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"CALLING ALL CARS"

Communication in The Ohio State Highway Patrol

Donald S. Arnold, Ch. E. 3

With the phrase "calling all cars" many people immediately associate screaming sirens, cracking revolvers, and the subsequent capture of the criminal. At least this is what the various radio and movie thrillers would lead one to think of the police radio systems. But when the radios with short wave, as well as the regular long wave broadcast reception, were first placed on the market, a large part of those who purchased them were soon relieved of this idea. Occasionally the persistent or fortunate ones would witness the radio direction of a man-hunt but these were and still are in the great minority. Essentially it is "man beating wife," "accident at the corner of Main and Walnut," "suspicious character lurking in the vicinity of the 1200 block on Washington Street", etc. if you happen to be listening to the city police transmitter.

The majority of the reports of our state law enforcement agency, the Ohio State Highway Patrol, are not even this dramatic, although they are just as important. Theirs are more in reference to traffic accidents, conditions, and violations, apprehension of fugitives who have committed minor felonies, and in certain seasons the road and highway conditions. To many it would seem rather uninteresting listening. If you have ever tried to tune in on one of the stations (they can be heard in almost any part of the state, even on the ordinary radios) you will realize what this statement means. Usually the transmissions are irregular, unscheduled, and of short duration. This is possible since every district station has men on duty continuously and the others (sub-stations, sheriff offices, municipal police, etc.,) have men on duty from 8 a. m. to 11 p. m. In this way if there are any messages they may be sent through immediately without any delay whatsoever. Exceptions to this are the regular scheduled summaries of the night transmissions for those stations which close overnight, and also the daily road reports issued in the seasons of bad weather.

With the modern high-powered automobiles, smooth roads, and other means of rapid transportation at the disposal of the criminal, it is necessary that the law enforcement agencies have some method of counteracting this advantage. They find this in the almost instantaneous communication offered by telephone, telegraph, radio telephone, radio telegraph, and teletypewriter. The radio is the chief of these at the present time but it must be supplemented by the other two.

Unlike the telephone the telegraph carries the message in a series of "dots and dashes" or buzzes which are grouped in a code to carry a definite meaning as each group represents a letter or number and operates over a wire connecting the two stations while the radio telegraph, radio code, or "CW", use the series of buzzes on radio, or wireless transmission.

These instruments are to the police agencies what the nervous system is to the human body. They inform the central station of the happenings and the conditions at all points of the state, coordinate the members, and send assistance where needed.

The Ohio State Highway Patrol uses the radio supplemented by the telephone and teletype. The radio transmitters are placed at five different points about the state, the district stations, to secure the best coverage. They are at Cambridge, Massillon, Wilmington, Findlay, and just northeast of Columbus.

The district stations all broadcast on the same "intra-state" frequency. In order to avoid confusion in two or more transmitting simultaneously, it is necessary to obtain permission to broadcast, "clear", from the headquarters station at Columbus. This insures against any two using the frequency at the same time and takes but a minute. There is an operator at each district station assigned to this frequency with one receiving set tuned to receive this, and only this, frequency.

This operator has, besides his receiver and his transmitter controls, a typewriter to prepare his records, and in the Columbus station, a teletype machine which connects him to the Bureau of Motor Vehicles in downtown Columbus.

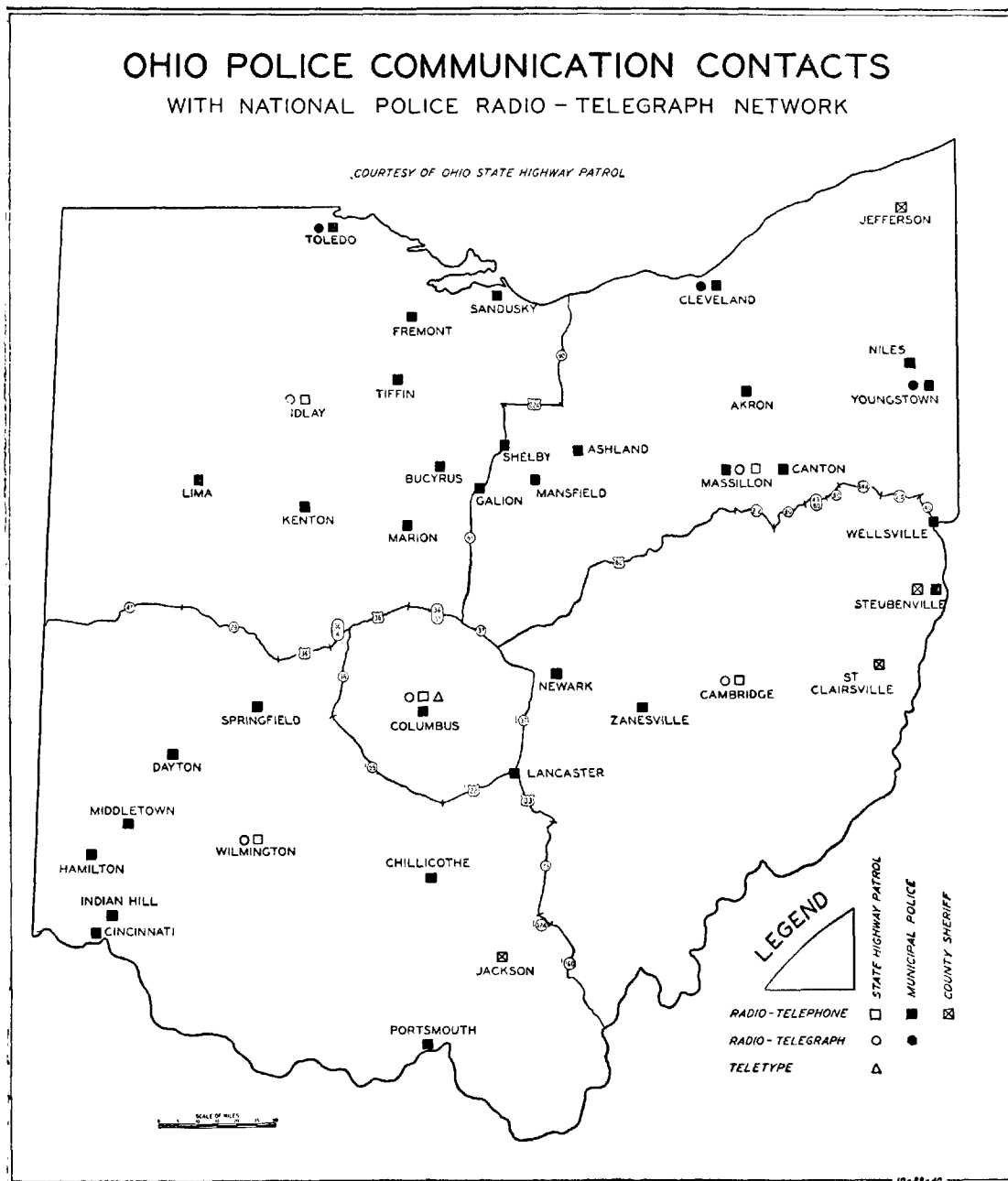
Frequently when a vehicle is stopped such as for excessive speed, suspicion, etc., the registration of the license, motor number, and operator's license are checked with the files of the License Bureau. This service is also used in obtaining more complete information on any of the above subjects if a part of it is known and more desired. The officer desiring the information, verification, correction, or check, (he may be a city policeman, county sheriff, state patrolman, constable, or any officer; yes, even the F. B. I. uses this information) sends his request to the nearest district station by the most convenient means at his disposal. This may be by radio, telephone, telegraph, or personal call. The district station sends the request to the Columbus station by radio telegraph from where

it is in turn relayed to the Bureau by teletype. The desired information (and more) comes back to the Columbus radioman in from two to five minutes. He sends it on to the District by CW which in turn relays it to the one who originally made the request. All of this procedure requires approximately ten minutes. This is especially valuable in checking stolen and abandoned automobiles.

As station to station and district to headquarters (at Columbus) messages are sent by CW, there is one of the operators on duty at each station assigned to this task. He has a special intra-state frequency assigned to him just as the radio phone man has. The messages from the various district stations to substations are made in voice, as are messages for officers in the district and general statewide messages. Naturally emer-

gency messages take precedence and are sent by the most expedient and efficient system available.

In addition to being the "clearing station" for the state, the Columbus station acts as the intermediate station between those states which are connected with the eastern teletype system and those which are not (those states west of Ohio and those south of Virginia). Those stations which are not connected contact the Columbus station by CW on a definite interstate police frequency. The messages to be relayed to the eastern district of the nation are sent on to Pittsburgh by teletype. From there they are placed on the eastern teletype system. The reverse procedure is followed for westbound transmissions. There is another of the radiomen on duty (at Columbus only) assigned to this frequency and the responsibility it involves.



At the present time both the CW men use the same transmitting equipment but have individual receivers. The transmitter has an automatic control whereby it may be set for any one of ten different frequencies merely by dialing a number (one to ten) on a dial similar to that found on a telephone. One set of frequencies is used during the day and a second set for night transmissions. The purpose of the frequency selector is to secure better reception, by the use of different frequencies under different conditions, and to transfer from one communication system to another with a minimum of time loss.

The installation of ten different transmitting sets, "channels", whereby ten different frequencies may be "worked" simultaneously has been planned. As the situation now stands, only one message may be sent out at a time on the CW.

At the present time there are 196 patrolmen on the force operating about 80 cars. Considering time off, eating, sleeping, etc., there are only about 85 to 90 men on duty at one time. All men are subject to call 24 hours a day depending upon the conditions. This is required due to the relation of the size of the active force (those on duty) to the area that they must cover—41,040 square miles. It is hoped that the force required to meet such requirements adequately, about 500 men, will eventually be attained.

At the present time the cars and the motorcycles of the state patrol are equipped with receiving sets tuned to the intra-state frequency, that is, to the highway patrol voice broadcasts. Numerous municipal police, sheriffs, and constable offices are also so equipped but the state dispatcher can order, and thus depend upon, only the state patrol cars; the others cooperate when convenient.

Some cars are equipped with "two-way" radio sets; that is, they have, in addition to the standard receiving set, a small transmitter installed in the patrol car. The ranges thus far covered vary from 30 to 60 miles depending upon geographical and atmospheric conditions. The most notable example was a two-way communication between the patrol car at the Harding Memorial Monument and the Columbus station. Reception from that point was excellent but at that distance the reception tends to become spotted. That is, there are a number of "dead areas" from which transmission is unsuccessful. The reception within the 30-mile radius has been very satisfactory. After these tests are completed, it is hoped that all cars may be equipped with two-way communication, thus making it possible for the dispatcher to know exactly the locations of the various patrol cars rather than guess at it as he now must.

With that acquired, a large electrically operated map whereby the dispatcher may light up the intersections at which he has patrol cars located will be considered. With it he may tell at a glance how well his blockade is organized and just how long it will take a car to reach

a certain destination and which car to dispatch on that mission. It will eliminate much of the guesswork that now lies on his shoulders. It will provide a more accurate and greater coordination between the various units of the patrol.

At the present time, the city of Columbus has six of its 11 cruisers equipped with "two-way" sets. The others have receivers only. Cleveland, Canton, Steubenville, and numerous other Ohio cities have adopted this idea and found it quite advantageous. The greater range covered by the state patrol makes it more difficult to find equipment that will meet specifications. Connecticut is the only state to equip its patrol with two-way radio and it is still in the experimental stage.

The radio system permits faster, greater, and more efficient patrolling and policing of the state highways. The instances which prove this statement are to be found in the files of any of the district stations. Two of them are mentioned below.

One evening last September in Delaware, Ohio, a colored man shot and fatally wounded his girl friend because she "wasn't true to him." After the shooting he stole an automobile and fled into the network of country dirt roads to the southwest. As he neared the main highway, U. S. route 42, he removed the license plates from a farmer's car and placed them on the one he was driving.

Meanwhile, the Delaware Police Department sent a report of the crime with a description of the stolen car and the license numbers to the highway patrol station in Columbus. The Columbus dispatcher prepared the blockade by ordering (by radio phone) patrol cars from the Marion, Mansfield, Mount Vernon, and Springfield sub-stations as well as those from the Columbus station to key road junctions.

Several hours later as the fugitive, with his new license plates, was fleeing southwest on U. S. route 42, he was apprehended by the patrol car sent to the junction of U. S. 33 and U. S. 42.

The officers reported the capture to the Columbus station by telephone. The station in turn notified the Delaware police as well as the other state patrol stations of the capture and ordered the cancellation of the original message. In addition, it ordered one of the two-way radio cars that happened to be in that section of the district to meet the officers with the suspect. When it reached the first car, it contacted headquarters in Columbus and verified the description of the man with the Delaware police via Columbus. This entire operation took the highway patrol just a couple of hours from the time of notification to the time of apprehension.

An even more striking example of the speed with which the system operates is indicated by the recovery of a stolen truck from Ashland, Ohio. At 3:59 p. m. November 11, 1940, the Massillon district station re-

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laid to Columbus the Ashland Police Department report of a truck stolen in that city at about 2 p. m. the same afternoon. The license number, a general description of the truck, and a statement of the presence of \$600 worth of weatherstripping tools and \$300 worth of materials in the truck were included in the report. The Columbus station sent the message out to the state at 4:02 p. m. and it was repeated by the district stations in the affected area.

At 4:33 p. m. the Findlay district station reported to the Columbus headquarters that they had received a telephone report from the Marion sub-station that their patrol car had intercepted and recovered the vehicle and had made one apprehension. At 4:35 p. m. the Columbus dispatcher transmitted a cancellation report and the method by which the owner might recover his truck to the Ashland police by radio via the Massillon district station. This was followed by a general all-state cancellation of the message.

This recovery required an hour and 34 minutes between the time of the receipt of the stolen report at

the Columbus station until the receipt of the apprehension notice at the same office. This is a remarkable accomplishment that is virtually impossible without the assistance of radio and amazing even with it.

Although these are exceptionally rapid solutions, many of the others are made possible by the aid of radio and supplementary communication. The importance of this feature of highway patrol work is realized when it is noted that the Federal Bureau of Investigation estimates, or considers, that a fugitive can travel approximately a mile a minute in a recent model automobile.

From this one may conclude that the radio and the supplementary forms of communication are very essential in the law enforcement activities of the Ohio State Highway Patrol and the police system of the entire state in general.

References

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