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Technology



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TEMPEST Technology: The Next Step in the Evolution of Technology and the End of Personal Secrecy and Privacy in our Homes and Work Places

Many people have no idea what TEMPEST technology is and yet, this could be the next biggest tool for espionage and spying on people since the microchip telephone bug was invented. TEMPEST technology in America is regulated by the National Communications Security Committee Directive (NCSCD), that has set standards for governmental electronics to protect against TEMPEST technology being used against us but this is not readily available to the American public. The main problem, however, is that most Americans don't know about TEMPEST or what it does.

Before going further we must first understand how TEMPEST works and how it came about into existence. Joel McNamara defines TEMPEST as " a U. S. government code word that identifies a classified set of standards for limiting electric or electromagnetic radiation emanations from electronic equipment." What TEMPEST technology does is take those radiation emanations and reads it from upwards of 1 mile away, then converts it back into a readable signal. In the case of radiation from a monitor or TV, TEMPEST technology reads the radiation from the screen and puts the images from the screen that it is reading from onto their screen showing whom ever has the technology what you are watching and working on.

The creation of TEMPEST technology dates back to the 1950's when the American government realized that these electronics emanated certain amounts of radiation and that it could be captured using other devices and so standards were set for governmental electronics to shield the radiation. In

the 1980's the National Communications Security Information Memorandum set the current standards for governmental protection against TEMPEST technology.

It's nice to know that the government is protected, but what about mainstream America and its millions of computer users, television watchers, and radio listeners? The fact is typical American users don't have any idea that this technology exists. At any given moment, any member of the U. S. government that has access to the technology could go park their van a mile away from your house, point their antenna at you and be able to see what you are watching on TV, what you are working on or watching on your computer, be able to know what you are printing on your printer, what you are listening to on your stereo, how many appliances you are using and most likely which ones they are. This is the kind of power that the American government holds over the public, they are able to invade our households, and our privacy, and we will not even know it. " They don't even need a search warrant to be able to use this since they are not actually invading your home in any physical way, although any information that they gather can be used against you in any way." (Personal interview)

So what is available to the public in way of keeping privacy and security in our homes? What is on the public market for us? According to Electronic Business:

Increasingly, peripherals, computer systems, communication links, and avionics must adhere to the strict TEMPEST standards which are designed to keep spies from penetrating radio frequency and electromagnetic

emanations from data processing hardware. TEMPEST has various forms: filter networks for capacitors and conductors, insulated connectors, tube shields and wire wraps which can keep antennas attached to satellites from receiving electromagnetic and radio frequency signals. Only members of the Industrial TEMPEST Program have access to the NACSIM 5100A technical standards. Due to the premium put on product design, TEMPEST products have a premium price. The IBM PC XT, which usually costs less than \$3,000 is priced at over \$9,000 if it will meet the TEMPEST standards. (Karlin)

As you can see, even if you wanted to have a computer that was protected against this technology being used against you, it would cost almost as much as a new car. It is outrageous that for an American citizen to maintain privacy and security, they have to pay three times more for equipment than that otherwise unprotected.

TEMPEST is not well known among American citizens. If you were to ask someone what TEMPEST is, they would most likely just stare at you blankly and not be able to provide an answer. This is unacceptable especially in the light that TEMPEST technology is most likely the biggest tool that the government has to use against any private citizen in violating our rights to privacy and security in our own homes. What you really have to think about is with no way of knowing if you are being watched, who really knows what you are watching or typing? How secure is everything that you put on your computer or print out on your printer? How much does the government know about you? For all I know, government agents are reading this even before I get to print it.

Bibliography

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Personal interview with anonymous.

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