

# GO WEST

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## The Medium Has a Message

Money and imagination go hand in hand for this new development in the parks field. An investment of a few thousand dollars, applied communication theory and voilà, any park can transform a visitor's car into a mobile interpretative laboratory.

What we are talking about is low-power AM transmitting devices which beam messages to car radios. The idea of using radio to communicate with car-bound vacationers was first tried at Yellowstone National Park, Wyoming, about 4 years ago. Since that time, several other states have experimented with the concept.

At Yellowstone, the park has decided to develop a full-scale mobile communications system to interpret park areas to motorists and to provide them with warnings of traffic conditions and park rules.

Stanley G. Canter, assistant chief park naturalist at Yellowstone, explains how they got the project started out there. "We had kicked around the idea of using radio transmissions for several years. Then in 1968 a local electronics firm gave us 6 transmitters built to our specifications. These, coupled to message repeaters, formed the basis for our experiments during the next two years.

"Field tests got underway when we installed a string of transmitters along a 5-mile stretch of one-way road. This 'auto nature trail' interpreted features along the road just as leaflets and signs are used along more traditional nature trails."

The transmitters being used in Yellowstone are capable of broadcasting on any frequency between 550 and 1605 kHz at powers of 100 mw.

Not only is this new aspect of radio communications opening interpretation of natural areas to motorists, but the idea of being able to communicate with hundreds of motorists without having them stop their cars is a patrolman's blessing. Recently in California, for example, a segment of Interstate 5 was rerouted due to earthquake damage to the road. The California Department of Public Works, Division of Highways, used the Info Systems transmitters at the scene of the detour advising motorists of the length of the delay.

Ray O. Perkins, Jr., assistant highway engineer for the state, comments on the system. "Since roadside radio was a new experience for the motorists, we decided to conduct a public opinion survey. From approximately 1,000

cards handed out we got the following results: Seventy-six percent of the respondents said they attempted to receive the radio information (signs had directed motorists to tune to 810 kHz for traffic information). Seventy-two percent of those attempting to get the radio information indicated they had no difficulty in receiving it. The remaining percentage of motorists polled either did not attempt to tune in, did not have radios or did not receive adequate reception."

However, Perkins says that from the results of the survey, people wish to receive information for unusual traffic conditions via roadside radio. Once exposed to radio as a means of receiving traffic information, the pollees prefer it.

Similarly, back at Yellowstone, Superin-

tendent Jack N. Anderson reports that the use of the radio system there has improved the traffic controlling efficiency of the park rangers. "On a busy day, we can move cars through our entrances nearly twice as fast as we could before these transmitters were in operation," he said.

George B. Hartzog, Jr., director of the National Park Service, has said that the broadcasts will be most helpful in implementing the Service's increased emphasis on safety. At Yellowstone, for instance, motorists will be warned not to approach bears, and reminded that it is unlawful to attempt to feed them.

As an example of the flexibility of the system, Yellowstone Park is creating a radio zone along the route through the park. The messages from one zone to another will be changed, but the radio in the person's car remains tuned to the same frequency.

A complete transmission system would likely consist of the following units:

\* Transmitter – 100 mw power with 300 - 3,000 Hz frequency range for voice message units and an extended frequency range for music reproduction.

\* Power supply – the transmitter and power supply are sold together, but can be physically separated for a distance of 30 feet so that the transmitter can be mounted on a pole or other high place. Both the power supply and transmitter are all-weather protected and insulated.

\* Message unit repeater – this device, similar in certain respects to cassette or 8-track cartridge units, consists of a player and tapes wound so they repeat when the message is finished.

Prices for system components are:

AM transmitter w/power supply, antenna, mounting brackets and connecting cables – \$795.

Tape-repeater – \$395; tape recorder/repeater – \$495.

Other accessories include photocell units to automatically turn on and off the transmitter, battery units, timers, differing repeaters and message units and microphone units.

In addition to the equipment, which is made



A warning or interpretative message is beamed to visitor's car radio.

(Continued on page 62)

## GRIST

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(From page 61)

by Info Systems, the company also offers 4 options for the messages themselves.

\* Option 1 — the company secures the information, writes the script, produces and records the original message.

\* Option 2 — the company writes the script from information furnished them and produces and records the message.

\* Option 3 — script is furnished, company produces and records only.

\* Option 4 — original message is furnished already recorded, company merely duplicates tapes.

Prices for these services range from \$5 for a 5 minute Option 4 duplicate tape to \$120 for a 15-30 minute Option 1 production.

More information on the Info Systems transmitters can be obtained by contacting Terry Fox at the company, PO Box 1252, Bozeman, Montana 59715 [406-587-0451].

International Telephone and Telegraph Corp., Industrial Products Division, also manufactured the low-power AM transmitters, some of which are still in operation at Yosemite National Park, California. However, spokesmen for ITT have stated that the company is now out of the business of manufacturing these items except in the event of a large-scale contract.

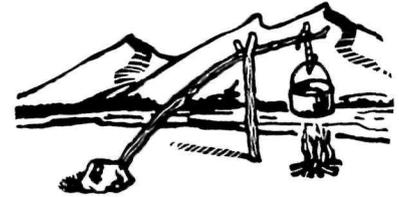
## CAMPING FOOD CATALOG

Chuck Wagon Foods of Massachusetts has a new camping meal catalog which lists 15 separate and complete meals. The meals are intended for back-packers and others who must conserve weight and space. The foods require no refrigeration and are guaranteed fresh for 12 months. The meal packs are portion-packed in waterproof plastic containers, which the manufacturer states are completely disposable — you burn them.

The company estimates that for 2 campers per day, the meals average \$1.42; for 6 campers, the meals average \$.82 apiece. Each meal pack measures 9x6x2" and weighs less than 6 oz. per meal per camper. The meals come ready for any number of campers from 2 to 6.

The company also offers freeze-dried meats, meat salads, fruits and vegetables. Up to 98% of the liquid content of the food is removed in a low temperature vacuum process. The freeze-dried items are available only in cans.

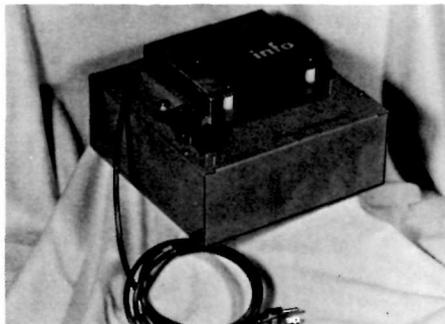
In addition to high calorie candy, fruit tear sheets and an enormous listing of staples and processed foods, the company sells a con-



centrated food kit designed for emergency use. Each food item in the kit was selected for its compactness, flavor and high nutritive value (guaranteed caloric content of the kit is 900 calories). Three of the items in the kit were especially designed for military use: the non-melting tropical chocolate bar; the starch jelly bar; and the compressed cereal bar.

The kit comes in a scrim pouch (a laminated pouch material consisting of polyethylene, aluminum foil and cloth). The pouch will preserve the food for 12 months and is waterproof.

Each kit weighs 8 ounces and sells for \$2.00. A copy of the camping food catalog and further information may be obtained from Chuck Wagon Foods, Micro Drive, Woburn, Mass. 01801 [617-729-7450].



This audio-message repeater connects to the transmitter via cable and functions as an 8-track stereo cartridge.

Information about the ITT devices, though, can be obtained by contacting ITT at 15191 Bledsoe Street, San Fernando, California [213-362-1511].

Other sources of information about AM lower-power transmitting can be obtained from the following agencies which are considering the use of or are already using similar systems: The Montana Highway Department, which is using interpretative radio transmitters at rest stops on its Interstate freeways; The Los Angeles Highway Division, Freeway Operations, which is intending on establishing a 16-mile radio information zone on a section of the San Diego Freeway; Yellowstone National Park, where the system is about to expand to include the entirety of the park; Yosemite National Park, which was a pioneer developer of the system; and the California Department of Public Works, Division of Highways, which is using the transmitters to direct rerouting of traffic through earthquake-struck freeway sections in the state.



The transmitter is equipped with a whip antenna and mounted high to increase its transmission range.



Mounted indoors or alongside transmitter outside, this unit furnishes the power.