

591 Landon Court
Fairfax, Virginia

3 February 1965

Mr. Stewart L. Udall
Secretary of the Interior
Department of the Interior
8th and C Streets, N.W.
Washington, D. C. 20240

Dear Mr. Udall:

I would like to suggest for your consideration, the initiation of a new kind of historical marker program. The suggested system appears to offer substantial gains in the enjoyment and educational value of highway travel in our country. Preliminary examination of technical and economic questions is encouraging.

PROBLEM

The pleasure of sightseeing by automobile is enhanced in many localities by roadside historical markers and other informative signs concerning points of interest. While such signs can add greatly to the interest of a trip, they often present the traveller with a dilemma. He would like to stop and read each sign, but such a practice conflicts with driving schedules and increases exposure to being overrun by following vehicles, particularly in places where there is not adequate space to get off the road. An attempt to read "on the fly", on the other hand, often results in either lost information or a need to stop and back up or otherwise return to the sign. Attempts at non-stop reading can be particularly hazardous for the lone driver.

It can be seen, then, that the value of conventional roadside markers is partially offset by their inducement to frustration or hazardous driving practice. These problems are intensified on high speed roads such as are being built increasingly. Recognition of these problems has apparently led modern highway planners to generally ban all but turn-off and mileage markers from rights-of-way. Consequently, while our ability to travel increases, the amount we can learn by such travel diminishes.

POSSIBLE SOLUTION

It is proposed that local background information be made available to travellers by radio. Instead of a roadside marker, a low power, unattended transmitter could be used to repeatedly broadcast a short recorded message. In place of the small alerting sign that says "Historical Marker - 300 ft.", there would be one saying, for example, "Radio Marker - 720 kc.". The inquisitive traveller could then tune in for a minute or two's briefing on local points of interest or historical events.

The convenience of such a service from the traveller's viewpoint must, of course, be weighed against economic considerations and possible frequency allocation problems.

ECONOMIC FACTORS

Each of the proposed radio markers would consist of a transmitter and a repeating playback device, perhaps like those used to dispense weather information in the telephone system. Each unit would operate unattended from commercial power and would be designed for ground-wave transmission to vehicular radios at distances up to about one mile.

I have not investigated the manufacturing costs of such devices, but would expect they could be produced at a unit cost below one hundred dollars. The cost of electrical power, periodic maintenance, and occasional repairs is, of course, strongly dependent upon equipment construction details and the availability of a suitable servicing agency. A figure of fifty dollars per unit per year would not seem unrealistic.

If the estimates above bear up under closer examination, the costs of providing a radio marker would appear competitive with the cost of constructing a historical marker and maintaining it against the elements and occasional acts of vandalism.

It is suggested that commercial messages should be strictly prohibited from this class of broadcasting, on the grounds that they would be incompatible with the short duration of the message and would not be needed in view of the modest expenses involved. Aside from the possibility of any federal funding, I believe that in most localities there would be more than enough interest on the part of state and municipal governments, historical societies, and other civic organizations to underwrite programs of this type.

FREQUENCY ALLOCATION

The suggested radio marker scheme would be significantly less appealing if it conflicted with the existing allocation of broadcast frequencies. Without looking into this very deeply, it would appear that with their low power requirements, the proposed radio markers could be spacially interleaved in the fringe reception areas of existing broadcast stations without significant interference outside a limited area. My back-of-the-envelope calculations suggest that radio markers could use the same frequency at intervals of as little as fifteen to twenty miles without significantly interfering with each other. Thus, a single frequency could be used over and over within a given region.

An alternative to integrating the radio markers into the existing frequency distribution would be to allocate one or more frequencies to this function for the entire country. This scheme does not appear to offer as efficient a utilization of the broadcast band as does the integrated approach, but would facilitate pushbutton tuning of vehicular radios.

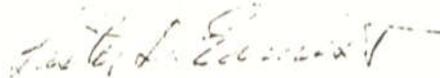
CONCLUSION

The system outlined above appears feasible up to the level I have examined it. Radio markers would offer a useful public service and would apparently be economically viable without need for commercial support. It appears that this service could be developed without disrupting the existing broadcast frequency allocation. The prospective increase in interest and educational value of automotive travel would nicely complement our burgeoning interstate highway system.

If the suggested system appears attractive to you, I would recommend that a more comprehensive examination of the economic and frequency allocation questions be undertaken as a basis for deciding whether to encourage the development of such a system. I should think that the staff of the Federal Communications Commission would be in a position to make such a study.

If I can be of any help in amplifying the suggested scheme, I will be happy to do so. My telephone number during weekdays is 524-9504, extension 302.

Very truly yours,


Lester D. Earnest

LDE:cmr

cc: Mr. E. W. Allen
Chief Engineer
Federal Communications Commission



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

K1815-01A

MAR 25 1965

Mr. Lester D. Earnest
591 Landon Court
Fairfax, Virginia

Dear Mr. Earnest:

Your letter to Secretary Udall in which you propose a system of highway "Radio Markers" was referred to the National Park Service, which is the Government agency most closely associated with interpreting the historical heritage of our country.

We are thoroughly in accord with the basic premise on which your proposal is based, and your analysis of the need is most convincing. We have been experimenting with a method of providing information and interpretation for visitors to the National Parks similar to what you propose. We recognize the technical feasibility of "Radio Markers" but have had to weigh a number of practical difficulties against the possible advantages. The matter of both installation and maintenance costs has been the primary obstacle to our making experimental installations.

Your proposal for a nationwide system of "Radio Markers" along major highways, however, deserves serious consideration, since such a system would indeed make traveling by car much more interesting and enjoyable. It would certainly also be in harmony with President Johnson's effort to beautify our highways.

Insofar as our own program is concerned, we are going to pursue this matter with the Federal Communications Commission.

Obviously we do not have authority to extend our efforts beyond the National Park System. It is possible that the states themselves might want to utilize such a method, which would be an extension of the published guides to state historical markers published by a number of the states.

Sincerely yours,

ASSISTANT Director