



OFFICE OF  
THE CHAIRMAN

Federal Communications Commission  
Washington, D.C.

The Honorable John D. Dingell  
Chairman  
Committee on Energy and Commerce  
U.S. House of Representatives  
2125 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman Dingell:

Please find enclosed my response to your letter dated November 7, 2008.

Please contact me if I can be of further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin J. Martin".

Kevin J. Martin  
Chairman

Enclosure

## Responses to Questions from Reps. Dingell and Markey

### RESCANNING CONVERTER BOXES

**What is the Commission doing, or what, specifically, does it intend to do to let viewers, including viewers without ready access to the Internet, know what they need to rescan their digital-to-analog converter boxes after February 17, 2009?**

Response: The need to re-scan converter boxes is one of the key messages we are incorporating in our DTV transition outreach across the country. To assist viewers, the Commission has created an easy-to-use Troubleshooting Guide that emphasizes the importance of performing a channel scan to ensure that that all signals can be received. The Guide walks viewers through performing the channel scan and alerts them to the importance of periodically re-scanning their converter box as broadcasters finalize their transmitting locations and go to full power digital signals, and to check whether additional digital channels have become available.

We have taken steps to ensure that viewers without ready access to the Internet receive the same converter box information. Every formal presentation made by a Commission staffer about the transition now includes this important message. For those who call the Commission Call Center, we ensure that representatives are equipped with re-scanning information and ready to assist viewers who call us seeking assistance with their converter boxes. We also distribute the Troubleshooting Guide at the various events and conferences we attend, along with our DTV transition partners and other industry and government stakeholders.

Finally, as you may be aware, the Commission recently solicited contracts from grassroots and other community-based organizations to educate and assist viewers, particularly those viewers that are home-bound or that have limited mobility, with the procurement and installation of digital television converter boxes and related equipment. The need to rescan digital-to-analog converter boxes will be a key message from these organizations. Bids on the solicitations have been received and we are working to get the contracts in place as soon as possible.

### ANTENNA ISSUES

**1. If a viewer cannot receive certain local digital signals using a digital-to-analog converter box, how is that viewer supposed to determine that he needs to obtain a new antenna or adjust an existing antenna to correct the problem?**

Response: The ability to receive over-the-air television signals may be influenced by a number of variables, and the resolution of reception problems will depend on the particular circumstances of individual viewers. Commission publications advise viewers who currently receive good analog reception on channels 2-51 with their existing antenna

are likely to receive good DTV reception. These viewers should simply try their existing antenna with the converter box. However, because broadcast stations may be changing channels, frequency band, power, and tower locations between now and February 17, 2009 (and in some cases beyond February 17) there may be situations where a viewer's antenna system does need to be changed to match the changes of the broadcasters.

Addressing these issues a part of the Commission's consumer outreach. For viewers who try their existing antenna with their converter boxes and lose channels, we have published a Troubleshooting Guide that identifies potential causes and provides tips for improving reception. The Guide walks viewers through many of the factors that may affect the reception of television signals, including:

- VHF and UHF channels: Digital signals will be broadcast on both the VHF channels (2-13) and the UHF channels (14-51); we make a special point to discuss in outreach presentations that viewers using rabbit ears need to make sure they have a loop or bow-tie that receives the UHF channels; viewers also may need to rotate the loop and bowtie around because UHF signals are more directional than VHF signals. If a viewer does not receive a good analog picture on the UHF channels, a new antenna probably is needed.

- Station Readiness: Many television stations currently are operating their digital facilities at reduced power levels or on different channels than their final post-transition channel, and will change channel or increase signal strength on or after February 17, 2009.

- Antenna Positioning: Terrain, trees, and buildings may block the signal. The antenna may need to be moved to a different location or oriented to receive the digital signal.

- Cliff Effect: If the digital signal falls below a certain minimum strength, the picture can disappear.

- Signal Overload: Viewers in close proximity to a station's transmission tower may receive a strong signal that prevents reception of other signals.

- Weather: Rain, wind, humidity may interfere with reception, especially if the wind moves the antenna to the wrong direction, or equipment is damaged and allows water to enter.

Again, the Commission advises viewers who currently receive good analog reception on channels 2-51 with their existing antenna are likely to receive good DTV reception.

The Troubleshooting Guide is available for review and download at <http://www.fcc.gov/cgb/consumerfacts/troubleshootguide.pdf>. If a viewer is not able to download our guide from the Internet, Commission Call Center staff are available to walk through the guide over the telephone at 1-888-CALLFCC, or mail a copy to the viewer.

In addition, the Consumer Electronics Association and the National Association of Broadcasters maintain a website, [www.antennaweb.org](http://www.antennaweb.org), viewers can access to obtain information on which stations are expected to provide coverage at a particular address, and the type of antenna that is recommended for reception.

**2. What is the Commission doing, or what, specifically, does it intend to do to let viewers, including viewers without ready access to the Internet, know that they may need to obtain a new antenna or adjust an existing antenna to receive over-the-air signals after February 17, 2009?**

Response: Another message for viewers in our ongoing DTV outreach is that reception may be an issue and viewers should purchase and install their converter boxes as soon as possible. Our Troubleshooting Guide walks viewers through various antenna-related issues, such as: (1) the possible need to make small adjustments and how to make those adjustments for both indoor and outdoor antennas; (2) the helpfulness of accessing the “signal strength meter” on their digital-to-analog converter box or digital television to determine whether their adjustments are improving the signal strength; and (3) the relative advantages of indoor and outdoor antennas and helpful suggestions on determining which is best suited to address the viewer’s particular needs.

We have taken steps to ensure that viewers without ready access to the Internet receive the same antenna information. Every formal presentation made by a Commission staffer now says that they may need to obtain a new antenna or adjust an existing antenna to receive over-the-air signals after February 17, 2009. For those who call the Commission Call Center, we ensure that representatives are equipped and ready to assist viewers who call us seeking assistance with their television reception. We also distribute the Troubleshooting Guide at the various events and conferences we attend, along with our DTV transition partners and other industry and government stakeholders. Finally, the possible need to make antenna adjustments or acquire a different antenna will be key component of the help the grassroots and community organizations will be able to provide pursuant to the contracts we establish in response to the solicitation described above.

## SIGNAL CONTOUR ISSUES

**1. How many full-power stations have digital signal coverage areas that are smaller than their analog signal coverage areas? For those stations, please identify each station and its market and detail the amount of service coverage loss as a percentage of households in the station’s current analog service area.**

Response: Of the approximately 1800 full service stations, we estimate that 15% of the markets will have a station with a significant reduction in coverage. In the vast majority of cases, the digital coverage area is at least the same or larger than the analog coverage area.

The Commission has contracted with an engineering consulting firm to produce maps and population spreadsheets to assess coverage area and population differences between digital and analog facilities for all full service stations.

The contractor will prepare the data and maps that include a snapshot of analog coverage today, digital coverage immediately after February 17, 2008, and in cases where a station has been granted authorization to maximize, *i.e.*, increase their coverage, a snapshot of future coverage. The deliverables from this contract are due no later than November 26, 2008. Once the Commission receives and reviews this information, we will provide it to you and will make it publicly available.

**2. How many full-power stations will have digital signal coverage areas that do not exactly replicate their analog service areas and will result in more than two percent of existing households not being able to receive the new digital signal? For those stations, please identify each station and its market and the amount of service coverage loss as a percentage of households in the station's current analog service area. Please also indicate if such station will also gain households in its digital service area not currently reached by its analog service.**

Response: We will make this information available once we have received and reviewed it from the contractor.

**3. If a viewer cannot receive certain local digital signals using a digital-to-analog converter box, how is that viewer supposed to determine that this is because the station's digital signal contour is smaller or coverage in certain areas is weaker than its analog signal contour and coverage strength? In other words, how will the viewer know that she resides within the analog signal contour, but outside the digital signal contour?**

Response: The Commission has contracted with an engineering consulting firm to produce maps and population spreadsheets to assess coverage area and population differences between digital and analog facilities for all full service stations.

The contractor will prepare the data and maps that include a snapshot of analog coverage today, digital coverage immediately after February 17, 2008, and in cases where a station has been granted authorization to maximize, *i.e.*, increase their coverage, a snapshot of future coverage. The deliverables from this contract are due no later than November 26, 2008. Once the Commission receives and reviews this information, we will provide it to you and will make it publicly available.

In addition, to determine whether they are within a station's digital coverage area, a viewer may contact the station.

Also, the Consumer Electronics Association and the National Association of Broadcasters maintain a website, [www.antennaweb.org](http://www.antennaweb.org), viewers can access to obtain

information on which stations are expected to provide coverage at a particular address, and the type of antenna that is recommended for reception.

The Commission's rules require stations that have received permission to operate their digital signal at less than their full authorized facilities for a period of time after the end of analog television service (and will therefore serve a reduced portion of their analog viewers or not serve them at all for a time) notify viewers on their analog channels in advance of the transition date about the station's planned delay in construction and operation of post-transition digital service. Such notification must tell viewers how they can continue to receive the station, and must occur every day on-air at least four times a day including at least once in primetime for the 30 days prior to the station's termination of full, authorized analog service. These notifications must include: (1) the station's call sign and community of license; (2) the fact that the station must delay the construction and operation of its post-transition (DTV) service; (3) information about the nature, scope, and anticipated duration of the station's post-transition service limitations; (4) what viewers can do to continue to receive the station, *i.e.*, how and when the station's digital signal can be received; and (5) the street address, email address (if available), and phone number of the station where viewers may register comments or request information. These viewer notifications are in addition to, and separate from, the station's notification requirements under our *DTV Consumer Education Initiative*.

**4. What are stations whose digital signal coverage areas are smaller than their analog signal coverage areas doing, or what, specifically, do they intend to do to let affected viewers, including affected viewers without ready access to the Internet, know that they should expect to lose a particular station's signal after the DTV transition because the station's digital signal contour is smaller than its analog signal contour?**

Response: The Commission has contracted with an engineering consulting firm to produce maps and population spreadsheets to assess coverage area and population differences between digital and analog facilities for all full service stations.

The contractor will prepare the data and maps that include a snapshot of analog coverage today, digital coverage immediately after February 17, 2008, and in cases where a station has been granted authorization to maximize, *i.e.*, increase their coverage, a snapshot of future coverage. The deliverables from this contract are due no later than November 26, 2008. Once the Commission receives and reviews this information, we will provide it to you and will make it publicly available.

In addition, to determine whether they are within a station's digital coverage area, a viewer may contact the station.

Also, the Consumer Electronics Association and the National Association of Broadcasters maintain a website, [www.antennaweb.org](http://www.antennaweb.org), viewers can access to obtain information on which stations are expected to provide coverage at a particular address, and the type of antenna that is recommended for reception.

Broadcasters have numerous potential options to address areas that will no longer be within their digital coverage area, or that may not receive as strong a digital signal as their current analog signal. Options that are available to stations to address or prevent loss of service include: (1) maximizing their service area by increasing their antenna height or power; (2) applying for and constructing translators on a different channel to re-broadcast their signal to the areas that would lose service; (3) constructing a distributed transmission system (DTS) with synchronized translators on the same channel to provide service to lost areas or to populations in areas with difficult terrain; (4) changing broadcast channels to a VHF channel that has better propagation characteristics; (5) changing antennas to improve coverage; (6) moving transmitting towers to improve signal coverage; (7) negotiating to use the subchannel of a nearby station whose signal covers the loss area to multicast programming to the population losing the station's over-the-air signal; and (8) partnering with a low power station whose analog or digital signal covers the potential loss area to provide the station's programming either in analog or digital format. The particular option that is best will vary in each case depending on the reason for the signal loss, the population, the terrain, zoning and environmental concerns, and the method that can be implemented most quickly.

We encourage stations to consider their own build-out projections to identify areas that may lose service and to take action to address any potential loss both with information and ameliorative action. In addition, we recently requested all stations to inform us in their Form 387 reports if they anticipate that their digital coverage area will no longer cover all of the viewers served by their analog signal and to estimate how many analog viewers may lose service.