

F.C.C. 69-1366

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

<p>In the Matter of AMENDMENT OF SECTIONS 74.750(c)(7) AND 74.783(a) OF THE COMMISSION'S RULES TO MODIFY TV BROADCAST TRANSLATOR STATION IDENTIFICATION REQUIREMENTS.</p>	}	<p>Docket No. 18568 RM-1367</p>
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REPORT AND ORDER

(Adopted December 10, 1969)

BY THE COMMISSION:

1. The Commission has before it for consideration its notice of proposed rulemaking released June 9, 1969 (F.C.C. 69-641), proposing to amend its rules concerning the identification of television translator stations. The notice was the result of a petition filed by the National TV Translator Association (National) requesting that section 74.783 of the Commission's rules be amended to eliminate the requirement that station identification be transmitted by translator stations of over 1 w., or that arrangements with the primary station to present the identification be regarded as satisfying the requirement.

2. Under the present rule (sec. 74.783) translators of more than 1-w. peak visual power must transmit their call signs in international Morse code within 5 minutes of each hour and half hour. This transmission may be accomplished either: (1) By an automatic device in the translator apparatus which will modulate the local oscillator or a suitable amplifier stage with an audio frequency tone keyed in the proper sequence so as to cause the modulation to appear on the aural and visual carriers emitted by the transmitter; or (2) by rebroadcasting the signals of another translator which transmits the call signals of translators rebroadcasting its signal. The notice proposed, for translators of more than 1-w. peak visual power, modification of this requirement in one or more of a number of different ways: (1) Identification in international Morse code at either every 30 minutes or every hour within 5 minutes of the hour, instead of the present hour and half hour (within 5 minutes); (2) continuous keying of the transmitter, using frequency shift keying (FSK), a system proposed by Association of Maximum Service Telecasters, Inc. (MST), and its consulting engineers; or (3) the possibility of relieving the individual translators from the requirement entirely, provided an identification announcement is broadcast by the primary station being rebroadcast, at sign-on and sign-off, and provided the translator and the primary station have an arrangement whereby the latter has current information as to the address and telephone number of the licensee and its representative to be contacted in case of necessity.

3. There were approximately 23 comments and reply comments filed in response to the notice. Most supported some means of modifying the identification requirements or outright elimination of identification by the translator station. Several of the comments supplied considerable information in connection with the problems of identifying transmissions of translators.

4. Television Technology Corporation (TTC), a manufacturer of television translators, suggests that the identification requirements for translator of under 20 w. be deleted, on the ground that because of the limited range of these translators, identification is not necessary. It states that if identification is necessary, it would relieve the difficulties greatly if the requirement that the call letters be sent within 5 minutes of the hour and half hour were modified so that it be required only at 30-minute periods. This would eliminate the need for the licensee to reset the code-wheel timing mechanism each time the power fails at the translator. TTC made tests using frequency shift keying methods, and FM modulation of the local oscillator of the translator. It states that output frequencies (it is assumed the local oscillator of the translator was being keyed) were shifted more than 75 kc./s. with no detrimental effect to either picture or sound as monitored on a color television receiver, and suggests a shift of from 5 to 25 kc./s. for a practical requirement. TTC also frequency modulated (FM) the local oscillator of the translator with a 400 cycle and 3 kc./s. tone, and suggests that a 5 to 15 kc./s. swing would be practical. It is also stated that it is unlikely that oscillator stability will be affected by the suggested limits. TTC also states that if frequency shift keying (FSK) were required, translators of its manufacture could be field converted for around \$50, and that it would make a kit available for that purpose. Thus, it says FSK is practical; but whether it is economical is another question. TTC then urges that the Commission delete the individual translator requirements and substitute the requirement that the translator licensee arrange with the primary station to keep on file the exact location of the translator, address and telephone number of the licensee or his representative, etc., or as an alternate suggestion, to delete the station identification requirements of translators of up to and including 20-w. peak output.

5. Ampex Corp., R.F. Systems Department (Ampex), supplied brief comments. In its translators the aural carrier is separated from the visual information in order to provide aural carrier level control. One of the aural I.F. amplifiers is then modulated, resulting in 30-percent minimum amplitude modulation of the aural FM carrier. Tests were made using both broadcast monitoring equipment and a number of home receivers, with no interference in either the aural or visual (monochrome or color) signal. Ampex is of the opinion that its system is less expensive, simpler and more stable. However, the code wheel-gated tone oscillator is still required in the system to key the modulation in the form of call letters. The random 30-minute transmission of call letters could be used with this system to good advantage.

6. Electronics, Missiles, and Communications, Inc. (EMCEE), in its brief comments states that the FSK system of identification would add about 2 percent to the cost of the translator without significantly adding to the complexity. It also feels that the requirement for identifica-

tion could be eliminated. Keith Anderson Co. in its comments suggests that code identification should not be required for VHF translators of 10 w. or under, or UHF translators of 30 w. or less; that the area of coverage is not great, and there would not be much chance of interference. It proposes that translators of higher power should be identified and that stricter specifications should apply to the higher power translators. It is of the opinion that FSK has no advantages over aural-carrier-only amplitude tone modulation, and that code wheels are not reliable. Keith Anderson states that the identification should be at specific intervals, not within some time slot such as within 5 minutes of the hour and half hour. It then states that the company has designed a tone modulator which is all solid state and has no moving parts, and can provide a tone signal in code which can be set for any required code element on external switches. It can be adjusted to send the call letters at any time interval between 10 and 60 minutes, plus or minus 5 percent, it may be installed on any existing translator, and it does not cause interference to the viewer. It states that the unit has not been marketed because it will not comply with the 10-minute time slot at the hour and half hour, and urges the Commission to specify a time interval rather than a specific time period.

7. We are persuaded that the rules for the identification of translator stations should be modified, that the present method of identification of the station does impose a burden upon the licensee and that it causes interference to the transmitted picture and therefore is an annoyance to the viewer. This was treated in considerable detail in the notice of proposed rulemaking. However, as mentioned in the notice, we are still of the view that all transmitting stations of more than 1-w. output should be identified in some manner. Therefore we are amending our rules as discussed in the next few paragraphs.

8. *Translators of more than 1 w. but no more than 100-w. peak visual power.*—We are of the view that—except for higher power translators discussed below—identification by the translators themselves is not necessary, provided suitable arrangements for their identification through the primary station are worked out and implemented. Several of the comments proposed that translators of up to 10, 20, or 30 w. be exempted from any requirement of identifying themselves, and that translators of powers higher than these levels be subject to such a requirement. These are quite reasonable suggestions. However, it is noted that approximately 80 percent of the UHF translators authorized are in the 100-w. class, and that consequently such an approach would provide very little relief in the UHF translator service. Accordingly, it appears that to make any relief meaningful the new rules permitting this type of arrangement should apply to all translators (except 1-w. translators) up to and including 100 w. Considering that translators with more than 10-w. power are either UHF translators or translators on VHF channels listed in the Table of Assignments, having little interference potential as compared to VHF translators generally, it is believed that no substantial interference problems will result.

9. To achieve identification by this means in lieu of the translator's own transmission, we will require an arrangement with two parts. First, the primary television station being rebroadcast shall display a list twice during each of two periods of the day of the call letters and

location of translator stations rebroadcasting its signals. It had been suggested that this be done at the beginning and end of the broadcast day. However, it has also been pointed out that many television stations are now operating from 12 to 24 hours a day, and the display of this list at 5 or 6 a.m. in the morning, or at midnight or 2 a.m. in the morning, would be of little practical value. Therefore, we are requiring that this list be displayed twice during the periods 7 to 9 a.m. and 3 to 5 p.m. (local time) daily, and at intervals of not less than 30 minutes during each time period. Television stations which do not begin their broadcast day before 9 a.m., shall display this list four times a day during the hours closest to these time periods at the specified intervals. It is believed that this gives the station sufficient choice of time, and that these are periods of the day when the information would be more useful, and more usable for field work. We will not attempt to specify any particular format for the display, but will expect this information to be displayed in such a way that it will be readable and provide sufficient information so that the individual translator stations can be identified, and also that it will be displayed for some reasonable time so that the average person will be able to read or absorb the information.¹ Secondly, we will require an arrangement to be made between the television broadcast licensee and the television translator licensees so that the broadcast station will keep on file the name, address, and telephone numbers of the translator licensee, his service representative, and the call letters and exact location of the translator station. This shall be made available to responsible persons in case of malfunction of the translator equipment or interference problems that might involve the translator's signals. A new applicant relying on identification by this means, when he certifies that he has received permission to rebroadcast a primary station's signals, shall include a statement that he has made arrangements with the primary station to present his identification and keep on file, and that he will supply to it, current information as required by section 74.783(a) (2) of the rules. All television broadcast translator licensees using this means of identification will be required in their renewal applications to certify that the above arrangements are in effect, and that they have furnished current information to the primary station. Measures to insure adequate identification for the immediate future are discussed below.

10. Translators eligible to use this arrangement (those with power of 100 w. or less) may of course not be able to, or prefer not to, make such arrangements with the primary station as means of identification. In that event, if authorized with more than 1-w. power, they shall transmit their own call signs every 30 minutes, using one of the methods specified in section 74.750(c) (7) as amended herein, in the same manner as translators of more than 100 w. Present forms of identification may continue in use until December 31, 1970 as mentioned below.

11. *Translators of more than 100-w. peak visual power (and others not relying on identification through the main station).*—The rules limit translators generally to no more than 100-w. peak visual power;

¹As a rough guideline in these respects, the following appears appropriate: Where a primary station is listing numerous translators, not more than 12 should be listed on each slide; and each slide should be displayed for 3 seconds or 1 second per translator listed on it, whichever is less.

however, six 1-kw. UHF translators have been authorized on a waiver basis, and others may be authorized in the future. Power levels higher than 100 w. approach regular broadcast powers, and therefore it is appropriate to require such facilities to identify themselves by presenting their own call signs. As noted above, the present system, of keying the local oscillator or amplifying stage with an audio frequency tone on the hour or half hour (or within 5 minutes) is unsatisfactory for a number of reasons, including interference and consequent annoyance to viewers. We are of the view that it should be terminated, and replaced by one of the systems discussed above, in the alternative. Therefore, while existing means of identification may be used until December 31, 1970, thereafter identification shall be made at least every 30 minutes by one of the methods specified in section 74.783 as amended herein, i.e., frequency shift keying, of between 5 and 25 kc./s., or amplitude modulation of the FM aural carrier (at least 30 percent modulation). The requirement of identification every 30 minutes, in lieu of at specified times such as within 5 minutes of the hour, is being adopted in line with most of the comments, as mentioned above. It will avoid any problems with power failures and inability to set some equipment to transmit at a particular time, and at the same time provide the announcement with sufficient frequency for prompt identification purposes.

12. *1-w. translators.* The rules now specifically exempt 1-w. translators from any identification requirement, and the notice herein did not propose one. Therefore, and since any interference from such translators occurs in a very small area, we are not imposing a requirement on them. However, it appears that some identification is desirable even in these cases, and the arrangement with the primary station mentioned above should not be difficult to work out in most cases. Therefore, such translators, and the primary stations which they rebroadcast, should adopt similar arrangements whereby the primary station will present the call sign and location, and maintain the current information mentioned for translators of higher power.

13. *Measures to insure compliance with the new rule.*—It is expected that the vast majority of translators with more than 1-w. peak visual power will attempt to secure identification through the primary station, and most of them will be able to work out the arrangements described above. Since this is in effect a relaxation of an existing requirement which has proved burdensome, the rule permitting this type of identification is being made effective immediately. However, translators may not be able to work out the necessary arrangements immediately, and until firm arrangements for main station identification of the translator have been made and are in effect, the translator shall continue to identify itself as heretofore provided or as provided in the new rule herein for translators of over 100 w. We are not requiring existing translators to certify to such arrangements until they have occasion to do so in a renewal or modification application; but any cases of failure to secure adequate identification, either by the translator itself or by the primary station, will be regarded as very serious violations of our rules.

14. When translator licensees or permittees have occasion to file applications—renewal, modification, or license to cover CP—they

will be required to answer a question concerning the manner in which station identification will be made. If other than by arrangement with the primary station, they will be held responsible for compliance with sections 74.750(c) and 74.783(a) (1) as amended herein and set forth in the appendix hereto.

15. In view of the above, the Commission finds that it is in the public interest to amend sections 74.750(c) (7) and 74.783(a) of its rules to relax the presently required identification of television broadcast translator stations. Since this relieves an existing and burdensome requirement, the usual effective-date provisions of the Administrative Procedure Act (5 U.S.C. sec. 553(d)) need not be complied with, and the change is effective immediately.

16. Accordingly, pursuant to the authority contained in sections 4(i) and 303(e) of the Communications Act of 1934, as amended, *It is ordered*, That effective December 19, 1969, Part 74 of the Commission's rules and regulations *Is amended* as set forth in the attached appendix.

17. *It is further ordered*, That this proceeding *Is terminated*.

FEDERAL COMMUNICATIONS COMMISSION,
BEN F. WAPLE, *Secretary*.

APPENDIX

Part 74, subpart G of the Commission's rules is amended in the following respects:

1. In section 74.750, paragraph (c) (7) is amended to read as follows:

§ 74.750 *Equipment and installation.*

* * * * *

(c) * * *

(7) Transmitters of over 100-w. peak visual power shall be equipped with an automatic keying device which will transmit the call sign assigned to the station, in international Morse code, at least once each 30 minutes during the time the station is in operation. Transmitters of more than 1 w. but not more than 100-w. peak visual power shall be similarly equipped unless they have in effect a firm arrangement with the television station being rebroadcast for the latter to display their call sign as provided in section 74.783(a) (2). Transmission of the call sign can be accomplished in either of the following ways:

(i) By frequency shift keying; the carrier shift shall not be less than 5 kc. or greater than 25 kc.;

(ii) By amplitude modulation of the aural FM carrier of at least 30 percent modulation. The audio frequency tone used shall not be within 200 cycles of the 1,000 cycle tone used for Emergency Broadcast System Alerting.¹

NOTE. Until December 31, 1970, translators may use automatic devices permitted under earlier section 74.750(c) (7), i.e., one interrupting the radiated signals or amplitude modulating the radiated signal with an audio frequency tone.

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2. Section 74.783(a) is amended to read as follows:

§ 74.783 *Station identification.*

(a) (1) Each television broadcast translator station of over 100-w. peak visual power shall transmit its call sign in international Morse code at least once each 30 minutes during the time the station is in operation. The transmission may be accomplished by means of an automatic device as required by section 74.750(c) (7). Call sign transmissions shall be made at a code speed not in excess of 20-

¹ The National Industry Advisory Committee (NIAC) has under study for the Commission an alerting system using the frequencies 853 and 960 cycles per second. Pending resolution of this study audio frequency tones for identification purposes within 200 cycles of those frequencies shall not be used.

words per minute. At this speed the transmission of each individual call sign will require approximately 4 seconds.

(2) Each television broadcast translator station of 100-w. peak visual power and less (but more than 1 w.), in lieu of transmitting its call letters, may make arrangements with the licensee of the television station whose signals are being rebroadcast to provide for the display of the translator call letters and location each broadcast day twice during each of the periods 7 to 9 a.m. and 3 to 5 p.m. at intervals of not less than 30 minutes during each time period. Television stations which do not begin their broadcast day before 9 a.m. shall make these displays four times a day in the hours closest to these time periods at the specified intervals. This may be accomplished by visual means, with due regard for readability. In addition, arrangements shall be made so that the licensee of the television station will keep on record, and make available to any responsible person the call letters and location of each translator station rebroadcasting its signals, with the name, address, and telephone number of the licensee or his service representative to be contacted in cases of malfunction of the translator. It shall be the responsibility of the translator licensee to furnish current information in this respect to the television station licensee. Where a television translator of more than 1 w. but no more than 100-w. peak visual power does not have such arrangements with the station whose signals are being rebroadcast, it shall transmit its own call sign as specified in paragraph (a) (1) of this section.

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