away from the camera. Since this camera design can see through walls, it will have major use in hostage and military situations.

All technology has positive and negative impacts. One negative impact of this Superman-type of vision is that it will eventually allow for the illegal search of any individual that passes within 60' of a mounted detector. But a Los Angles Times poll reported that 58 percent of us support this technology if it can prevent terrorism and crime. For added reading

on this subject you might read George Orwell's 1984. The technology in the book is different, but in the wrong hands, our communications revolution devices could become the foundation of Orwell's 1984 reality.

## **Recalling the Facts:**

- 1. Name 5 types of contraband that the Passive Millimeter Wave Imager can detect.
- 2. How effective is this system for detecting weapons that are concealed under clothing in a person's luggage? Why?
- 3. What is the difference between an active energy and passive energy detection system?
- 4. What rights are protected under the Fourth Amendment and how can

this system cancel out these U.S. Constitution guarantees?

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