

**Before the
FEDERAL COMMUNICATIONS COMMISSION**

Washington, DC 20554

In the Matter of)	
)	
Travelers' Information Stations)	PS Docket No. 09-19
)	
American Association of Information Radio Operators)	
Petition for Ruling on Travelers' Information Station Rules;)	
)	
Highway Information Systems, Inc.)	RM-11514
Petition for Rulemaking;)	
)	
American Association of State Highway & Transportation Officials)	RM-11531
Petition for Rulemaking)	

COMMENTS REGARDING FCC PUBLIC NOTICE DA 14-508

AAIRO continues to support the NAB (National Association of Broadcasters) compromise proposal to relax the TIS audio filtering requirement from 3 kHz to 5 kHz. The compelling reason to allow the relaxation is to improve the intelligibility and, as a result, the usefulness of the TIS service. Improvement of the TIS service not only enhances its value to licensees and listeners but also increases the public's awareness and use of the AM broadcast band. Changing the audio filter requirement to 5 kHz will not create demonstrable degradation in adjacent AM broadcast stations' services due to the strict channel-spacing and separation rules already imposed on Travelers' Information Stations.

The change to new filtering requirements should be made optional to individual licensees rather than being mandated. Certainly, none are harmed, if a licensee determines that s/he will retain the present 3-kHz filter. Mandating the change for all current TIS operators would present a significant financial burden to governmental entities (such as state departments of transportation, city governments, *etc.*) that operate Travelers' Information Stations – which, by their very natures, have limited funding and do not generate income. The vast majority of TIS licensees do not have the resources to make significant component replacements, component modifications and/or have their transmitters recertified. Many would cease to operate *versus* becoming compliant.

The least burdensome way for a willing licensee to make a filter change is to merely “turn off” the existing 3-kHz TIS filter in the transmitter (which can be done by merely removing a single jumper on a circuit board) and to add a stand-alone 5-kHz filter ahead of the transmitter in the audio chain. Note: AAIRO suggested previously that the same 3-kHz filtering formula could be employed for a 5-kHz filter for convenience of design. However, if an alternate formula would provide superior protection to adjacent frequencies, it should be employed.

Stand-alone filters that comply with new rules for the TIS service can be built by TIS transmitter manufacturers, some of whom have already committed to stand-alone filter manufacture and to making those filters available to the market when new filtering rules are issued. The cost to manufacture a passive stand-alone filter is nominal and simple insertion into the audio chain preferred. This is because the alternative of modifying and recertifying an existing TIS transmitter’s filter would be dramatically more expensive and would require a station to be off the air while modification of the transmitter is performed off site. Allowing a stand-alone filter would also permit the continued manufacture of TIS transmitters in the current design without the requirement that they be redesigned to include modified internal filters. This will prevent the passing of a significant transmitter redesign cost burden to future operators and licensees.

AAIRO asserts that retaining audio filtering circuitry in TIS transmitters is a reasonable safeguard against a licensee broadcasting non-compliant (non-voice) content. Indeed, a properly designed filter will roll off all content – voice and non-voice – in the same way. It is AAIRO’s real-world experience that, though there may be anecdotal evidence of non-voice content being broadcast in isolated instances since the inception of the service in 1977, calling it an exception would be an exaggeration. None of AAIRO’s nearly 400 members “broadcast musical content,” as asserted by NAB; and AAIRO is not aware of any Travelers’ Information Stations anywhere in the USA engaged in the practice. NAB states that “if TIS stations continue broadcasting musical content,...” yet does not cite one example of a station engaged in the practice. AAIRO would counter that, if such a Travelers’ Information Station was identified, the FCC Enforcement Bureau already has the responsibility and facility to take the complaint and contact the station through established channels to advise the licensee to modify content.

Generally speaking, digital audio players that produce voice messages for the vast majority of Travelers’ Information Stations are not designed to record audio frequencies above 5 kHz – and only receive voice messages for broadcast via phone lines which, by nature, are limited to audio frequencies much less than 5 kHz. Therefore, FCC rules notwithstanding, the audio-player technology present at

almost all Travelers' Information Stations *de facto* limits the stations' audio frequencies at transmitter inputs to less than 5 kHz already.

The SBE (Society of Broadcast Engineers) assertion that "many TIS stations fail to adhere to generally accepted modulation standards, which could result in poor audio quality," again, does not cite specific examples and admits that such a failure merely *could* result in poor audio quality. Clearly, low modulation or over-modulation can dramatically affect the quality and intelligibility of an AM broadcast. But virtually all TIS transmitters have audio limiting and compression circuitry built into their audio stages designed to achieve high average modulation levels to maximize loudness and intelligibility. Though TIS transmitters are not designed to the standards of the commercial broadcast market and must fit into a markedly lower-price profile, they still must adhere to recognized conventions of AM modulation to produce what the TIS market requires – voice intelligibility.

Conclusion

Relaxation of filtering requirements will improve intelligibility markedly, and the continued presence of the filters will continue to protect broadcasters against any potential adjacent-channel interference.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William W. Baker". The signature is written in a cursive style and is positioned above a horizontal line.

William W. Baker
President

American Association of Information Radio Operators
PO Box 41
Zeeland, MI 49464-0041

May 14, 2014