



## CRIME ON TRANSIT SYSTEMS MAY DETER MOTORISTS FROM SWITCHING FROM CARS

Anxiety over crime on mass transit systems may generate a political whirlwind as fuel shortages force the auto commuter "off the freeways onto the ranks of captive ridership," warns a Carnegie-Mellon University social psychologist.

Robert Shellow, professor of urban affairs in CMU's School of Urban and Public Affairs, spoke at the recent 53rd Annual Meeting of the Highway Research Board. He described a security and surveillance system designed by a Carnegie-Mellon group to protect rapid transit riders from crime and harassment. If successful, it might well help overcome resistance to using mass transit and recruit motorists faced with the energy crisis.

"The federal government should take the initiative in responding responsibly to the public's need for protection while riding public transportation systems," Shellow said. Otherwise, the "affluent and politically influential" auto commuter-turned-transit rider "will do more than protest. He may very well heat up security as a public issue and pressure for its improvement with powers the inner city captive patron has been unable to muster. . . . The federal government will be criticized again for not devoting resources to a problem during the time that it was recognized and perhaps manageable," he said.

Shellow's address was an outgrowth of a study he and his colleagues made of crime, public attitudes, and system operation for an unidentified "large urban rapid transit system" which has "portions elevated, others at grade, and a few miles in tunnel. A surface bus system is also operated."

Working on the team headed by Shellow were James P. Romualdi, professor of civil engineering and director of CMU's Transportation Research Institute, and Eugene W. Bartel, assistant professor and assistant head of the Carnegie-Mellon Department of Electrical Engineering. The study was funded by the Urban Mass Transportation Administration.

The scientists call their proposed security-surveillance design a "Televue Alert System." Its components include:

- Movable barriers to restrict station platform area to the minimum space necessary for a reduced train length during periods of low ridership when crime is more prevalent.
- An emergency phone system to give the public a direct voice link with authorities and to trigger the Televue Alert System.
- Televue Alert Bars, freely accessible to rapid transit patrons, requiring an inconspicuous action to activate the TVA system without alarming an offender.

- Five closed-circuit TV cameras (four to give overlapping coverage of the limited platform level and a fifth at the turnstile exit) to provide monitor observers with "essential visual verification of any alarm condition so that false alarms could be screened out and the appropriate response initiated."

- Central monitoring equipment—five 9-inch screens and a large 17-inch screen for a detailed view of whichever scene the observer chooses; five video-tape recorders for recording camera views at an alert scene; and capability of transmitting any one of the five signals back to a station agent's console for use in identifying offenders and for later prosecution.

The central monitor observer, the scientists said, "has extensive telephone communication capability connecting him with police dispatchers, traffic supervisors, station agents, and victims or witnesses on the platform."

The Televue Alert System meets "the criteria for an effective link between the public and security forces . . . in such a way as to heighten the public's perception of security," they said. Its total cost "appears relatively small when compared to the construction and operating expenses of a rapid transit system, and compares favorably to the heavy costs of relying exclusively upon manned patrol."

(This opinion supports the tentative conclusion of a year-long study in Kansas City that more police does not mean less crime. However, that study, made under a \$461,244 grant from the nonprofit Police Foundation, says tests in other cities are necessary before arriving at a solid conclusion on the value of preventive patrolling.)

The patterning of crime was based on 18 months of transit crime as verified by police investigation. Commuting habits, attitudes toward transit service, and public views of transit security were obtained by a telephone survey of a scientifically selected sample of 1,556 city residents. Findings from both phases of the Carnegie-Mellon study figured in the design of the TVA system. Those findings were:

- "Crime appeared to be disproportionately located along the rapid transit portion of the system. . . .

- "The pattern of transit crime closely corresponded to high crime and high unemployment areas of the city.

- "Robbery on isolated elevated platforms during off-hours at those high-risk locales outranked all other crimes at other times elsewhere throughout the system.

- "Police response capability was severely hampered by gaps in the communications-response network on which unit dispatch is based. And . . . a major communication gap existed between the victim or witness of a crime and police headquarters . . . .

- "Crime on the system (especially on the rapid transit) was perceived to be a serious problem by a significant segment of survey respondents despite the fact that the robbery victimization rate on transit properties was estimated at one-third that for the rest of the city."

The last finding, said the researchers, "confirms the hypothesis that perceived security is at least as important as the reality of crime on mass transit."