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November 20, 1996

Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

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Re: Comments to Document FCC 96-317
Sixth Further Notice of Proposed Rule Making
MM Docket No. 87-268: Advanced Television Systems and Their Impact upon the Existing
Television Broadcast Service

Gentlemen and Ladies:

I am making these comments to the Sixth Further Notice of Proposed Rule Making , FCC 96-317 as a private citizen. These comments were inspired by an admiration for the quality of signals I receive beyond the Grade B contour and a disheartenment from the interference rendered by low power television stations. My experience in dealing with off-the-air television viewers experiencing interference has shown that most do not know where to turn for help. I dedicate my comments to the welfare of those viewers still using rooftop antennas. These people are part owners of the spectrum even though they are not making money with it. These people have a right to enjoy it too, even if they do not represent a tenth of a rating point in the Nielsen or Arbitron surveys.

My comments are based upon 45 years of experience of watching television signals received directly off-the-air. My current receiving location affords me the opportunity to observe many different signal conditions from multiple markets. My location has also made me aware of low power television (LPTV) interference.

I am impressed with all the aspects that have been considered in FCC document 96-317 for this change in technology. I realize that the complexity of this issue is going to require compromises. However, my comments in this letter are going to be based upon optimizing the situation for the off-the-air viewers in eastern Winnebago county and western Boone county in Illinois.

The levels of television interference in our area have increased recently due to the addition of five low power television stations in the Rockford market and a low power station beaming at us from the Sears Tower in Chicago. A complaint against four of the LPTV stations by myself and others is pending action at the LPTV Branch. I also submitted comments to proposed changes to the fifth LPTV station in Rockford and to the station on the Sears Tower. I am hoping that the nature of digital television (DTV) will solve some of these problems. However, I fear that even after the nation completely converts to DTV, interference will again be pushed to the limits as stations are shoehorned into high density signal areas.

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COMMENTS ON FULL SERVICE GEOGRAPHIC SPACING APPROACH (ref: ¶98, meaning reference to paragraph 98 of document FCC 96-317)

I do not believe that the adjacent channel spacings for DTV to DTV stations is going to be sufficient for viewers between the edge of the Grade B contour and line-of-sight transmission of the station they wish to receive.

1. We currently have a situation in Rockford where a Rockford station operates on channel 39. A signal is receivable in this market from channel 38 in Chicago, 75 miles away. The adjacent channel interference to the signal on channel 38 is very significant. The licensee of channel 38 has established a LPTV station in the market to rebroadcast channel 38. The LPTV station receives the signal from channel 38 off-the-air. Through heroic measures they manage to rebroadcast a signal that has only a few artifacts of the bleed-through from channel 39. DTV will apparently improve the adjacent channel interference situation significantly, but will it be enough to solve problems like these if the geographic spacing for adjacent channels is not widened?
2. I request that the Commission give consideration in the Table of Allotments toward minimizing adjacent channel assignments within the line-of-sight transmission area of stations in the top 25 markets. The existing NTSC radiation center above mean sea level could be used for this determination. Part of the minimization process would be to prevent a given locality from having many or all allotments in their locality adjacent to allotments from the major market. This would maximize the probabilities that an off-the-air viewer, cable system or translator station would be able to receive programming alternative to that being offered in the locality. The top 25 markets with their additional allotments are more likely to have alternative programming than smaller markets. Alternatively the minimum adjacent DTV to DTV channel spacing of 55 miles could be increased, but this might hamper the Commission too much in finding space for all stations even after the transition to DTV.
3. An interesting way to block adjacent channel allotments around the top 25 markets would be to make all the allotments adjacent to each other in the market. In that case the co-channel separations would prevent other stations from locating any closer than 152 miles (in Zone I) and automatically give adjacent channel protection except for the stations on the lowest and highest channels in the block of channels. Is this even remotely feasible?
4. The geographic spacing approach proposed by the Commission is much more stable, predictable, and capable of accommodating future facilities changes. I concur with its use.

COMMENTS ON LPTV GEOGRAPHIC SPACING

The DTV requirements for LPTV stations need to be more strict than the NTSC criteria to widen the geographic spacing between LPTV and full service stations.

1. In order for terrestrial (land-based) television stations to be competitive with satellite signals, the reliability of the signal of the terrestrial stations will have to be almost perfect. Atmospheric conditions such as inversion layers that "duct" signals will reduce that reliability if the Commission continues to use LPTV interference criteria for DTV similar to the current standards for NTSC. The current standards are apparently based on average conditions. I suggest that the Commission consider that ducting conditions can increase signals levels well over 20 dB and increase geographic spacing requirements accordingly. These ducting conditions occur frequently during the summer months. I would believe that a signal strength probability curve would show a definite skew of

significantly higher signal strengths during the summer. This is not just a problem for individual viewers, but also affects cable systems and off-the-air pick ups for translator stations.

2. In spite of ducting, the geographic spacings for full service stations have worked reasonably well in the past. Except for an unfortunate adjacent channel situation mentioned previously where channel 39 from Rockford interferes with channel 38 from Chicago, the spacings have worked reasonably well at my location. However, when LPTV stations are filling in the gaps between those spacings, bad things start to happen.
3. From my experience, the ducting seems to cause the most problems at or just beyond the line-of-sight transmission limit of the offending station. I never noticed problems to full service station WIFR on channel 23 in Rockford from co-channel full service station WFHL in Decatur, Illinois, 160 miles away. WFHL operates with an ERP (effective radiated power) of 1950 kW and a HAAT (height above average terrain) of 1030 feet. However, W23AT, a LPTV from Chicago, 75 miles away, with an ERP of only 12.3 kW and a HAAT on the order of 1550 feet, can put ripples into the video of WIFR well within WIFR's Grade B contour. I know ducting is effective for stations as far away as Decatur, but apparently the distance attenuates the signal enough to result in minimal disruption to local signals. Possibly the inverse square law of propagation is still reasonably at work even during ducting.
4. Therefore, I believe LPTV stations need to be spaced far enough away from full service stations so that the earth's curvature will sufficiently attenuate the signals of co-channel and adjacent channel stations. The Commission's current position in support of using channels 7-13 for DTV is going to make the situation even more critical. I ask that the Commission carefully reexamine the LPTV interference criteria before establishing the DTV parameters. My experience with signals on channels 8, 23, and 62 in Rockford, Illinois, indicates that the interference limits have been exceeded for highly reliable reception of NTSC signals. Let us prevent this from happening to DTV.

COMMENTS ON LPTV ERP AND HAAT

I believe that the Commission needs to further define LPTV ERP and HAAT limitations.

1. UHF LPTV stations have capitalized on the 1000 watt transmitter output power limitation and put stations on the air with tremendous capabilities. I am able to receive W23AT at my home when local station WIFR is off-the-air. As previously stated W23AT has 12.3 kW ERP at about 1550 feet above average terrain traveling a distance of 75 miles. The signal has created problems in DeKalb, Illinois and has had noticeable effects on my reception of Rockford's channel 23 within the city of license! Some standards need to be changed. I propose that LPTV stations have maximum ERP limitations and that those maximums be reduced as HAAT is increased. I propose that the limitations take a much more conservative view toward interference, trying to minimize the disruptions to full service stations that occur during atmospheric ducting. With the changeover to DTV, the Commission needs to act to preserve the integrity of the full service signals.

COMMENTS ON THE SERVICE REPLICATION CONCEPT FOR DETERMINING THE POWER OF THE DTV STATIONS (ref: ¶ 14)

I recommend that the DTV broadcasters be given parity in their DTV facilities. Within a given market the maximum facilities of the DTV stations should be equal.

1. The calculated coverages for VHF stations greatly overstates their quality in relation to UHF stations. Unlike AM radio stations and the classes of FM service, TV stations have historically been given parity in maximum available ERP and antenna height. Just because a broadcaster happens to be on channel 2 rather than 13 or 45, it is not supposed to have a significant advantage over its competitors. UHF stations have been given higher ERP levels to compensate for the losses associated with that band to enhance parity. The idea has been to attempt "to level the playing field." Now suddenly broadcasters on certain channels are being given preferential DTV ERPs.
2. The ERP differentials given broadcasters based on their theoretical NTSC contours complicates the transition to DTV. The 919.7 kW ERP allotted to NTSC channel 2 in Chicago appears ridiculous compared to the 227.2 kW allotted to NTSC channel 7 or the 253.5 kW allotted to NTSC ch 11 for DTV operation on channel 69.
3. If DTV maximum ERPs cannot be set at their ultimate levels due to interference considerations to NTSC service, then there should be an attempt to set the interim maximum ERP reasonably equally for all the stations in the market. Equivalent could take into account compensation for increased losses at higher channels.

COMMENTS ON AN ALL-UHF DTV SERVICE VERSUS THE 7-51 CORE (ref: ¶31 & ¶34)

I recommend that the FCC adopt an all UHF approach to DTV allocations. The reasons are as follows:

1. There is inherent parity between station coverages with all the stations within the same band.
2. Receiving antennas will be smaller because they only have to cover one continuous band. This smaller size could lead to a renaissance of off-the-air reception by those people using small satellite dishes, who still need an antenna to receive the major networks via local stations. The small dishes were a remarkable success; the small UHF antennas could experience the same popularity. The RG-6 cable used for the dish antennas is the preferred low-loss cable for the UHF channels. The proliferation of RG-6 cable will make it more likely that viewers with a UHF antenna will use RG-6, and consequently have lower losses at the higher UHF channels than with commonly used RG-59 cable. This would compensate for using more of the upper UHF band with its higher losses in place of the upper VHF channels (7-13). My experience indicates that the losses on UHF channels start to become noticeable somewhere between channels 50 and 60. I have not determined the primary source of these losses as they apply to my situation.
3. An all UHF DTV service would also allow for the use of bow-tie and parabolic reflector antennas as the only antenna needed to pick up DTV signals. Those types of antennas would not lend themselves to combination VHF and UHF use in the way a log-periodic antenna can. The directivity of the bow-tie and parabolic reflector antennas might be necessary to help some viewers sort out the combination of DTV and NTSC signals.
4. An all UHF DTV service would also make it easier to use a stacked UHF yagi array. The shorter UHF wavelengths would make the array much smaller. The ability to fabricate arrays might be critical to eliminating interference for some viewers during the NTSC/DTV transition period.

5. Receiving preamps in those locations where they are used, would be easier to design and could be better designed to reject out-of-band signals and possibly improve noise figures. Assuming the exceedingly broadband nature of television tuner design continues, the preamp will have primary responsibility for rejecting out-of-band signals.
6. UHF signals are less prone to bend over the horizon making the limits of transmission much more predictable. I live in an area about 15 miles beyond line-of-sight transmission from the Milwaukee TV stations. The VHF signals, although noisy, are usable, whereas the UHF signals are marginal. In comparison, I live at the edge of line-of-sight transmission from the Chicago TV stations, and the UHF stations deliver a higher quality signal than the VHF stations. My conclusion is that UHF DTV signals will have higher quality from the edge of the Grade B contour to the horizon (line-of-sight) than VHF signals, but the UHF signals will drop off more rapidly beyond the horizon. The result for UHF signals will be a larger high-quality coverage area with a smaller chance for interference beyond the horizon. The attenuation of the UHF signals past the horizon may complement the characteristic of the digital signals to disappear completely when the signal strength gets too low.
7. An all UHF DTV service would require fewer stations to relocate from outside the core area back into the core area. For instance, in the Rockford market three of the four stations will have to return to the core spectrum instead of being able to stay above channel 51. (However, those stations would probably prefer to return to lower frequencies.)
8. I would suspect that the ABC network owned and operated stations and many ABC affiliates will unduly benefit from the channel 7 to 51 core proposal. Historically, because CBS and NBC stations usually secured the low band VHF channels (2-6) in the major markets, the ABC stations wound up on the upper VHF channels (7-13). Note that the ABC stations in New York, Chicago, Los Angeles, San Francisco, and Detroit are all located on channel 7. The CBS and NBC stations are located on channels 2-6 in those markets, as well as in many others. The CBS and NBC stations will have to vacate their channels after the transition to DTV, while the ABC stations may be able to retain their upper VHF channels for DTV. Is this fair? Making DTV an all UHF system would appear to make things more fair. The upper VHF channels have their advantages and disadvantages, so I am not rendering a judgment on who comes out ahead; I am just noticing that the effects of the channel 7 to 51 core proposal will probably not be evenly distributed.

COMMENTS ON THE USE OF THE UPPER UHF CHANNELS, >51 (ref: ¶35)

I recommend use of channels above channel 51, in lieu of using channels 7-13.

1. Losses above channel 51 are noticeable. However, stations using these higher frequencies could be allowed the use of higher effective radiating power (ERP) than stations at lower frequencies. In fact the entire UHF band could have a formula for calculating the maximum ERP for each channel in relation to the typical losses suffered on that channel. This idea is similar to the use of a "tilt compensator" in a receiving system where increased losses are introduced at lower frequencies to level the amplitude response of the entire system.
2. Channels above 51 may suffer from more multipath interference, but as the introduction of the Magnavox GC2010 imageLOCK Television Ghost Canceling Reception System indicates, future technology may be able to compensate for the problem. In contrast, the

bending over the horizon of upper VHF signals into an adjacent market may be harder to deal with.

3. Other problems above channel 51 may also yield to technology unknown to us at this time. I understand that in the distant past the FCC relinquished all the spectrum above 30 MHz to radio amateurs because that spectrum was thought to be of no commercial value. Possibly the spectrum above channel 51 is not so bad after all.

COMMENTS ON THE USE OF THE UPPER UHF CHANNELS, >59 (ref: ¶35)

I recommend that channels 60 through 69 remain as television spectrum.

1. In spite of the demands for more spectrum by other technologies, I believe one of the keys to the success of terrestrial DTV is going to be the availability of more channels in a given geographical area. This can be accomplished by reducing the coverage of the stations or by providing more spectrum. Reallocating channels 60 to 69 to other services is going to reduce the potential number of DTV stations. Even allocating channels 60 to 69 exclusively to LPTV stations would relieve DTV spectrum congestion. There would still be considerable spectrum vacated on channels 2 through 13 for other uses.
2. Channels 60 through 69 are also starting to be developed for wireless microphone applications on a shared basis with television. I had the opportunity to use one of these systems, and there is definite merit in using those frequencies. The crossmodulation problems with multiple simultaneous wireless microphones operating dictate the need for a great deal of shared spectrum. Channels 60 through 69 serve that need well.

COMMENTS ON THE USE OF THE LOWER VHF CHANNELS, 2-6 (ref: ¶35)

I recommend that channels 2 through 6 not be used for final DTV allocations.

1. My experience indicates the lower VHF channels, 2-6, are very poor choices for television service. Channels 2 and 3 are subject to very disruptive ionospheric interference. I have seen signals travel a thousand miles on those channels to cause havoc with local NTSC signals. The data in FCC 96-317 indicates that DTV is susceptible to co-channel interference from other DTV signals, so the use of channels 2 or 3 seems to be out of the question. Channels 4, 5, and 6 suffer less ionospheric interference, but in combination with atmospheric ducting, co-channel transmissions are likely to suffer.
2. My experience has been that channel 3 from Madison, Wisconsin, at my receiving location near the edge of the Grade B contour, has always had signal quality less than the UHF channels from Madison. I also happen to be located approximately midway between the Milwaukee and Davenport/Rock Island/Moline markets. Both markets have stations operating on channels 4 and 6. I am well beyond line-of-sight transmission for those stations: about 85 miles from Milwaukee and 95 miles from Davenport/Rock Island/Moline. The combination of signals bending over the horizon and being reflected from the atmosphere and ionosphere makes for a great deal of activity on those channels. Although it might technically be possible to put an LPTV station on-the-air on channels 4 or 6 in Rockford, at least with NTSC, the interference would be intolerable. We have an LPTV station on channel 8 in Rockford that consistently gets "torn up" by channel 8 from Davenport/Moline/Rock Island. I can imagine how much worse things would look if that clash was occurring on channel 4 or 6. I realize that this is qualitative data, but it tells it

like it is. Channels 2 through 6 are just too noisy and subject to co-channel interference. The viewers deserve better.

COMMENTS ON INTERFERENCE AT THE EDGE OF THE GRADE B CONTOUR AND BEYOND (ref: ¶133)

I am skeptical at best that I will not lose any of my existing television service due to the implementation of the proposed Table of Allotments.

1. Approximately a third of my family's viewing is to television stations from Chicago and Madison, Wisconsin. The distance from the transmitting sites to the receiving antenna is approximately 75 miles for Chicago and 55 miles for Madison. My receiving location is well beyond the Grade B contour of the Chicago TV stations and just beyond the Grade B contour for the Madison stations. Yet the received signals exceed the quality of what many people view from a cable system or a slow speed VHS tape. Other families watch these distant signals, and three of those families joined me in filed complaints against four LPTV stations that were interfering with distant signals. Two years ago the local Radio Shack stores had a record year selling TV antennas to pick up a Madison TV station showing football games. The interest in the distant signals is still alive.
2. The potential conflicts to my family's viewing that I observed so far in the draft of the Table of Allotments are as follows:
 - a. Aurora, IL (Chicago): DTV ch 47 interfering with Madison, WI: NTSC ch 47. A MAJOR PROBLEM.
 - b. Chicago, IL: DTV ch 3 interfering with Madison, WI: NTSC ch 3.
 - c. Chicago, IL: DTV ch 27 interfering with Madison, WI: NTSC ch 27.
 - d. Chicago, IL: DTV ch 21 interfering with Madison, WI: NTSC ch 21.
 - e. Peoria, IL: DTV ch 39 interfering with Rockford, IL: NTSC ch 39.
 - f. Rockford, IL: NTSC ch 51 interfering with Gary, IN (Chicago): DTV ch 51. I assume the LPTV station will have to move.
 - g. Janesville, WI: DTV ch 32 interfering with Chicago, IL: NTSC ch 32. A MAJOR PROBLEM.
 - h. Madison, WI: DTV ch 20 interfering with Chicago, IL: NTSC ch 20. A MAJOR PROBLEM.
 - i. Madison, WI: DTV ch 26 interfering with Chicago, IL: NTSC ch 26. A MAJOR PROBLEM.

It is hard to predict what is actually going to happen due to the variables involved, but I expect viewing patterns will change. If the stations in the Chicago and Madison markets start operating their DTV stations at about the same time, it may create a second alternative to every station. I would then be able to choose the signal with the best quality. However, that presumes that the DTV receivers will be affordable when DTV starts up.

3. Even though cable television is available in my area, the only channel out of the market that it offers from the list of in paragraph 2, above, is channel 21 from Madison. So there is little refuge that we can take from interference by using a cable delivery system. Using cable would shift our viewing from off-the-air broadcasters to cable-only broadcasters. The same would be true if we switched to a satellite dish delivery system. Losing off-the-air viewers is not exactly what TV broadcasters had in mind.
4. Considering that I live in the 135th (or thereabouts) market, I would suspect that initially I will only be able to receive DTV signals from Chicago. Consequently the interference situation will definitely have a bearing on my viewing if I try to receive DTV. Fortunately it appears that NTSC signals do not interfere with DTV signals to a large

degree, so this may make the transition much more tolerable. In that light, I expect my biggest problems to come from the DTV stations in paragraph 2, above, lines a, g, h, and i interfering with NTSC signals. However, if those Chicago stations are available as DTV signals, the interference to their NTSC counterparts may not matter.

COMMENTS ON WHICH CHANNEL SHOULD BECOME THE PERMANENT DTV CHANNEL (ref: ¶36)

I recommend that the FCC be the final judge of which channels should become the permanent DTV allocations when the NTSC system becomes defunct.

1. The selection of the permanent allocations for the DTV stations should reside with the FCC. This would provide more order to the allocation process. Allocations could be optimized to reduce co-channel and adjacent-channel interference to allow the maximum number of stations to deliver interference-free signals to the horizon (the limits of line-of-sight transmission).

COMMENTS ON PREFERENCE OF MAXIMIZING DTV COVERAGE OR MINIMIZING INTERFERENCE TO NTSC (ref: ¶39)

I feel the DTV broadcaster should be given preference to increase his coverage area since the transition is to convert entirely to DTV over a relatively short time period. (Relative is in the eye of the beholder.)

1. DTV broadcasters should be given preference to increase their facilities to provide better audience coverage. However, it might be wise to require the applicant to justify a large increase in interference if this were to occur before a significant audience is established for DTV.

COMMENTS ON INCENTIVES FOR CO-LOCATED DTV TRANSMITTER SITES (ref: ¶48)

I recommend that incentives be used to promote the use of a common DTV transmitter site for a given market.

1. My experience indicates that a common location for the transmitting antennas in a given market can enhance the broadcast service to that market. The common site allows for fixed position receiving antennas, which can substantially lower the cost of a receiving antenna installation and the hassle of using a rotor. This can enhance the broadcaster's odds in competing with alternative media.
2. The common transmitter location also enhances the signal level at fixed-position receiving antennas. An off-axis signal may be attenuated 20 dB, which is equivalent to reducing the transmitted ERP of a 1,000,000 watt station to 10,000 watts. This situation is very noticeable in Rockford where the LPTV broadcasters are in multiple locations, and the full service broadcasters are located close together.
3. The common transmitter location also reduces the number of areas in a market suffering from blanket interference. The LPTV stations in Rockford have caused blanket

COMMENTS ON HOW TO USE VACANT CHANNELS DURING AND AFTER TRANSITION
(ref: ¶51)

I feel vacant channels should be made available for full service television stations on a primary basis.

1. When vacant channels exist during and after the transition to DTV, the Commission has the responsibility to make certain those resources are evenly distributed. Market forces should not be the determining factor.
2. The vacant channels should be available to full service television on a primary basis as the first priority. My reason for this position is that full service broadcasters have a larger investment in facilities and, consequently, in order to earn a return on investment, have to provide a higher level of service and be more responsive to the needs of the public. In the Rockford market we have one LPTV station that continually appears not to meet technical standards. Another LPTV only operates during morning hours. These conditions would not exist if these stations were full service instead of low power.
3. Depending on the size of a market, mutually exclusive applications for available channels would appear to be in the best interests of the public. However, in the smaller markets the financial resources of an established broadcaster(s) might result in better and more diverse programming than a financially strapped broadcaster could provide. In the case of small markets, I believe the Commission should have comparative hearings without prejudice for or against existing broadcasters in the market.

COMMENTS ON LPTVS USING CH 52-59 FOR MIGRATION OR BUFFER (ref: ¶70)

I am in favor of a buffer zone for LPTV stations.

1. The LPTV stations in the Rockford market have been a definite thorn in the side of some viewers due to interference (complaints are still pending action at the LPTV Branch). In that light, getting LPTV stations out of the way of full service broadcasters would be a blessing. I would propose, however, within the framework of an all-UHF approach to DTV, the LPTV stations be allowed to use channels 60 through 69. These channels would provide spectrum in closely spaced market areas where LPTV channel availabilities would be limited. In view of this LPTV sanctuary, I would propose that LPTV operating parameters be tightened to prevent the creative engineering that has resulted in some LPTV stations mimicking the capabilities of full service stations, e.g. W23AT, Chicago.

COMMENTS ON LPTVS GETTING PREFERENCE FOR FULL SERVICE PROPOSED STATIONS (ref: ¶72)

I do not favor LPTV licenses getting preferential treatment in the application for a full service television station.

1. Giving LPTV licenses preferential treatment in upgrading to full service facilities would exacerbate a situation that I believe that already exists with some LPTV operators: to do just enough to hang onto a channel with the hope of making a windfall profit. Let the LPTV broadcasters stand on their merits in the application for full service facilities; do not make this a first-come-first-serve giveaway.

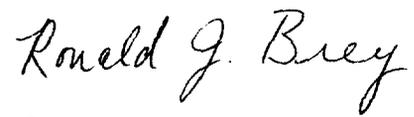
COMMENTS ON FREQUENCY LABELING (ref: ¶78)

I propose starting the numbering as D11Δ (where Δ is a letter) and numbering consecutively from there on.

1. I ruled out the idea of starting with "1" for the first channel because there would be too much competition from broadcasters coveting the "number one" name. I ruled out other single digit numbers because television remote controls are inconsistent in how they handle single digit numbers.
2. I ruled out letters for the channel designations because it is harder to mentally sort and order alpha characters in the mind. For engineers and technicians it will be easier to deal with numerical channels. For instance, the FM channel designations from 200 to 300 can be translated to a frequency quite easily by addition and subtraction or by proportion. A person can get a feel of where the channel is in the band by how high or low the number is, e.g. channel 250 is in the middle, channel 225 is one-fourth the way across the band, etc.
3. It seems logical to think of the digital channels as being double digits and satellite channels being triple digits. I ruled out starting with "10" because it did not seem logical to press "1" and then "0" for the first channel and then go to "1" and "1" for the second channel. I just like the logic of starting at the upper left-hand corner of a remote keypad and pressing the number "1" button twice to get myself to the beginning of the channels. This assumes an all UHF approach.
4. If a combination of VHF and UHF channels are used for the ultimate DTV system, I propose that the UHF channels still start with "11." If only the upper VHF channels are used then I would propose that 7 becomes 4, 8 becomes 5, etc. until 13 becomes 10.
5. I propose that during the transition from NTSC to DTV that the digital channels be preceded by the letter "D," for "digital." After the transition the "D" would be dropped.
6. I propose that subchannels of a digital channel be labeled with an upper case alpha character in alphabetical order. Five subchannels would result in the letters "A" through "E" being used. Not until the letter "I" is reached is there any ambiguity in letters. The "I" may be mistaken for a "one." At this time I have not heard of a proposal with enough subchannels to require the use of the letter "I."
7. The above frequency labeling schemes are based upon the final DTV spectrum. I assumed that the lower VHF channels would be removed from television service. During the transition phase my scheme cannot assign a digital channel number to channels 2 through 4 because my numbering system would give them channels "-2," "-1," and "0" respectively. So for the transition period, I would retain the existing channel designations and require that TV receiver manufacturers embed the digital scheme into their tuners so that at some point in time the viewer could go to the appropriate menu screen and switch to the digital designations. This would be similar to the way a viewer can change from cable channel designations to off-the-air designations with many existing sets.

I appreciate the opportunity to comment on the DTV spectrum issue. It has taken me a long time to write my comments, but that is dwarfed by the effort the Commission has put into this task. Thank you for trying to make the United States DTV system the best in the world.

Sincerely,

A handwritten signature in cursive script that reads "Ronald J. Brey". The signature is written in black ink and is positioned above the typed name.

Ronald J. Brey