

Travelers Information Station

New class of radio station called Travelers Information Station established, to operate on frequencies 530 and 1610 kHz. Stations will be non-commercial, localized near air, train and bus terminals, public parks, highway interchanges, bridges, tunnels, etc. They will use low power transmitters feeding "leaky" cable or conventional vertical antenna systems. Signal coverage confined to 3 km.

F.C.C. 77-414

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

In the Matter of

Amendment of Parts 2 and 89 of the Rules to Provide for the Use of Frequencies 530, 1606, and 1612 kHz by Stations in the Local Government Radio Services for the Transmission of Certain Kinds of Information to the Traveling Public

Docket No. 20509

Amendment of Parts 2 and 73 of the Rules to provide for Use of Frequencies 530, 1606, 1612 kHz by Community Access Non-commercial Stations for Locally Produced Public Affairs, Musical, Dramatic and Cultural Programming

RM 2704

REPORT AND ORDER  
(Proceeding Terminated)

(Adopted: June 10, 1977; Released: June 20, 1977)

BY THE COMMISSION: COMMISSIONER HOOKS DISSENTING; COMMISSIONER QUELLO DISSENTING AND ISSUING A STATEMENT; COMMISSIONERS WASHBURN, FOGARTY AND WHITE CONCURRING IN THE RESULT.

1. A Notice of Proposed Rulemaking in Docket No. 20509 was adopted by the Commission June 4, 1975.<sup>1</sup> In that Notice, the Commission proposed regulations which would establish a new category of station to be called a "Travelers Information Station" (TIS) to operate on 530 kHz, 1606 kHz and 1612 kHz. For reasons given herein, the two frequencies 1606 kHz and 1612 kHz are being deleted and replaced with a single frequency 1610 kHz. Accordingly, the frequencies 530 and 1610 kHz are being allocated in this proceeding for the proposed use. The rules adopted herein will establish an efficient means of communicating certain kinds of information to travelers over low power radio transmitters licensed to Local Government entities. No commercial operation of these stations is intended or permitted.

<sup>1</sup>40 FR 25601, June 17, 1975.

2. Interested persons were invited to file comments by August 18, 1975, and reply comments by September 5, 1975. Pursuant to motions filed by Halstead Communications, the National Association of Broadcasters and the United States Department of Transportation, the period for filing comments was subsequently extended to October 17, 1975, and for filing reply comments to November 18, 1975. In response to a motion by Halstead Communications, Inc., the periods for filing comments and replies were further extended to October 31, 1975, and December 1, 1975, respectively. Parties filing comments in this proceeding are listed in Appendix A. For convenience, they are arranged into the following six groups: (1) broadcasting industry, (2) local/state government agencies, (3) business associations, (4) equipment manufacturers, (5) travel/recreation industry, and (6) individuals.

3. Of approximately 140 comments received, about 50 percent oppose and 50 percent support the proposed rules. Supporting the proposal were local/state governments, various business associations, equipment manufacturers, travel/recreation industry, and various private individuals. Opposition was primarily from the broadcasting industry.

#### BROADCAST INDUSTRY COMMENTS

4. Strong opposition to the proposal was expressed through comments received from individual radio stations and associations representing broadcast interests. Their principal arguments are that the proposed radio service (a) would duplicate information carried over existing broadcast stations, (b) would have an adverse economic impact upon broadcasters, (c) would be a waste of tax revenues, (d) has no established need, and (e) is legally questionable.

##### *Duplication of broadcasting service*

5. It is asserted by broadcasters that Travelers Information Stations will only duplicate information now carried on all broadcast radio stations; that comprehensive weather reports, reports of traffic conditions, names of gasoline stations, restaurants, and lodging conveyed through advertising, and other pertinent traveler's information are presently being broadcast to the public by commercial radio stations; that, in exchange for the placement of their call signs on state highway signs, certain radio stations broadcast all pertinent information to travelers on a periodic schedule; that information in the form of road maps, road signs, billboards, yellow pages, directories for lodging, service stations, etc. is available to any traveler; and that there is no need for the proposed service which would be duplicative of presently available sources of traveler's information.

6. It is noted that commercial AM broadcast stations are intended to serve the communities to which they are assigned and, depending on the class of station, outlying areas as well. For example,

Class I stations operating with powers not less than 10 kw and not greater than 50 kw on clear channels are designed to render primary and secondary service over extended areas and at relatively long distances. Programming on commercial stations for the most part consists of music, news, weather forecasts, traffic bulletins generally during peak commuting time periods, and other announcements of interest to listeners anywhere within the station's coverage area. In contrast, in-

tended programming on Travelers Information Stations would normally consist of a continuously repetitive voice message of short duration containing specific information pertinent only to travelers within a very limited reception area. Experimental stations such as presently operating at the Los Angeles International Airport, exemplify the service a TIS station would provide. Tape-recorded advisories, interspersed with "live" bulletins, concerning specific airline terminal locations and their nearest parking lots; alerts when traffic is congested; estimated time of delay; etc., are transmitted continuously from 7 A.M. to 11 P.M. on 530 kHz to motorists. The station utilizes a terminated "leaky" cable antenna positioned in the center median of the approach road and along major roads within the terminal area. Due to the cable's non-propagating characteristic, the signal is confined to a distance of approximately 40 meters radial to the cable.

7. Consequently, because commercial broadcast stations serve not only travelers, but the public in general over a large geographical area, it is not realistically expected or even feasible that broadcast stations provide continuous local information of interest only to travelers at specific locations (e.g., a highway intersection, an airport entrance and parking facility, a county park, etc.) within their general area of coverage. As the broadcasters allege, it is conceivable that a TIS might duplicate some information commercially broadcast. Likewise, a broadcast station might duplicate some information a TIS might transmit. This point is illustrated in separate comments submitted by the California Public-Safety Radio Association, Inc., RTV management, and Locrad, Inc. In a traffic alert system, they contend, both services, broadcast and TIS, should complement each other for greater effectiveness. Using the Los Angeles airport experimental station again as an example of this proposed radio service, information regarding unusual traffic jams leading to the airport is broadcast periodically by commercial broadcasters over the entire Los Angeles area and specific directions to expedite the movement of traffic in the immediate vicinity of the airport is transmitted by the airport's experimental station.

8. It therefore would appear to be beneficial to the traveling public if, at times, related information, even though occasionally duplicative, were to be transmitted locally via TIS and area-wide by commercial broadcasters. However, it should be clearly understood that it is *not* the intent that TIS facilities duplicate information now available on area-wide, commercial broadcast stations. In fact, we feel the amount of duplication will be insignificant.

#### *Economic injury to broadcasting*

9. In comments representing broadcast interests it is alleged that the proposed Travelers Information Stations would adversely impact the economic standing of all broadcast stations. It is contended that a loss of listenership from broadcast to TIS would compel every broadcaster to reduce his advertising rate structure. Further to this point, certain advertisers now using commercial radio (i.e., motel/hotel owners, gasoline stations, restaurants, and others) will switch to TIS further contributing to a decline in revenue for each broadcast station. This loss of revenue, they claim, will lead to irreparable financial injury. As a consequence, each broadcaster would, of necessity, have to

curtail unprofitable public service programming (i.e., announcements, traffic conditions, weather reports, etc.), thus impairing his ability to serve the public. Since economic injury is probable, any broadcast licensee, it is claimed, may invoke Section 309(d) and have standing based on economic injury and file petitions to deny applications.

10. Due to the distinct nature and limited coverage of TIS transmissions, several parties filing reply comments believe the broadcasters' principal concern that TIS would have an adverse economic impact upon their operations is misplaced. Because proposed programming is non-entertainment, extended listening under normal circumstances would not occur. Further, for motorists, listening time is restricted to the time in which the vehicle remains within the limited coverage area provided by low-powered TIS transmitters.

11. The carriage of names of commercial establishments as permitted under proposed Section 89.102(c)(2) is construed by broadcasters to be a form of advertising. It is alleged that particular gasoline stations, motels, restaurants, etc. might drop their present purchase of time on commercial stations in favor of "free" carriage on a highway Travelers Information Station. Consequently, the recommendation, suggested by the Booth American Company, to not specifically identify by name a commercial business offering food, lodging, gasoline, etc. is being adopted in response to the allegation that TIS would be competitive to commercial broadcast stations. However, a message specifying the location of such establishments will be permitted. An example of such a message might be— "At exit 10 you will find lodging, gasoline and food services available."

#### *Waste of tax revenues*

12. Several parties allege the proposal would necessitate the expenditure of scarce tax revenues contributing to increasing deficit spending. Frank McLavrin, Vice-President and General Manager of KSRO, Santa Rosa, California claims it would cost about 300 million dollars to provide TIS service in the Los Angeles county along 550 miles of freeway. The Maryland-District of Columbia-Delaware Broadcasters Association additionally argues that the cost of TIS would be prohibitive. It claims a cost of \$60 million to equip the 30,000 miles of interstate highway.

13. Responding to the argument that the implementation of TIS will consume many tax revenues, Locard, Inc. claims the "cost of any TIS system would be subject to budget review based on the need. Unless there is a need in the public interest it is safe to assume that a TIS system will not be installed." In reply comments submitted by the Associated Public Safety Communications Officers, Inc. (APCO) it is pointed out that the rules governing the Public Safety Radio Services provide for many communications techniques which are not generally cost effective. The controlling factor is whether the technique in question can be a useful tool in improving public safety. Further to this point, APCO states that the Commission has previously authorized various communications technologies (e.g., automatic vehicle location systems) realizing that they may not be widely used. However, such communications devices were authorized because the Commission recognized that they could make a significant public safety contribution in

certain cases. Therefore, we are not swayed by the comments that TIS will take too large a slice out of governmental budgets. Such judgments are best left to local jurisdictions.

#### *Need for TIS*

14. Various parties representing broadcast interests contend there has been no demonstrated need for the proposed stations. Several broadcasters indicate that no request to expand present broadcasts for information pertinent to travelers has been made through their ascertainment surveys and interviews. The California Broadcasters Association contends that the FCC must establish that a need exists for the radio service because of the economic impact it would have on the present broadcast system. Continuing this argument, it states, "absent findings and evidence to sustain a need for the new service, the Commission is precluded as a matter of law from alleging that this new service is in the public interest." The Indiana Broadcasters Association echoes this sentiment, stating "the Commission has not cited any unfulfilled public need for the proposed service nor any need which outweighs the serious and detrimental effect which the Commission's proposal would have on the nation."

15. The allegation by broadcasting interests is not compelling. The Commission is of the opinion that an established need for this service has been demonstrated through the submitted comments in this proceeding and by experience with existing experimental stations. In operation since 1972 for control of automobile traffic, the experimental station at the Los Angeles International Airport has successfully expanded arterial capacity by reducing the traffic congestion through the transmission of traffic advisories, according to the airport's General Manager. Constantly updated, these radio transmissions provide immediate information to incoming automobile traffic. Several users of the airport's TIS confirmed the station's utility. Another experimental TIS, licensed to the Delaware Valley Regional Planning Commission in Philadelphia, Pa., is being used on a bridge leading to an expressway to convey traffic advisory and emergency information concerning conditions on the expressway to approaching motorists on the westbound lanes of the bridge. As this system just recently became operational, no information regarding its performance is available. In Wyoming, the state highway department is presently installing in the vicinity of an interstate exchange a radio advisory system to be operated under Part 15 of the FCC's rules. This system will transmit road conditions, travel restrictions, and weather forecasts to motorists. From the many potential applications of travelers information stations discussed in other comments, it is apparent that a definite desire and need exist for this service.

16. In supporting the proposed rules, various parties indicated that stations of this nature will serve the public interest and convenience. Individual local police and transportation departments stated that TIS will provide a more viable alternative for controlling traffic, as road signs are necessarily restrictive in message length and usually not visible during inclement weather. About fifty comments submitted from various local government civil defense, disaster planning and control, highway, conservation, and park agencies indicate a definite desire and need for a traveler's information radio service to augment

their present means of conveying information to the traveling public. It is apparent that many of those commenting would use this service to transmit travel related emergency messages concerning natural disasters (e.g., forest fires, floods, etc.), traffic accidents and hazards, and related bulletins affecting the immediate welfare of citizens. Therefore, we believe that a definite need and public interest for TIS has been documented in this proceeding.

17. Several parties stated that the rules applicable to TIS contain no provision for giving notice of the filing of applications and that therefore they are violative of Section 309 of the Communications Act.<sup>2</sup> That section, however, requires public notice and a thirty-day waiting period only in the case of applications in certain services, listed in § 309(b). TIS's do not fall into any of those categories. Although § 309(b)(2)(g) permits the Commission to impose these requirements on other, nonlisted services, we see no need for doing so in this case since TIS's will be licensed only on a secondary, non-interference basis and they will be permitted to provide only a very limited and specialized range of services.

#### *Permitted message content*

18. Many comments emphasize that the proposal is unclear regarding what message content would be permitted for transmission over TIS facilities. Comments representing broadcasting interests fear that the content of "official notices and related communications" might conceivably be used as a platform by civil officials and/or politicians. NBC predicts that news would eventually be transmitted under this clause, providing further competition to commercial broadcasting.

19. The Maryland-District of Columbia-Delaware Broadcasters Association states that the "proposal to permit the transmission of 'official notices and related communications' is the most disturbing of all suggested functions," and say "the proposal is fraught with the danger of abuse by local incumbent politicians, who would be attracted by the potential of using such a medium for unrestrained propaganda." NAB asks "what will limit this service to not being an outlet for political interests and disguised commercials," and argues that "stricter guidelines are needed on the programming service." Further to this point, Mid America Media raises the following questions—

"Is such information to be limited to the name, address, and type of facility, or may the message include information such as the number of beds, recreational facilities, and prices of motels and hotels? Also, it is apparent that local authorities will be required to pick and choose among potential services to be mentioned. Will disgruntled businesses not included in the station's message have some right to raise the question of fairness and discrimination before the Commission? What is to prevent this proposed service from being used to reward political and economic friends of local administrations and to punish their adversaries? These questions strongly suggest that the Commission is creating for itself the same regulatory quagmire it found itself in when confronted with the "public access" theory of the Fairness Doctrine."

20. From the majority of submitted comments it is apparent that there is a lack of understanding regarding what information may or may not be transmitted over TIS's. Consequently we have revised the

<sup>2</sup>NAB and the Iowa Broadcasters Association apparently assume that the notice provisions of Section 1.962 of the Rules, which implements § 309 with respect to applications in the Safety and Special Radio Services, will apply, but feel that they are inadequate.

definition of a *Travelers Information Station* in Section 89.3(a) by deleting the phrase "official notices and related communications" to preclude the possible transmission of an unwarranted message. Moreover, in Section 89.102(c)(2), a restriction prohibiting the identification of the commercial name of any business establishment is included in response to broadcasters' comments to insure that *Travelers Information Stations* not be competitive to commercial broadcast operations. However, we are permitting the trade name identification of carriers at air, train, and bus terminals to facilitate announcements concerning particular departures and/or arrivals and parking areas. For other locations, general announcements of the availability and location of services for the traveling public will be permitted.

#### *Eligibility requirements*

21. As proposed, Section 89.251 of the Commission's Rules would restrict the eligibility of applicants for *Travelers Information Stations* to territories, possessions, states, other governmental subdivisions including counties, cities, towns and similar governmental entities including districts and authorities. This rule specifically excludes park authorities from obtaining a license. Consequently, several park authorities commented that it would be more expedient and logical if they, who would be responsible for the TIS, were to apply for and hold the license. Others who view the proposal as a means by which to establish a new business would have the eligibility rule expanded to include private entrepreneurs, chambers of commerce, non-tax supported institutions and agencies, and non-profit regional or area tourist promotion and development agencies. E. F. Johnson Company argues that "this broadening of eligibility would give manufacturers more of an incentive to commit the necessary large amounts of capital required for the research, development and production of equipment."

22. The Commission is of the opinion that this radio service, as proposed, should be non-commercial and restricted to local governments so that it does not evolve into a "quasi broadcasting" service. As intended, TIS is to be a source of localized information pertinent only to the traveler in the immediate proximity of the station. An expansion of Section 89.251 to include local and state government park authorities as licensees seems appropriate. However, further expansion of eligibility is being denied.

#### *Permissible locations*

23. As discussed in the Notice of Proposed Rulemaking, in providing for the establishment of these stations, it is the Commission's purpose to provide for the communication of certain kinds of information that will principally serve the traveling public. Moreover, as previously discussed, these stations are intended to serve the traveler in the immediate vicinity of the station. To accomplish these objectives, we are restricting the transmitting sites of each station to a location within an area that would be mainly frequented by travelers. These areas, as specified in Section 89.102(c)(1)(iv), shall be air, train, and bus terminals, public parks and historical sites, interstate highway interchanges, bridges, and tunnels. Furthermore, in instituting this rule we are specifically precluding an applicant from setting up a "network," or "rib-

bon" of transmitting stations along a highway for the purpose of continuously attracting a motorist with what could be superfluous information.

#### *Electromagnetic interference*

24. Several parties state that TIS's would cause electromagnetic interference to broadcast stations within their service areas and that permitting such interference would be a modification of the licenses of the broadcast stations. They further state that Section 316 of the Communications Act requires a hearing before any such modification can be made. The new rules provide, however, that TIS's will be licensed only on a secondary basis, that is, they can operate only so long as they do not cause harmful interference to primary stations (which include AM broadcast stations). See § 2.106(g)(3) of the Rules. The new subsection 89.102(l)(iii) emphasizes the secondary status that TIS's will have and the fact that the station authorizations can be suspended, modified, or withdrawn at any time to resolve interference conflicts. To prevent interference conflicts from arising, the proposed 1606 kHz allocation has been deleted because of the harmful sideband interference that may have resulted from such stations to broadcast stations operating on 1600 kHz. Also, a number of restrictions are being imposed (in § 89.102(c)(3) ) on TIS applicants. The applicant must certify that the transmitting site will be at least 15 kilometers from the daytime protected contour of any broadcast station operating on an adjacent channel (i.e., 540 kHz or 1600 kHz). Since the range of TIS is expected to be considerably less than 15 kilometers, no harmful interference should result to the broadcast station within its protected contour. With regard to the second and third adjacent frequencies (i.e., 550 kHz, 560 kHz, 1580 kHz, and 1590 kHz) no specific separations are being required since any harmful interference is *de minimis*. However, § 89.102(c)(3) does require that an applicant for a TIS license certify that he has considered possible interference effects on broadcast stations operating on these frequencies and that, to the best of his knowledge, he does not foresee any harmful interference.

25. To further limit the potential to cause interference, each Travelers Information Station will be limited to a coverage zone, as further discussed in paragraphs 30-32, not to exceed 3 km (i.e., for cable, maximum length: 3 km; for vertical monopole: 1.5 km radius, or 3 km diameter) by restricting the field strength. We are of the opinion that, considering the likelihood of interference to broadcast stations, these steps should prevent interference situations from developing without unduly burdening TIS applicants. If interference does nevertheless arise, the secondary status of the TIS means that it will be required to go off the air at once. Therefore, no broadcast licensee will be required to suffer harmful interference, and no modification of a broadcast license will occur. Consequently the application for a TIS license will not give rise to a right of a hearing under Section 316, before it can be granted.

#### *Frequency assignment*

26. Recommendations to use frequencies other than those proposed were submitted by several parties. These are—



- use of SCA subcarrier on commercial FM broadcast stations
- allocation of one or two receive-only channels in the Citizens Radio Service
- shared use of 162.40 and 162.55 MHz, channels now used by the National Oceanic and Atmospheric Administration (N.O.A.A.) to transmit weather advisories.

In addition, Motorola urges a reconsideration of proposed assignments 1606 and 1612 kHz. It states that "future automobile radio designs will incorporate frequency synthesizers. Because the AM table of frequency assignments is predicated on 10 kHz spacing, the proposed frequencies 1606 and 1612 kHz will be incompatible with the emerging frequency synthesizer technology." Consequently, Motorola recommends the adoption of 530, 1610, and 1620 kHz.

27. As previously stated, this proposed radio service is intended to serve a 3 km zone with generally repetitive information pertinent to travelers. Consequently, the use of the SCA subcarrier<sup>3</sup> would not be a practical alternative as the coverage area served by most FM stations normally exceeds 3 km. Because FM stations provide wide area coverage, it would not be feasible to transmit simultaneous travelers information repetitively for several local areas. The proposal to use frequencies allocated to the Citizens Radio Service cannot be considered since the basis and purpose of that service, pursuant to Section 95.1 of the Commission's Rules, makes no provision for the type of proposed communications to be carried on TIS. To take a frequency away from the Citizens' Band (CB) would go against our finding that CB needs more channels. To share frequencies 162.40 and 162.55 MHz would again not be practical as these stations provide wide area coverage. Furthermore, such a frequency usage would necessitate the traveler to acquire a special receiver for reception of such transmissions; also, disruption to N.O.A.A. weather advisories would result from such sharing. Consequently, these suggestions are dismissed.

28. The proposed frequency 1612 kHz is being shifted to 1610 kHz principally for two reasons:

First, it is intended that this service be received primarily by motorists using automobile AM broadcast receivers. Based on a study<sup>4</sup> of Highway Advisory Information Radio prepared for the Federal Highway Administration, it was found that using a representative sample of existing receivers approximately 10% more could tune the 1610 kHz frequency compared to 1612 kHz. Since a greater number of travelers with existing AM automobile receivers would be able to receive such transmissions at the lower frequency, 1610 kHz is chosen for TIS allocation.

Second, the 1610 kHz frequency is aligned with the 10 kHz spacing maintained between stations in the broadcast band permitting the us-

---

<sup>3</sup> Because of constraints imposed on the reception of SCA subcarrier transmissions by Section 605 of the Communications Act, the use of such transmission for Travelers Information Station presents legal as well as practical problems. See *KMLA Broadcasting Corporation v. 20th Century Cigarette Vendors et al.*, 264 F Supp 35. (C.D. Cal. 1967).

<sup>4</sup> Study and Development of Highway Advisory Information Radio, Report No. FHWA-RD-74-73, December 1974, Federal Highway Administration, Washington, D.C. 20590.

age of synthesizer technology in future receiver designs as recommended in comments submitted from Motorola, Inc.

29. The 1620 kHz frequency suggested by Motorola cannot be considered, as transmissions on this frequency would cause harmful interference to survey operations conducted by the National Ocean Survey (NOS) on frequencies 1618.5 and 1619.64 kHz.

#### *TIS's coverage zone*

30. Under Section 89.102(c)(4) of the proposed rules, a limit on TIS's transmitter output power was set at ten watts. There was no restriction placed on antenna type or height. It was stated that an effective coverage radius of 1.5 km could be expected. However, further analysis reveals that larger radii of coverage may be achieved. The radius served by a transmitting facility at these frequencies is dependent not only on transmitter output power, but also antenna geometry and ground conductivity. For an omnidirectional monopole antenna, higher gains are obtainable by extending the physical length of the radiating element. This means that a higher value of field would be measured at a certain location from an antenna, for example, of length  $3/2\lambda$  compared to one of length  $\lambda/2$ , all other factors being equal. Then, under the proposed rules, taking into account variations in antenna length and ground conductivity, a radius of coverage up to 40 km could be expected from a station operating with a ten watt transmitter on 530 kHz located in an area of high ground conductivity with a 1/4 wavelength radiator.

31. Because a radius of coverage not greatly exceeding 1.5 km is desired, it is apparent in view of the foregoing, that a restriction to limit the value of field strength measured at 1.5 km is necessary. Accordingly, the adopted rules set limits on the measured field strength at 1.5 km from the transmitting site and also the maximum antenna height, in addition to the proposed transmitter output power limit of 10 watts, for a conventional radiating antenna system.

#### *"Leaky" cable antenna*

32. Although not specifically mentioned in the proposed rules, a "leaky" cable antenna system constitutes another means of radiating a particular area with a usable radio signal. Compared to a conventional antenna system whose radiated field is primarily space propagated, the generated field surrounding a "leaky" terminated cable antenna, being inductive in nature, is not propagated, but restricted to the proximity of the cable. Within the distance of one wavelength, its cylindrically shaped field attenuates inversely proportional to higher orders of distance resulting in a much more rapid rate of field strength decline than is found in conventional antenna systems. However, at a given distance from the cable, variations in field strength traversing the length of the cable are relatively minor in magnitude. Consequently, based on recommendations in received comments, a field strength limit is also being adopted for this type of radiator. Furthermore, to ensure against the possible use of an oversized transmitter with a cable antenna, an output power limit is herein adopted. Moreover, since it is our intention that each TIS provide a coverage zone of not more than 3 km, a

limit of 3 km is adopted as the maximum length for a "leaky" cable antenna.

### *Systems*

33. For the majority of applications that are anticipated, we expect that a single Travelers Information Station, employing either a "leaky" cable or a conventional vertical monopole antenna, will adequately cover the intended area of service. However, in certain instances, we envision that an applicant may seek authorization for a system of stations for a specified area to meet a particular requirement. As an example, the experimental station at the Los Angeles International Airport, which operates under a single authorization, is presently using two individual "leaky" cable antennas in tandem, each being supplied R. F. power from a separate transmitter. The first station (i.e., transmitter plus "leaky" cable antenna) of this two station system is located along an approach road to the airport and transmits flight arrival and departure information, as well as information to orient the motorist regarding traffic conditions within the complex. The second station in tandem, using a separate "leaky" cable antenna and transmitter, is located along several major roads within the terminal area and transmits information concerning availability of parking. Accordingly then, we may issue a single authorization under this service that would include the licensing of a system of stations (i.e., each station in the system would be limited to using one transmitter) for a specified area if the applicant can demonstrate a sufficient justification for such a need. This statement is set out in Section 89.102 (c)(1)(v) of the Rules.

34. To further qualify this concept, another example follows. If an applicant desires to install two stations, one to be located within the area of highway interchange "A" and the second within the area of highway interchange "B," then we would not consider this as an application for the licensing of a system of stations under a single authorization, since *two* distinct and separate *areas* are specified. In this case, we would issue a separate authorization for each station.

### *Emission designator*

35. Several comments were received regarding the proposed emission designator 6A3 (Section 89.102(c)(5)). Halstead recommends the inclusion of A $\theta$  emission in the rules to allow for the transmission of an unmodulated carrier on a separate "leaky" cable system in the gap between two separate "leaky" cable systems providing different messages. Halstead argues that "from the standpoint of receiver operation, maintenance of the same signal level would, in effect, mute the automobile receiver while it is between the two highway cable antenna systems." Mr. Robertson of Jansky and Bailey requests that 2.2A2 be permitted "to provide for the use of tone-coded pulsing to automatically unscquelch specially designed receivers that could eventually be developed for use with TIS stations." He claims that the "implementation of such an automatic system would enhance the effectiveness of some stations and would further help to promote public interest in the use of TIS." Another party, Richard N. Burden Associates, recom-

mends that "no restriction in bandwidth be required, in the interest of higher intelligibility and lower costs."

36. For a TIS system employing a cable system, the Commission concurs with Halstead that the carriage of a unmodulated carrier on a third, relatively short piece of cable, interspaced between two message carrying cables providing continuity of signal level for purposes of muting the receiver would serve a useful function. Accordingly, the emission designator, A0, shall be permitted, but only for receiver muting purposes in tandem "leaky" cable TIS installations. At this time, other emission designators shall not be considered pending further development and implementation of receivers specially designed to receive TIS frequencies. Because only voice messages are to be carried over TIS facilities, the proposed emission designator 6A3 is maintained in the attached rules.

#### *Co-ordination of co-channel TIS's*

37. In highly populated urban areas we recognize that the demand for TIS assignments may well exceed the number permissible due to the constraints imposed by these rules. Additionally, we acknowledge that there will probably be cases in which several jurisdictions, each with a specific need for TIS, are confined within a relatively small geographic area. In these instances, to more effectively share the limited radio frequency spectrum allocated for this service with all jurisdictions having such requirements, we strongly urge that the coverage area to be served by each TIS be confined to the licensee's area of jurisdiction and that stations utilizing "leaky" coaxial cable antenna systems be given primary consideration. Co-channel stations utilizing cable antennas may be located much closer due to cable's unique technical characteristic in which the radiation is confined within a distance of generally 30 to 90 meters of the cable.

38. We envision, in some cases, that it may be desirable for several area jurisdictions to time share a single TIS using a monopole antenna system operating with maximum allowable field strength which provides coverage in a manner agreed upon by those jurisdictions. Nonetheless, among neighboring jurisdictions, coordination (see Section 89.102(c)(4)(v)) for co-channel assignments shall be used when physical separation requirements cannot be met so that the public may derive maximum benefit from this service. Furthermore, since TIS's will be secondary to Federal Government as well as non-Government services on these frequencies, as set out in the Table of Frequency Allocations, all TIS applications will be further co-ordinated with the Interdepartment Radio Advisory Committee.

#### *Alternative recommendations*

39. Rather than establish TIS's to transmit travelers information, various parties suggest that alternative mechanisms be employed to disseminate such information. KLAD-AM/FM of Klamath Falls, Oregon, suggests that funding be used instead to upgrade existing government facilities to provide better information to commercial radio stations for broadcast use. It urges that a better alternative to TIS would be the development and use of the present commercial broadcasting system. The National Radio Broadcasters Association also proposes, in

place of TIS, further development and expansion of commercial broadcast services. Specifically, it suggests that governmental information gathering agencies (ex., Police Dept., Highway Dept., Fire Dept.) provide special receivers to broadcast stations that would receive motorist related messages originated from each participating agency. Depending on the urgency of the message, it could either be "aired" live or taped for delayed broadcast. Participating broadcast stations would have to agree to broadcast all messages within a given time period. It was pointed out that such a system now is used in the Los Angeles area (known as Sigalert). Two other parties submitted a description of a traffic information and warning system developed for the West Germany highway system by Blaupunkt, a German electronics firm. Under this system, designated broadcast stations agree to transmit motorist related information at specific times. To aid in tuning in such stations a tone transmitted on a subcarrier of the particular "traffic" station will be captured by a special decoder built into the auto receiver to activate an indicating lamp for alerting the driver as to the presence of a traffic information signal. This feature simplifies identifying stations transmitting traffic information.

40. While each of these approaches may have some beneficial application where broad area coverage is appropriate, none represents a viable alternative to the proposed use of low power systems to provide highly localized information of immediate interest to motorists, which is the use contemplated of TIS systems. Consequently, these suggestions are not being adopted in this proceeding.

41. Two parties suggest significantly different uses for these frequencies. One, the National Black Media Coalition (NBMC) appears to have interpreted the TIS proposal to be a plan to create three additional broadcast frequencies. In its statement of opposition, it contends that the proposal "envisions the allocation, albeit on a secondary basis, of the first new AM spectrum space for the broadcast of material to the public at large which the Commission has made since the 1920's . . ." (NBMC's comments, p. 4.) It states that the Commission has failed to consider the needs of the Black minority by opting to assign these frequencies to local governments. Accordingly NBMC requests the Commission to issue a further notice of proposed rulemaking that would result in the most widespread minority ownership of broadcast stations on 530, 1606, and 1612 kHz.

42. In a separate petition for rulemaking (RM-2704), V. Tobi Kanter, a student at the University of Denver, suggests a similar type of broadcasting operation on these frequencies.<sup>5</sup> She requests the Commission to initiate rulemaking proceedings to provide for the use of 530, 1606, and 1612 kHz by a Community Access Non-commercial Service. Kanter believes the public interest would be better served if 250 watt broadcast stations licensed to non-profit community organizations (with special attention to minority representation) utilized these frequencies. Programming would "emphasize the public affairs, music, drama, and culture of the community being serviced." A limited amount of time during the broadcast day would be set aside for indi-

---

<sup>5</sup> Kanter's proposal is compatible with that put forward in the Notice of Proposed Rulemaking. We are therefore considering the two proposals together, a possibility mentioned in the Kanter petition.

vidual community members on a first-come-first-serve basis to air their views on any particular subject.

43. Three parties filed comments on this petition: Offshore Navigation, Inc. and Decca Survey Systems, Inc., both of which furnish commercial radiolocation services; and the National Association of Broadcasters. All three objected on the basis of the potential for interference the proposal presented. NAB feels that there is a significant potential for interference to AM broadcast stations and that therefore, until interference questions have been resolved, any action along the lines Kanter proposes would be premature. Offshore Navigation and Decca were both concerned about possible interference to radio-location facilities which they operate in the 1605 to 1800 kHz band. Offshore Navigation also claims that the Kanter petition is deficient in that it fails to demonstrate a need for the service proposed or that, even if there were a need, the proposed service would meet it. Decca states that while the low power (10 watts), and consequent limited range, proposed for TIS would produce a minimal possibility of interference to radio-location operations, the 250 watt stations proposed by Kanter were an entirely different matter.

44. The feasibility of the TIS proposal hinges on the use of low-power, limited range transmitters which would minimize potential interference to established services on the proposed frequencies. The power levels proposed for TIS use are not suitable for the broadcast-type operations which both NBMC and Kanter envision, and the use of stations powerful enough for such purposes<sup>6</sup> would pose serious interference problems to other services on these frequencies. Internationally, these frequencies are allocated for services other than broadcasting. The International Telecommunications Union (ITU) regulations permit operations in derogation of the international allocation table, but only on condition that no interference is caused to stations operating in accordance with the table. Also, there are already a number of domestic assignments on these frequencies to both Government and non-Government entities. Because of these considerations, TIS's are very limited in power and will be secondary to other services. As already mentioned, higher power broadcast-type stations would have a considerably higher interference potential than the proposed TIS's. It is highly questionable that broadcast-type stations could operate in a secondary status, where they could be forced off the air at any time by an assignment (either foreign or domestic) to a station in a primary service to which they caused interference. Consequently, the types of operations proposed by NBMC and Kanter are not practicable on these frequencies.

45. NBMC also asserts that the Commission violated the Federal Advisory Committee Act (86 Stat. 770; 5 U.S.C. Appendix 1, § 1 *et seq.*) by relying on proposals derived by an *ad hoc* group for which there was insufficient public notice of its meetings or membership, and insufficient participation (and opportunity therefore) by interested public parties. NBMC seems clearly to have misread the Act. The Notice of Proposed Rulemaking stated that the group was composed of repre-

<sup>6</sup> Kanter suggests stations with 250 watt daytime power and 100 watts at night. NBMC proposes no specific power but does state that "the public might be better off with 20 more 1000 w stations than it would be with 2000 10 w stations. . . ." (Comments, p. 6, n.8)

sentatives of the Commission and other federal agencies, and NBMC notes the fact (indeed, it is one of its bases of objection). Subsection 3(2) of the Act, which defines "advisory committee" for purposes of the Act, specifically excludes "any committee which is composed wholly of full-time officers or employees of the Federal Government." The *ad hoc* group was clearly not within the scope of the Federal Advisory Committee Act, and there consequently could have been no violation of that statute.

46. In summary, the Commission finds it in the public interest to adopt the rules contained in the attached Appendix which are essentially as proposed in the Notice. The adopted rules contain certain modifications to provide interference protection to AM broadcast stations operating on adjacent frequencies, to clarify the non-commercial aspect of permitted operations, and to set a maximum coverage range for each TIS based on certain technical limitations, and to adopt separate TIS standards for cable type systems.

47. Accordingly, pursuant to authority contained in Sections 4(i) and 303 of the Communications Act of 1934, as amended, IT IS ORDERED, That, effective July 29, 1977, Parts 2 and 89 of the Commission's Rules are AMENDED as shown in Appendix C.

48. IT IS FURTHER ORDERED, That the petition for rulemaking filed by V. Tobi Kanter (RM-2704) IS DENIED.

49. IT IS FURTHER ORDERED, That this proceeding is TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION,  
VINCENT J. MULLINS, *Secretary*.

#### APPENDIX A

The following parties, arranged into 6 groups for convenience, filed comments in response to Docket No. 20509:

##### I. Broadcasting Industry

Alabama Broadcasters Association  
Buckley Broadcasting Corporation  
California Broadcasting Association  
Connecticut Broadcaster Association  
Golden West Broadcasters  
Hercules Broadcasting Company  
Indiana Broadcasters Association  
Iowa Broadcasters Association  
KAHL, AM radio station, North Platte, Nebraska  
KANG, FM radio station, Angwin, California  
KCOK, AM radio station, Tulare, California  
KDOL, AM radio station, Mojave, California  
KEZY, AM radio station, Anaheim, California  
KFDF, AM radio station, Van Buren, Arkansas  
KFMB, AM radio station, San Diego, California  
KIKZ, AM radio station, Seminole, Texas  
KIST, AM radio station, Santa Barbara, California  
KKZZ-AM, KOTE-FM, radio stations, Lancaster, California  
KMAM-AM and KMOE-FM, radio stations, Butler, Missouri  
KMMT, FM radio station, Mammoth Lakes, California  
KNDE, AM radio station, Sacramento, California  
KNET, AM radio station, Palestine, Texas  
KOWL, AM radio station, South Lake Tahoe, California  
KPLS, AM radio station, Santa Rosa, California  
KPSI, AM radio station, Palm Springs, California  
KRE, AM radio station, Berkeley, California  
KSOM, AM radio station, Ontario, California

KSRO, AM radio station, Santa Rosa, California  
 KSWM, AM radio station, Aurora, Missouri  
 KSYC, AM radio station, Yreka, California  
 KTLQ, AM radio station, Tahlequah, Oklahoma  
 KUHL, AM radio station, Ukiah, California  
 KWHN-AM, KMAG-FM, radio stations, Ft. Smithe, Arkansas  
 KWNT, AM radio station, Davenport, Iowa  
 Mid America Media  
 Mississippi Broadcasting Association  
 Missouri Broadcasters Association  
 National Association of Broadcasters  
 National Broadcasting Company  
 National Radio Broadcasters (NAFMB)  
 Nebraska Broadcasters Association  
 North Carolina Association of Broadcasters  
 Northern California Broadcasters Association  
 Ohio Association of Broadcasters, Inc.  
 Pacific FM, Inc.  
 Pacini, Rod, employee of AM radio station KUKI  
 Pennsylvania Association of Broadcasters  
 Radio 960, Inc. (AM radio station KLAD), Klamath Falls, Idaho  
 Scholfield Broadcasting Co., Inc.  
 Valley Broadcasters Association  
 WAAX, AM radio station, Gadsden, Alabama  
 WIOF, FM radio station, Waterbury, Connecticut  
 WCRM, AM radio station, Columbia, Tennessee  
 WKVT, AM radio station, Brattleboro, Vermont  
 Wisconsin Broadcasters Association

## II. Local/State Government Agencies

Allegany State Park and Recreation Commission  
 Borough of Middlesex, New Jersey; Office of Civil Defense and Disaster Control  
 Burlington County, Moorestown, New Jersey, Civil Defense and Disaster Control  
 California State Communications Division  
 City of Albuquerque, New Mexico, Office of Emergency Preparation  
 City of Augusta, Georgia, Civil Defense Office  
 City of Elizabeth, New Jersey, Office of Civil Defense and Disaster Control  
 City of Homewood, Alabama, Civil Defense Department  
 City of Los Angeles, Department of Airports  
 City of Los Angeles, Mayor Tom Bradley  
 Cobb-Marietta, Georgia, Office of Civil Defense  
 Department of Army, Corps of Engineers, North Pacific Division  
 East Bay Regional Park District of Oakland, California  
 Habersham County, Georgia, Office of Civil Defense  
 Mercer County, New Jersey, Office of Civil Defense and Disaster Control  
 New York State Parks and Recreation Commission  
 Police Department of Ft. Lauderdale, Florida  
 State of Georgia, Department of Transportation  
 State of Georgia, Statesboro-Bulloch County Civil Defense Office  
 State of Montana, Governor Tom Judge  
 State of Missouri, Civil Defense Office  
 State of Rhode Island, Department of Transportation  
 Sylvester-North County Civil Defense Office  
 Township of Chatham, New Jersey, Office of Civil Defense and Disaster Control  
 Township of Pennsauken, New Jersey, Department of Municipal Disaster Control  
 United States Department of Transportation  
 Washington State Patrol

## III. Business Associations

American Traffic Services Association  
 Association for Broadcast Engineering Standards, Inc.  
 Association of Public Safety Communications Officers, Inc.  
 California Public Safety Radio Association, Inc.  
 Institute of Broadcasting Financial Management, Inc.  
 International Association of Firechiefs  
 International Municipal Signal Association



National Black Media Coalition  
Groville, California, Chamber of Commerce

IV. Equipment Manufacturers

Earle S. Thall Associates  
E. F. Johnson  
General Motors Corporation  
Halstead Communications, Inc.  
Loc Rad, Inc.  
LPB, Inc.  
Motorola, Inc.  
Richard W. Burden Associates  
Robert A. Jones  
RTV Management  
Snider Corporation  
Telesis Corporation

V. Travel/Recreation Industry

Adirondack Attractions Association, Inc.  
White Mountains Attractions Association

VI. Individuals

Crull, John B.  
Burgess, Larry  
Dahl, Nelson E.  
Daughrity, Nancy B.  
Ellerman, Harold J.  
Fierd, Doug  
Halshort, Edwina  
Hathaway, Arthur  
Hieth, Ruth L.  
Jones, Dr. and Mrs. Kenneth  
Knepper, L. R.  
Meng, Douglas  
Peterson, Alta May  
Prowell, Wallace  
Quinn, Clark E.  
Robertson, Richard G.  
Roe, Patricia  
Shiffet, Vida Faye  
Stuhr, Mrs. C. G.  
Taylor, Paula  
Uzsarinis, Joseph P.  
Wade, Ms. Linda L.

Reply comments in the proceeding were filed by:

Associated Public-Safety Communications Officers, Inc.  
Association for Broadcast Engineering Standards, Inc.  
Booth American Company  
KFAC, Inc.  
Loc Rad, Inc.  
Nationwide Communications, Inc.  
RKO General, Inc.  
RTV Management

APPENDIX B

The following parties filed comments in response to RM-2704:

Decca Survey Systems, Inc.  
National Association of Broadcasters  
Offshore Navigation, Inc.

APPENDIX C

Parts 2 and 89 of Chapter I of Title 47 of the Code of Federal Regulations are amended as follows:

A. Part 2 is amended as follows:

(1) In Section 2.1, a definition is added in alphabetical sequence to read as follows:

\* \* \* \* \*

*Travelers Information Station.* A base station in the Local Government Radio Service used to transmit noncommercial voice information pertaining to traffic and road conditions, traffic hazard and travelers advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest.

(2) In Section 2.106, the Table of Frequency Allocations is amended in columns 7 through 11 for the bands 510-535 kHz and 1605-1715 kHz; footnote US14 is amended and a new footnote US221 is added, as follows:

Band (kHz)	Service	Class of Station	Frequency (kHz)	Nature of Service Nature of Station
7	8	9	10	11
*	*	*	*	*
510-535 (US14) (US221)	* * *	* * *	530	Travelers Information
*	*	*	*	*
1605-1715 (US97) (US221)	* * *	* * *	1610	Travelers Information
*	*	*	*	*

US14 The frequency band 510-535 kHz is not available to non-Government stations except that the frequency 512 kHz is available for use by non-Government ship telegraph stations as a working frequency, and except as provided by footnote US221. When 500 kHz is being used for distress purposes, ship and coast stations may use 512 kHz for calling.

\* \* \* \* \*

US221 Government and non-Government Travelers Information Stations may be authorized on 530 kHz and 1610 kHz on a secondary basis to all authorized stations operating on a primary basis in the band 510-535 kHz and 1605-1715 kHz, respectively.

\* \* \* \* \*

B. Part 89 is amended as follows:

(1) Section 89.3(b) is amended to include a new definition, to be inserted alphabetically as follows:

Section 89.3 Definitions

\* \* \* \* \*

(b) Definitions of stations:

\* \* \* \* \*

*Travelers Information Station.* A base station in the Local Government Radio Service used to transmit noncommercial voice information pertaining to traffic and road conditions, traffic hazard and travelers advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest.

\* \* \* \* \*

(2) Section 89.102 headnote is amended and paragraph (c) added to read as follows:

Section 89.102 Radio Call Box and Travelers Information Station operation.

\* \* \* \* \*

## (c) Travelers Information Stations

- (1) The frequencies indicated by footnote 14 in Section 89.259(f) may be assigned in the Local Government Radio Service for the operation of Travelers Information Stations subject to the following conditions and limitations:
  - (i) For Travelers Information Station applications only, eligibility requirements as set forth in Section 89.251 are extended to include park authorities.
  - (ii) Travelers Information Stations will be authorized on a secondary, non-interference basis to authorized services operating on a primary basis and must tolerate such interference from those stations as may be necessary.
  - (iii) A Travelers Information Station authorization may be suspended, modified, or withdrawn by the Commission without prior notice of right to hearing if necessary to resolve interference conflicts, to implement agreements with foreign governments, or in other circumstances warranting such action.
  - (iv) The transmitting site of each Travelers Information Station shall be restricted to the immediate vicinity of the following specified areas: air, train, and bus transportation terminals, public parks and historical sites, interstate highway interchanges, bridges, and tunnels.
  - (v) A Travelers Information Station shall normally be authorized to use a single transmitter. However, a system of stations, with each station in the system employing a separate transmitter, may be authorized for a specified area provided sufficient need is demonstrated by the applicant.
- (2) Travelers Information Stations shall transmit only noncommercial voice information pertaining to traffic and road conditions, traffic hazard and travel advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest. It is not permissible to identify the commercial name of any business establishment whose service may be available within or outside the coverage area of a Travelers Information Station. However, to facilitate announcements concerning departures/arrivals and parking areas at air, train, and bus terminals, the trade name identification of carriers is permitted.
- (3) Each application for a station or system shall be accompanied by:
  - (i) A statement certifying that the transmitting site of the Travelers Information Station will be located at least 15.0 km (9.3 miles), measured orthogonally, outside the measured 0.5 mV/meter daytime contour of any AM broadcast station operating on a first adjacent channel (540 kHz or 1600 kHz). If the measured contour is not available, then the calculated 0.5 mV/m field strength contour shall be acceptable. These contours are available for inspection at the concerned AM broadcast station and FCC offices in Washington, D.C.
  - (ii) The applicant is advised that cross-modulation and intermodulation interference effects may result from the operation of a Travelers Information Station in the vicinity of an AM broadcast station on the second or third adjacent frequency. Accordingly, the applicant shall certify that he has considered these possible interference effects and, to the best of his knowledge, does not foresee harmful interference occurring to broadcast stations operating on 550 kHz, 560 kHz, 1580 kHz, or 1590 kHz. The Commission reserves the right to reconsider the status of any Travelers Information Station if such interference effects are caused to broadcast stations.
- (4) Technical Standards
  - (i) The use of 6A3 emission will be authorized, however A0 emission may be used for purposes of receiver quieting, but only for a system of stations employing "leaky" cable antennas.
  - (ii) A frequency tolerance of 100 Hz shall be maintained.
  - (iii) For a station employing a cable antenna, the following restrictions apply:
    - (a) The length of the cable antenna shall not exceed 3.0 km (1.9 miles).
    - (b) Transmitter RF output power shall not exceed 50 watts and shall be adjustable downward to enable the user to comply with the specified field strength limit.
    - (c) The field strength of the emission on the operating frequency shall not exceed 2 mV/m when measured with a standard field strength meter at a distance of 60 meters (197 feet) from any part of the station.
  - (iv) For a station employing a conventional radiating antenna(s) (ex. vertical monopole, directional array) the following restrictions apply:
    - (a) The antenna height above ground level shall not exceed 15.0 meters (49.2 feet).

- (b) Only vertical polarization of antennas shall be permitted.
  - (c) Transmitter RF output power shall not exceed 10 watts to enable the user to comply with the specified field strength limit.
  - (d) The field strength of the emission on the operating frequency shall not exceed 2 mV/m when measured with a standard field strength meter at a distance of 1.50 km (0.93 miles) from the transmitting antenna system.
- (v) Separation requirements.
- (a) For co-channel stations operating under different licensees, the following minimum separation distances shall apply:
    - (1) 0.50 km (0.31 miles) for the case when both stations are using cable antennas.
    - (2) 7.50 km (4.66 miles) for the case when one station is using a conventional antenna and the other is using a cable antenna.
    - (3) 15.0 km (9.3 miles) for the case when both stations are using conventional antennas.
  - (b) For a system of co-channel transmitters operating under a single authorization utilizing either cable or conventional antennas, or both, no minimum separation distance is required.
  - (c) An applicant desiring to locate a station that does not comply with the separation requirements of this section shall coordinate with the affected station.
- (5) Each application for a station or system of stations for a specified area shall be accompanied by a supplementary statement showing compliance with the technical standards contained in this section and additionally:
- (i) A map showing the geographical location of each transmitter site and an estimate of the signal strength at the contour of the desired coverage area. For a cable system, the contour to be shown is the estimated field strength at 60 meters (197 feet) from any point on the cable. For a conventional radiating antenna, the estimated field strength contour at 1.5 km (0.93 mile) shall be shown. A contour map comprised of actual on-the-air measurements shall be submitted to the Commission within 60 days after station authorization or completion of station construction, whichever occurs later. A sufficient number of points shall be chosen at the specified distances (extrapolated measurements are acceptable) to adequately show compliance with the field strength limits.
  - (ii) For each transmitter site, the transmitter's output power, the type of antenna utilized, its length (for a cable system), its height above ground, distance from transmitter to the antenna, and the elevation above sea level at the transmitting site.

(6) In Section 89.109, a new subparagraph (j) is added to read as follows:

§ 89.109 Modulation requirements.

- \* \* \* \* \*
- (j) Each transmitter in a Travelers Information Station shall be equipped with an audio low-pass filter. Such filter shall be installed between the modulation limiter and the modulated stage. At audio frequencies between 3 kHz and 20 kHz this filter shall have an attenuation greater than the attenuation at 1 kHz by at least:

$$60 \log_{10} (f/3) \text{ decibels}$$

where "f" is the audio frequency in kHz. At audio frequencies above 20 kHz, the attenuation shall be at least 50 decibels greater than the attenuation at 1 kHz.

(7) In Section 89.124, subparagraph (k) is amended as follows:

§ 89.124 Single sideband radiotelephone technical specifications.

- \* \* \* \* \*
- (k) Except for Travelers Information Stations in the Local Government Radio Service, A3J emission for radiotelephone is mandatory in all new radio-telephone systems operating on frequencies below 25 MHz on or after September 8, 1972, and in all other non-exempted systems 5 years after that date.

(8) In Section 89.255, a new subparagraph (d) is added to read as follows:

§ 89.255 Points of communication.

- \* \* \* \* \*
- (d) Travelers Information Stations are authorized to transmit certain information (see Section 89.102(c)(2) of this Part) to members of the traveling public.

(9) Section 89.259(f) table is amended to read as follows:

Section 89.259 Frequencies available to the Local Government Radio Service.

\* \* \* \* \*

(f) \* \* \*

Frequency or band	Class of station(s)	Limitations
(MHz)		
.530	Base	13
1.610	do	13
*	*	*

(g) \* \* \*

(13) This frequency is available for use only by Travelers Information Stations.

DISSENTING STATEMENT OF COMMISSIONER JAMES H. QUELLO

in Re: Travelers Information Station Facilities

I cannot agree with the Commission majority that there is any demonstrable need to establish a new class of radio service to transmit travelers aid information. I find a substantial difference between "demonstrable need" and demonstrable desire or interest.

The majority is of the opinion that an "established need" for this service has been demonstrated through experience with existing experimental stations. I simply do not view this proposed service as performing any needed function that cannot be better performed by (1) existing broadcasting stations or (2) by alternative means. Conversely, the proposed services tend to discriminate in favor of those vehicles equipped with functioning AM receivers capable of receiving a signal at the extreme edges of the broadcast band. Thus, such discrimination would seem to mitigate against the sole use of the proposed services in instances in which safety might be considered a factor.

I am fully aware of the practical aspects of providing informational reports to the public by radio stations, particularly during heavy drive time periods. Radio stations in the larger and more urban areas particularly scramble to provide the most comprehensive weather reports, traffic condition reports, emergency traffic situations, etc. Such reports cover a substantial area geographically and the listener is able to receive the information in sufficient advance time to make use thereof. In contrast, travelers information stations would be of very limited range. In fact, the range would appear to be so limited as to be of little value in aiding the motorist in anticipating hazardous situations. As for non-safety-related services, I am not convinced as to their public interest value over more traditional alternatives.

In closing, I again emphasize the lack of showing that there exists an actual "need" for the travelers information stations service and that such broadcast service would so uniquely respond to these needs as to be in the public interest. Absent such showing, I must dissent.