

GENERAL MOTORS CORPORATION

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WASHINGTON, D. C. 20006

Ernest L. Barzella  
Washington Manager

July 13, 1966

The Honorable  
Winston L. Prouty  
United States Senate  
Washington, D. C.



Dear Senator Prouty:

Because of your interest in traffic safety, I thought you would like to see the attached announcement concerning another General Motors development to advance motoring safety.

Sincerely,

*Ernest L. Barzella*

FOR RELEASE      AFTERNOON NEWSPAPERS OF WEDNESDAY, JULY 13, 1966

Warren, Mich. — General Motors Research Laboratories demonstrated a new experimental road-vehicle communications system today that would remind the motorist of speed and traffic signs, enable him to summon help in an emergency, and provide automatic routing for trips.

Dr. Lawrence R. Hoistad, vice president in charge of GM Research Laboratories, pointed out that the new system, known as Driver Aid, Information and Routing System, is the most comprehensive yet developed for highway communications. It incorporates these features:

1. Coded emergency messages from car to automatic recorders in a service center, with voice acknowledgment from the center, and voice radio communication from car to service center and service center to car.
2. A roadside-to-vehicle communication system that transmits audio signs. These voice messages to the driver can include emergency traffic bulletins about the road ahead, as well as information on upcoming accommodations and service facilities.
3. A visual sign minder, triggered by roadway signals from magnets or low-frequency transmitters which repeats highway sign information on a panel display inside the car.
4. A route minder that guides the driver to his destination without use of maps. Equipment includes a programmed in-car route selector and route direction indicator activated by coded roadway signals.

Dr. Hoistad explained that the system operates on FCC Citizens Band radio channels and its various features could be made available either as a single package or as separate compatible building-block units.

In today's demonstration, GM Research Laboratories used two 1965 cars with the complete equipment. They were driven over a condensed version of an Interstate highway system at GM Technical Center, complete with an information center for two-way radio communication, coded magnets buried in the pavement and low frequency roadside repeater transmitters.

In each of the two test vehicles was a special console, consisting of (1) a small microphone for voice communication with the information center, (2) a telephone-type dial for sending out coded messages and (3) a slot for the route minder punch card. The visual sign minder was mounted over the instrument panel in line with the driver's vision.

For the route minder, the driver uses a special card punched for his destination. The card fits a slot in the console. The routing equipment is activated by signals from magnets buried in the road at each major intersection, and compares the signals with the punched instructions on the card. Panel lights tell the driver whether to turn left, turn right, or go straight through. With all major intersections coded, it would be possible to travel across the U. S. by the system's direction.

A modified Citizens Band transceiver provides communication with a service center. The motorist can dial coded requests for road or travel information, police, and ambulance, a fire truck or a tow truck with gasoline and a mechanic. Small roadside repeaters located every three to five miles relay the message; a base station operator acknowledges direct by voice and dispatches the aid requested.

The coding system would protect the driver and his family, since it would be difficult for unauthorized persons to receive information on the stranded car's location. And, the Citizens Band transceiver can still be used for voice communication -- both with the service center and other operators -- in the regular manner.

Audio signs are transmitted on one of two proposed highway safety channels in the Citizens Band. Low-power roadside units transmit information on the road ahead, upcoming accommodations, and service facilities. The units contain taped messages and also can be activated for transmission of live emergency messages from a control center.

The car's receiver is turned on by pulses from buried magnets, and turns off automatically after a message is received.

The visual sign minder also is triggered by magnets. Posted speed limits and such traffic signs as stop, yield, railroad crossing, and curve are repeated on a display panel in the car. The driver is alerted by a "beep". The sign minder is designed to supplement -- rather than replace -- existing traffic signs.

Equipment for the driver aid system, developed by the Electronics and Instrumentation Department at GM Research Laboratories, is based on existing technology, Edward F. Weller, department head, said.

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July 14, 1966

Mr. Ernest L. Barcella  
Washington Manager  
General Motors Corporation  
802 Cafritz Building  
Washington, D.C. 20006

Dear Mr. Barcella:

It was kind of you to send me your letter of the thirteenth, together with the copy of the announcement about your most recent motor safety device.

I am certain this is the kind of thing the Commerce Committee and the Senate had in mind when we acted on automobile safety legislation.

Sincerely yours,

Winston L. Prouty  
United States Senator

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