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August 7, 1997

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: MM Docket No. 97-77
Columbia Union College Broadcasting, Inc.

Dear Mr. Caton:

On behalf of Columbia Union College Broadcasting, Inc., licensee of Station WGTS-FM, Takoma Park, Maryland, there is transmitted herewith and filed, an original and six copies of its "Petition for Leave to Amend".

Should any questions arise with regard to this matter, kindly communicate with undersigned counsel.

Very truly yours,

KAYE, SCHOLER, FIERMAN, HAYS
& HANDLER, LLP

By: Bruce A. Eisen

Bruce A. Eisen

Enclosure

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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

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AUG - 7 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re Applications of	)	MM Docket No. 97-77
	)	
GREATER WASHINGTON EDUCATIONAL TELECOMMUNICATIONS ASSOCIATION Leonardtown, Maryland	)	File No. BPED-930617MD
	)	
For a Construction Permit for a New Noncommercial Educational FM Station	)	
	)	
COLUMBIA UNION COLLEGE BROADCASTING, INC. Takoma Park, Maryland	)	File No. BPED-930723MB
	)	
For Modification of Facilities of WGTS-FM, Takoma Park, Maryland	)	

TO: Administrative Law Judge
Richard L. Sippel

PETITION FOR LEAVE TO AMEND

Columbia Union College Broadcasting, Inc. ("CUC"), by its attorneys, hereby requests leave to amend its above-captioned application for modification of the facilities of Station WGTS-FM at Takoma Park, Maryland. In support thereof, the following is shown:

I. BACKGROUND

1. This proceeding was designated for hearing by Hearing Designation Order, DA 97-378, released February 24, 1997.

Although each applicant sought facilities for separate communities that would serve different areas, because the proposals were mutually-exclusive, the Commission specified a Section 307(b) issue to determine which of the proposals would best provide a fair, efficient and equitable distribution of radio services.[1] The Commission also stated that the applicants were qualified to construct and operate as proposed. Hence, except for the fact that the two applications were technically mutually-exclusive, each proposal could have been granted.[2]

2. The purpose of the attached amendment is to end the mutual exclusivity between CUC and Greater Washington Educational

---

[1] The issue specified by the Commission recites as follows:

> To determine: (a) the number of other reserved channel non-commercial educational FM services available in the proposed service area of each applicant, and the area and population served thereby; (b) whether a share-time arrangement between the applicants would result in the most effective use of the channel and thus better serve the public interest and, if so, the terms and conditions thereof; and (c) in light of Section 307(b) of the Communications Act of 1934, as amended, which of the proposals would best provide a fair, efficient and equitable distribution of radio service.

[2] The Commission observed that if neither applicant received a dispositive preference under the Section 307(b) issue, the proceeding would have to be held in abeyance until the Commission adopted revised NCE-FM comparative criteria in accordance with its Notice of Proposed Rulemaking in Re-examination of the Comparative Standards for New Commercial Educational Applicants, MM Docket 95-31, 10 FCC Rcd 2877, 2879 (March 17, 1995).

Telecommunications Association, Inc. ("GWETA"), and to thereby moot the Section 307(b) issue so that the Presiding Judge may grant their respective applications. Such a result would clearly advance the public interest because Leonardtown would receive its first local transmission service, and WGTS-FM would be able to provide at least a modicum of the increased service area that it had sought.

II. DISCUSSION

3. Good cause exists for the acceptance of this amendment. It is filed in an attempt to end the conflict between the parties applicant so that they may each bring new or increased service to their communities of license. The amendment will not unfairly prejudice any party to the proceeding, and there is no prospect of any comparative or Section 307(b) advantage or the necessity of additional issues that might otherwise disrupt the orderly conduct of the hearing. See, Erwin O'Connor Broadcasting Company, 22 FCC 2d 140, 142 (Rev. Bd 1970). The amendment is not strictly involuntary, nor is it necessitated by unforeseen circumstances. See, Section 73.3522(b)(1)(i). However, the Commission has held in the past that it may be unreasonable to construe the voluntariness and foreseeability requirements too literally. See, e.g., Alegra I, Inc., 4 FCC Rcd 587 (1989).

See, also, California Broadcasting Corp., 90 FCC 2d 800, 809 (1982); Anax Broadcasting, Inc., 87 FCC 2d 483,488-89 (1981).

4. The amendment proposes a directional antenna in order to eliminate the prohibited contour overlap with the Leonardtown application. In no way does this result in anything other than a minor change to the CUC application. As the engineering statement reveals, there will be only a 17% change in the service area, consisting only of an elimination of the prohibited overlap. Thus, the amendment does not propose service to any new areas not already covered by the original application. The amended proposal remains unchanged insofar as matters of compliance with other Commission Rules are concerned. See, Section 73.3573 of the Rules.

5. CUC submits that its Petition for Leave to Amend does not implicate Section 73.3605 of the Commission's Rules. That rule recites that an application is to be taken out of hearing status when it is amended so as to remove the need for a hearing. See, Section 73.3605(c). In cases where the rule has been held applicable, however, the amending party had filed a major amendment consisting of a channel change. See, e.g., Santa Monica Community College District, 11 FCC Rcd 1123 (1996)[3];

---

[3] Santa Monica Community College District was further (continued...)

Christian Broadcasting Association, 22 FCC 2d 410 (1970); Cabool Broadcasting Corp., 56 FCC 2d 573 (Rev. Bd 1975). Here, as stated, CUC proposes a very minor retraction of its contour in the direction of Leonardtown. The contour remains the same otherwise, and there is no proposed change in channel. For these reasons, CUC requests the Presiding Judge to retain its application in hearing status without returning it to the processing line. In the event that the Presiding Judge concludes that Section 73.3605 does have applicability to the instant Petition for Leave to Amend, it is requested that he waive the rule accordingly.[4]

---

[3] (...continued)
complicated by the fact that an applicant had filed an application for the amended channel. The Commission could not grant the amended application without affording the third applicant a hearing. That situation does not exist here, so as no other party or applicant can be prejudiced.

[4] It should be noted that even in the cases cited at paragraph 5, supra, it was held that it would be equitable to permit an amending applicant to remain in hearing status so that it could be granted without exposure to additional competing applications. Thus, in each case, Section 73.3605 of the Rules was waived.

In light of the foregoing, the Presiding Judge should grant this Petition for Leave to Amend, associate the attached amendment with CUC's application, and grant the amended application.

Respectfully submitted,

COLUMBIA UNION COLLEGE
BROADCASTING, INC.

By: _____
Bruce A. Eisen

By: _____
James M. Weitzman
Its Counsel

KAYE, SCHOLER, FIERMAN,
HAYS & HANDLER, LLP
901 15th Street, N.W.
Washington, D.C. 20005
202 682-3500

August 7, 1997

AMENDMENT

The application of Columbia Union College Broadcasting, Inc. for authority to modify facilities of WGTS-FM at Takoma Park, MD is hereby amended with the attached information.

This is also to state, under penalty of perjury that no one associated with Columbia Union College Broadcasting, Inc. has been promised any consideration. direct or indirect, by any person or party in return for the filing of this amendment which removes the conflict between the applications of Columbia Union College Broadcasting, Inc. and Greater Washington Educational Television Authority, Inc. for broadcast facilities in Takoma Park, MD and Leonardtown, MD, respectively.

Respectfully Submitted

Gerald F. Fuller DDS.

Gerald Fuller, DDS
President, Columbia Union College Broadcasting

August 7, 1997

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The application of Columbia Union College Broadcasting, Inc. for authority to modify facilities of WGTS-FM at Takoma Park, MD is hereby amended with the attached information.

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Respectfully Submitted

Gerald F. Fuller DDS.

Gerald Fuller, DDS
President, Columbia Union College Broadcasting

August 7, 1997

Section V-B - FM BROADCAST ENGINEERING DA TA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

Columbia Union College Broadcasting, Inc.

ORIGINAL

Call letters *(if issued)*

WGTS-FM

Is this application being filed in response to a window? ☐ Yes ☒ No

If Yes, specify closing date: _____

Purpose of Application: *(check appropriate box(es))*

- ☐ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☒ Modify licensed main facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☒ Antenna supporting-structure height
- ☒ Effective radiated power
- ☒ Antenna height above average terrain
- ☐ Frequency
- ☒ Antenna location
- ☐ Class
- ☐ Main Studio location
- ☒ Other *(Summarize briefly)* Install directional antenna.

File Number(s) BLED-717/BPED-930723MB

1. Allocation:

Channel No.	Principal community to be served: City	County	State
220	Takoma Park	Montgomery	MD

Class *(check only one box below)*

☐ A ☐ B1 ☒ B ☐ C3
☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna.
   (a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.
   5232 Lee Highway, Arlington County, Virginia

   (b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	Longitude
38° 53' 44"	77° 08' 04"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☒ Yes ☐ No

   If Yes, give call letter(s) or file number(s) or both. WABS(AM),WBIG-FM,WAVA(FM),WMZQ-FM(AUX)

   If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

   N/A

SECTION V-B - FM BROADCAST ENGINEERING DA TA (Page 2)

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No.

Date _____ Office where filed _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Pentagon Heliport	7.1	112
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 119 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 121 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)] 240 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 98 meters (H)
98 meters (V)

(2) above mean sea level [(a)(1) + (b)(1)] 217 meters (H)
217 meters (V)

(3) above average terrain 150 meters (H)
150 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. App 1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 25 kw (H*) 25 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No.

_____ kw (H*) _____ kw (V*)

*Polarization

10. Is a directional antenna proposed? [X] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. Engg.

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [X] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No.

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [X] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. Engg.

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. Engg.

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. Engg.

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 5,795 sq. km. Population 3,725,295

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. Engg.

Enter the following from Exhibit above: Gain Area 1,053 sq. mi.
Loss Area 25 sq. mi.

Percent change (gain area plus loss area as percentage of present area) 89 %.
If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: _____)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Other *(briefly summarize)* USGS 3-Second Terrain Data Base

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	143	45.1
45	137	44.3
90	198	51.0
135	193	36.9
180	162	35.5
225	131	43.5
270	100	39.1
315	137	44.3

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No.

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201 - 300 under The Canada-United States FM Agreement of 1947. Exhibit No.

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. Engg.

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference).* Exhibit No. Engg.

23. (a) Is the proposed operation on Channel 218, 219, or 220? ☒ Yes ☐ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? ☐ Yes ☒ No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No.

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. Engg.

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following: Exhibit No.

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525? [X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station. Exhibit No. Engg.

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1 - 107.9 MHz)? [ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)* Exhibit No.

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? [ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311. Exhibit No.

If No, explain briefly why not. See Engineering Statement

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
Jules Cohen	Consulting Engineer
Signature: Jules Cohen	Address *(Include ZIP Code)* 1901 Pennsylvania Ave., N.W. Suite 402 Washington, DC 20006-3405
Date August 7, 1997	Telephone No. *(Include Area Code)* (202) 452-5605

Jules Cohen, P.E.
Consulting Engineer

ORIGINAL

ENGINEERING EXHIBIT
AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT
COLUMBIA UNION COLLEGE BROADCASTING, INC.
WGTS-FM, TAKOMA PARK, MARYLAND
CH 220B 25 KW (MAX-DA, H & V) 150 METERS
BPED-930723MB

August 7, 1997

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Jules Cohen, P.E.
Consulting Engineer

ENGINEERING EXHIBIT
AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT
COLUMBIA UNION COLLEGE BROADCASTING, INC.
WGTS-FM, TAKOMA PARK, MARYLAND
CH 220B 25 KW (MAX-DA, H & V) 150 METERS
BPED-930723MB

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Figure 5	Map Showing Present and Proposed 60 dBμ Coverage
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Figure 8	Tabulation of Data for Interference Study

Jules Cohen, P.E.
Consulting Engineer

ENGINEERING EXHIBIT
AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT
COLUMBIA UNION COLLEGE BROADCASTING, INC.
WGTS-FM, TAKOMA PARK, MARYLAND
CH 220B 25 KW (MAX-DA, H & V) 150 METERS
BPED-930723MB

Engineering Statement

The engineering exhibit of which this statement is part was prepared on behalf of Columbia Union Broadcasting, Inc., ("Columbia") licensee of WGTS-FM, Takoma Park, Maryland, a noncommercial station operating on Channel 200 (91.9 MHZ). In a pending application (File No. BPED-930723MB), Columbia has submitted a request to improve service to the area by relocating its transmitter and increasing both effective radiated power (ERP) and antenna height. The application, in its present form, specifying operation with ERP of 25 kilowatts and nondirectional antenna, is mutually exclusive with an application by the Greater Washington Educational Telecommunications Association to construct a new station at Leonardtown, Maryland, employing Channel 219.

The amended application supported by this statement modifies the proposed antenna to directional to eliminate the prohibited contour overlap with the Leonardtown proposal. All other aspects of the Columbia application remain unchanged. Maximum ERP is retained at 25 kilowatts, and antenna height above average terrain remains at 150 meters. Except for

the reanalysis of interference conditions with the Leonardtown proposal, consideration of other allocation situations remain unchanged. As with the original application, this proposal is a major change from the present operation, but the use of a directional antenna in place of the omnidirectional antenna is a minor change from the pending application. The service area change from 6990 square kilometers to 5795 square kilometers is a change of only 17 percent.

The Directional Antenna

The horizontal plane directional antenna pattern envelope is illustrated in Figure 1, herein. A tabulation of data relative to that pattern is found in Figure 2. Columbia proposes to use a Jampro, four-bay antenna with half-wave spacing to minimize downward radiation. The vertical plane pattern for such an antenna, as supplied by the manufacturer, is shown in Figure 3, and the data pertinent to that pattern is included in Figure 4.

At the present time, the auxiliary antenna for WMZQ-FM is in a portion of the aperture proposed to be used on the WAVA tower for the WGTS-FM antenna. It is understood that the WMZQ-FM antenna, particularly in view of its auxiliary nature, can be relocated and the necessary space on the tower cleared to permit operation of the directional WGTS-FM antenna without the distorting effect possible in a shared aperture.

Prediction of Coverage

A comparison of the present and proposed 60 dBμ (1.0 mV/m) coverage areas is shown on the map of Figure 5. The data pertinent to that coverage showing is found in

Figure 6. Coverage for both operations was calculated pursuant to Commission rules. Areas were measured with a polar planimeter taking into account the map scale. Populations were determined on the basis of the 1990 U.S. Census through the use of a computer program that determines what Census block centroids fall within the pertinent area .

The present 60 dBμ coverage area of WGTS-FM includes 3,135 square kilometers and a population of 2,824,451. The proposed directional 60 dBμ coverage area includes 5,795 square kilometers and a population of 3,725,295. The small loss area includes 65 square kilometers, and the gain area includes 2,728 square kilometers.

Allocation Considerations

Except with respect to the adjacent channel Leonardtown application, the amended proposal remains unchanged insofar as matters of compliance with Commission rules is concerned. That compliance is described fully in the original application and is not repeated in this limited amendment specifying a directional antenna.

Pertinent coverage and interfering contours for WGTS-FM operating as proposed with directional antenna, and the Leonardtown operation, as proposed in BPED-930617MD, are shown in Figure 7. A tabulation of pertinent data is included as Figure 8. As shown in Figure 7, the 54 dBμ, f(50,10) contour of neither station would overlap the 60 dBμ, f(50,50) contour of the other station.

Interaction With Other Users of Tower

Through its use of an even number of half-wave spaced elements, WGTS-FM will

limit both the energy impinging on other antenna systems on the commonly-used tower and the energy received from other users. As a consequence, no interaction with other user's systems is expected. If, contrary to expectation, interference-causing intermodulation is found, Columbia recognizes its obligation to take corrective action. With regard to the operation of WABS(AM), driving point impedance will be measured after antenna and transmission line have been installed to determine if any change requires WABS to modify its driving point current to maintain proper power.

Environmental Compliance

Other than the installation of the new antenna on an existing tower, no other construction will be required to implement the Columbia proposal for the improved WGTS-FM operation. Through the use of half-wave spacing between bays, virtually no energy is directed vertically. A minor lobe of the antenna pattern peaks at a relative field of 0.18 at a depression angle of 45 degrees. At head height, approximately two meters above ground, this minor lobe is directed to a point 92 meters from the tower. The slant distance from the antenna radiation center to that point is 130 meters. Based on a maximum ERP of 50 kilowatts to account for both planes of polarization, the RF exposure level would be 0.0032 mW/cm^2. That level, only 1.6 percent of the newly adopted 0.200 mW/cm^2 for the general population/uncontrolled environment, is a minor contribution to the RF level in the WAVA tower vicinity.

Conclusion

WGTS-FM operating as proposed with directional antenna complies with Commission rules. Where the potential for interference exists, that potential would be reduced by this planned relocation and mode of operation.

I declare under penalty of perjury that the foregoing is true and correct.

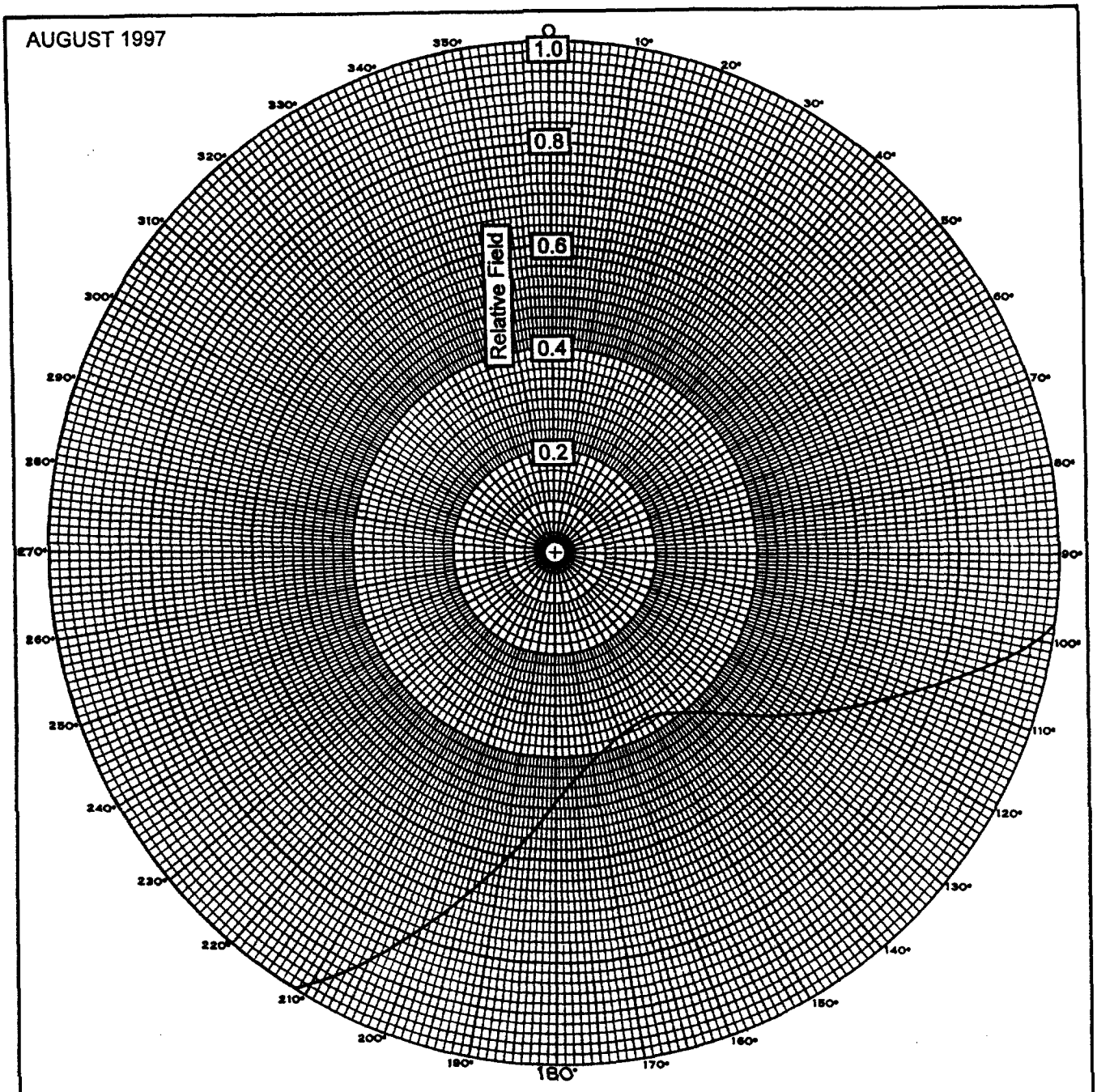
Executed on August 7, 1997.

Jules Cohen

Jules Cohen, P.E.

Figure 1

AUGUST 1997



HORIZONTAL PLANE
DIRECTIONAL ANTENNA PATTERN ENVELOPE

COLUMBIA UNION COLLEGE BROADCASTING, INC.
WGTS-FM TAKOMA PARK, MARYLAND
CH 220B 25 KW (MAX-DA, H&V) 150 METERS
BPED-930723MB

Jules Cohen, P.E. Consulting Engineer

Figure 2

ENGINEERING EXHIBIT
AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT
COLUMBIA UNION COLLEGE BROADCASTING, INC.
WGTS-FM, TAKOMA PARK, MARYLAND
CH 220B 25 KW (MAX-DA, H & V) 150 METERS
BPED-930723MB

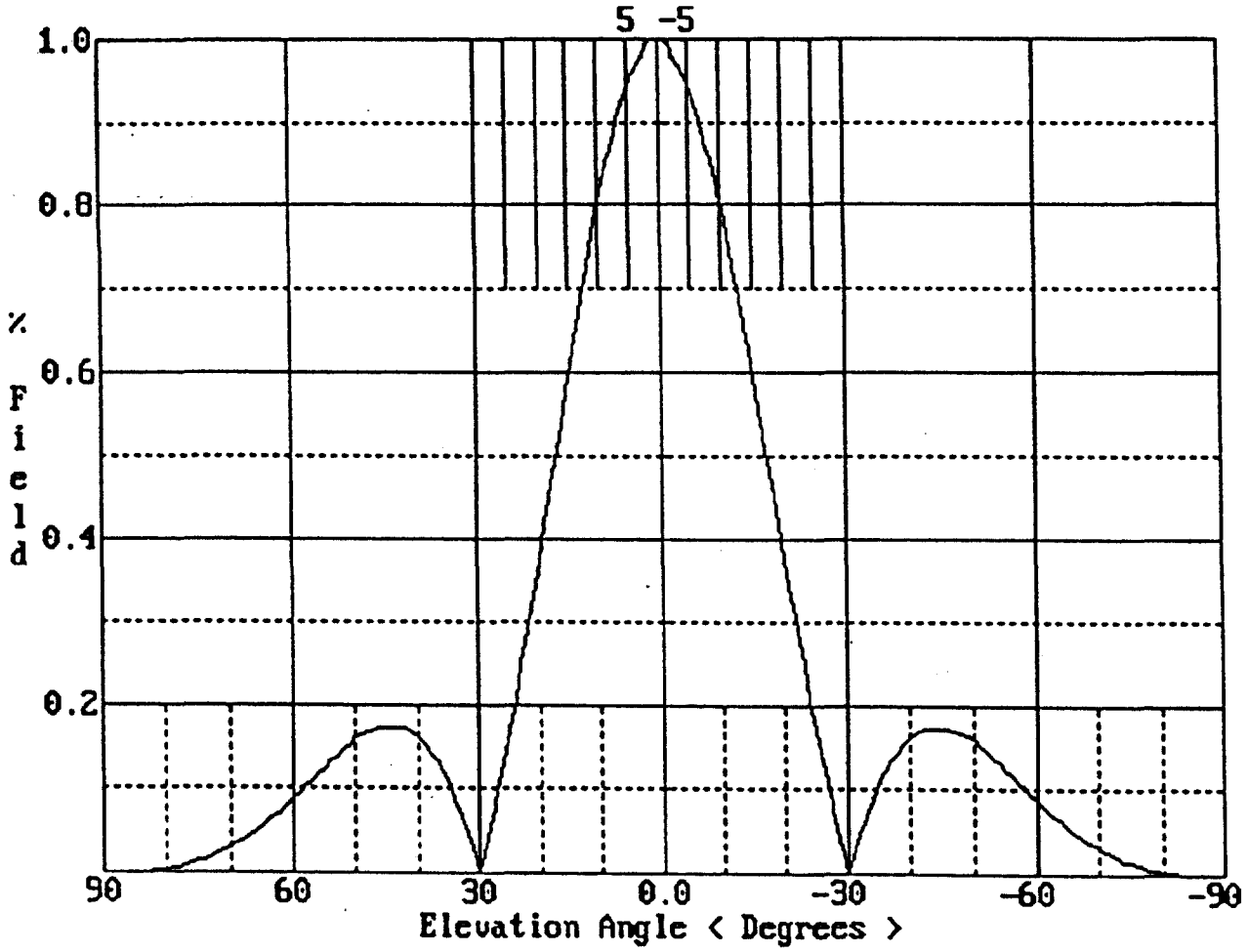
Horizontal Plane Antenna Pattern Envelope Data

Azimuth (deg.)	Rel. Field	ERP (kW)	Azimuth (deg.)	Rel. Field	ERP (kW)
0	1.00	25.0	180	0.49	6.0
10	1.00	25.0	190	0.62	9.7
20	1.00	25.0	200	0.78	15.3
30	1.00	25.0	210	0.98	24.1
40	1.00	25.0	220	1.00	25.0
50	1.00	25.0	230	1.00	25.0
60	1.00	25.0	240	1.00	25.0
70	1.00	25.0	250	1.00	25.0
80	1.00	25.0	260	1.00	25.0
90	1.00	25.0	270	1.00	25.0
100	0.97	23.6	280	1.00	25.0
110	0.77	14.9	290	1.00	25.0
120	0.61	9.3	300	1.00	25.0
130	0.49	6.0	310	1.00	25.0
140	0.41	4.2	320	1.00	25.0
150	0.37	3.4	330	1.00	25.0
160	0.38	3.6	340	1.00	25.0
170	0.42	4.4	350	1.00	25.0

Figure 3

JAMPRO ANTENNAS, INC.

ELEVATION PATTERN



J*A*M*P*R*O A*N*T*E*N*N*A*S

Customer: date:

Frequency: Type:

bays: 4 spacing: 0.5 wave gain: 1.3

Beam tilt: 0 Null fill: 0 %

Notes: Elevation pattern plotted in relative field