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W police technology

# They are watching you, through walls, in the dark of night, while you walk around, and it comes from Vietnam

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Residents of San Jose, California, and Hoboken, New Jersey, are the season's newest TV stars. They will be appearing on live, 24-hour, closed circuit programs, broadcast to the local police departments from downtown business areas by cameras hidden in the area.

The sponsors of the new programs are the same government and industries that brought the \$3.25 billion "electronic battlefield" to Vietnam. While the war over there "Vietnamizes," the Nixon Administration is quietly "Americanizing" the war's technology, and the war on the home front escalates. The result: Americans, from marijuana smugglers to political dissidents to shopping housewives, are looking — though they may not know it — into the wrong end of surveillance devices that formerly spied on the Vietnamese.

Smugglers on the U.S./Mexican border also face a new obstacle to their trade. The U.S. Border Patrol is now flying Air Force "Pave Eagle" airplanes — unamned, remote-controlled drones — formerly used in the billion dollar Igloo White anti-infiltration program in Laos.

Flying over remote stretches of the border, the planes relay signals from hundreds of ground sensors to an "Infiltration Surveillance Center," where huge computers diagnose the data.

But, as in Vietnam, the sophisticated electronic systems cannot quite distinguish "friend" from "foe." A wandering burro can send the border patrolmen scrambling for their jeeps.

The ground sensors are adaptations of the devices used to detect the sounds and vibrations of the movements of troops and supply trucks on the Ho Chi Minh Trail. Their use on the Mexican border is reportedly a result of Attorney General John Mitchell's "interest in surveillance discoveries and techniques."

The sensors were deployed in the summer of 1970, when the Border Patrol, an arm of the Justice Department, received a proposal for a sensor surveillance system from Sylvania Electronic Systems of Mountain View, California, which had produced sensors for use in Indochina.

"The political implications of using surveillance equipment along a friendly foreign border," noted Sylvania, "have been considered by selecting equipment that can be deployed without attracting attention and easily concealed."

Other surveillance sensors are quietly sprouting up all over. Beeping madly if someone comes near them, they surround prisons, vital utilities, and industrial and governmental facilities.

Outside of Washington, electronic sensors are hidden in shrubbery inside a fence enclosing a "maximum security subdivision" of 67 homes, each costing over \$200,000. Westinghouse sensors ("You can be sure if it's Westinghouse") help the Secret Service guard the White House.

Another technological Vietnam veteran now coming home is a black box that sees through walls. Engineers at the Army's Land Warfare Laboratory at Aberdeen, Maryland, are modifying the PPS-14 "foliage-penetration" surveillance radar originally developed for spotting the "enemy" in the thick jungles of Vietnam.

(Initially set up to "meet high-priority material requirements in Southeast Asia," the Land Warfare Laboratory — with the Army's blessing — is now turning its attention to the needs of the police.)

Priced at \$6,500 each in quantities of 300, the radar is about the size of a cigar box and weighs less than ten pounds. Prototypes of the "Americanized" version of the radar, which will be capable of seeing through brick and cinderblock walls, will be available by the spring of 1972 for use in combatting "civic disturbances."

The police can already see through the dark, thanks to the "night vision" devices developed for Vietnam. From New York City to Kissimmee, Florida, police departments are using their new toys to perform covert night surveillance while on routine patrol. The devices, capable of amplifying light levels 40,000 times, were developed by American industry during the 1960's to meet the urgent needs of the military for detecting the night-fighting Vietnamese guerrillas.

The equipment was declassified, presumably at the request of the Justice Department, in 1969. Such military suppliers as RCA, Raytheon, and Aerojet General now sell police versions at prices ranging from \$2,000 to \$8,000 each, and the Justice Department's Law Enforcement Assistance Administration (LEAA) hopes to make available to the police a "Snooperscope" priced under \$600.

The enthusiasm of the police for night vision equipment is surpassed only by that of the electronics industry, where one executive has predicted that by the end of 1972, virtually all of the 40,000 police departments in the United States will be using night vision equipment.

The Electronics Industries Association has estimated the annual market in law enforcement electronics at \$400 million, most of which comes from LEAA grants. The police can spend their money on "command & control" systems, "voiceprint" equipment, mobile digital teleprinters, and laser fingerprint analyzers: a Dick Tracy bonanza.

At such annual gatherings as the National Symposium on Law Enforcement, Science and Technology, in Chicago, and the Carnahan Conference on Electronic Crime Countermeasures, at the University of Kentucky, engineers and governmental officials discuss the latest advances in police gadgetry.



During the latest Carnahan Conference, for example, engineers from Sylvania's Socio-Systems Laboratory reported on "The World's First Police Operated Low-Light-Level Television System." The equipment, which they claim is capable of discerning a man-sized object in extreme darkness from more than a half-mile away, has been installed high above the streets of Mt. Vernon, New York.

The Justice Department, which financed the project with a \$47,000 grant from its Law Enforcement Assistance Administration, hopes to assess the public reaction to 24-hour covert surveillance. "Only time will tell," concluded the Sylvania engineers, "if citizens will object to a 'Big Brother' type atmosphere."

But the Nixon Administration is not waiting for time to tell if citizens will object. Earlier this year, a study funded by the Justice Department recommended 24-hour television surveillance of city streets. The recommendation was made by a committee of the National Academy of Engineering, an elite group of cor-

porate engineering executives that advises the federal government on technological matters. (Interestingly, the committee members were executives of industries that would profit if their recommendations were accepted.)

To test the effectiveness of 24-hour TV surveillance, the committee urged the Nixon Administration to implement a pilot program involving the use of 140 low-light level television cameras deployed at every other intersection throughout an urban neighborhood covering two square miles.

Of the estimated \$1.5 million yearly cost, over \$600,000 would go for the salaries of 175 "viewers." These men — in addition to receiving two dollars an hour for watching the tube — would have the opportunity to zoom in on exciting street scenes, such as a game of handball or a goodnight kiss after a teenage date.

The current sensor and TV surveillance projects are small-scale, but the combined interests of engineers, industry, and government are pushing for rapid escalation, unimpeded by legal regulation.

"There is a great unrestricted area of electronic surveillance and electronic countercrime measures in which there needs to be expansion and further innovation," a government official told engineers at the 1969 Carnahan Conference. Generally no legal limitations on electronic surveillance of large public areas exist, he added, and "the challenge is wide open."

Paul Baran, an engineer with the Rand Corporation, warned in 1967 that by permitting the unrestricted adoption of sophisticated

technology by the police, "we could easily end up with the most effective, oppressive police state ever created."

Baran observed that "There is an unmistakable amorality which infects some of my engineering colleagues. That is, whatever we are paid to work on, we automatically rationalize to be a blessing to mankind ... Too many of my brethren think that merely because something can be built and sold, it should be." With unemployment among the colleagues at an all-time high, engineers are further motivated to work on anything they can get paid for.

Their corporate employers, faced with dwindling federal funds for aerospace and defense, are eagerly looking for new markets. Surveillance equipment for the home front is a particularly easy transfer of Vietnam technology.

Moreover, the hundreds of millions of federal dollars earmarked for law-and-order technology dwarf the few million available for such needs as environmental pollution control. To industry the choice is clear. The extent of its concern for the way technology can best serve humanity was succinctly expressed a few years ago by a vice-president of the giant Avco Corporation: "We have a modest amount of altruism and a lot of interest in profits."

During the 1960's, Yankee ingenuity, fueled by federal funding, transformed Jules Verne's fantasy — a man on the moon — into reality. Indications are that during the 1970's, the same thing will happen to George Orwell's fantasy, Big Brother.

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