EX PARTE OR LATE FILED

Law Offices
HOLLAND & KNIGHT LLP

2100 Pennsylvania Avenue, N.W.
Suite 400
Washington, D.C. 20037-3202
202-955-3000
FAX 202-955-5564
http://www.hklaw.com

Atlanta
Boca Raton
Fort Lauderdale
Jacksonville
Lakeland
Mexico City
Miami
New York
Northern Virginia
Orlando
San Francisco
St. Petersburg
Tallahassee
Tampa
Washington, D.C.
West Palm Beach

MARVIN ROSENBERG
202-457-7147

Internet Address:
mrosenbe@hklaw.com

February 4, 1999

Magalie Roman Salas, Esquire
Secretary
Federal Communications Commission
The Portals, 445 Twelfth Street, S.E.
Room TW-A325
Washington, DC 20554

Re: IB Docket No. 98-172
RM-9005 and RM-9118

Dear Ms. Salas:

Pursuant to Section 1.1206 of the Federal Communications Commission's Rules and Regulations, this is to advise that a meeting was held on February 3, 1999 between Local TV on Satellite, LLC ("LTVS") and members of the FCC's International Bureau. Present at the meeting on behalf of LTVS were: James F. Goodmon, John Hutchinson and the undersigned counsel, and present from the International Bureau were Richard B. Engelman, Thomas S. Tycz; Rosalee Chiara; Julie Garcia and Karl A. Kensinger. The purpose of the meeting is set forth in the attached Notes for FCC Meeting.

Should there be any questions, please communicate with the undersigned counsel.

Very truly yours,

Marvin Rosenberg
Counsel for
Local TV on Satellite, LLC

mr:ik
Enclosure

cc: Richard B. Engelman; Thomas S. Tycz; Rosalee Chiara
Julie Garcia; Karl A. Kensinger - all w/enc.

Notes for FCC Meeting

Spectrum

The Ka-band spectrum potentially available to LTVS spans 1 GHz in the uplink and in the downlink in three bands as shown in Table 1 below. These frequencies are taken from the Notice of Proposed Rulemaking FCC 98-235 that was adopted on September 17, 1998.

Table 1 LTVS K_a-band Frequency Allocation

Band Name	Uplink, GHz	Downlink, GHz	Translation, GHz	Uplink Bandwidth, MHz	Downlink Bandwidth, MHz
Low	28.35 – 28.60	18.30 – 18.55	10.05	250	250
Mid	29.25 – 29.50	18.55 – 18.80	10.7	250	250
High	29.50 – 30.00	19.70 – 20.20	9.8	500	500

This spectrum is divided into uplink and downlink channels that are 31.2 MHz wide with a frequency spacing of 34.5 MHz. This results in 7 uplink/downlink channels in each 250 MHz of bandwidth. With frequency and polarization reuse totaling twenty times, the 28-uplink/downlink channels in 1 GHz of spectrum can result in 560 transponders. However, the proposed FCC usage imposes restrictions that limit the ubiquitous deployment of terminals employing the mid-band downlink, limiting the downlink to 750 MHz for direct-to-home television service. This limits the number of transponders to 420 in a twenty-times frequency and polarization reuse system.

The transponders defined above can carry either three 11 Mbps signals or two 19 Mbps signals. By being limited to at most 420 transponders, LTVS can carry no more than 840 HDTV stations. Capitol Broadcasting received proposals from Hughes and Loral for two high-powered satellites to cover as many as Designated Market Areas (DMAs) as possible while adhering to the must-carry provision that all full-power stations in a market must be served. Using the highest power satellites currently available, Hughes was able to cover 152 markets. The latest design studies show that if every station is carried in full HDTV at 19.4 Mbps, then only 61 to 70 of the top markets can be served. The limitation is imposed by the available spectrum of 750 MHz.

In addition to being limited to serving only 61 – 70 markets, there is a further coverage problem. The antennas on the spacecraft define a smallest region on the ground in which the available spectrum can be used. In order to reuse the spectrum it is necessary to operate outside of the original area of use. Using the largest practical antennas on the spacecraft results in the

smallest possible area of reuse. In New England this are of use covers the New York, Philadelphia, Boston, Hartford, Harrisburg, Wilkes Barre, Providence and Albany DMAs. In this congested area there are 100 full-power TV stations.

We have seen that every 250 MHz supports 7 frequency channels. Using both polarizations to double the number of channels and all 750 MHz to triple this number provides 42 satellite channels or transponders. At 19 Mbps each transponder carries 2 TV signals. Therefore the maximum number of HDTV stations that can be supported by 750 MHz is 84. But the New England area of use contains 100 stations. It is not possible therefore to carry all New England stations in HDTV if LTVS is restricted to 750 MHz. If 1000 MHz are available 56 transponders can be supported and 112 HDTV stations carried. The solution to the congestion in New England is therefore to have 1000 MHz of spectrum.

In responding to the FCC's proposed rulemaking a number of satellite companies suggested allocating 1000 MHz to geostationary satellites without sharing with terrestrial users. Capitol Broadcasting supports these efforts to make the bands 18.1-18.6 GHz and 19.7-20.2 GHz available to geostationary satellites without sharing with terrestrial users.

Power

On September 18, 1998, the Federal Communications Commission released a Notice of Proposed Rulemaking No. FCC 98-235. The FCC proposed that a maximum PFD threshold of −120 dBW/m²/MHz averaged over any contiguous 40 MHz band segment, and −118 dBW/m²/MHz in any 1 MHz band, not be exceeded by GSO FSS space stations seeking to operate in the 18.3-18.55 GHz and 19.7-20.2 GHz bands.

In comments to this proposed rulemaking, Hughes has suggested that the PDF limit be raised to −118 dBW/m²/MHz over any contiguous 40 MHz band. As of this writing, a final ruling has not been released by the FCC.

The bandwidth of the proposed Capitol Broadcasting LTVS transponders is 31.2 MHz. The spacing between transponders is 34.5 MHz. Under the −120 dBW/m²/MHz rule, this would translate to a PDF limit of −119.6 dBW/m²/MHz within the transponder because no power is contained in the guard band between transponders.

Using the figure of −118 dBW/m²/MHz for the maximum PFD threshold averaged over any contiguous 40 MHz segment proposed by Hughes, the maximum EIRP limit is 59.84 dBW or 60 dBW in round numbers.

In order to achieve the desired availability of 99.7% using a 66-cm antenna in the southeastern United States, Capitol Broadcasting requires EIRPs as high as 65 dBW at the center of its small spot beams.

Because Capitol Broadcasting proposes to use spot beams it does not uniformly radiate the entire USA with high power. Only a small fraction of the USA will experience power above 60 dBW. In addition, where power exceeds 60 dBW, the peak power is confined to a point at the center of a small beam. The useful area of a beam is defined by the contour 5 dB down from the peak. The average power in the LTVS beams is about 3 dB down from peak power. For practical purposes the average power in all LTVS beams is below about 62 dBW.

Hughes has provided Capitol Broadcasting with a proposal for two LTVS satellites. These satellites were designed to transmit HDTV at 11 Mbps. LTVS has changed it operating philosophy and will instead transmit HDTV at 19 Mbps. While this reduces the number of markets that can be served, the power required for each downlink carrier is about the same. The following Table shows the spot beams whose carriers exceed 60 dBW at beam center for 11-Mbps system. The data in the Table are taken from the Hughes proposal.

Table 2 LTVS Spot Beams with Peak EIRPs above 60 dBW

DMA Rank	Name	EIRP, dBW		
		Peak	Average	Edge of Coverage
29	Raleigh/Durham	60.1	57.1	55.1
39	Norfolk	60.4	57.4	55.4
64	Knoxville	60.5	57.5	55.5
22	Orlando	61.6	58.6	56.8
51	Birmingham	62.1	59.1	57.1
62	Mobile	62.4	59.4	57.4
54	Jacksonville	62.8	59.8	57.1
43	West Palm Beach	63.1	60.1	58.1
15	Tampa	63.8	60.8	58.8
16	Miami	64.0	61.0	59.0

LTVS therefore needs a ruling that the average power in a narrow beam directed at a point in the southeastern United States be allowed a power level 2-dB higher than that proposed by Hughes. Capitol Broadcasting suggests that the PDF limit be raised to –116 dBW/m²/MHz over any contiguous 40 MHz band and averaged over the coverage area, with the peak power at any point not to exceed –113 dBW/m²/MHz.