

## **EXHIBIT 30 - Contour Protection**

### **Amendment of Construction Permit**

MINOR CHANGE (BPH-20040203ACB) for

WBAR (fm) 94.7 MHz ch. 243

Lake Luzerne, NY

Capital Media Corporation

14 January 2007

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## **Contour Protection**

### **Discussion & Exhibits for consideration under 73.215**

WBAR (fm) has been granted a construction permit (BPH-20040203ACB). This instant amendment requests a modification of that construction permit to change of transmitter location and other operating parameters such that a further discussion of the previously requested use and application of contour protection is required.

WBAR-FM is presently a 73.215 station. This amendment application requests a continuation of 73.215 status with facilities near tantamount to those already permitted in the approved construction permit quoted above.

This instant application proposes a move to and operation on a nearby, existing tower.

Using the 6 kW, Class A FM spacing values (73.207(b)(1) Table A), WBAR, at the proposed new site, is fully distance spaced to all effecting/affecting stations in all directions with two exceptions. See attached spacing study file, exhibit 26.

These two stations are :

|                         |          |          |                 |                  |
|-------------------------|----------|----------|-----------------|------------------|
| WJEN (fm) Rutland, VT   | 94.5 MHz | Ch. 233A | BPH-20040621AAV | short by 5.2 km  |
| WMAS-FM Springfield, MA | 94.7 MHz | Ch. 234B | BLH-19801010AD  | short by 15.7 km |

This application will accomplish the goal of meeting the contour protection requirements of 73.215 for the operation of WBAR (fm) in relation to the above listed stations as follows ...

In the case of WJEN (fm), also a 73.215 station, no protection has been afforded as the critical signal contours of the proposed WBAR-FM's full equivalent 6 kW facility will not overlap either the licensed or the construction permit facilities of WJEN (fm). A discussion of the licensed site was addressed in the original application. The construction permit site is discussed below.

In the case of WMAS (fm), through contour protection that will be effected by specifying a directional antenna reducing WBAR-FM's ERP in the critical radial directions towards WMAS. The use of this antenna will reduce the contours of WBAR-FM to prevent overlap with the corresponding contours of WMAS even if WMAS (fm) were running a full class B facility.

In evaluating the allocation picture of WBAR (fm), as many as 100 or more separate 1 degree radials were closely considered in relation to WBAR and other affecting/effecting stations. For a uniform and cohesive picture to be made, the HAAT achieved via an averaging of 360 one degree radials is more appropriate and used herein.

The terrain surrounding WBAR is extremely varied, characterized by notable hills and deep river valleys. A more accurate depiction of the HAAT over this service area is achieved from this more precise data.

Since undoubtedly the Commissions evaluation of this application will be made with its own computer programs, to avoid data conflict, the data presented herein was made with the identical tools available on line at the FCC's website.

### **The case of WJEN (fm)**

The proposed new site of WBAR-FM is de minimus overall as it is only 1.8 km from the existing licensed and CP site.

Spacing to the WJEN (fm) licensed site does not change but by just 0.1 km (328 feet) vis a vis the proposed site since the new site is along a tangential line to the radius distance.

Since the filing and grant of the WBAR-FM granted construction permit, WJEN (fm) has filed and been granted a construction permit for a new site. That facility uses a directional antenna (BPH-20040621AAV).

At the end of this exhibit is a graphical map that indicates that there is no overlap of critical contours between the facility of this new proposed WBAR-FM facility and the facilities annotated in the WJEN(fm) construction permit.

Mathematically, considering a single worst case, on a direct line, from the proposed WBAR site to the construction permit site of WJEN (fm), the distance between is 66.9 km distance at an angle of 63.8 degrees from true north. The distance required between 1<sup>st</sup> adjacent channel class A's for full 6 kW operation of both is normally 72 km. The maximum short spacing then would be 5.1 km. The protected contour of WJEN is 60 dbu 50,50 and the WBAR interfering contour is 54 dbu 50,10 and vice versa.

Worst case (shortest radial 63.8° WBAR to WJEN -- 296.2° WJEN to WBAR)

WBAR-FM 359 mts HAAT Ant E gain = 1                      WJEN (fm) 214.3 mts HAAT Ant E gain = ~ 0.6

| Protected Station | Protected 60 dbu (50,50) +<br>In kms from trans | Interfering 54 dbu (50,10) -<br>in kms from trans | Spacing Between 66.9 kms = | Spacing margin in kms |
|-------------------|---|---|----------------------------|-----------------------|
| WJEN (fm)         | 14.68   | 51.35   | 66.3                       | 0.87                  |
| WBAR-FM           | 33.91   | 22.09   | 56.0                       | 10.9                  |

### **In the case of WMAS-FM**

In the case of WMAS -FM, WBAR-FM and WMAS-FM are co-channel stations spaced 162.4 km apart on a bearing from WBAR-FM of 144.5 degrees. The required full spacing between a class A and a class B is 178 km producing a short spacing of 15.6 km.

WMAS is a rather elderly class B FM station presently operating reduced facilities from that allowed a zone 1 class B FM. The consideration of the contours of WMAS must be made on the basis of that station running full class B facilities from the licensed site.

The existing licensed site of WMAS is 50 kW at 59.4 mt HAAT using a Center of Radiation (COR) height Above Mean Sea Level (AMSL) of 121. 90.6 mt was added to both the HAAT and the AMSL in the calculations concerning WMAS to create the potential maximum facility class B at their licensed location. This new fictitious station then is 50 kW at 150 mt HAAT using a COR of 211.6 mt.

A directional antenna for WBAR-FM has been specified in this application that will preclude overlap on the critical radials towards WMAS-FM based on a maximum power and elevation station at the present WMAS-FM licensed coordinates.

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