

Philadelphia Fire Department

COMPLETE NEW RADIO SYSTEM INSTALLED

The City of Philadelphia took the lead recently in utilizing electronic developments to aid its Department of Public Safety and Civil Defense Council in measures designed to afford maximum protection in case of fire or a major emergency.

Mayor Bernard Samuel, Director of Public Safety Samuel H. Rosenberg, Fire Chief John C. Cost, and Edgar P. Grim, Chief of the Electrical Bureau, participated in dedicatory exercises marking the opening of the nation's newest and finest fire control communications system.

The radio system, installed at a cost of \$87,000, places at least one piece of apparatus in every fire company in the city in direct two-way contact with Station KGB-476 which is located in the city's Electrical Bureau Communication Headquarters. The equipment was designed and built by the Radio Corporation of America to double as an emergency dispatch network under plans approved by the city's Electrical Bureau and the Defense Council.

Director of Public Safety Rosenberg pointed out that the new radio system gives the Fire Bureau six separate channels of communication between City Hall and the various fire stations and vehicles. It supplements existing public and private telephone installations, primary and secondary jockey systems (telegraph circuits), and a public address system to every fire company in the city.

The new two-way FM mobile radio communications system is likely to become the city's best means of communications in case of an enemy attack of any kind, contributing to the safety of nearly 3,000,000 persons living within the metropolitan Philadelphia area, Mr. Rosenberg stated.

"In the event that one or more of these systems suffered a breakdown," he said, "there would always be an auxiliary means of communication. It is not neces-

sary to be an alarmist to recognize the advantages of another communication system for any civilian defense need which may arise."

Major Gen. Norman D. Cota, Philadelphia Civil Defense Director, declared the new radio installation was "a great step forward" in defense planning.

Chief Grim described the installation which includes two complete radio stations. One station is installed in the Electrical Bureau's communications room in City Hall, with its dual antenna mounted atop the Penn statue on City Hall tower. The second station is located at 46th and Market Streets in a new Electrical Bureau radio facilities and radio repair shop structure. It will transmit from an antenna located on a 250-foot tower adjacent to the station.

Each of the two transmitting and receiving headquarters stations has been provided by RCA with two Type CT-6D 250-watt transmitters, six Type CR-16A station receivers, two custom-built con-

soles, and specially constructed cabinets containing elaborate automatic switching controls. The latter provide complete control of all transmitters and receivers from either or both stations.

The dual transmitting system at both headquarters stations assures the city of maximum protection in case of air attack, Chief Grim pointed out.

Station KGB-476 has a special five-sided transmitting booth, approximately 18 feet wide and 10 feet deep, set up in a commanding position within the Electrical Bureau's communications room on the sixth floor of City Hall. The booth is sheathed in stainless steel, except for the large plate glass windows. The interior is lined with celotex blocks for sound-proofing.

Control operations are centered in a dual-position console mounted on a steel desk in the booth. On either side of a center panel, containing a clock and the call letters of the station, are twin control positions. Each provides the following functions: a loudspeaker to reproduce messages from the mobile units, a meter which indicates carrier level when the transmitter is on the air, a second meter to indicate percentage of modulation of the transmitter, a second speaker for intercom use, and two lever-type switches connecting the intercom speaker with either the dispatcher at the fire alarm board or the remotely operated transmitter in City Hall tower. In addition, there are two lever switches at the lower right of the control console, one providing facilities to turn the transmitter carrier on, while the second permits use of either an 800-cycle alerting tone or voice modulation by the operator. A pilot light at the top of the console

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ONE OF TWO COMPLETE RADIO STATIONS OF THE PHILADELPHIA FIRE DEPARTMENT and Civilian Defense Council. Radio and fire alarm operator, James Nichols, is shown at the control console of the station in City Hall.