TECHNICAL EXHIBIT
AMENDMENT TO
APPLICATION FOR FM CONSTRUCTION PERMIT
FCC FILE NO. BPH-20020403AAS
STATION WKHX-FM
FCC FACILITY ID 73161
MARIETTA, GEORGIA
CH 268C0 100 KW 329 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an amendment to the pending application for construction permit (BPH-20020403AAS) to modify the licensed facilities of FM station WKHX-FM (FCC Facility ID 73161). Station WKHX-FM currently operates on channel 268C at Marietta, Georgia with a nondirectional effective radiated power (ERP) of 100 kW and an antenna height above average terrain (HAAT) of 300 meters (FCC File No. BLH-20001030ACG). The pending application (BPH-20020403AAS) proposes to relocate the WKHX-FM operation to an adjacent tower (0.13 km, 130 meter site move) and operate on channel 268C with a nondirectional ERP of 100 kW and an HAAT of 329 meters.

Purpose of Amendment

Based on discussions with FCC staff, it is understood that a Class C station which proposes a facility modification which does not exceed minimum Class C facilities (ERP 100 kW/HAAT 451 m) effectively triggers a Class downgrade. The facilities proposed in the pending WKHX-FM application do not exceed the Class C minimum, but do exceed the Class C1 maximum (ERP 100 kW/HAAT 299 m). Therefore, the purpose of this instant amendment is to downgrade the proposed WKHX-FM facilities from Class C to Class C0 status from the new location. No other changes are proposed. The application is considered a minor change in facilities.

Response to Paragraph 14 – Community Coverage

Figure 1 is a map which demonstrates that the proposed WKHX-FM operation complies with the community coverage provisions of Section 73.315.

Response to Paragraph 16 - Interference

Figure 2 is an allocation study for channel 268C0 based on the proposed WKHX-FM operation. Sheets 1 and 2 provide an FM separation study from WKHX-FM's proposed antenna location for the channel 268C0 operation based on the Commission's CDBS database. As shown, the proposed antenna location complies with the minimum distance separation requirements of Section 73.207 for Class C operation on channel 268 towards all existing, authorized and proposed stations and allotments with the exception of the licensed operation of WRBV on channel 269A at Warner Robins, Georgia (BLH-19950405KC). The short-spacing with WRBV is addressed below.

Attached as Sheets 3 and 4 of Figure 2 is a copy of an FCC letter dated September 23, 1993 which indicates that WKHX-FM and WRBV are currently short-spaced under Section 73.213(c). The current distance between WKHX-FM and WRBV is 145.10 km and the proposed distance is 144.98 km. Thus, as the current and proposed distance to WRBV will remain 145 km when rounded to the nearest whole kilometer pursuant to Section 73.208(c)(8), the separation between WKHX-FM and WRBV is not considered to be decreased. Therefore, pursuant to Section 73.213(c)(1), WKHX-FM is permitted to operate with the facilities proposed herein. Furthermore, based on the contour overlap provisions of Section 73.213(a), there would be no prohibited contour overlap between the proposed WKHX-FM operation and the licensed WRBV operation as indicated on Sheet 5 of Figure 2.

Protection of FCC Monitoring Station at Powder Springs, GA

The FCC's monitoring station at Powder Springs, Georgia is located 36.1 km from the proposed WKHX site at a bearing of 279.9 degrees true and 35.9 km from the licensed WKHX operation at a bearing of 279.9 degrees true. Field strength calculations based on the Longley-Rice prediction method, otherwise known as Tech Note 101, were made at the Powder Springs monitoring station for both the licensed and

proposed WKHX-FM operations.[1] The results indicate that the field strength for both operations exceeds the 80 dBu (10 mV/m) threshold value. However, it is not believed that harmful interference will occur as the increase in the WKHX-FM field strength will be slight (approximately 0.5 dB). Furthermore, advance consultation with FCC staff at the Compliance and Information Bureau (CIB) has been conducted as suggested by Section 73.1030(c)(3). Based on those consultations, the FCC's CIB does not believe that harmful interference will occur. The applicant is cognizant of the fact that a clause protecting the monitoring station may be added to the station authorization.

Response to Paragraph 17 - Environmental Considerations

The proposed WKHX-FM facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with the OST Bulletin No. 65 (Edition 97-01, August 1997), "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields adopted by the Commission in 1996.

As shown on the vertical plane relative field pattern for the proposed ERI 10-bay antenna attached as Figure 3, the maximum vertical relative field for depression angles towards the tower base (-60° to -90°) is less than 0.10. Therefore, using a "worst-case" vertical relative field value of 0.10, a total (H+V) ERP of 200 kW and an antenna center of radiation height above ground level of 348 meters, the calculated power density at two meters above ground level at the base of the tower is 0.0006 milliwatt per square

[1]Rice, P. L., A. G. Longley, K. A. Norton, and A. P. Barsis, "Transmission Loss Predictions for Tropospheric Communication Circuits," Technical Note 101 (Issued May 7, 1965, Revised January 1, 1967) National Bureau of Standards, Boulder, Colorado. See also Longley, A. G., and P. L. Rice, "Prediction of Tropospheric Radio Transmission Loss Over Irregular Terrain; A Computer Method-1969," ESSA Technical Report ERL-ITS 67, Institute for Telecommunications Sciences, Boulder, Colorado, July 1968.

centimeter (mW/cm^2), or less than 5 percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas (0.2 mW/cm^2 for FM frequencies). Therefore, based on the new responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is an existing multi-user site, appropriate procedures will be instituted concerning workers or other authorized personnel that enter the restricted area or climb the tower to ensure that appropriate measures are taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

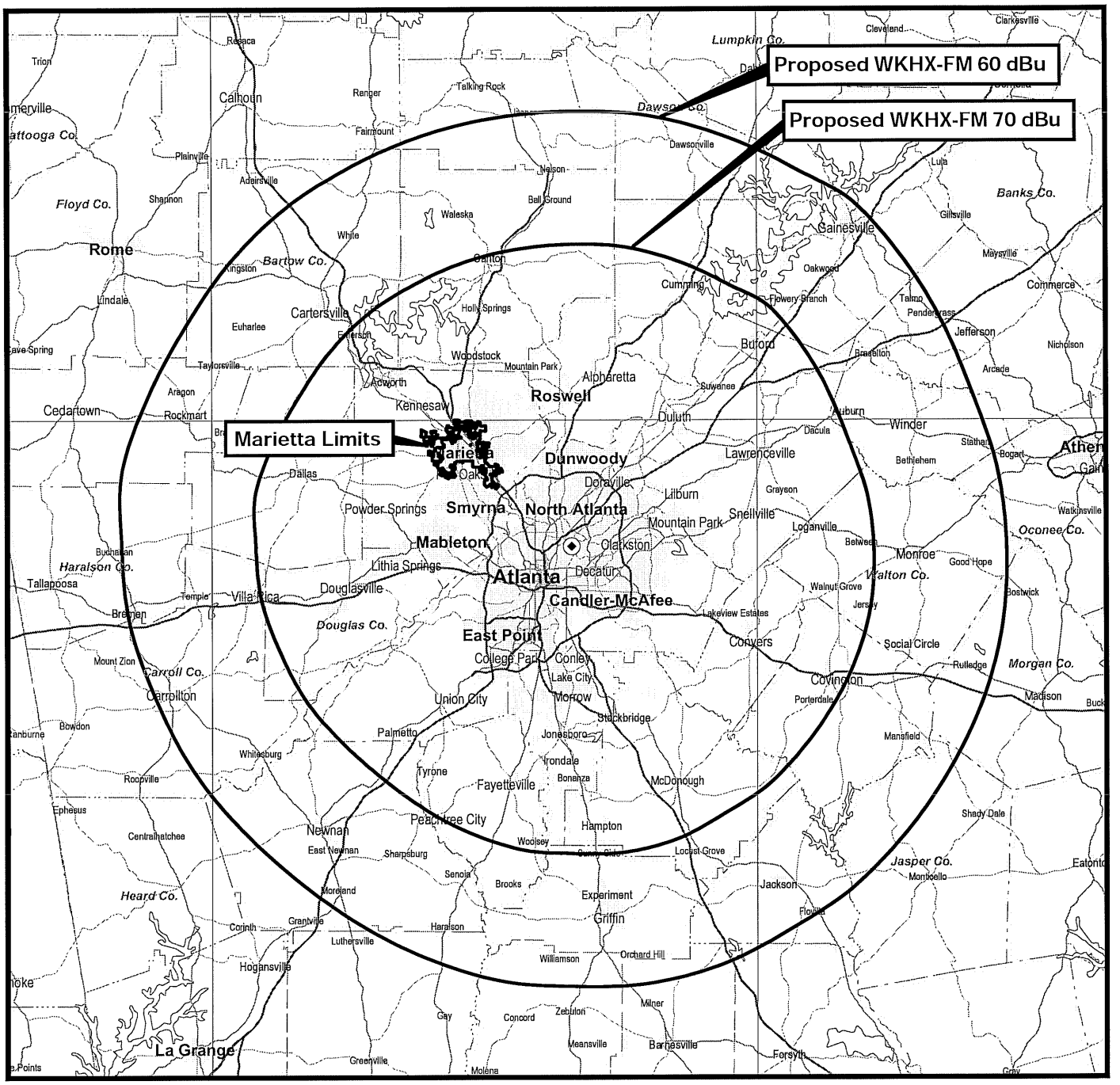
In addition, it appears that the existing structure is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

W. Jeffrey Reynolds

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, FL 34237-6019
JEFF@DLR.COM
(941) 329-6000

August 27, 2002

Figure 1



COMPLIANCE WITH SECTION 73.315
STATION WKHX-FM
MARIETTA, GEORGIA
CH 268C0 100 KW 329 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

CDBS FM SEPARATION STUDY

Job Title: Proposed WKHX-FM
Channel: 268 C0

Separation Buffer: 32 km
Coordinates: 334826 842022

Call Id	City St	Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km) 215	207
WMVV 46714	GRIFFIN GA	CP C	BMPED 20010627ABY	214 C2 90.7	18.000 144	Y 41207	33-22-12 084-08-00	N	158.5	52.13 21.13	0.0 Clear	31.0
WTGA-F 54590	THOMASTON GA	LIC C	BLH 19950818KD	266 A 101.1	6.000 94	N	32-51-49 084-25-10	Y	184.1	104.92 18.92	80.0 Clear	86.0
WBFA 60656	SMITHS AL	LIC C	BLH 19981023KB	267 A 101.3	6.000 100		32-25-35 085-08-20		206.1	170.35 18.35	130.0 Clear	152.0
WQIL 25477	CHAUNCEY GA	LIC C	BLH 20011227AAJ	267 C2 101.3	50.000 150	N	32-22-59 083-07-08	N	144.0	194.76 18.76	163.0 Clear	176.0
WKHX-F 73161	MARIETTA GA	APP C	BPH 20020403AAS	268 C 101.5	100.000 329	N	33-48-26 084-20-22	N	90.0	0.00		
WKHX-F 73161	MARIETTA GA	LIC C	BLH 20001030ACG	268 C 101.5	100.000 300	N	33-48-27 084-20-27	N	283.6	0.13		
WQEM 41641	COLUMBIANA AL	LIC C	BLH 19991020AAC	268 A 101.5	1.950 178	N 28400	33-13-44 086-42-59	Y	254.4	229.96 14.96	193.0 Close	215.0
WFTZ 52436	MANCHESTER TN	LIC C	BLH 19921123KC	268 A 101.5	3.000 100	N	35-23-51 086-08-39	N	317.5	241.92 26.92	193.0 Clear	215.0
WRBV 65043	WARNER ROBI GA	LIC C	BLH 19950405KC	269 A 101.7	4.900 108	N	32-38-19 083-38-33	Y	153.3	144.98 -7.02	130.0 **Short**[1]	152.0
WTHO-F 8475	THOMSON GA	LIC C	BLH 19950215KB	269 A 101.7	5.100 108	N	33-28-20 082-31-02	N	101.9	173.09 21.09	130.0 Clear	152.0
WMXN-F 33780	STEVENSON AL	LIC C	BLH 19950427KB	269 A 101.7	1.800 184	N	34-49-41 085-45-54	N	311.3	173.32 21.32	130.0 Clear	152.0

[1]WKHX-FM and WRBV are currently short-spaced under Section 73.213(c) as indicated in the FCC letter dated September 23, 1993 which is attached as Sheets 3 and 4 of Figure 2. The current distance between WKHX-FM and WRVB is 145.1 km and the proposed distance is 144.98 km. Therefore, as the current and proposed distance to WRBV will remain 145 km, when rounded to the nearest whole kilometer pursuant to Section 73.208(c)(8), it is believed that the proposed WKHX-FM facilities comply with the provisions of Section 73.213(c)(1). Furthermore, there will be no prohibited contour overlap between the proposed WKHX-FM operation and WRBV as indicated on Sheet 5 of Figure 2. See Technical Narrative.

Call Id	City St Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km) 215	207
WJSQ	ATHENS	BLH	269 C3	7.500	N	35-31-19	Y	356.8	190.53	152.0	163.0
29951	TN LIC C	19910813KB	101.7	161		084-27-29			27.53	Clear	
WAZX-F	CLEVELAND	BLH	270 A	3.200	N	34-33-49	N	37.2	105.78	80.0	86.0
71198	GA LIC C	19890606KF	101.9	138		083-38-26			19.78	Clear	
WGMG	CRAWFORD	BLH	271 C3	10.000	N	33-55-18	Y	82.6	102.78	81.0	87.0
48374	GA LIC C	19960626KB	102.1	100		083-14-14			15.78	Close	
900530	BOLINGBROKE		271 A	0.000	N	32-55-22	N	157.7	105.98	80.0	86.0
17223	GA VAC C		102.1			083-54-30			19.98	Clear	
WWWD	BOLINGBROKE	BPH	271 A	3.000	N	32-54-55	Y	158.2	106.54	80.0	86.0
86172	GA CP C	19970407MP	102.1	100		083-54-52			20.54	Clear	

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

SEP 2 3 1993

IN REPLY REFER TO:
1800B3-DEB

Televiewers, Inc.
P.O. Box 1874
Tallahassee, FL 32302

In re: WRCC-FM; Warner Robins, GA
Televiewers, Inc.
BPH-930408IG

Gentlemen:

This letter is in reference to your minor change application BPH-930408IG for station WRCC-FM, Warner Robins, GA. The application proposes to increase the station's effective radiated power (ERP) from 2.50 kW to 4.90 kw, so as to achieve maximum Class A operation.

WRCC-FM's transmitter site is spaced 145.1 km from first-adjacent channel Class C station WKHX-FM, Marietta, GA. Since these stations did not meet the 165 km minimum spacing requirement of 47 CFR § 73.207 as of October 1, 1989, these grandfathered stations are governed by 47 CFR § 73.213(c).[1] You have filed a copy of an agreement in your application in which Capital Cities/ABC, Inc., the licensee of WKHX-FM, consents to the proposed WRCC-FM power increase. Such agreements may be filed pursuant to 47 CFR § 73.213(c)(2). We have reviewed the agreement and have found it to be acceptable for filing. Accordingly, the application is found to be acceptable for filing pursuant to 47 CFR § 73.213(c).[2]

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[1] Although the 145.1 km spacing does not meet the minimum spacing of 161 km in the spacing table of 47 CFR § 73.213(c)(1), WRCC-FM or WKHX-FM may make modifications pursuant to this section if the separation between these two stations is not decreased. Additionally, under this section WKHX-FM retains the right to operate with the maximum facilities for a Class C station from any site exceeding 145.1 km distant from WRCC-FM.

[2] The application also requests waiver of 47 CFR § 73.207 and processing pursuant to the contour overlap rule 47 CFR § 73.215. However, a request for waiver of 47 CFR § 73.207 is not necessary where processing under § 73.213 or § 73.215 is specified. In addition, since the application complies with 47 CFR § 73.213(c) toward WKHX-FM, the application will be considered under that rule and not § 73.215.

However, the increased-ERP operation cannot be implemented until cochannel station WKTM, Soperton, GA changes channel to Channel 291A as required by Docket 92-16.[3] Therefore, WRCC-FM's application BPH-930408IG IS GRANTED WITH THE FOLLOWING CONDITION:

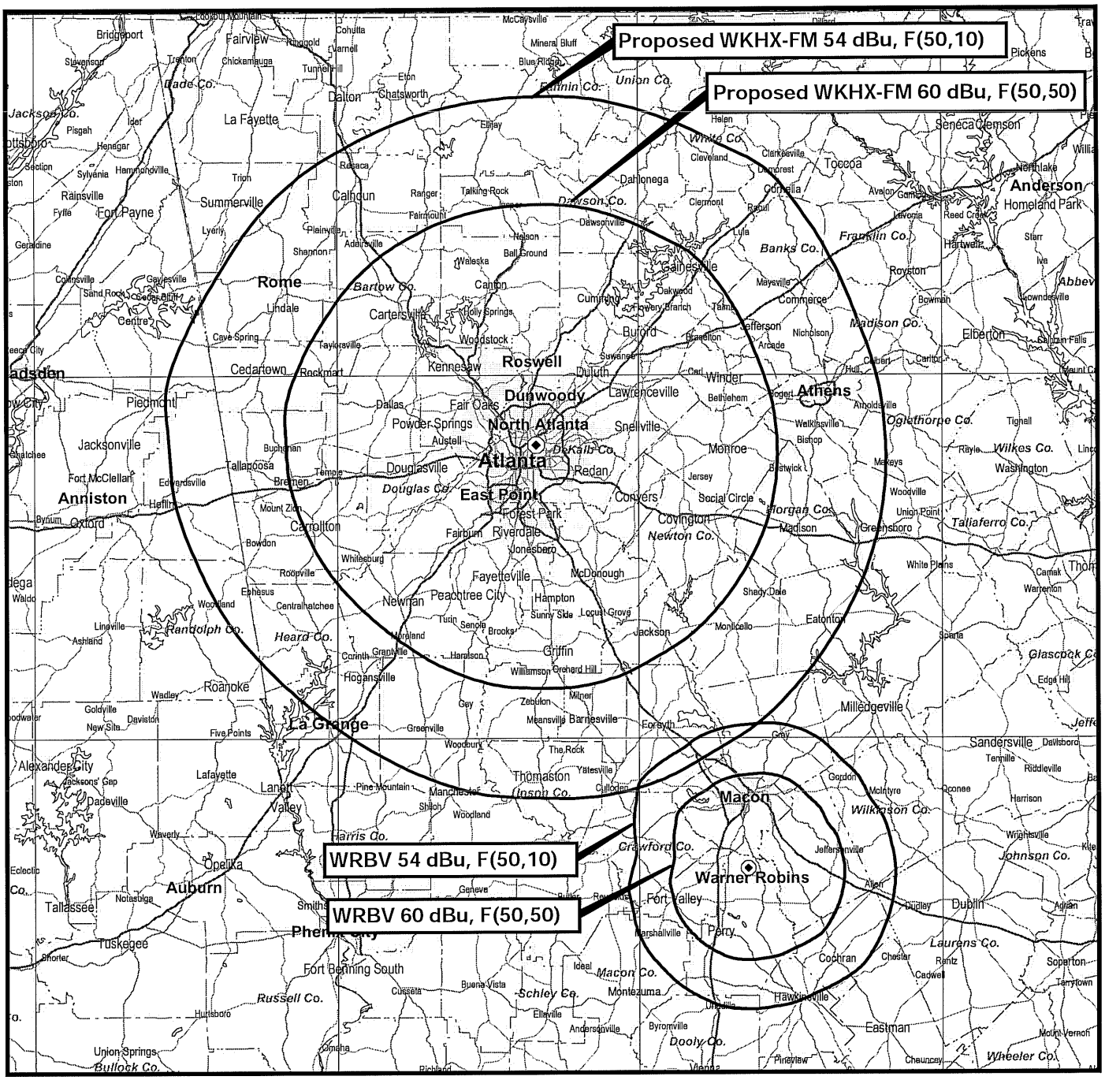
> Program tests for WRCC-FM will not commence on Channel 269A until program tests for WKTM commence on Channel 291A and a license will not be granted for WRCC-FM on Channel 269A until a license is granted for WKTM on Channel 291A.

Sincerely,

for Dennis Williams
Chief, FM Branch
Audio Services Division
Mass Media Bureau

cc: Richard L. Vega, Jr.
: Capital Cities/ABC, Inc.
: Michael R. Stone

[3] WKTM has filed application BPH-930309ID to implement this change. This application is currently pending in the FM Branch.



CONTOUR OVERLAP STUDY PER SECTION 73.213(a)
STATION WKHX-FM
MARIETTA, GEORGIA
CH 268C0 100 KW 329 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

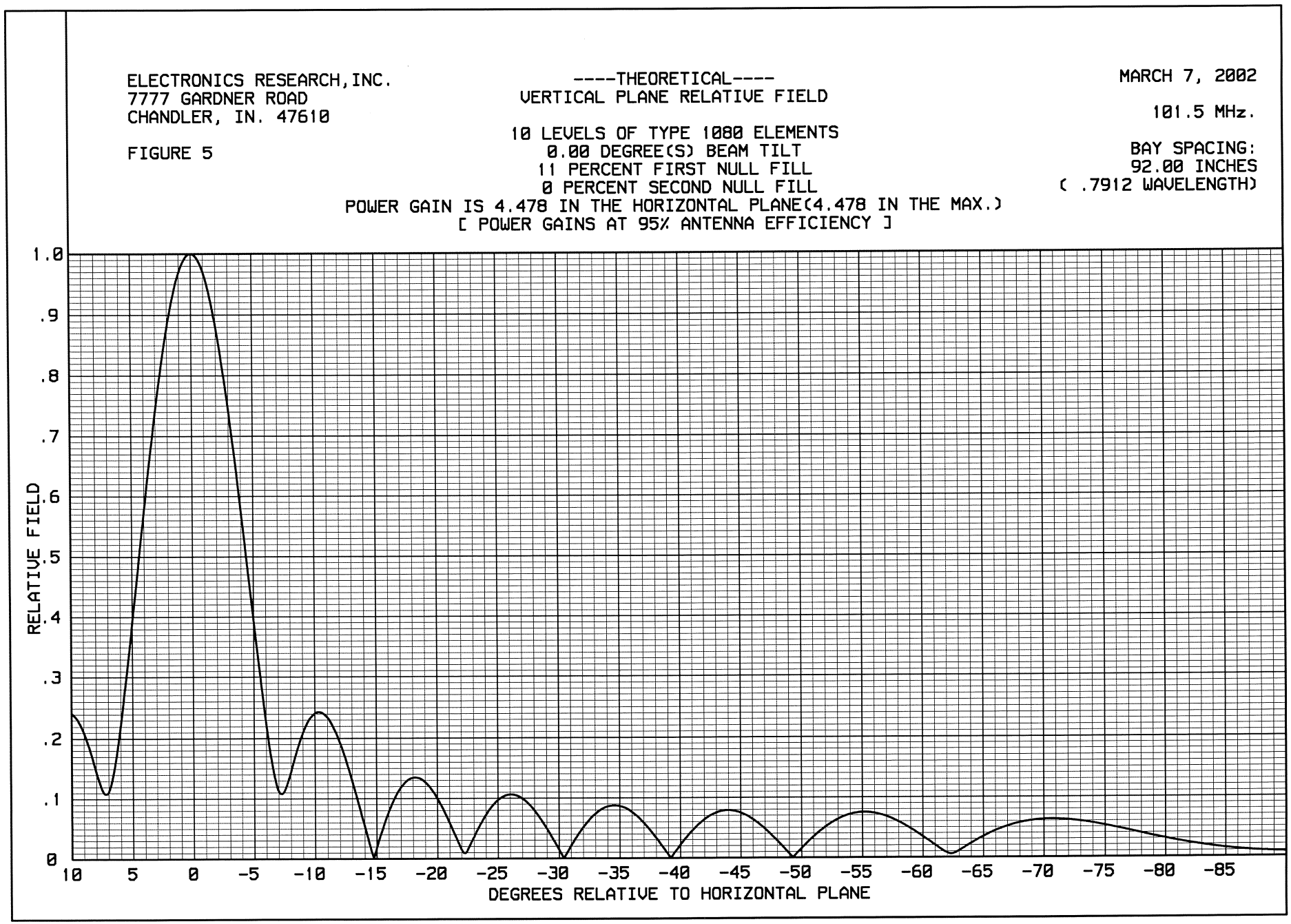

ELECTRONICS RESEARCH, INC.
7777 GARDNER ROAD
CHANDLER, IN. 47610
FIGURE 5
----THEORETICAL----
VERTICAL PLANE RELATIVE FIELD
10 LEVELS OF TYPE 1080 ELEMENTS
0.00 DEGREE(S) BEAM TILT
11 PERCENT FIRST NULL FILL
0 PERCENT SECOND NULL FILL
POWER GAIN IS 4.478 IN THE HORIZONTAL PLANE(4.478 IN THE MAX.)
[POWER GAINS AT 95% ANTENNA EFFICIENCY]
MARCH 7, 2002
101.5 MHz.
BAY SPACING:
92.00 INCHES
(.7912 WAVELENGTH)
RELATIVE FIELD
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
0
10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85
DEGREES RELATIVE TO HORIZONTAL PLANE

Figure 3