### Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of	)	
	)	
Measurement Standards for Digital Television	)	ET Docket No. 06-94
Signals Pursuant To the Satellite Home Viewer	)	
Extension and Reauthorization Act of 2004	)	

### NOTICE OF PROPOSED RULEMAKING

Adopted: April 24, 2006

Released: April 28, 2006

Comment Date: 30 Days after Publication in the Federal Register Reply Comment Date: 45 Days after Publication in the Federal Register

By the Commission:

## I. INTRODUCTION

1. By this action, the Commission proposes to amend its rules to include measurement procedures for determining the strength of a digital broadcast television (DTV) signal at any specific location. These procedures would be used as a means of determining whether households are eligible to receive distant DTV network signals retransmitted by satellite carriers. This Notice of Proposed Rulemaking begins the process of implementing our recommendations for DTV measurement procedures presented in the Commission's *Report to Congress (SHVERA Report)* pursuant to Section 204(b) of the Satellite Home Viewer Extension and Reauthorization Act of 2004 (SHVERA).<sup>1</sup>

## II. BACKGROUND

2. Broadcast television stations have rights, through the Communications Act,<sup>2</sup> the Copyright Act<sup>3</sup> and private contracts, to control the distribution of the national and local programming that they transmit.<sup>4</sup> In 1988, Congress adopted the Satellite Home Viewer Act (SHVA) as an amendment to the Copyright Act in order to protect broadcasters' interests in their programming while simultaneously allowing

<sup>&</sup>lt;sup>1</sup> The Satellite Home Viewer Extension and Reauthorization Act of 2004, Pub. L. No. 108-447, § 204, 118 Stat 2809, 3393 3423-24, (2004), codified at 47 U.S.C. §339(c)(1). The SHVERA was enacted as title IX of the "Consolidated Appropriations Act, 2005." On December 9, 2005, as required by Section 204(b) of the SHVERA, the Commission issued a *Report to Congress, "Study of Digital Television Field Strength Standards and Testing Procedures"* (*SHVERA Report*), ET Docket No. 05-182, 20 FCC Rcd. 19504 (rel. Dec. 9, 2005).

<sup>&</sup>lt;sup>2</sup> 47 U.S.C. § 325(b).

<sup>&</sup>lt;sup>3</sup> 17 U.S.C. § 119. "Limitations on exclusive rights: Secondary transmissions of superstations and network stations for private home viewing." (Copyright Act)

<sup>&</sup>lt;sup>4</sup> Satellite Delivery of Network Signals to Unserved Households for Purposes of the Satellite Home Viewer Act, CS Docket No. 98-201, Report and Order, 14 FCC Rcd 2654 at ¶ 2 (1999) (SHVA Report and Order).

satellite carriers to retransmit the signals of distant network stations to those satellite subscribers who were unable to obtain broadcast TV network programming over the air from local stations.<sup>5</sup> Under the SHVA, those subscribers were generally considered to be "unserved" by local stations. Pursuant to the requirements of this statute, which linked the definition of "unserved households" to a Commission-defined measure of analog television signal strength known as "Grade B intensity,"<sup>6</sup> the Commission adopted rules for determining whether a household is able to receive a television signal of this strength.<sup>7</sup> In particular, the Commission adopted rules establishing a standardized method for measuring the strength of analog television signals at individual locations.<sup>8</sup>

3. The Satellite Home Viewer Improvement Act of 1999 (SHVIA) amended the Copyright Act and the Communications Act to permit use of a predictive model to determine whether a household was "unserved" by a local television station. The SHVIA also established the waiver and testing process for subscribers who wanted to be eligible to receive distant analog network signals.<sup>9</sup> The SHVIA did not, however, expressly address distant *digital* signals. In December 2004, Congress enacted the Satellite Home Viewer Extension and Reauthorization Act of 2004,<sup>10</sup> which again amended the copyright laws<sup>11</sup> and the Communications Act<sup>12</sup> to further aid the competitiveness of satellite carriers and expand program offerings for satellite subscribers. SHVERA includes new provisions for distant digital signal reception and amends section 339 of the Communications Act and section 119 of the Copyright Act to provide three methods by which a subscriber is eligible to receive such signals. First, a subscriber is eligible to receive the distant digital signal of any affiliate of that network or is determined by on site testing to be unserved by the over-the-air analog signal of any affiliate of that network.<sup>13</sup> Second, after certain dates, a subscriber whose household is predicted to be served with a local station's analog signal will have the ability to request an on site signal strength test to determine if his or her household is unable to receive a

<sup>7</sup> SHVA Report and Order, 14 FCC Rcd 2654 at ¶4.

 $^{8}$  *Id.* at ¶¶50-60. 47 C.F.R. § 73.686(d) specifies the measurement procedure used to obtain the signal intensity at an individual location.

<sup>9</sup> See Pub.L. No 106-113, 113 Stat. 1501 (1999), which amended 17 U.S.C. § 119 and 47 U.S.C. § 339; see also 47 C.F.R. 73.683, 47 C.F.R. 73.686(d) and *Technical Standards for Determining Eligibility for Satellite-Delivered Network Signals Pursuant to the Satellite Home Viewer Improvement Act, Report*, ET Docket No. 00-90, FCC 00-416 (2000).

<sup>10</sup> See SHVERA, supra n.1.

<sup>11</sup> Section 103 of the SHVERA creates a new 17 U.S.C. \$ 119(a)(4)(D) to provide satellite carriers with a statutory copyright license to offer distant digital network signals. *See also* n. 9, *supra*.

<sup>12</sup> See 47 U.S.C. §§ 325, 338, 339 and 340.

<sup>13</sup> See 17 U.S.C. § 119(d)(10)(A) and 47 U.S.C. § 339(c)(4)(A); see also 47 U.S.C. § 339 (a)(2)(D)(I).

<sup>&</sup>lt;sup>5</sup> 17 U.S.C. § 119 (Copyright Act provisions).

<sup>&</sup>lt;sup>6</sup> See 17 U.S.C. § 119(d)(10)(A); see also 47 C.F.R. § 73.683(a). Section 119(d)(10) (A) of the Copyright Act defines an unserved household as a "household that cannot receive, through use of a conventional stationary, outdoor rooftop receiving antenna, an over-the-air signal of a primary network television station affiliated with that network of Grade B intensity as defined by the Federal Communications Commission under section 73.683(a) of title 47 of the Code of Federal Regulations, as in effect on January 1, 1999." Section 73.683(a) sets forth field strength levels (denoted in terms of units of decibels referenced to one microvolt per meter (dB $\mu$ v/m)) for the Grade B coverage contours of analog TV stations, as follows: for TV channels 2-6, 47 dB $\mu$ ; channels 7-13, 56 dB $\mu$ ; and channels 14-69, 64 dB $\mu$ .

particular local station's digital signal and is thus eligible to receive a distant digital signal from the same network.<sup>14</sup> SHVERA gives subscribers the right to request and pay for a test to determine their eligibility if their satellite carrier does not request the test or refuses to do so.<sup>15</sup> Third, a satellite subscriber can receive distant digital signals if the television network station grants a waiver. There is no provision in SHVERA for a predictive model for digital signals.<sup>16</sup>

4. Section 204 of SHVERA also directed the Commission to conduct an inquiry on whether the Commission should revise its digital TV signal strength standards and signal measurement procedures used to identify if a household is "unserved" for purposes of the satellite copyright license for distant signals. Section 204 of SHVERA further directed the Commission to provide Congress with a report on its findings and recommendations for any revisions that might be needed to those standards and procedures.<sup>17</sup> In response to this requirement, the Commission conducted a *SHVERA Inquiry*<sup>18</sup> and, on December 8, 2005, issued the *SHVERA Report* to Congress that, in relevant part, stated that the Commission needs to conduct a rulemaking proceeding to specify procedures for measuring the field strength of digital television signals at individual locations.<sup>19</sup> The Commission also stated in its report that it generally believes that the digital television measurement procedures should be similar to the current procedures for measuring the field strength of analog television stations in Section 73.686(d) of the rules, but with certain modifications to address the differences between analog and digital TV signals.<sup>20</sup>

<sup>15</sup> 47 U.S.C. §339(a)(2)(D)(III)(ee). See also Implementation of Sections 209 and 204(D)(vi)(ee) of the Satellite Home Viewer Extension and Reauthorization Act of 2004 to Amend Section 339 of the Communications Act and to Amend 47 U.S.C. §339(a)(2)(D)(vii)(I)(aa)(bb).

<sup>16</sup> In the *SHVERA Report*, however, the Commission recommended 'that Congress amend the copyright law, as well as the Communications Act, to allow a predictive model to be used in connection with eligibility for a distant digital signal.' The Commission further recommended 'that Congress provide the Commission with authority to adopt the existing improved [Individual Location Longley-Rice] ILLR model as a predictive method for determining households that are unserved by local digital signals for purposes of establishing eligibility to receive retransmitted distant network signals under the SHVERA.' *See* 47 U.S.C. §§339(a)(2)(D)(vi)(III)(ee) and 339(c)(4)(E).

<sup>17</sup> See 47 U.S.C. §339(c)(1).

<sup>18</sup> See In the Matter Of Technical Standards For Determining Eligibility For Satellite-Delivered Network Signals Pursuant To The Satellite Home Viewer Extension and Reauthorization Act, ET Docket No. 05-182, Notice of Inquiry (Inquiry), 20 FCC Rcd. 9349 (2005).

<sup>20</sup> *Id.* at 19506.

<sup>&</sup>lt;sup>14</sup> Generally, subscribers in the top 100 television markets will be able to request a digital signal strength test after April 30, 2006 and subscribers in other markets will be able to request a test after July 15, 2007. Only network stations that have received a tentative digital channel designation that is the same as such stations' current digital channel, or that have lost interference protection, are subject to the April 30, 2006 commencement date for signal strength testing. Network stations in the top 100 markets without tentative channel designations on their DTV channels, as well as all network stations not in the top 100 markets, will be subject to signal strength testing beginning July 15, 2007, unless the Commission grants the station a waiver. 47 U.S.C. §339(a)(2)(D)(vi)(I).

<sup>&</sup>lt;sup>19</sup> See SHVERA Report, supra n. 11, at 19506, 19553-19561. In its SHVERA Report issued as a result of this Inquiry, the Commission also found that no changes are needed to the digital television field strength standards and/or planning factors for purposes of determining whether a household is eligible to receive retransmitted distant network television signals.

### **III. DISCUSSION**

5. Consistent with the provisions of Section 204 of SHVERA and our statements in the *SHVERA Report*, we are proposing to amend our rules to include procedures for measuring the field strength of digital television signals. These new measurement procedures are needed to account for the differences that are inherent between the NTSC (analog) and digital television signals. While the proposed procedures would be generally applicable for measuring digital TV signal strengths, they would specifically be used in determining if a household is served by a digital television signal as part of an evaluation of the household's eligibility to receive a distant digital network signal from a satellite television provider. The proposals set forth herein were developed based on our recommendations in the *SHVERA Report*.<sup>21</sup>

6. Wherever possible, the proposed procedures rely on existing, proven methods the Commission has established for measuring analog television signal strength at any individual location.<sup>22</sup> We request comment on these proposals. We also note that SHVERA gives subscribers the ability to request and pay for a signal strength test if their satellite carrier does not request the test or refuses to do so.<sup>23</sup> We request comment on whether there are ways, such as by choice of equipment or by designation of procedures, to minimize the cost of digital signal strength tests while at the same time ensuring the accuracy and reliability of the results. We also note that SHVERA provides that testing of digital signal strength for this purpose could begin as early as April 30, 2006. We will allow subscribers and satellite carriers to rely on the proposed DTV measurement procedures for evaluating DTV signal strengths pending our adoption of final rules.

7. *Antenna*. The current analog TV measurement rules allow the use of either a standard half-wave dipole or a directional (gain) antenna for which the antenna factor is known.<sup>24</sup> In our *SHVERA Inquiry*, the Television Network Affiliates Association (Network Affiliates) and the National Association of Broadcasters (NAB) both suggested that the measurement procedure require a directional antenna rather than a simple dipole. Use of such an antenna, they asserted, would help ameliorate the effects of multipath interference and also ensure that the measured power levels are sufficiently high to permit accurate measurement at all channel ranges.<sup>25</sup> The NAB suggested use of a calibrated gain antenna with a front-to-back ratio consistent with the Commission's DTV planning assumptions.<sup>26</sup>

8. We request comment on whether we should require that measurements be taken using a calibrated gain antenna with a front-to-back ratio consistent with the DTV planning factors, as suggested by NAB, or follow the approach used with analog TV signals and require that measurements be taken using either a standard half-wave dipole antenna<sup>27</sup> or a gain antenna<sup>28</sup> with a known antenna factor<sup>29</sup> for the channel(s)

<sup>22</sup> 47 C.F.R. § 73.686(d).

<sup>23</sup> See n. 15, supra, and accompanying text.

<sup>24</sup> 47 C.F.R. § 73.686(d)(1)(i).

<sup>25</sup> See, *e.g.*, ET Docket No. 05-182, NAB comments, Att. 1 (Engineering Statement of MSW) at 21.

<sup>&</sup>lt;sup>21</sup> Those recommendations were developed based on the existing analog signal strength measurement rules and the comments received in response to our *SHVERA Inquiry*. We note that, in its comments in response to the *SHVERA Inquiry*, EchoStar submitted a number of proposals related to DTV signal strength measurement, which the Commission rejected as unnecessary or inappropriate. *See SHVERA Report*, at paras. 117-121 and 125-128.

<sup>&</sup>lt;sup>26</sup> For antennas used to receive digital television signals the Commission's DTV planning factors assume antenna front-to-back ratios of 10 dB for low VHF, 12 dB for high VHF, and 14 dB for UHF. *See* OET Bulletin 69, at 10.

<sup>&</sup>lt;sup>27</sup> A dipole is a wire or telescoping metallic antenna consisting of two straight co-linear conductors of equal length separated by a small gap where the transmission line is attached. The "rabbit ears" on a television set are a type of (continued....)

that are to be tested. Parties addressing this issue should provide information to support their position, including technical merits, effect on the accuracy of measurements, and the practical implications for testing parties, including ease of use and cost. Parties performing measurements in accordance with the proposals set forth herein in the interim period pending our adoption of final DTV signal strength measurement procedures are advised that they may use a calibrated gain antenna with a front-to-back ratio consistent with the Commission's DTV planning assumptions, a standard half-wave dipole, or a directional (gain) antenna for which the antenna factor is known.

9. *Measurement procedures*. The current measurement procedures for analog television signals require that at least five measurements be made in a cluster of positions as close as possible to the location of the antenna site being tested.<sup>30</sup> These measurements are taken for the signal strength of the visual carrier of the analog signal, and the median signal strength is reported as representative of the actual field strength of the signal.<sup>31</sup> In addition, the current rules require that the intermediate frequency ("i.f.") of the measurement equipment be at least 200 kilohertz and no greater than 1 megahertz.

10. We propose to include in the digital signal measurement procedures the requirements that at least five measurements be made in a cluster as close as possible to the location being tested and that the median be reported and used to determine eligibility for distant network signals. As in the case of measuring analog signals, multiple measurements in different locations are necessary to account for differences that may occur due to multipath. Modifications to the analog testing rules are needed for digital signal measurements, however, to account for the facts that the digital TV signal does not have a visual carrier and that the digital signal tends to be flat across the entire bandwidth. Therefore, we propose to require digital signal measurements to be conducted by measuring the integrated average power over the signal's entire 6-megahertz bandwidth. To provide testing parties with flexibility in making measurements, we propose to require that the i.f. bandwidth of the measuring instrumentation be not greater than 6 MHz. This will allow testers to choose the measurement instrumentation and settings they believe appropriate, provided only that the equipment must be capable of integrating the measured power in the selected i.f. bandwidth across the 6 MHz TV channel. On this point, we note that in general the

<sup>29</sup> The antenna factor is the ratio of the incident electromagnetic field to the output voltage from the antenna.

<sup>(</sup>Continued from previous page) -

dipole. A "half-wave" dipole has an overall electrical length equal to half the wavelength of the frequency of interest. For example, the wavelength of a radio signal at 300 MHz is one meter; a half-wave dipole for receiving a 300 MHz signal, therefore, would have an overall length of one-half meter (approximately 20 inches). However, the physical length of an actual half-wave dipole is approximately 5% shorter in order to account for the effect of the thickness of the conductor or the end effect of a wire antenna.

<sup>&</sup>lt;sup>28</sup> A "gain antenna" is an antenna that provides a stronger signal (if it is a "positive" gain antenna) to the receiver than the reference antenna. The "reference" antenna is usually either a dipole or an isotropic radiator. There are "negative" gain antennas, but they are not generally used for television reception. An isotropic radiator (antenna) is a hypothetical antenna that radiates equally well in all directions - up, down, left, right. It has no directional characteristics and has no practical application other than as a reference antenna.

 $<sup>^{30}</sup>$  See 47 C.F.R. §73.686(d)(1)(ii). Under this rule, the cluster of measurements is made at a minimum of five locations chosen as close as possible to a reasonable and likely spot for the antenna to be located. The locations are to be at least three meters apart, that is, far enough apart so that the testing is practical. If possible, the first test point should be chosen as the center point of a square whose corners are the four other locations. The median of the five measurements (in units of dBu) is calculated and reported as the measurement result.

<sup>&</sup>lt;sup>31</sup> The median is the middle value of a distribution, so that half of the measurements are above the median value and half are below.

average power is measured by taking multiple measurements across the TV channel and integrating the results of those individual measurements.<sup>32</sup> We request comment on these proposals.

11. In addition, we propose to apply to the testing of digital TV signals the requirements in the analog TV testing rules that the instrumentation be set up with a shielded transmission line between the testing antenna and the field strength meter, that the antenna impedance be matched to the transmission line at all frequencies measured, and that the tester account for transmission line loss for each frequency being measured. Further, whenever an unbalanced line is used, we propose to require that a suitable balun be employed.<sup>33</sup> We seek comment on these proposals.

12. We further propose, consistent with the analog testing rules, to require that digital television measurements be made with a horizontally polarized antenna.<sup>34</sup> We also would require that the testing antenna be oriented so that its maximum gain (over an isotropic antenna) faces the strongest signal coming from the transmitter under test. If more than one station's signal is being measured, the testing antenna would be required to be oriented separately for each station. This procedure is consistent with the Commission's current analog signal measurement rules<sup>35</sup> as well as with good engineering practice. It is also consistent with the Copyright Act, which defines an unserved household in relation to an individual television station rather than to all network affiliates in a market.<sup>36</sup> We seek comment on the requirements proposed above.

13. Finally, we propose to apply the antenna height requirement, set forth in the existing analog rules, as a required procedure for measuring digital signals.<sup>37</sup> The rules currently require that, for field strength measurements at one-story buildings, the testing antenna be elevated to 6.1 meters (20 feet) above the ground. For field strength measurements at buildings taller than one story, the rules require that the testing antenna be elevated to 9.1 meters (30 feet) above the ground. A primary benefit of such a standard is that it is easy to administer. For example, testers do not have to measure the height above ground of each individual home and do not have to raise a test antenna higher than 9.1 meters (30 feet). This requirement has worked well for analog signal measurements and we tentatively conclude that it will work equally well for digital signal measurements. We seek comment on this tentative conclusion and on the above proposed requirements.

14. *Weather*. We propose that the current analog measurement rules with respect to weather conditions be applied to the measurement of digital television signal field strength.<sup>38</sup> Digital signal strength measurements are to be made only when inclement weather or major weather front movements are not

<sup>34</sup> 47 C.F.R. § 73.686(d)(iii)(2)(i).

<sup>35</sup> 47 C.F.R. § 73.686.

<sup>37</sup> Id.

<sup>38</sup> 47 C.F.R. §73.686(d)(2)(ii)

<sup>&</sup>lt;sup>32</sup> For example, if the average power measurement is conducted using a 100 kilohertz i.f. bandwidth, then 60 measurements would be taken across the channel (100 kilohertz \* 60 = 6 megahertz). The average power for reporting would be obtained by integrating those 60 measurements.

<sup>&</sup>lt;sup>33</sup> A balun is a device that joins a balanced line to an unbalanced line. It serves to isolate a transmission line and provides a connection between the joined lines in order to achieve compatibility between the balanced and unbalanced lines.

<sup>&</sup>lt;sup>36</sup> Section 119(d)(10) of the Copyright Act defines unserved household "with respect to a particular television network" and states that such a household must be unable to receive the signal of "a primary network affiliate station affiliated with that network." 17 U.S.C. § 119(d)(10)(A).

present in the measurement area. Generally, weather conditions do not have an appreciable effect on the reception of broadcast television signals. However, heavy precipitation or the movement of major weather fronts through the measurement area can have a noticeable impact on signal strength measurements. Therefore, the tester should avoid taking measurements at such times. We seek comment on this proposal.

15. Data recording. Our rules require the recording of the measured values of the analog field strength value in units of dBu.<sup>39</sup> In addition, a number of additional factors must be recorded as part of the analog field strength measurement procedure. These factors include a listing of the calibrated equipment used in a field strength survey, the locations of each measurement performed at the site, factors that may affect a measurement reading (such as weather, topography or other obstacles), the time and date of measurements, and the signature of the person making the measurement. We propose to apply these same recording requirements for the reporting of measurements of DTV signal strength. More specifically, we propose to require that a written record of the digital signal measurement process and results be made and that this record include at least the following: 1) a list of calibrated equipment used; 2) detailed description of the calibration of the measuring equipment, including field strength meters, measuring antenna, and connecting cable; 3) all factors which may affect the recorded field, such as topography, height and types of vegetation, buildings, obstacles, weather, and other local features for each spot at the measuring site; 4) a description of where each of the cluster measurements was made; 5) the time and date of the measurements and the signature of the person making the measurements; and 6) a list of the measured value of field strength (in units of dBu after adjustment for line loss and antenna factor) of the five readings made during the cluster measurement process, with the median value highlighted for each channel being measured. We seek comment on this proposal.

16. *Tester Availability*. We request comment on whether we can fashion rules that will address the lack of qualified, independent testers to perform signal strength tests.<sup>40</sup> In comments filed in response to our *SHVERA Inquiry*, DIRECTV states that while there are few testers qualified to perform analog tests, the problem will be worse for digital tests because there are fewer entities qualified to perform digital tests and because digital testing equipment is in short supply.<sup>41</sup> Are there steps that the Commission can take in this proceeding that will facilitate or enhance tester competence and availability? We seek comment on this question.

## **IV. PROCEDURAL MATTERS**

17. *Initial Regulatory Flexibility Analysis*. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>42</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (Notice). The IRFA is set forth in Appendix B. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice. The Commission will send a copy of this Notice,

<sup>42</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601–612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>&</sup>lt;sup>39</sup> 47 C.F.R. § 73.686 (d) (3)(vi).

 $<sup>^{40}</sup>$  See 47 U.S.C. §339(a)(2)(D)(II). This requires that a test be conducted by a qualified and independent person selected by the satellite carrier and the network station.

<sup>&</sup>lt;sup>41</sup> Comments of DIRECTV at 5.

including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>43</sup> In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.<sup>44</sup>

18. *Initial Paperwork Reduction Act of 1995 Analysis*. This Notice of Proposed Rulemaking would establish both new and modified information collections. As part of our continuing efforts to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to comment on the information collections contained in this *Notice*, as required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13. Public and agency comments are due 60 (sixty) days from publication of this Notice in the Federal Register. Comments should address the following: (a) whether the proposed collections of information will have practical utility; (b) the accuracy of the Commission, including whether the information will have practical utility; (b) the and collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. In addition, pursuant to the Small Business Paperwork Relief Act of 2002,<sup>45</sup> we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

19. In addition to filing comments with the Secretary of the Commission, a copy of any Paperwork Reduction Act comments on the information collections proposed herein should be submitted to Cathy Williams, Federal Communications Commission, Room 1-C823, 445 12<sup>th</sup> Street, SW, Washington, DC 20554, or via the Internet to <u>Cathy.Williams@fcc.gov</u> and to Kristy L. LaLonde, OMB Desk Officer, Room 10234 NEOB, 725 17<sup>th</sup> Street, NW, Washington, DC 20503, or via the Internet to <u>Kristy L. LaLonde@omb.eop.gov</u>, or by fax to 202-395-5167.

20. *Comment Filing Procedures*. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments on or before thirty (30) days after publication of this Notice of Proposed Rulemaking ("Notice") in the Federal Register and reply comments on or before forty-five (45) days after publication of this Notice in the Federal Register. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or the Federal Government's eRulemaking Portal, or by filing paper copies.

21. *Electronic Filers*. Comments may be filed electronically using the Internet by accessing the ECFS: <u>http://www.fcc.gov/cgb/ecfs/</u> or the Federal eRulemaking Portal: <u>http://www.regulations.gov</u>. Filers should follow the instructions provided on the website for submitting comments. For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to <u>ecfs@fcc.gov</u>, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

22. *Paper Filers*. Parties who choose to file by paper must file an original and four copies of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S.

<sup>&</sup>lt;sup>43</sup> See 5 U.S.C. § 603(a).

<sup>&</sup>lt;sup>44</sup> Id.

<sup>&</sup>lt;sup>45</sup> Pub.L. 107-198, 116 Stat. 729 (June 28, 2002).

Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

23. Availability of Documents. Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., CY-A257, Washington, D.C., 20554. These documents will also be available via ECFS. Documents will be available electronically in ASCII, Word 97, and/or Adobe Acrobat.

24. Accessibility Information. To request information in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to <u>fcc504@fcc.gov</u> or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document can also be downloaded in Word and Portable Document Format (PDF) at: <u>http://www.fcc.gov</u>.

25. *Additional Information*. For additional information on this proceeding, contact David Sturdivant, <u>David.Sturdivant@fcc.gov</u>, (202) 418-1227, of the Office of Engineering and Technology, Electromagnetic Compatibility Division.

26. *Ex Parte Presentations*. This Notice of Proposed Rulemaking initiates a permit-but-disclose notice-and-comment rulemaking proceeding under section 1.1206(b) of the Commission's rules.<sup>46</sup> *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required.<sup>47</sup> Additional rules pertaining to oral and written presentations are set forth in section 1.1206(b).

## V. ORDERING CLAUSES

27. Accordingly, IT IS ORDERED that pursuant to Section 204 of the Satellite Home Viewer Extension and Reauthorization Act of 2004, codified at 47 U.S.C. § 339(a)(2)(D)(vi), and Sections 1, 4(i) and (j)of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), NOTICE IS HEREBY GIVEN of the proposals and tentative conclusions described in this Notice of Proposed Rulemaking which IS ADOPTED.

<sup>&</sup>lt;sup>46</sup> See 47 C.F.R. § 1.1206(b); see also 47 C.F.R. §§ 1.1202, 1.1203.

<sup>&</sup>lt;sup>47</sup> See id. § 1.1206(b)(2).

28. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

## FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch Secretary

# APPENDIX A

# PART 73 - RADIO BROADCAST SERVICES

1. The authority citation for Part 73 continues to read as follows:

# AUTHORITY: 47 U.S.C. 154, 303, 334 and 336, unless otherwise noted.

2. Section 73.686 is amended by revising the first sentence of paragraph (d) and by adding a new paragraph (e) to read as follows:

§ 73.686 Field strength measurements.

\* \* \* \* \*

(d) *NTSC* - Collection of field strength data to determine *NTSC* television signal intensity at an individual location--cluster measurements—

\* \* \*

(e) *DTV* - Collection of field strength data to determine *DTV* television signal intensity at an individual location--cluster measurements—(1) Preparation for measurements—(i) Testing antenna. The test antenna shall be either a standard half-wave dipole tuned to the center frequency of the channel being tested or a gain antenna provided its antenna factor for the channel(s) under test has been determined. Use the antenna factor supplied by the antenna manufacturer as determined on an antenna range.

(ii) *Testing locations* - At the test site, choose a minimum of five locations as close as possible to the specific site where the site's receiving antenna is located. If there is no receiving antenna at the site, choose a minimum of five locations as close as possible to a reasonable and likely spot for the antenna. The locations shall be at least three meters apart, enough so that the testing is practical. If possible, the first testing point should be chosen as the center point of a square whose corners are the four other locations. Calculate the median of the five measurements (in units of dBu) and report it as the measurement.

(iii) *Multiple signals* - If more than one signal is being measured (i.e., signals from different transmitters), use the same locations to measure each signal.

(2) *Measurement procedure*. Measurements shall be made in accordance with good engineering practice and in accordance with this section of the Rules. At each measuring location, the following procedure shall be employed:

(i) *Testing equipment*. Perform an on-site calibration of the test instrument in accordance with the manufacturer's specifications. Tune a calibrated instrument to the center of the channel being tested. Measure the integrated average power over the full 6 megahertz bandwidth of the television signal. The intermediate frequency ("i.f.") of the instrument must be less than or equal to 6 megahertz and the instrument must be capable of integrating over the selected i.f. Take all measurements with a horizontally polarized antenna. Use a shielded transmission line between the testing antenna and the field strength meter. Match the antenna impedance to the transmission line at all frequencies measured, and, if using an un-balanced line, employ a suitable balun. Take account of the transmission line loss for each frequency being measured.

(ii) *Weather*. Do not take measurements in inclement weather or when major weather fronts are moving through the measurement area.

(iii) *Antenna elevation*. When field strength is being measured for a one-story building, elevate the testing antenna to 6.1 meters (20 feet) above the ground. In situations where the field strength is being measured for a building taller than one-story, elevate the testing antenna 9.1 meters (30 feet) above the ground.

(iv) *Antenna orientation*. Orient the testing antenna in the direction which maximizes the value of field strength for the signal being measured. If more than one station's signal is being measured, orient the testing antenna separately for each station.

(3) Written record shall be made and shall include at least the following:

(i) A list of calibrated equipment used in the field strength survey, which for each instrument, specifies the manufacturer, type, serial number and rated accuracy, and the date of the most recent calibration by the manufacturer or by a laboratory. Include complete details of any instrument not of standard manufacture.

(ii) A detailed description of the calibration of the measuring equipment, including field strength meters, measuring antenna, and connecting cable.

(iii) For each spot at the measuring site, all factors which may affect the recorded field, such as topography, height and types of vegetation, buildings, obstacles, weather, and other local features.

(iv) A description of where the cluster measurements were made.

(v) Time and date of the measurements and signature of the person making the measurements.

(vi) For each channel being measured, a list of the measured value of field strength (in units of dBu after adjustment for line loss and antenna factor) of the five readings made during the cluster measurement process, with the median value highlighted.

## **APPENDIX B**

## **Initial Regulatory Flexibility Act Analysis**

As required by the Regulatory Flexibility Act of 1980, as amended ("RFA"),<sup>1</sup> the Commission has prepared this Initial Regulatory Flexibility Act Analysis ("IRFA") of the possible significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking* ("*Notice*"). Written public comments are requested on this IRFA and must be filed no later than 60 (sixty) days after the date of publication of this *Notice* in the Federal Register. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.<sup>2</sup> In addition, the *Notice* (or summaries thereof), including the IRFA, will be published in the Federal Register.<sup>3</sup>

*A. Need for and Objectives of the Proposed Rules.* We seek comment on whether the Commission should amend its rules as proposed to include measurement procedures for determining the strength of a digital broadcast television (DTV) signal at any specific location. These procedures would be used as a means of determining whether households are eligible to receive distant DTV network signals retransmitted by satellite communications providers. This Notice of Proposed Rulemaking begins the process of implementing our recommendations for DTV measurement procedures presented in the Commission's *Report to Congress (SHVERA Report)* pursuant to Section 204(b) of the Satellite Home Viewer Extension and Reauthorization Act of 2004 (SHVERA).<sup>4</sup>

The current rule includes measurement procedures for determining the strength of an analog broadcast television signal at any specific location and is used to determine household eligibility to receive distant analog TV network signals retransmitted by satellite communications providers. In December 2004, however, Congress enacted the Satellite Home Viewer Extension and Reauthorization Act of 2004,<sup>5</sup> pursuant to which, the Commission conducted an *Inquiry*<sup>6</sup> (*SHVERA Inquiry*) and on December 9, 2005, released the *SHVERA Report to Congress*. In relevant part, the *SHVERA Report to Congress* stated that the Commission intended to conduct a rulemaking proceeding to specify procedures for measuring the field strength of digital television signals at individual locations.<sup>7</sup> The report also stated that the digital television measurement procedures should be similar to the current procedures for measuring the field strength of analog television stations in Section 73.686(d) of the rules, but with certain modifications to address the differences between analog and digital TV signals.<sup>8</sup>

<sup>2</sup> 5 U.S.C. § 603(a).

<sup>3</sup> *Id*.

<sup>4</sup> See SHVERA, supra n.1.

<sup>5</sup> See id.

<sup>&</sup>lt;sup>1</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601 - 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1966 (SBREFA), Pub. L. No. 104-121, 110 Stat. 847 (1996).

<sup>&</sup>lt;sup>6</sup> See In the Matter Of Technical Standards For Determining Eligibility For Satellite-Delivered Network Signals Pursuant To The Satellite Home Viewer Extension and Reauthorization Act, ET Docket No. 05-182, Notice of Inquiry (Inquiry), 20 FCC Rcd. 9349 (2005).

<sup>&</sup>lt;sup>7</sup> See SHVERA Report, supra note 4.

<sup>&</sup>lt;sup>8</sup> Id.

Wherever possible, the proposed digital signal strength measurement procedures rely on the existing, proven methods the Commission has established for measuring analog television signal strength at any individual location.<sup>9</sup> In the Notice, the Commission requests comment on these proposals. We also note that the SHVERA statute provides that testing of digital signal strength for this purpose could begin as early as April 30, 2006.<sup>10</sup> Therefore, the Notice states that the Commission will rely on the proposed DTV measurement procedures for evaluating DTV signal strengths pending the adoption of rules in this regard.

*B. Legal Basis.* The legal basis for the rule changes proposed in this *Notice* is contained in Sections 1, 4(i) and (j), and 339 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), and 339 (including amendments enacted in the Satellite Home Viewer Extension and Reauthorization Act of 2004).

*C. Description and Estimates of the Number of Small Entities to Which the Rules Adopted in This Notice May Apply.* The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.<sup>11</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>12</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.<sup>13</sup> A small business concern is one

Waiver requests by stations subject to the testing commencement date of April 30, 2006 were required to be submitted by November 30 2005. To be grantable, waiver requests must provide "clear and convincing evidence that the station's digital signal coverage is limited due to the unremediable presence of one or more of the following: 1) the need for international coordination or approvals; 2) clear zoning or environmental legal impediments; 3) force majeure; 4) the station experiences a substantial decrease in its digital signal coverage area due to the necessity of using a side-mounted antenna; 5) substantial technical problems that result in a station experiencing a substantial decrease in its coverage area solely due to actions to avoid interference with emergency response providers; or 6) no satellite carrier is providing the retransmission of the analog signals of local network stations under section 338 in the local market." The Act further provides that "under no circumstances may such a waiver be based upon financial exigency." Waiver requests by stations subject to the testing commencement date of July 15, 2007 must be submitted to the Commission no later than February 15, 2007. *See* Public Notice DA No. 05-2979 (released Nov. 17, 2005). *See generally*, 47 U.S.C. § 339(a)(2)(D)(vii)-(viii).

<sup>11</sup> 5 U.S.C. §§ 603(b) (3), 604(a) (3).

<sup>12</sup> Id., § 601(6).

<sup>&</sup>lt;sup>9</sup> See generally, 47 C.F.R. § 73.686(d).

<sup>&</sup>lt;sup>10</sup> 47 U.S.C. § 339(a)(2)(D)(vii) provides trigger dates for testing. Generally, subscribers in the top 100 television markets will be able to request a digital signal strength test after April 30, 2006 and subscribers in other markets will be able to request a test after July 15, 2007. Only network stations that have received a tentative digital channel designation that is the same as such stations' current digital channel, or that have lost interference protection, are subject to the April 30, 2006 commencement date for signal strength testing. Network stations in the top 100 markets without tentative channel designations on their DTV channels, as well as all network stations not in the top 100 markets, will be subject to signal strength testing beginning July 15, 2007, unless the Commission grants the station a waiver. 47 U.S.C. § 339(a)(2)(D)(vii)(AA).

<sup>&</sup>lt;sup>13</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such terms which are appropriate to the activities of the agency and publishes such definitions(s) in the Federal Register."

which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>14</sup>

The proposed rules contained in this *Notice* set forth procedures to measure the strength of digital television signals at any particular location, as a means of determining whether any particular household is "unserved" by a local DTV network station and is therefore eligible to receive a distant DTV network signal retransmitted by a Direct Broadcast Satellite (DBS) service provider. Therefore, DBS providers will be directly and primarily affected by the proposed rules, if adopted. In addition, the proposed rules, if adopted, will also directly affect those local digital television stations that broadcast network programming. Therefore, in this IRFA, we consider, and invite comment on, the impact of the proposed rules on small digital television broadcast stations, small DBS providers, and other small entities. A description of such small entities, as well as an estimate of the number of such small entities, is provided below.

Direct Broadcast Satellite ("DBS") Service. DBS service is a nationally distributed subscription service that delivers video and audio programming via satellite to a small parabolic "dish" antenna at the subscriber's location. Because DBS provides subscription services, DBS falls within the SBA-recognized definition of Cable and Other Program Distribution.<sup>15</sup> This definition provides that a small entity is one with \$13.5 million or less in annual receipts.<sup>16</sup> Currently, only three operators hold licenses to provide DBS service, which requires a great investment of capital for operation. All three currently offer subscription services. Two of these three DBS operators, DirecTV<sup>17</sup> and EchoStar Communications Corporation ("EchoStar"),<sup>18</sup> report annual revenues that are in excess of the threshold for a small The third DBS operator, Dominion Video Satellite, Inc. ("Dominion"), offers religious business. (Christian) programming and does not report its annual receipts.<sup>19</sup> The Commission does not know of any source which provides this information and, thus, we have no way of confirming whether Dominion gualifies as a small business. Because DBS service requires significant capital, we believe it is unlikely that a small entity as defined by the SBA would have the financial wherewithal to become a DBS licensee. Nevertheless, given the absence of specific data on this point, we acknowledge the possibility that there are entrants in this field that may not yet have generated \$13.5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

*Television Broadcast Stations.* The proposed rules and policies apply to digital television broadcast licensees, and potential licensees of digital television service. The SBA defines a television

<sup>15</sup> 13 C.F.R. § 121.201, NAICS code 517510.

<sup>16</sup> Id.

<sup>18</sup> EchoStar, which provides service under the brand name Dish Network, is the third largest MVPD, serving an estimated 11.45 million subscribers nationwide. *Id*.

<sup>19</sup> Dominion, which provides service under the brand name Sky Angel, serves fewer than one million subscribers. *Id.* 

<sup>&</sup>lt;sup>14</sup> 15 U.S.C. § 632.

<sup>&</sup>lt;sup>17</sup> DirecTV is the largest DBS operator and the second largest MVPD, serving an estimated 13.04 million subscribers nationwide; *See* Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, *Twelfth Annual Report, FCC 05-255,* ¶73 (*rel. March 3, 2006*) ("2006 Cable Competition Report").

broadcast station as a small business if such station has no more than \$13 million in annual receipts.<sup>20</sup> Business concerns included in this industry are those "primarily engaged in broadcasting images together with sound."<sup>21</sup> According to Commission staff review of the BIA Publications, Inc. Master Access Television Analyzer Database (BIA) on October 18, 2005, about 873 of the 1,307 commercial television stations<sup>22</sup> (or approximately 67 percent) have revenues of \$13 million or less and thus qualify as small entities under the SBA definition. We note, however, that, in assessing whether a business concern qualifies as small under the above definition, the controlling affiliation(s)<sup>23</sup> must be considered. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies.

In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of the number of small businesses to which the proposed rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also as noted, an additional element of the definition of "small business" is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may also be overinclusive to this extent. Finally, because only those digital television stations that are affiliated with a network would be subject to the proposed rules, our estimate of potentially affected small businesses is over-inclusive for this reason as well.

*Class A TV, LPTV, and TV translator stations*. The proposed rules and policies could also apply to licensees of Class A TV stations, low power television (LPTV) stations, and TV translator stations, as well as to potential licensees in these television services. The same SBA definition that applies to television broadcast licensees would apply to these stations. The SBA defines a television broadcast station as a small business if such station has no more than \$13 million in annual receipts.<sup>24</sup>

<sup>22</sup> Although we are using BIA's estimate for purposes of this revenue comparison, the Commission has estimated the number of licensed commercial television stations to be 1,368. See News Release, "Broadcast Station Totals as of June 30, 2005" (dated Aug. 29, 2005); see http:// www.fcc.gov/mb/audio/totals/bt050630.html.

 $^{23}$  "[Business concerns] are affiliates of each other when one [concern] controls or has the power to control the other or a third party or parties controls or has the power to control both." 13 C.F.R. § 121.103(a)(1).

<sup>24</sup> See 13 C.F.R. § 121.201, NAICS Code 515120.

<sup>&</sup>lt;sup>20</sup> See 13 C.F.R. § 121.201, NAICS Code 515120.

<sup>&</sup>lt;sup>21</sup> *Id.* This category description continues, "These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studios, from an affiliated network, or from external sources." Separate census categories pertain to businesses primarily engaged in producing programming. See Motion Picture and Video Production, NAICS code 512110; Motion Picture and Video Distribution, NAICS Code 512120; Teleproduction and Other Post-Production Services, NAICS Code 512191; and Other Motion Picture and Video Industries, NAICS Code 512199.

Currently, there are approximately 592 licensed Class A stations, 2,145 licensed LPTV stations, 4,491 licensed TV translators and 11 TV booster stations.<sup>25</sup> Given the nature of these services, we will presume that all of these licensees qualify as small entities under the SBA definition. We note, however, that under the SBA's definition, revenue of affiliates that are not LPTV stations should be aggregated with the LPTV station revenues in determining whether a concern is small. Our estimate may thus overstate the number of small entities since the revenue figure on which it is based does not include or aggregate revenues from non-LPTV affiliated companies. We do not have data on revenues of TV translator or TV booster stations, but virtually all of these entities are also likely to have revenues of less than \$13 million and thus may be categorized as small, except to the extent that revenues of affiliated non-translator or booster entities should be considered. Finally, our estimate overstates the number of affected entities because these stations could be affected only if they both broadcast a digital signal and are affiliated with a network.

*D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements.* The rules proposed in this *Notice* would establish procedures for measuring digital television signal strength at any specific location. These measurement procedures would be used as a means of determining whether households are eligible to receive distant DTV network signals retransmitted by DBS providers. These procedures are similar to the ones used for measuring analog television signal strength for like purposes, with only those revisions necessary to account for the difference between digital and analog signals. Section 339(a)(2)(D)(vi) of the Communications Act (47 U.S.C. § 339(a)(2)(D)(vi)) delineates when measurements are necessary and when the satellite communications provider, the digital television broadcast station, or the consumer is responsible for bearing their cost. No reporting requirement is proposed. In this IFRA, we seek comment on the types of burdens direct broadcast satellite service providers and digital television broadcast stations will face in complying with the proposed requirements. Entities, especially small businesses and, more generally, small entities are encouraged to quantify the costs and benefits of the proposed reporting requirements.

*E.* Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered. Since the adoption of analog television signal strength procedures in 1999, the number of analog TV signal strength measurements taken in order to determine household eligibility to receive distant analog TV network signals have been infrequent. For example, DIRECTV, in comments filed in ET Docket No. 05-182, Notice of Inquiry on Technical Standards for Determining Eligibility for Satellite-Delivered Network Signals Pursuant to the Satellite Home Viewer Extension and Reauthorization Act, 20 FCC Rcd 9349 (2005), stated that in the last five years only 1400 DIRECTV subscribers received onsite tests to determine eligibility to receive distant network television signals. In that proceeding, both DIRECTV and EchoStar indicated that they generally declined to perform or arrange for a test and instead refused to offer distant signals when subscribers were predicted to be "served" and the relevant network stations refused to grant a waiver. DIRECTV cited high costs both monetary and in time involved as reasons that test have not been performed.

As TV stations transition from analog transmissions to DTV, we anticipate that the combined number of analog and digital measurements will not increase substantially. This is so because, as part of the DTV transition, television stations will be ceasing the transmission of analog signals and households seeking to receive retransmitted DTV network signals will not be seeking to receive analog signals. In other words, digital measurements will replace analog measurements. Also, as direct broadcast stations increasingly offer

<sup>&</sup>lt;sup>25</sup> News Release, "Broadcast Station Totals as of December 31, 2005" (dated Feb. 23, 2006); see <u>http://www.fcc.gov/mb/audio/totals/bt051231.html.</u>

local-to-local service to households pursuant to *SHVERA*, those households will not be eligible to receive retransmitted distant signals and therefore DTV signal strength measurements for this purpose will not be necessary.

In addition, the Notice requests comment on what measures the Commission can take, consistent with the SHVERA statute, that would reduce the cost to subscribers of digital signal testing without reducing the accuracy and reliability of the tests. We also note that SHVERA provides that testing of digital signal strength for this purpose could begin as early as April 30, 2006. We will rely on the proposed DTV measurement procedures as interim rules for evaluating DTV signal strengths pending our adoption of final rules.

Finally, the Notice proposes, as is now the case with analog signal strength measurements, to allow measurements to be taken using either a standard half-wave dipole antenna or a gain antenna with a known antenna factor for the channel(s) that are to be tested. For digital measurements, this approach would allow the tester flexibility in performing the test while still providing for accurate results. The Notice requests comment on this proposal and, alternatively, on whether we should require the use of a gain antenna only. Commenters are also asked to provide information regarding differences in ease of use of gain antennas as compared to the use of half-wave dipole antennas. Finally, to assure that we explore this issue in depth and develop a complete record on this issue, the Notice seeks comment on what rules we should propose, if any, that would address the apparent lack of qualified, independent testers to perform signal strength tests. Commenters are asked to submit information related to the cost of testing and the number of qualified testers available. The Notice states that we seek to determine if there are alternative methods that would reduce the cost of performing a test while retaining or improving on the accuracy of the proposed method.

## F. Federal Rules that Might Duplicate, Overlap, or Conflict with the Proposed Rules. None.