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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

ORIGINAL FILE

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MAIL BRANCH

ncn

June 9, 1992

Ms. Donna Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: MM Docket No. 92-107
National Christian Network, Inc.
File No. BPED-900823MA
Fayetteville, Arkansas

Dear Ms. Searcy:

Transmitted herewith, on behalf of National Christian Network, Inc., party-applicant in the above-referenced noncommercial educational FM proceeding, are an original and six copies of a Petition for Leave to Amend and the accompanying amendment.

If there are any questions with respect to this matter, please communicate with the undersigned.

Sincerely,

Raymond A. Kassis

Raymond A. Kassis
President
National Christian Network, Inc.

Enc.
RAK/kh

No. of Copies rec'd 0+6
List A B C D E

cc: As per Certificate of Service

NATIONAL CHRISTIAN NETWORK, INC. 407
1150 West King Street, Cocoa, Florida 32922 (~~305~~) 632-1000

Before the

Federal Communications Commission

Washington, D.C. 20554

RECEIVED

JUN 12 1992

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re Application of	)	MM Docket No. 92-107
BIBLE BROADCASTING NETWORK, INC. Channel 209A Fort Smith, Arkansas	)	File No. BPED-900816MA
NATIONAL CHRISTIAN NETWORK, INC. Channel 207C2 Fayetteville, Arkansas	)	File No. BPED-900823MA
For Construction Permit for a New Noncommercial Educational FM Station	)	

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MAIL BRANCH

TO: The Honorable Walter C. Miller
Administrative Law Judge

PETITION FOR LEAVE TO AMEND

National Christian Network, Inc. ("NCN"), applicant for a construction permit for a new noncommercial educational FM station at Fayetteville, Arkansas, by its President, hereby respectfully requests the Presiding Officer to grant it leave to amend its above-referenced application (File No. BPED-900823MA) as set forth herein.

This amendment is filed to reduce to effective radiated power and the antenna height above average terrain, so as to eliminate prohibited contour overlap with the pending proposal of Bible Broadcasting Network, Inc.'s Channel 209(A) at Fort Smith, Arkansas in BPED-9008106MA. It is the understanding of this application that BPED-900823MA is also being amended on a mutual basis to eliminate overlap so that both amended applications granted will have cured all issues, deficiencies and mutual exclusivity, thereby eliminating the need for a hearing.

This amendment cures the directional antenna issue since it proposes that we relocate the antenna below the KUAF-FM directional antenna.

"NCN" has already filed our policy statement concerning the RF Radiation Protection to tower workers and personnel.

Good cause exists for this amendment.

This amendment will not cause a disruption of the proceedings; no party will be prejudice; no new parties or issues are required; and no comparative advantage will accrue to the amending applicant, save the staying of the hearing process and the granting of both applications.

WHEREFORE, good cause having been shown, NCN respectfully requests the Presiding Judge to grant it leave to amend and accept the attached amendment to its pending application.

Respectfully submitted,
NATIONAL CHRISTIAN NETWORK, INC.

By: Raymond A. Kassis
Raymond A. Kassis
Its President

NATIONAL CHRISTIAN NETWORK, INC.
1150 West King Street
Cocoa, Florida 32922
(407) 632-1000

FCC 340

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

Name of Applicant
National Christian Network, Inc.

Call letters *(if issued)*	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)*

File Number(s) Amend BPED-900823MA

1. Allocation:

Channel No.	Principal community to be served: City	County	State
207	Fayetteville	Washington	AR

Class *(check only one box below)*

☐ A ☐ B1 ☐ B ☐ C3
☒ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna. KEZA site, 7.2 km E. of Brentwood, Washington Co., AR
(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

(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	°	'	"
	35	51	12		94	01	33

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. KEZA(FM), KUAF(FM)

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.

DNA

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 8-7-1990 Office where filed Southwest Region

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

NONE

	Landing Area	Distance (km)	Bearing (degrees True)
(a)			
(b)			

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

(1) of site above mean sea level; 671 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 259 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 930 meters

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

(1) above ground 195 meters (H)
195 meters (V)

(2) above mean sea level [(aX1) + (bX1)] 866 meters (H)
866 meters (V)

(3) above average terrain 325 meters (H)
325 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). 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. E-3

9. Effective Radiated Power:
(a) ERP in the horizontal plane 4.5 kw (H*) 4.5 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? ☐ 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.

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? ☒ 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? ☒ 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. A

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. E-5

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. E-1

(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 6,275 sq. km. Population 145,216

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. E-1

Enter the following from Exhibit above: Gain Area ------- sq. mi.
Loss Area 658km^2 254 sq. mi.

Percent change (gain area plus loss area as percentage of present area) 9.5 %.
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. DNA

(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)*

[X] Linearly interpolated 30-second database [ ] 7.5 minute topographic map

(Source: NGDC-TPG-0050)

[ ] Other *(briefly summarize)*

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	391.5	48.3
45	357.2	46.4
90	348.5	45.9
135	231.0	38.8
180	310.1	43.6
225	305.7	43.4
270	339.8	45.4
315	318.0	44.1

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 [X] 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. DNA

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. DNA

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. E-6

(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. E-6

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. DNA

(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. DNA

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. DNA

(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. E-7

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. DNA

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. This application meets the requirements of OET Bulletin No. 65 and is categorically excluded from environmental processing pursuant to Section 1.1306 of the Commission's Rules; specifically, because it does not (1) involve a site location specified under Section 1.1307(a)(1)-(5); (2) involve high intensity lighting under Section 1.1307(a)(6); or, (3) result in human exposure to radio frequency radiation in excess of the applicable safety standards specified in Section 1.1307(b) of the Commission's Rules.

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)* E. Harold Munn, Jr.	Relationship to Applicant *(e.g., Consulting Engineer)* Technical Consultant
Signature E. Harold Munn Jr.	Address *(Include ZIP Code)* Box 220 Coldwater, MI 49036
Date June 5, 1992	Telephone No. *(Include Area Code)* (517) 278-7339

FCC Orig.

AMENDMENT TO BPED-900823MA
An Application for a NEW
Non-Commercial FM Station
Channel 207(C2)
Fayetteville, Arkansas
June, 1992

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E. HAROLD MUNN, JR. & ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

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9. Exhibit E-5 - Portion of Topographic Map Showing Site

10. Exhibit E-5A - Portion of Aero Chart Showing Site

11. Exhibit E-6 - Allocation Study

12. Exhibit E-7 - Study Concerning Television Channel 6

CERTIFICATION OF CONSULTANT

The firm of E. Harold Munn, Jr. & Associates, Inc., Broadcast Engineering Consultants, with offices at 100 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data forming this report.

The report has been prepared by properly trained electronics specialists under the direction of the undersigned whose qualifications are a matter of record before the Federal Communications Commission.

I declare under penalty of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

E. HAROLD MUNN, JR. & ASSOCIATES, INC.

June 5, 1992

By E. Harold Munn, Jr.
E. Harold Munn, Jr., President

100 Airport Drive, Box 220
Coldwater, Michigan 49036

(517) 278-7339

DISCUSSION

This firm was retained to prepare the required engineering amendment in support of an application for a new Educational FM Broadcast Station serving the area of Fayetteville, Arkansas.

It has been determined that FM Channel 207(C2), 89.3 mHz, may be used at the site specified without interference to or from any existing or proposed station. The details of the channel allocation are included as Exhibit E-6 of this report.

The transmitter site proposed in this application is within the affected radius of two Channel 6 television stations. The details concerning the potential of interference to the TV protected contour are found in Exhibit E-7 of this report.

The FM antenna will be mounted on the side of an existing tower, owned by others, which supports other FM Broadcast facilities. There will be no increase in the height of the structure. Due consideration has been given to protection against human exposure to radiofrequency radiation. A detailed study is part of this section.

The proposed 1.0 mV/m contour has been calculated in accordance with the Rules, and the plotted data forms Exhibit E-1 of this report.

The data in this application amends that supplied with BPED-900823MA, to reduce the effective radiated power from 5.0 to 4.5 kW. The antenna height above average terrain is also being reduced. The purpose is to eliminate prohibited contour overlap with the pending proposal for the use of Channel 209(A) at Fort Smith, Arkansas, in BPED-900816MA. It is the understanding of this applicant that BPED-900816MA is also being amended on a mutual basis to eliminate overlap. The map exhibit of E-6 shows the revised contours of each proposal.

MULTIPLE SOURCES STUDY

Since there are multiple sources of radiofrequency radiation at the referenced site, special studies have been made to assure that the combined fields of the various signals do not exceed the ANSI Guidelines, as detailed in OST Bulletin No.65.

The individual station fields were calculated, and the data tabulated. The calculations show that about the tower the individual fields are below the ANSI Guidelines.

To verify that this proposal meets the requirements of the Guidelines, calculations of the FM field have been made using the appropriate formulae of OST Bulletin No.65. The FM antenna in use on Channel 207 will be a three(3) bay antenna, an ERI or equal. Each antenna bay is an EPA Type 3 element.

The calculations use the techniques outlined in the EPA report titled: An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM, and TV Broadcast Services(Gailey & Tell, April, 1985). All calculations contained follow the procedure in the Gailey and Tell report.

As there are three stations existing or proposed, and each station has a different power and antenna height above ground, each limit was calculated individually. The proposed antenna height AMSL and effective radiated power of the Channel 207 station was used for the calculations concerning that facility, rather than those of BPED-900823MA.

In accordance with Section 4.1 of Appendix A of OST Bulletin No.65, the individual limit fractions have been determined, and the results added. The sum of the individual limits does not exceed unity, therefore the facilities are in full compliance with the Rules of the Commission.

STATION	FIELD	LIMIT	DECIMAL FRACTION
Prop. Ch.207	0.001 mW/cm²	1.0 mW/cm²	0.001
KEZA	0.005 mW/cm²	1.0 mW/cm²	0.005
KUAF	0.0085 mW/cm²	1.0 mW/cm²	0.0085
		Total	0.0145

In the event work would be required on the structure, at such a distance from the FM antennae that the ANSI exposure guidelines would be exceeded, the transmitter power of the facility causing the exposure in excess of the limits will be reduced to the extent required, or that facility will be shut down, during the period in question.

As an example, during the installation of the new Channel 207 antenna, only the power of KUAF would have to be reduced during the period workers would be within about nineteen (19) meters of the KUAF antenna. The KEZA antenna is enough above the proposed Channel 207 antenna position that the KEZA field is predicted to be 0.7 mW/cm² at that location. Reducing the KUAF ERP to 10 kW during the construction period, or any other time work is required within that distance, will prevent human exposure to radiofrequency radiation in excess of the ANSI guidelines.

EXHIBIT "A"

The transmitting facility is so located that there is some resident population within the predicted "blanketing" contour, as defined in 47 C.F.R. 73.318. The applicant agrees that full compliance with the procedures and requirements of 73.318(b)(d) will be attained.

The applicant will take such engineering steps as may be required to satisfy complaints of "blanketing" including, but not limited to, the installation of filters, traps, or other devices to satisfy said complaints within the specified time period.

This applicant accepts full responsibility for the elimination of any objectionable interference.

The proposed transmitter is located within 10 km of existing or proposed FM and TV transmitters. This applicant does not believe that there would be any adverse effects on the operation of any other facility as a result of a grant of this application. The frequency separations, and the physical distance between the facilities should preclude any harmful effects.

In the event such harmful effects are noted, including but not limited to receiver-induced or other types of modulation, the applicant accepts full responsibility for the elimination of any objectionable interference to facilities in existence or authorized, or to radio receivers in use prior to grant of this application.

The applicant will take such engineering steps as may be required to satisfy complaints including, but not limited to, the installation of filters, traps, or other devices.

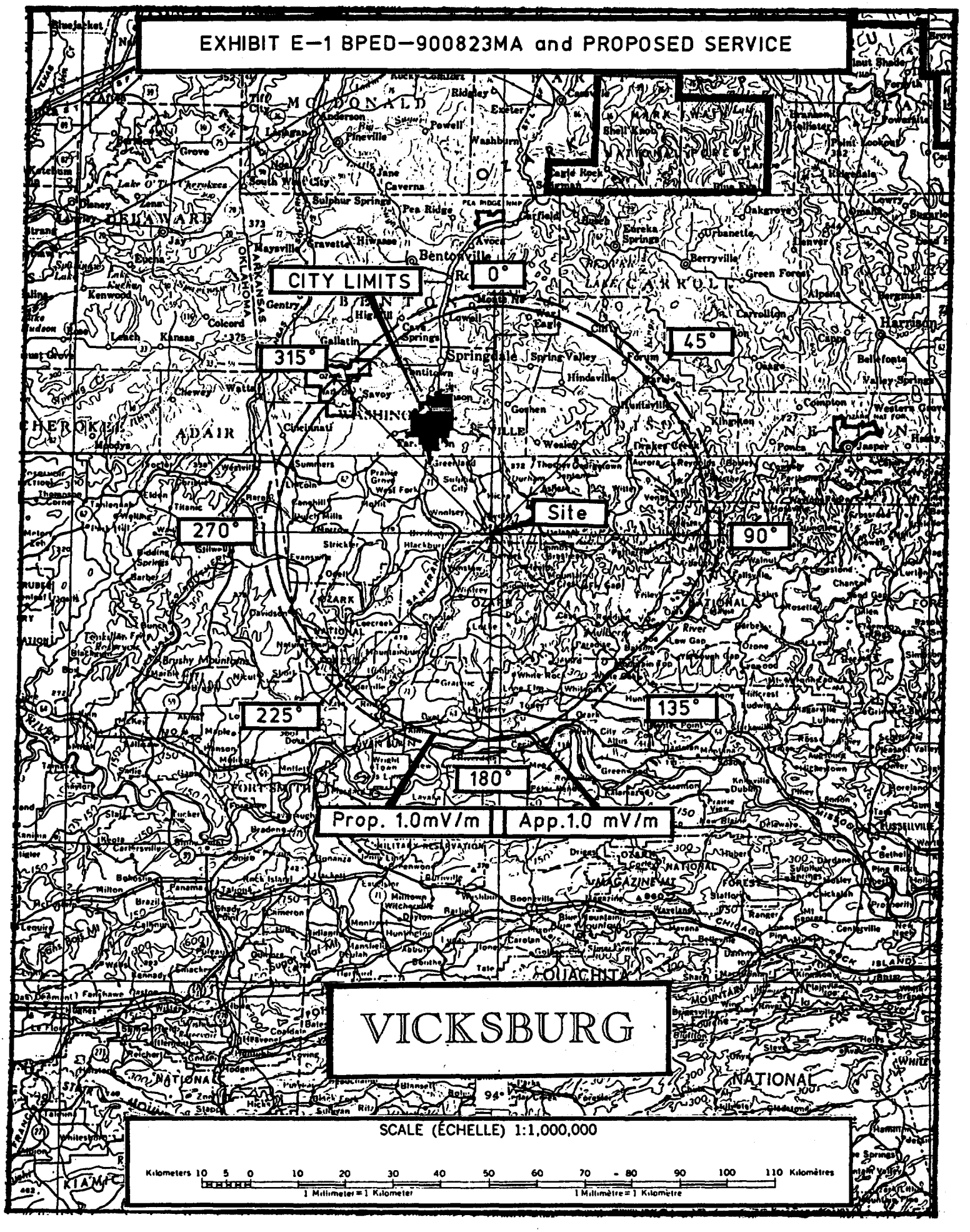


EXHIBIT E-1 BPED-900823MA and PROPOSED SERVICE
CITY LIMITS
0°
45°
90°
135°
180°
225°
270°
315°
Site
Prop. 1.0mV/m
App.1.0 mV/m
VICKSBURG
SCALE (ÉCHELLE) 1:1,000,000
Kilometers 10 5 0 10 20 30 40 50 60 70 80 90 100 110 Kilomètres
1 Millimeter = 1 Kilometer
1 Millimètre = 1 Kilomètre

EXHIBIT E-2

SOURCE OF TOPOGRAPHIC DATA

The topographic data employed in this application is based on the National Geophysical Center thirty second point topography data base, TPG-0050.

The averages calculated include 130 points between 3 and 16 km from the transmitter site proposed in this application.

The transmitter site elevation was determined by means of 7.5' series topographic mapping. The site coordinates were also developed from the 7.5' series map. A portion of that map is included as Exhibit E-5 in this report.

In the event a detailed topographic analysis using 7.5' maps is required, such an analysis will be performed and supplied.

Elevations in feet have been converted to meters, using the formula as follows:

$$H(\text{meters}) = h(\text{feet})*0.3048$$

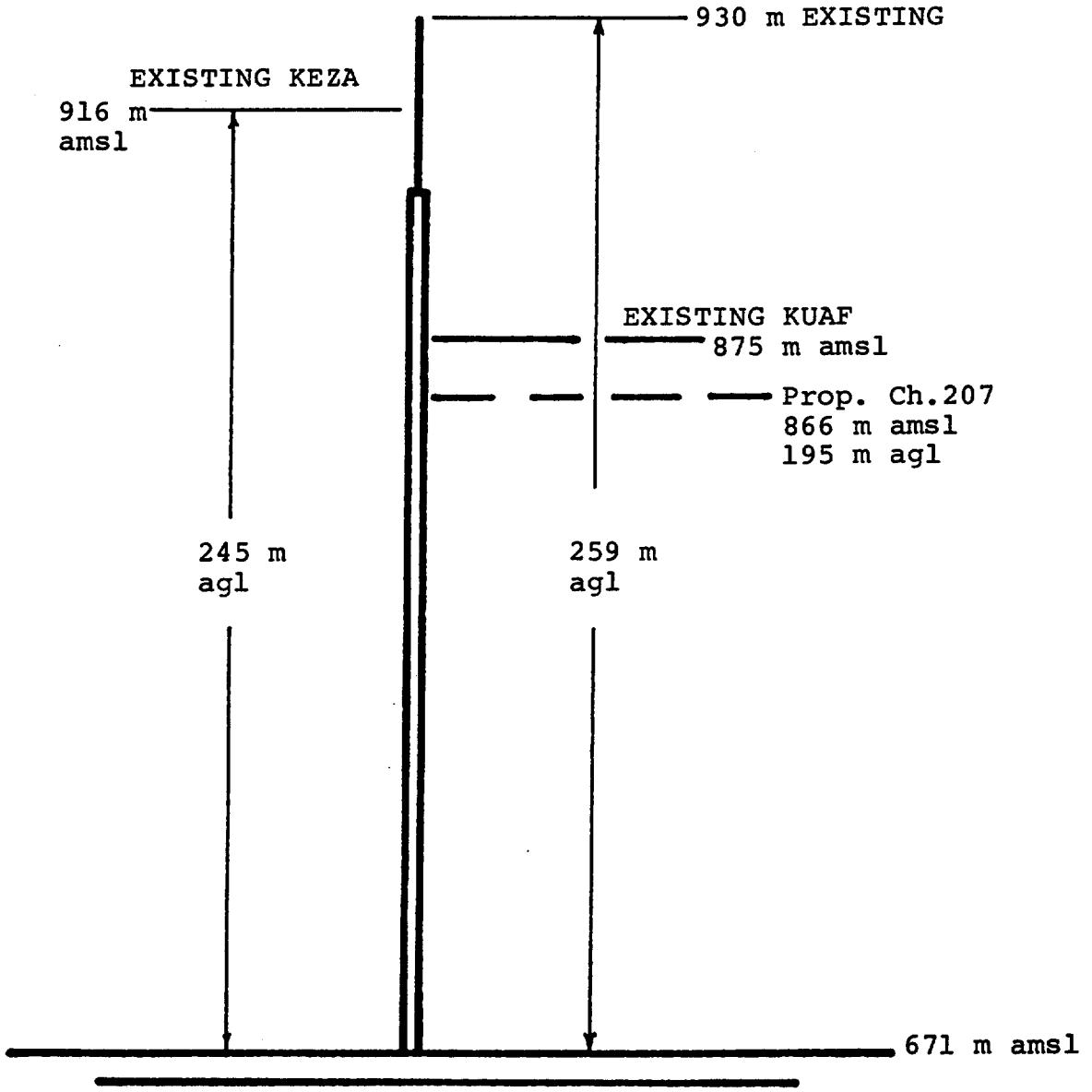
EXHIBIT E-3

VERTICAL PLAN

EXISTING, single, guyed steel tower supporting various FM Broadcast antennae as shown

SITE LOCATION

NL 35° 51' 12"
WL 94° 01' 33"
KEZA site, 7.2 km E. of Brentwood, Washington Co., AR.



not to scale

guys not shown

E. HAROLD MUNN, JR.
& ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, Michigan

EXHIBIT E-4

PROPOSED FM OPERATING SPECIFICATIONS

Applicant: National Christian Network

Frequency: 89.3 mHz Channel: 207C2 ERP: 4.5 kW HAAT: 325 (meters)

Transmitter Location: KEZA site, 7.2 km E. of Brentwood

County: Washington

State: Arkansas

Site Coordinates: NL 35"51'12"; WL 94°01'33" Site Elevation: 671 meters

Proposed Operation:

Effective Radiated Power: 4.5 (kW)H 4.5 kW(V)

Height of Antenna Radiation Center Above:

	Average Terrain		Mean Sea Level		Gnd.	
H	325	meters	866	m	195	m
V	325	meters	866	m	195	m

Overall Height of Structure Above Ground: 259 meters
Overall Height of Structure Above Mean Sea Level: 930 meters

E. HAROLD MUNN, JR.
& ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, Michigan

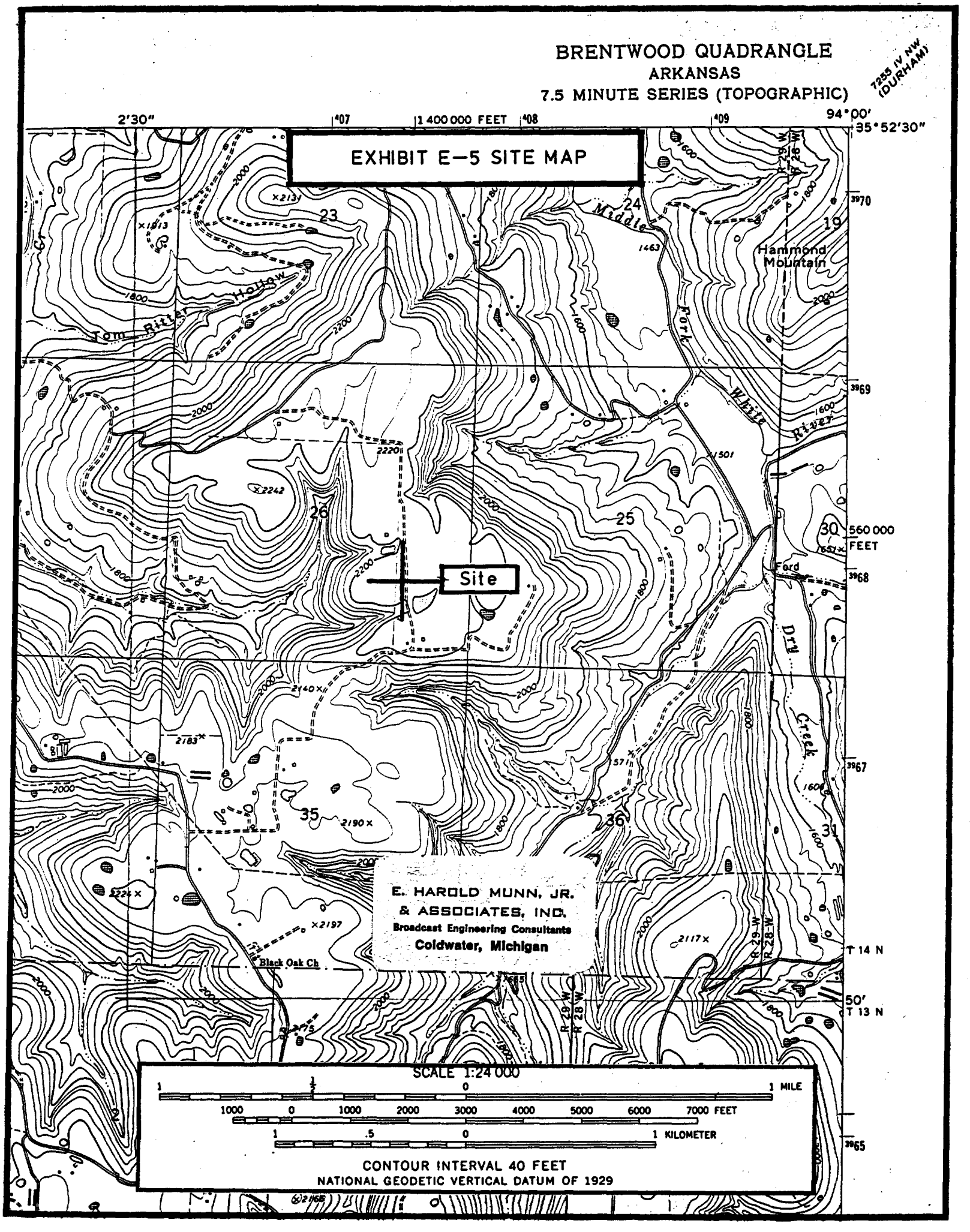
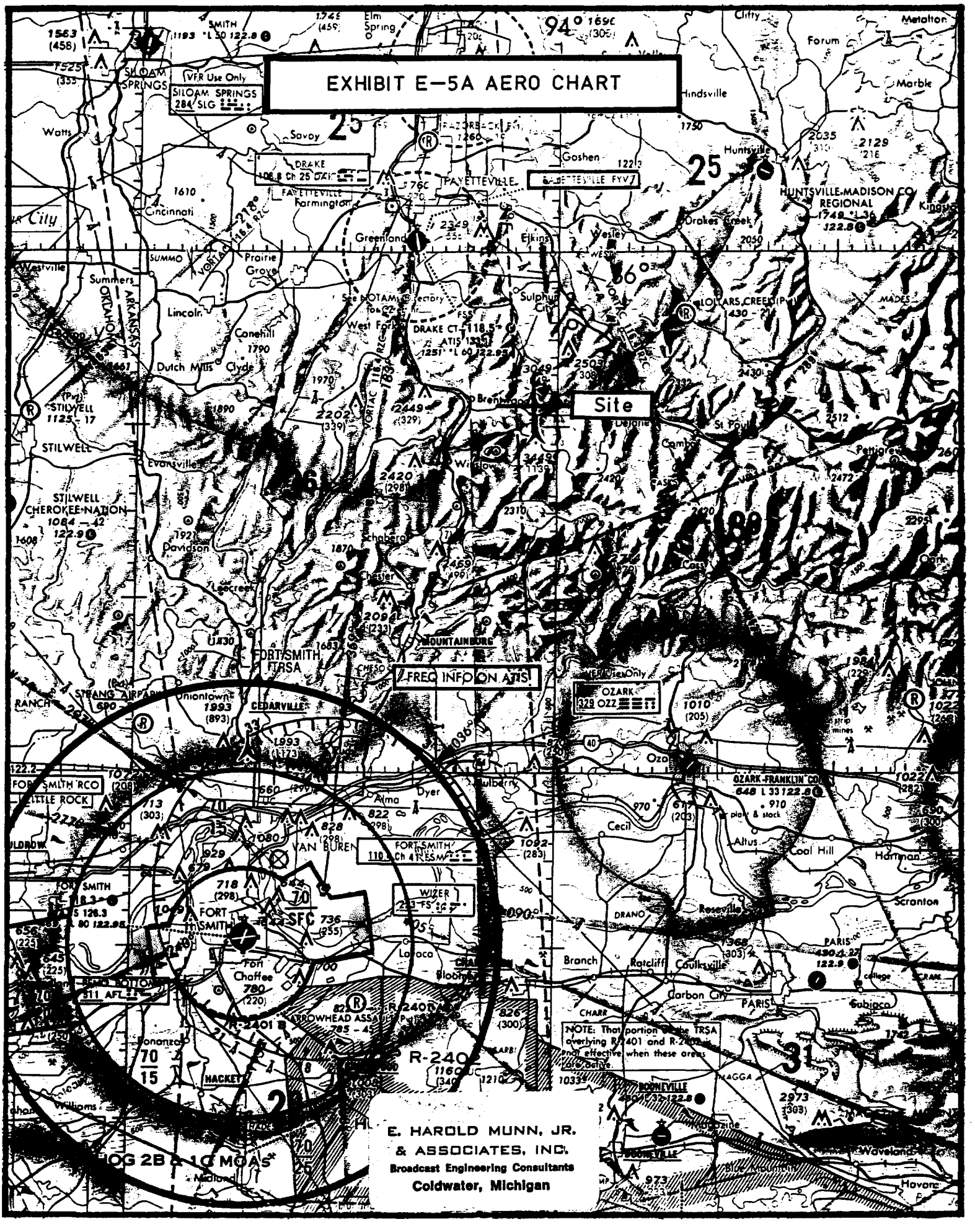

BRENTWOOD QUADRANGLE
ARKANSAS
7.5 MINUTE SERIES (TOPOGRAPHIC)
7255 IV NW (DURHAM)
EXHIBIT E-5 SITE MAP
Site
Hammond Mountain
Middle Fork White River
Tom Ritter Hollow
Dry Creek
Black Oak Ch
Ford
E. HAROLD MUNN, JR. & ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, Michigan
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

EXHIBIT E—5A AERO CHART



E. HAROLD MUNN, JR.
& ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, Michigan

EXHIBIT E-6

ALLOCATION STUDY FOR THE USE OF CHANNEL 207C2

By National Christian Network

At Fayetteville, Arkansas

This exhibit tabulates the spacings between the proposed NCN(National Christian Network) site and the other facilities which may be affected in the allocation. The relationships between NCN as proposed and the other facilities are shown in graphic form on the maps produced by INTERCHK.

For the tabulated data concerning the proposed operation, AP209 (Fort Smith) as proposed, and KWGS, Tulsa, OK. data was taken from the files for each facility studied.

A tabulation is also included of the distances to the calculated 1.0 mV/m (60 dBu), the 0.5 mV/m (54dBu) and 10 mV/m (80 dBu) contours of NCN on 36 bearings spaced 10° apart.

This exhibit shows that there will be no prohibited contour overlap to or from any station as a result of a grant of this application.

None of the other stations in the tabulation were close enough to the NCN site to warrant map studies.

06-03-1992 E. H. MUNN JR. & ASSOC. 517-2787339

CH# 207C2 - 89.3 MHz
MODIFIED FAYETTEVILLE AR CH.207
INTERFERENCE CHECKS WITH NEW, FAYETTEVILLE, AR at N. LAT. 35 51 12 W. LNG. 94 1 33
PWR = 4.5 kW H.A.A.T. = 325 M C.O.R. = 866 M AMSL
Protected F(50-50) 60 dBu = 44.42 km
F(50-10) 40 dBu = 110.38 54 dBu = 66.47 80 dBu = 15.39 100 dBu = 3.72

CH# CALL CITY	TYPE STATE	* IN * LICENSEE	* OUT *	BEARING (---	DISTANCE	LAT. LNG.	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) FILE #
206C1 KUAR	LI	EN 35.7	46.0	130.0	182.25 km	34 47 50	100.00	102.16	69.81
Little Rock	AR	Board of Trustees of The U		310.0	113.24 Mi	92 29 26	269.0	394	BLED910502KA
206C1 KWFC.C	CP	CN 40.8	48.2	23.3	167.52 km	37 14 23	100.00	82.33	52.90
Springfield	MO	Baptist Bible College, Inc		203.3	104.09 Mi	93 17 7	112.0	494	BPED900809IB
206C2 KWFC	LI	CN 57.3	60.3	23.3	167.54 km	37 14 23	50.00	65.77	40.78
Springfield	MO	Baptist Bible College, Inc		203.3	104.10 Mi	93 17 5	82.0	465	BLED850521KH
FCC Comment) *To Channel 206C1									
207C2 AP207	AP	CN -160.6	-157.4	0.0	0.00 km	35 51 12	5.00	116.21	47.03
Fayetteville	AR	National Christian Network		180.0	0.00 Mi	94 1 33	352.0	894	BPED900823MA
208C1 KWGS *	LI	CN 4.2	12.8	277.1	150.02 km	36 1 15	50.00	99.99	68.53
Tulsa	OK	The University of Tulsa		97.1	93.22 Mi	95 40 32	343.6*	519	BLED860707KG
) Reference HAAT at 277.1 degrees = 348.3 M, Pwr.= 4.5 kW, Pro. contour = 45.83 km, Int. contour = 68.72 km									
209A AP209 *	AP	CN 4.5	24.4	214.3	54.51 km	35 26 51	0.80	4.51	14.42
Fort Smith	AR	Bible Broadcasting Network		34.3	33.87 Mi	94 21 54	68.0*	278	BPED900816MA
) Reference HAAT at 214.3 degrees = 342.4 M, Pwr.= 4.5 kW, Pro. contour = 45.48 km, Int. contour = 15.72 km									
i.f. RELATIONSHIPS:									
261A KZRK.A	AP	CN 15.0 R	73.2 M	13.0	88.15 km	36 37 39	2.70	2.59	28.32
Cassville	MO	Kevin M. & Patricia W. Wod		193.0	54.77 Mi	93 48 21	149.0	547	BMPH911223IC
261A KZRK.C	CP	CN 15.0 R	71.9 M	13.0	86.92 km	36 37 0	1.00	1.82	22.47
Cassville	MO	Kevin M. & Patricia W. Wod		193.0	54.01 Mi	93 48 31	151.0	545	BPH880629MA
260C KTCSFM	LI	CN 35.0 R	70.1 M	214.4	105.08 km	35 4 20	100.00	13.70	91.36
Fort Smith	AR	Big Chief Broadcasting Co.		34.4	65.29 Mi	94 40 50	585.0	719	BLH871231KC

- Nearest CH 6 Grade B =KOTV at 23.57 km

* Uses actual antenna radial HAAT and power toward reference

Predicted Signal Contours:

35 51 12 - PROPOSED FAYETTEVILLE AR.
94 01 33 - SERVICE and INTERFERENCE CONTOURS

ERP = 4.5 kW, 6.532 dBk FM - 2-6 Tables

Radial	HAAT	kW	dBk	Field	60 dBu.5	80 dBu.1	54 dBu.1
0 Degs.	391.5M	4.500	6.532	1.000	48.3	17.3	72.5
10 Degs.	412.7M	4.500	6.532	1.000	49.4	17.9	74.3
20 Degs.	407.0M	4.500	6.532	1.000	49.1	17.8	73.8
30 Degs.	380.6M	4.500	6.532	1.000	47.7	17.0	71.5
40 Degs.	369.2M	4.500	6.532	1.000	47.1	16.6	70.6
50 Degs.	352.7M	4.500	6.532	1.000	46.1	16.1	69.1
60 Degs.	329.6M	4.500	6.532	1.000	44.8	15.5	66.8
70 Degs.	311.0M	4.500	6.532	1.000	43.7	14.9	65.0
80 Degs.	328.6M	4.500	6.532	1.000	44.7	15.4	66.8
90 Degs.	348.5M	4.500	6.532	1.000	45.9	16.0	68.7
100 Degs.	331.4M	4.500	6.532	1.000	44.9	15.5	67.0
110 Degs.	289.7M	4.500	6.532	1.000	42.4	14.4	63.0
120 Degs.	257.6M	4.500	6.532	1.000	40.5	13.5	60.1
130 Degs.	243.1M	4.500	6.532	1.000	39.6	13.2	58.7
140 Degs.	225.1M	4.500	6.532	1.000	38.4	12.7	57.0
150 Degs.	249.1M	4.500	6.532	1.000	40.0	13.3	59.3
160 Degs.	267.9M	4.500	6.532	1.000	41.1	13.8	61.0
170 Degs.	329.9M	4.500	6.532	1.000	44.8	15.5	66.9
180 Degs.	310.1M	4.500	6.532	1.000	43.6	14.9	65.0
190 Degs.	343.3M	4.500	6.532	1.000	45.6	15.9	68.2
200 Degs.	385.4M	4.500	6.532	1.000	47.9	17.1	71.9
210 Degs.	391.2M	4.500	6.532	1.000	48.3	17.3	72.4
220 Degs.	321.2M	4.500	6.532	1.000	44.3	15.2	66.0
230 Degs.	295.9M	4.500	6.532	1.000	42.8	14.5	63.6
240 Degs.	285.2M	4.500	6.532	1.000	42.2	14.3	62.6
250 Degs.	323.9M	4.500	6.532	1.000	44.4	15.3	66.3
260 Degs.	325.9M	4.500	6.532	1.000	44.6	15.3	66.5
270 Degs.	339.8M	4.500	6.532	1.000	45.4	15.8	67.8
280 Degs.	359.4M	4.500	6.532	1.000	46.5	16.3	69.7
290 Degs.	346.5M	4.500	6.532	1.000	45.8	16.0	68.5
300 Degs.	345.9M	4.500	6.532	1.000	45.7	15.9	68.4
310 Degs.	324.2M	4.500	6.532	1.000	44.5	15.3	66.3
320 Degs.	353.6M	4.500	6.532	1.000	46.2	16.2	69.1
330 Degs.	384.5M	4.500	6.532	1.000	47.9	17.1	71.9
340 Degs.	426.8M	4.500	6.532	1.000	50.2	18.3	75.5
350 Degs.	420.1M	4.500	6.532	1.000	49.8	18.1	74.9

Ave. HAAT= 336.3M, Ant. COR= 866.0M AMSL

Other Azimuths:

45 Degs.	357.2M	4.500	6.532	1.000	46.4	16.3	69.5
135 Degs.	231.0M	4.500	6.532	1.000	38.8	12.8	57.6
225 Degs.	305.7M	4.500	6.532	1.000	43.4	14.8	64.5
315 Degs.	318.0M	4.500	6.532	1.000	44.1	15.1	65.7