Order Code RS21990
Updated December 10, 2004

CRS Report for Congress
Received through the CRS Web

Satellite Television and "Digital White Areas": Provisions of the 2004 Satellite Home Viewer Extension and Reauthorization Act

name redacted
Specialist in Aerospace and Telecommunications Policy
Resources, Science, and Industry Division

Summary

In November 2004, Congress passed the Satellite Home Viewer Extension and Reauthorization Act (SHVERA), which extends and expands upon earlier Acts that regulate the satellite television (TV) industry. One of the most contentious issues was whether to allow satellite TV companies to retransmit broadcast network digital TV signals to their subscribers who cannot receive digital TV from their local network broadcast stations — that is, they live in "digital white areas." SHVERA provides limited authority for satellite companies to offer "distant digital signals" if certain conditions are met. This report will not be updated.

Grade B Signals, Unserved Households, and "White Areas"

Congress has passed several laws regulating the satellite television industry. In those laws, and others that regulate cable television, Congress has attempted to balance the interests of the broadcast, satellite, and cable television industries, with the goal of ensuring that as many households as possible have access to free local television programming, while expanding consumer choices in programming and service providers. The first satellite TV law was the 1988 Satellite Home Viewer Act (SHVA). It was amended in 1994, and expanded in 1999 as the Satellite Home Viewer Improvement Act (SHVIA). Some of the provisions of SHVIA were due to expire at the end of 2004, prompting Congress to revisit satellite TV issues in the 108th Congress. The resulting Satellite Home Viewer Extension and Reauthorization Act (SHVERA) is Title IX of Division J of the FY2005 Consolidated Appropriations Act (H.R. 4818, P.L. 108-447). This report addresses only the digital white area issue in SHVERA. See CRS Report RS21768 for more on the earlier Acts and other SHVERA issues The two major satellite TV companies are EchoStar (which markets its service as DishTV) and DirecTV.

SHVA allowed satellite companies to retransmit programming from broadcast network affiliates (such as ABC, NBC, and CBS) only to households that could not receive good quality signals from their local network affiliate via over-the-air (rooftop or "rabbit ear") antennas. Formally they are called "unserved households," but are

colloquially known as "white areas." (The origin of that term is unclear, but some imagine that it refers to a situation where viewers see only "snow" on their TV screens.) Satellite TV companies are allowed to provide subscribers who live in unserved households with network programming from any of the network affiliates regardless of which television market — or Designated Market Area (DMA)[1] — they live in. Since the signals are from a non-local station, they are referred to as "out-of-market" signals, or "distant network signals."

The criterion that determines which households are eligible to receive distant network signals is the Grade B signal intensity standard set by the Federal Communications Commission (FCC). It is a measurement, in decibels, of the intensity of the *analog* signal received at a particular household from a TV station. If a household cannot receive an analog signal of Grade B intensity, it is an unserved household and is permitted to receive distant network signals via satellite. Households that can receive a Grade B signal generally may not receive distant network signals. (Some subscribers who were receiving distant network signals illegally were "grandfathered" in SHVIA and allowed to continue receiving them.)

Each TV station has a "Grade B contour" that can be envisioned as a roughly circular or elliptical area around the transmitter in which most viewers can receive a Grade B signal. Households outside the Grade B contour are unserved. Also, due to terrain or building blockages, some households within a Grade B contour also may be unserved. The FCC uses a computerized predictive model, the Individual Location Longley-Rice (ILLR), to predict which households can receive a Grade B signal. Consumers who disagree with the predictive model have recourses (see CRS Report RS20425).

Until recently, the debate over who is allowed to receive distant network signals was based on analog TV signals. However, the television industry is transitioning to *digital* TV (see CRS Report RL31260), raising the question as to whether a similar concept should be applied to digital TV signals. That is, if a satellite TV subscriber cannot receive a digital signal from a local broadcast network affiliate — i.e., if they live in a "digital white area" or are "digitally unserved" — should the subscriber be allowed to receive a distant *digital* network signal via satellite?

"Local-into-Local" versus "Distant" Network Signals

SHVA addressed only distant network signals. In 1999, SHVIA allowed satellite companies, for the first time, to offer *local* network signals to their subscribers. This service is referred to as "local-into-local" because the satellite companies take the local network signal, transmit it to their satellites, and then rebroadcast it back into the same DMA where it originated. The satellite companies are permitted, but not required, to offer local-into-local. According to their websites, on November 30, 2004, EchoStar offered it in160 DMAs, and DirecTV offered it in 130 DMAs.

The distinction between local and distant network signals is important for understanding satellite TV regulation. A local signal is broadcast and received within a network affiliate's DMA. A distant network signal is from elsewhere in the country. For

---

[1] DMAs are defined by Nielsen Media Research. There are 210 DMAs in the United States.

example, if a consumer lives in Denver and receives a signal from a Denver network affiliate, that is a local signal. If a consumer lives in West Virginia and receives a signal from that Denver network affiliate via satellite, it is a distant network signal. This report addresses the distant network signal debate, but some of the rules apply differently if the subscriber has access to local-into-local service.

The Debate Over Digital White Areas

Certain provisions of SHVIA were due to expire at the end of 2004, prompting Congress to again debate satellite TV issues (see CRS Report RS21768). As part of the debate, the Satellite Broadcasting and Communications Association (SBCA) proposed that satellite subscribers who cannot receive digital TV signals from their local network broadcasters should be able to receive distant digital network TV signals via satellite. SBCA represents the satellite communications industry, including DirecTV and EchoStar.

SBCA and other groups, such as the Digital Transition Coalition, argued that digital TV is being rolled out too slowly. They contended that permitting satellite TV companies to offer distant digital signals — creating in the law "digital white areas" similar to analog white areas — would spur the TV industry to convert to digital more quickly.

The National Association of Broadcasters (NAB) countered that broadcasters are converting to digital as quickly as they can, and, in congressional testimony, insisted the proposal was a "recipe for mischief." Broadcasters have successfully sued satellite companies over many years on the basis that the satellite companies provide distant network signals to subscribers who are not eligible for them. They worry that the satellite companies may again exceed their authorization, leading to more tension and lawsuits. The FCC did not publicly take a position on this issue.

Legislative Action

Jurisdiction over satellite TV issues is divided between the Commerce and Judiciary committees. The House passed H.R. 4518 on October 6, 2004. It merged provisions in that bill as reported from the House Judiciary Committee (H.Rept. 108-66) with H.R. 4501, reported from the House Energy and Commerce Committee (H.Rept. 108-634). The House-passed bill did not include the requested digital white area provisions. Instead, it directed the FCC to begin a process that might lead to establishment of a digital signal standard so that digital white areas could be defined. They would be different from analog white areas. Analog TV signal strength falls off gradually, creating areas of varying signal quality, and the signals may reflect off various objects, producing "ghost" images. Digital signals are either received or not. There are no fuzzy pictures or ghosting.

The Senate Commerce, Science, and Transportation committee reported S. 2644 on November 19, 2004 (no written report); the Senate Judiciary Committee reported S. 2013 on June 17, 2004 (no written report). Neither bill reached the Senate floor. The Senate Commerce bill included digital white area provisions; the Senate Judiciary bill did not address that issue.

Final Provisions

A compromise version of SHVERA was included in the FY2005 Consolidated Appropriations Act (H.R. 4818, P.L. 108-447). The digital white area provisions are very complex. The final language allowed both sides to declare victory. NAB President Eddie Fritts said that the bill "thwarts efforts to establish 'digital white areas'".[2] SBCA's press release listed the major features of the bill, including "the creation of a 'digital white area' which will allow satellite companies to now deliver digital and 'high definition' television signals to millions of rural Americans who are currently digitally unserved."[3]

The details of the final version are described below. Essentially, they mean that subscribers who are unserved for purposes of analog TV signals will also be considered unserved for purposes of digital TV signals. Other satellite TV subscribers may receive distant digital signals only under very narrow circumstances that appear to minimize the number of eligible households.

- **Subscribers in Analog White Areas**

Subscribers who cannot receive an analog signal of Grade B intensity — i.e., they are unserved households for analog television — are also considered to be unserved for digital television. They may receive distant digital signals via satellite if they also meet the criteria described below regarding their access to local-into-local service.

- **Other Subscribers**

Subscribers are eligible for distant digital signals if they are determined to be digitally unserved based on a digital signal intensity test. There are specific provisions about when subscribers are eligible for the test, how it must be conducted, and who pays for it.

When a Test May Be Requested ("Trigger Events")

If the subscriber is within the analog Grade B contour of a network station and is seeking to get a distant digital signal from the same network, the subscriber is not eligible for a test until the following "trigger events" occur:

- April 30, 2006, if the local network station is within the top 100 television markets and
  - — has received a tentative digital TV service channel designation that is the same as that station's current digital TV service channel, or
  - — has been found by the FCC to have lost interference protection, or
- July 15, 2007, for any other local network stations, other than translator stations (which amplify and simultaneously rebroadcast the signal of a TV station on a different frequency), or

---

[2] Statement of NAB President and CEO Edward O. Fritts on Passage of the Five-Year Satellite Home Viewer Extension Reauthorization Act. Press release, November 22, 2004. [http://www.nab.org/Newsroom/PressRel/statements/112204SHVIAbill.htm].

[3] SBCA Applauds Congress for Reauthorizing the Satellite Home Viewer Improvement Act. Press release, November 20, 2004. [http://www.sbca.com/press/112004.htm]

- in the case of a translator station, one year after the date on which the FCC completes all actions necessary for the allocation and assignment of digital TV licenses to TV translator stations.

- The FCC may grant a waiver to a network station and prohibit subscribers from receiving the testing. The request from the station for a waiver must be filed no less than five months before the implementation deadlines specified in the clauses above. The waiver shall expire at the end of no more than six months, but may be renewed. The FCC may only grant the waivers upon 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 (and under no circumstance can waivers be granted because of financial exigency):
    - — the need for international coordination or approvals,
    - — clear zoning or environmental legal impediments,
    - — force majeure,
    - — the station experiences a substantial decrease in its digital signal area due to necessity of using side-mounted antennae,
    - — 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
    - — no satellite carrier is providing local-into-local analog service in the local market.
- The FCC may grant waivers to translator stations for not more than three years if it determines that the translator station is not broadcasting a digital signal due to one or more of the following:
    - — frequent occurrence of inclement weather, or
    - — mountainous terrain at the transmitter tower location.

Test Procedures

- The test must be conducted in accordance with FCC regulation 73.686(d) of title 47 CFR [regarding how to collect field strength data] or any successor regulation, and the subscriber cannot receive a signal of the standard set in section 73.622(e) of title 47 CFR [regarding digital TV service areas, measured in decibels above 1 microvolt per meter] as in effect on the date of enactment of this act. (SHVERA also requires the FCC to complete a study within one year of enactment to determine if these are the best methods for determining whether a household is digitally unserved, and report to Congress with appropriate recommendations.)
- The subscriber must make a written request to the satellite company for a test. The test must be conducted within 30 days after the subscriber submits the request.
- The test must be conducted by a qualified and independent person selected by the satellite company and the network station(s), or who has been previously approved by the satellite carrier and each affected station but not previously disapproved (but the tester cannot be disapproved after the test has commenced).

Circumstances Under Which the Loser Pays, or the Subscriber Pays, for the Test

- In the case of subscribers who are not eligible for a distant digital signal because they do not receive an analog signal of Grade B intensity, but are inside a network station's Grade B contour, the satellite company may ask the network station for a

waiver. If the station grants a waiver, or fails to respond within 30 days, the subscriber may receive the distant digital signal. If a waiver is denied, the subscriber may request the satellite carrier to conduct the test. Unless the satellite company and network station otherwise agree, the loser pays for the test — if the test shows that the subscriber is not digitally unserved, the satellite company pays for test; if the test shows that the subscriber is digitally unserved, then the network station pays.

- If the satellite company does not request the test, or fails to respond to the subscriber within 30 days, the subscriber may request a test and pay for it himself or herself in accordance with regulations to be prescribed by the FCC. The satellite company must inform the subscriber of the typical costs of the test.

- **All Subscribers Who Can Receive Local-into-Local Service**

Any eligible subscriber who is a lawful subscriber to a distant digital signal on the date of enactment of SHVERA may continue to receive that distant digital signal whether or not the subscriber subscribes to local-into-local.

Other subscribers who are digitally unserved, but can receive *analog* local-into-local signals, must choose between the local-into-local signals, or distant digital signals, if –

- in the 48 contiguous states, the distant digital signal is the secondary transmission of a station whose prime time network programming is generally broadcast simultaneously with, or later than, the prime time network programming of the local affiliate of that network,
- in any local market, the retransmission of the distant digital signal of the distant station occupies at least the equivalent bandwidth as the digital signal broadcast by such stations, and
- the subscriber subscribes to the analog signal of a local network station within 60 days after that station's analog signal is made available by the satellite company, and adds to or replaces the station's analog signal with its digital signal within 60 days after that digital signal is made available by the satellite carrier. However, the distant digital signal can be continued if the subscriber cannot be reached by the satellite transmission of the local digital signal.

New subscribers who are digitally unserved but can receive *digital* local-into-local service, may *not* get distant digital signals via satellite unless they cannot be reached by the satellite transmission of the local digital signal.

New subscribers who are digitally unserved and *cannot* receive digital local-into-local may receive a distant digital signal from a station affiliated with a particular network. But they can only do so if, in the case of local markets in the 48 contiguous states, the distant network affiliate's prime time network programming is generally broadcast simultaneously with, or later than, the prime time network programming of the local affiliate. The satellite company may continue to provide the distant digital signal after it makes a digital local-into-local signal available only if the subscriber subscribes to the digital signal from the local network station (unless the subscriber cannot be reached by the satellite transmission of the local digital signal).

EveryCRSReport.com

The Congressional Research Service (CRS) is a federal legislative branch agency, housed inside the Library of Congress, charged with providing the United States Congress non-partisan advice on issues that may come before Congress.

EveryCRSReport.com republishes CRS reports that are available to all Congressional staff. The reports are not classified, and Members of Congress routinely make individual reports available to the public.

Prior to our republication, we redacted names, phone numbers and email addresses of analysts who produced the reports. We also added this page to the report. We have not intentionally made any other changes to any report published on EveryCRSReport.com.

CRS reports, as a work of the United States government, are not subject to copyright protection in the United States. Any CRS report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS report may include copyrighted images or material from a third party, you may need to obtain permission of the copyright holder if you wish to copy or otherwise use copyrighted material.

Information in a CRS report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to members of Congress in connection with CRS' institutional role.

EveryCRSReport.com is not a government website and is not affiliated with CRS. We do not claim copyright on any CRS report we have republished.