

Analog Sunset or Tequila Sunrise

Presented by Dick Perin, Turner Broadcasting

February 17, 2009 is the scheduled date for turning off analog TV broadcasts. However, some stations will remain on the air in analog format for an unspecified time after this date. The FCC is allowing them at least two years and has yet to announce when they must change over to digital broadcasting. Those continuing past the February 17 date are the following:

2,100 Low Power TV Stations
600 Class "A" Stations
4,700 TV Translator Stations

Note that the transition is to digital, which may be standard definition (720 x 483 pixels) or high definition (1280 x 720 pixels or 1920 x 1080 pixels). Most stations in the Atlanta market (with the exception of 4 low power stations) have been "simulcasting" in both analog and digital for several years now.

For those that have analog TV's, you are eligible to receive up to two \$40 discount coupons per household by going to www.dtv2009.gov and requesting them. The only requirement is that you state you are receiving TV via off the air presently (as opposed to cable or satellite). These coupons are to be applied to DTV converter boxes which will convert the digital signals into conventional analog (RF, composite video, and left and right audio). Unfortunately the eligible converter boxes are the most feature-poor units available. Converter boxes with component video output and/or IEEE-1394 outputs cost significantly more than the coupon-eligible \$49 (minus the \$40 discount) units.

Regarding cable companies, if they currently provide an analog signal (many systems are presently "split" systems with an analog tier at the lower frequencies and a digital tier at the higher frequencies) they must continue to provide the local stations in analog until February 17, 2012 or until they go all digital. If they provide digital signals, it would be a different modulation scheme than that used for over-the-air DTV broadcasts. If a cable system doesn't have an analog tier, they must make local stations available to their customers, but only the "primary" signal. They are currently not required to carry any auxiliary channels.

Some of the broadcast spectrum will go away (about 108 MHz). This consists of channels 52 through 69. About 25% of this spectrum will be used to improve communications between the different safety/emergency branches of the government. Of the remaining spectrum, about half has been auctioned off so far, bringing in over \$ 15 billion dollars.

Some new features of digital TV (besides better resolution in the case of HD broadcasts) include audio in mono, stereo, and 5.1 format and as many as a station wants to provide. In addition to close captioning, the ability to provide an audio descriptive channel to sight-impaired viewers exists. "Dialnorm" (Dialog Normalization) is intended to

minimize the differences in volume of different segments and commercials on a given channel. It does this through metadata. Unfortunately, implementing dialnorm is somewhat involved and is not likely to be implemented in the near future. Rounding out the new features is PSIP (program specific information protocol) which is designed to be a real-time “TV Guide” which is currently only implemented to show the “sub channels” on a station. Future versions will provide the real time TV Guide feature. A new metadata, AFD (automatic format descriptor), will help stations automatically select the right method of format conversion between 4:3 and 16:9 to prevent “postage stamp” sized video.

Looming on the horizon (“someday”) is 3D television and UHD (ultra-high definition). Both were demonstrated at the last convention of the National Association of Broadcasters in Las Vegas this past April. The UHD shown was 8,192 x 4,096 and looked amazing.