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Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Creation of a Low)
Power Radio Service)
)
)

MM Docket No. 99-25

RM-9208

RM-9242

To: The Commission

COMMENTS OF EMMIS COMMUNICATIONS CORPORATION

Emmis Communications Corporation ("Emmis") hereby submits its comments in response to the *Notice of Proposed Rule Making* ("NPRM") in the above-captioned proceeding released February 3, 1999, 14 FCC Rcd 2471, wherein the Commission proposes establishment of a low-power FM ("LPFM") service.¹ Emmis opposes the implementation of any LPFM service, believing that the public interest benefits of such a service are questionable at best, and are in any case far outweighed by the harm that would be visited on the existing FM broadcast service and on implementation of in-band-on-channel ("IBOC") digital technology. However, as discussed more fully below, Emmis submits that if the Commission is intent on establishing an LPFM service, it should be in all respects a true "secondary" service; further, the proposed elimination of second- and third-adjacent channel protections could devastate the existing FM service, and must be examined with the greatest possible care.

¹ Emmis, through subsidiaries, owns and operates 13 FM broadcast stations serving the New York, Los Angeles, Chicago, St. Louis, Indianapolis, and Terre Haute markets.

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I. Any LPFM Service Should Be in All Respects a True Secondary Service

The NPRM proposes a 1000-watt (“LP1000”) service, a 100-watt (“LP100”) service, and possibly a 1-10 watt (“microradio”) service. The Commission proposes that the LP100 and microradio services be “secondary” services, prohibited from causing interference to existing and future primary stations (including LP1000 stations), and enjoying no interference protections from such stations. Emmis believes that if the Commission is intent on establishing an LPFM service, *all* stations in such a service, regardless of their operating power, should operate on a secondary basis. Further, the Commission’s proposal to rely on mileage separations for interference protection is inconsistent with a true secondary service, and the Commission should instead adopt a protection standard similar to that which it applies to existing secondary services. For example, Section 74.1203 of the Commission’s rules prohibits FM translator and FM booster stations from causing any “actual interference” to any primary station, and provides:

Interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the FM translator station or booster station, regardless of the quality of such reception, the strength of the signal so used, or the channel on which the protected signal is transmitted.²

The application of a similar interference standard to all authorized LPFM stations is essential. Many existing FM stations have for many years provided consistent, “listenable” service beyond their protected service contours, and the interference protection standards proposed by the Commission would effectively wipe out much of that service, depriving

² A similar interference standard applies to TV booster, TV translator and LPTV stations (see Section 74.703(b) of the Rules).

innumerable listeners of broadcast signals on which they have come to rely. Only a protection standard similar to those currently employed for other secondary services can prevent such a loss.

Moreover, the mileage separation standards proposed by the Commission would in some cases result in interference to existing FM stations even within their primary service contours. For example, as shown in Figures 10 and 11 to the attached Engineering Statement, the 54 dBu contour of Emmis's KPWR(FM), Los Angeles, California, would be subject to encroachment by co-channel and first-adjacent channel LP100 stations under the separations proposed by the Commission.

II. The Proposed Elimination of Adjacent Channel Protections Could Devastate the FM Service

The proposal entails, *inter alia*, elimination of second- and third-adjacent channel protections for existing stations in order to accommodate LPFM stations. A crucial assumption underlying this proposal is that current FM receivers have a capability of discriminating among adjacent channel signals which is sufficient to justify elimination of protection. Emmis understands that other parties will be submitting comments based on studies that examine current receiver capabilities. Emmis urges the Commission to examine those studies with the greatest care since, if receivers are in fact incapable of discriminating sufficiently, the resulting interference to existing stations will be devastating.

To illustrate the extent of potential damage to existing service, Emmis commissioned an engineering study of the impact of the proposed LP1000 service on the protected service areas of its stations, assuming elimination of second- and third-adjacent channel protection. The results, which are set forth in detail in the attached Engineering Statement, show that no fewer than seven of Emmis's thirteen FM stations could be seriously effected:

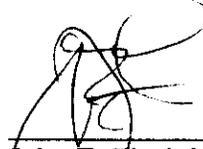
1. WENS(FM), Shelbyville, Indiana: As depicted in Figure 2 of the Engineering Statement, two LP1000 stations could be established with transmitter sites within the station's 54 dBu contour.
2. WNAP-FM, Indianapolis, Indiana: There is a large area within the station's 54 dBu contour where an LP1000 station could be sited (see Figure 3).
3. WTLC-FM, Indianapolis, Indiana: One LP1000 station could be sited within the 54 dBu contour (see Figure 4).
4. KSHE(FM), Crestwood, Missouri: Two LP1000 stations could be sited within the station's 60 dBu contour (see Figure 5).
5. WKKX(FM), Granite City, Illinois: As many as four LP1000 stations could be sited within the 60 dBu contour (see Figures 6 and 7).
6. WKQX(FM), Chicago, Illinois: Two LP1000 stations could be sited within the 54 dBu contour (see Figure 8).
7. WQHT(FM), New York, New York: One LP1000 station could be sited within the 54 dBu contour (see Figure 9).

In each case, as shown in the Engineering Statement, the new stations would be located in heavily populated areas, and consequently interference would affect many thousands of listeners.

Given the potential for such a devastating impact, Emmis urges the Commission to evaluate the potential for adjacent-channel interference with the greatest possible care.

Respectfully submitted,

EMMIS COMMUNICATIONS CORPORATION



John E. Fiorini III
Gardner, Carton & Douglas
1301 K Street, NW—Suite 900E
Washington, D.C. 20005
(202)408-7159

August 2, 1999
DC01/310225.1

Its Attorneys

**EXHIBIT E
ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS
ON BEHALF OF EMMIS
COMMUNICATIONS CORPORATION
RE: MM DOCKET NO. 99-25
CREATION OF LOW-POWER RADIO SERVICE**

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Prepared by
Lohnes and Culver Washington, D.C.
July, 1999

**EXHIBIT E
ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS
ON BEHALF OF EMMIS COMMUNICATIONS CORPORATION
RE: MM DOCKET NO. 99-25
CREATION OF LOW-POWER RADIO SERVICE**

INTRODUCTION

On February 3, 1999 the Federal Communications Commission released a Notice of Proposed Rule Making requesting comments from the Industry concerning the creation of low power radio service in the FM broadcast band. A comment date was published with the Notice, however, that date has been extended on two occasions in order to provide certain industry groups with ample time to conduct equipment tests to more accurately address the Commission's proposal.

This statement and the attached Figures were prepared in support of comments by Emmis Communications Corporation ("Emmis"). All technical calculations and presentations in this statement have been prepared in accordance with the Rules of the Federal Communications Commission unless specifically state otherwise herein.

EMMIS BROADCAST STATIONS

Emmis owns and operates thirteen commercial FM broadcast stations and accordingly has a vital interest in the Notice in MM Docket No. 99-25 as proposed. Attached to this statement as Figure 1 is a tabulation listing call letter, location and operating parameters of the Emmis stations that are specifically addressed in this statement.

The notice in MM Docket 99-25 asked for comments with respect to the creation of a new primary Class LP 1000 FM broadcast station. The notice includes, in Appendix B, tables of minimum distance separations necessary to cause or receive no overlap with existing FM broadcast stations. Although the tables include separation requirements for

2nd and 3rd adjacencies the Notice asks for comments on a proposal to disregard those separation requirements with respect to Class LP 1000 stations. The required separations shown in the tables are based on the F(50,50) protected contour distances and F(50,10) interfering contour distances calculated in accordance with 47 CFR Section 73.313 and 73.333 and D/U ratios of co-channel +20 dB, first adjacent +6 dB, second adjacent reserved band -20 dB and second and third adjacent commercial band -40 dB.

In response to the Commission's request for comments on the proposed Class LP 1000, a study of the Emmis stations normally protected service areas (54 dBu for Class B stations and 60 dBu for Class C stations) was carried out to determine how many LP 1000 assignments could be made within the protected service areas if the second and third adjacencies were disregarded. Attached to this statement as Figures 2 through 9 are a series of maps showing the protected service areas of the affected Emmis stations and the potential site location areas for Class LP 1000 assignments.

Figure 2 is a map showing the Channel 246 WENS 54 dBu contour at Shelbyville, IN and the area within that contour where a Class LP 1000 assignment can be made on second adjacent Channel 248. As shown on Figure 2 the site location area includes a significant portion of the Indianapolis urbanized area and although WENS is licensed to Shelbyville, IN the station is fully competitive in Indianapolis. The site area is also large enough to accommodate 2 Class LP 1000 assignments within the WENS 54 dBu contour.

Figure 3 is a map showing the Channel 226 WNAP-FM 54 dBu contour at Indianapolis, IN and the area within that contour where a Class LP 1000 assignment can be made on second adjacent Channel 224. As shown on Figure 3 the site area is slightly northeast of Indianapolis in a heavily populated area.

Figure 4 is a map showing the Channel 289 WTLC-FM 54 dBu contour at Indianapolis, IN and the area within that contour where a Class LP 1000 assignment can

be made on third adjacent Channel 292. As shown on Figure 4 the site area is in the immediate vicinity of Anderson, IN, a heavily populated area within the WTLC-FM service area.

Figure 5 is a map showing the Channel 234 KSHE 60 dBu contour at Crestwood, MO and the area within that contour where a Class LP 1000 assignment can be made on second adjacent Channel 236. As shown on Figure 5 the site area includes a significant portion of St. Louis and although KSHE is licensed to Crestwood, MO the station is part of a multiple antenna system serving the St. Louis market. The site area is approximately 75 kilometers across therefore two Class LP 1000 assignments can be located within the KSHE 60 dBu contour.

Figures 6 and 7 are maps showing the Channel 293 WKKX 60 dBu contour at Granite City, IL and the area within that contour where Class LP 1000 assignments can be made on second adjacent Channel 295 and third adjacent Channel 296. The site location area for Channel 296 is a large area approximately 175 kilometers in length and includes most of St. Louis. The area is large enough to accommodate 2 LP 1000 stations, one to the northwest and one to the south of St. Louis, or one LP 1000 located in the city of St. Louis. The site location area for Channel 295 consists of two smaller areas, one north and one south of St. Louis, where LP 1000 stations could be located. Four LP 1000 stations, spaced to meet the co-channel and first adjacent channel separation requirement, could be located within the WKKX 60 dBu contour.

Figure 8 is a map showing the Channel 266 WKQX 54 dBu contour at Chicago, IL and the area within that contour where Class LP 1000 assignments can be made on second adjacent Channel 268. As shown on the map the site location area is approximately 90 kilometers across and covers a substantial portion of Chicago. The size of the area affords the opportunity for two LP 1000 assignments within the WKQX 54 dBu contour.

Figure 9 is a map showing the Channel 246 WQHT 54 dBu contour at New York, NY and the area within that contour where a Class LP 1000 assignment can be made on second adjacent Channel 244. As shown on the map the site location is a small area south of New York on the New Jersey coast. The area is very populous and can accommodate an LP 1000 assignment within the WQHT 54 dBu contour.

The series of maps described above demonstrate that by eliminating the separation requirements of second and third adjacent channels several LP 1000 primary service operations could be located in densely populated areas within the normally protected service areas of seven of the thirteen stations owned and operated by Emmis.

The Commission's consideration of eliminating the second and third adjacent spacing requirements is based to some degree on assumptions that the quality of present day receivers is far superior to the receivers that were in existence when the D/U ratios were established to create the current spacing requirements. The notice proposed in MM Docket No. 99-25 has prompted the industry to conduct extensive testing with current state of the art equipment, to more accurately establish the realistic impact of a proposed low power radio service on existing FM stations. If the test results establish a need for second and third adjacent channel separations then the Emmis stations as demonstrated herein will suffer severe damage in very populous areas if a low power radio system is adopted as proposed.

The notice asked for comments with respect to the creation of a Class LP 100 radio service that will be operated as a secondary service station. Appendix B of the Notice contains a table listing minimum distance separations necessary to cause or receive no overlap with existing primary service stations. The minimum distance separation requirements are inconsistent with the definition of a secondary service operation.

FM translator stations, FM booster stations, TV translator stations and low power television stations are secondary service stations and as such are required to provide full protection from interference to all primary FM or TV stations. Interference in that context is considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the secondary service station regardless of the quality of such reception. Many full service FM stations, because of the allocation scheme have interference free service well beyond their normally protected contour. In many cases that service is a regularly used signal and is protected from interference from secondary service stations. If LP 100 stations are adopted as proposed, based on separation requirements, those signals will be impaired resulting in a loss of service to many primary service stations.

Attached to this statement as Figures 10 and 11 are maps showing the 54 dBu contour of KPWR, the Emmis owned FM station in Los Angeles, CA, compared with the co-channel and first adjacent channel spacing requirement for LP 100 stations as shown in the Table in Appendix B of the Notice in MM Docket 99-25. As shown on Figures 10 and 11, co-channel and first adjacent channel LP 100 assignments could be located within the KPWR 54 dBu contour and meet the separation requirement set out in the Notice. Such assignments would obviously cause interference to KPWR within the stations normally protected 54 dBu contour.

The Commission has made a very strong effort over the past several years to protect the integrity of the FM band. They have strictly enforced the channel spacing requirements and have not wavered from the interference protection criteria based on the D/U ratios set out in the Rules. There have been numerous petitions rejected by the Commission that proposed varying degrees of relaxation of the Rules in order to maintain the integrity of the band. A low power radio system as proposed in MM Docket 99-25 will certainly undermine the strong effort to protect existing stations from interference. The spacing requirements, the D/U ratios and the Commission's strict enforcement of those

requirements have permitted most full service stations to provide interference-free service to their markets and surrounding areas. The industry is constantly studying the FM band and the Table of Assignments in search of frequency space for the assignment of new channels. With the exception of remote unpopulated areas there is essentially no frequency space available for additional FM service. A low power FM radio service will have to be squeezed in with existing stations by eliminating some of the protection requirements that have maintained the integrity of the band. The ultimate result will be a general degradation of FM service nationwide.

We strongly urge the Commission to consider the comments of the Industry in the proceeding and to continue to protect the integrity of the FM band.

Respectfully submitted,
LOHNES AND CULVER



Frederick D. Veihmeyer

July, 1999

FIGURE 1
FM BROADCAST STATIONS
OWNED AND OPERATED BY EMMIS COMMUNICATIONS CORPORATION

CALL	LOCATION	CHANNEL	ERP(KW)	HAAT(M)
WENS	SHELBYVILLE, IN.	246	23	225
WNAP-FM	INDIANAPOLIS, IN.	226	12.5	312
WTLC-FM	INDIANAPOLIS, IN.	289	50	137
WKQX	CHICAGO, IL.	266	8.3	358
KSHE	CRESTWOOD, MO.	234	100	313
WKKX	GRANITE CITY, IL	293	90	313
WQHT	NEW YORK, NY.	246	6.7	408
KPWR	LOS ANGELES, CA.	290	25	925

Prepared by
Lohnes and Culver Washington, D.C.
July, 1999

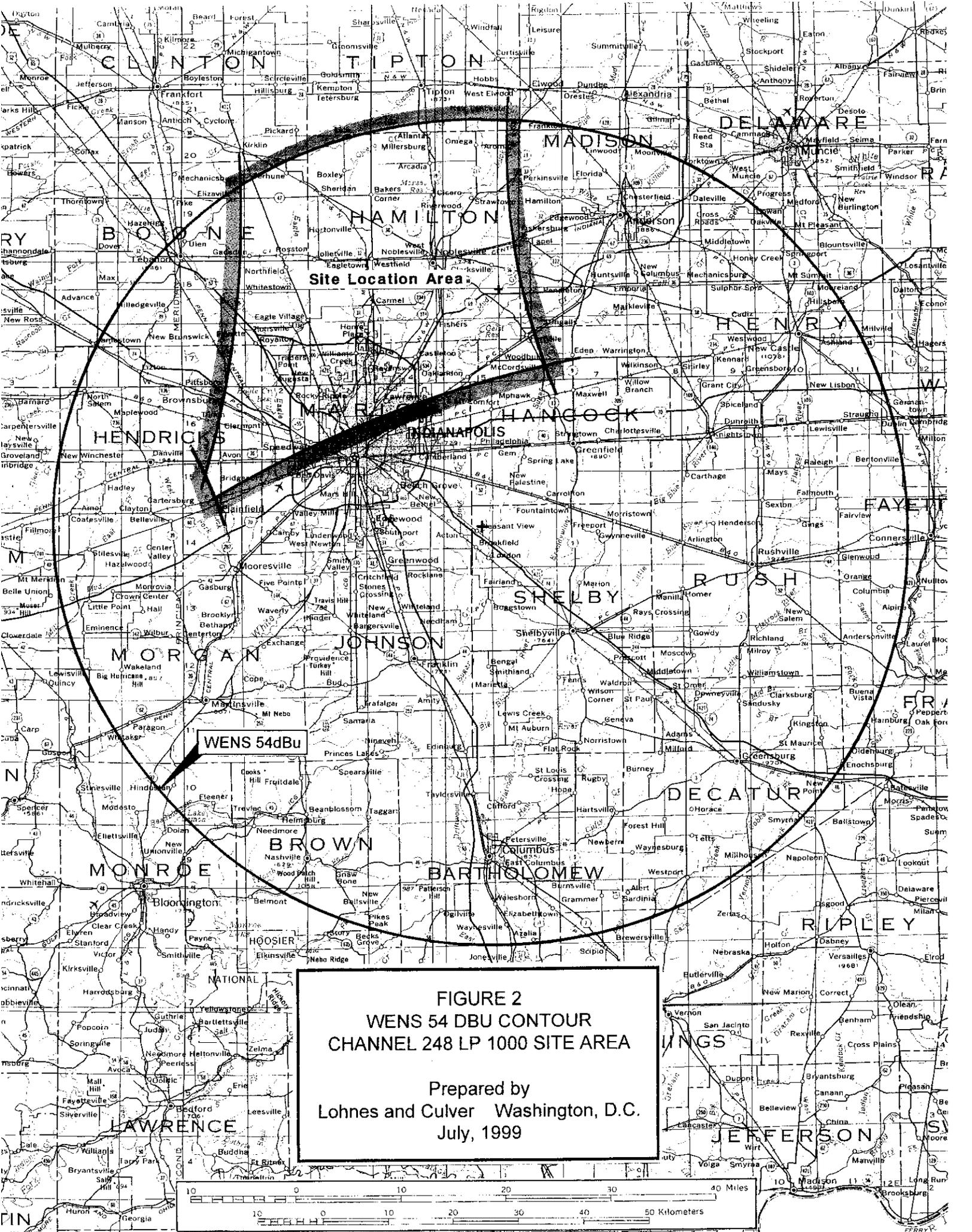
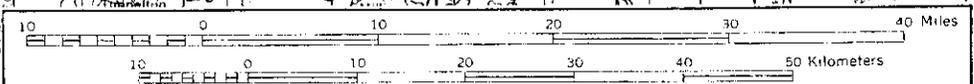


FIGURE 2
WENS 54 DBU CONTOUR
CHANNEL 248 LP 1000 SITE AREA
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 July, 1999



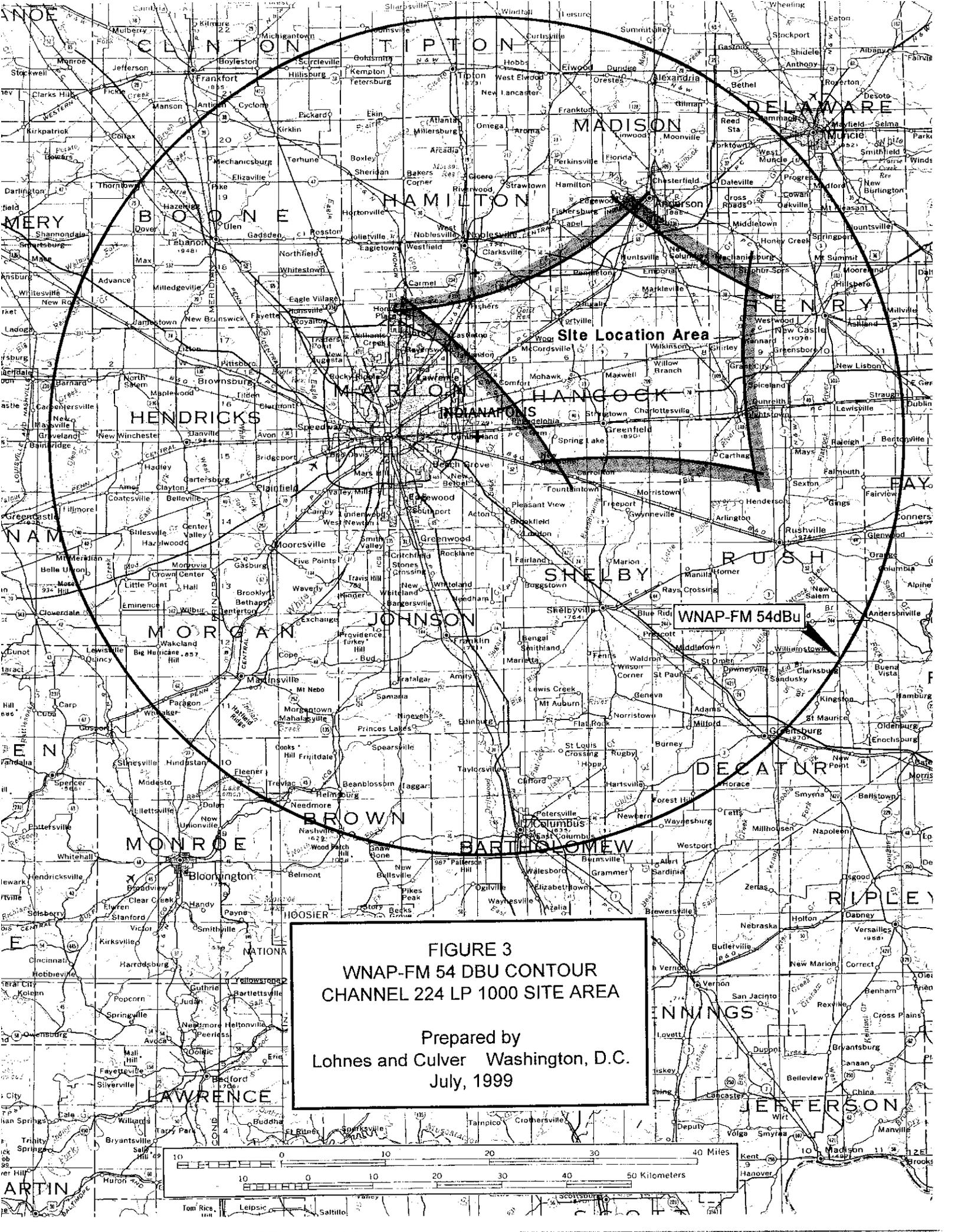


FIGURE 3
WNAP-FM 54 DBU CONTOUR
CHANNEL 224 LP 1000 SITE AREA

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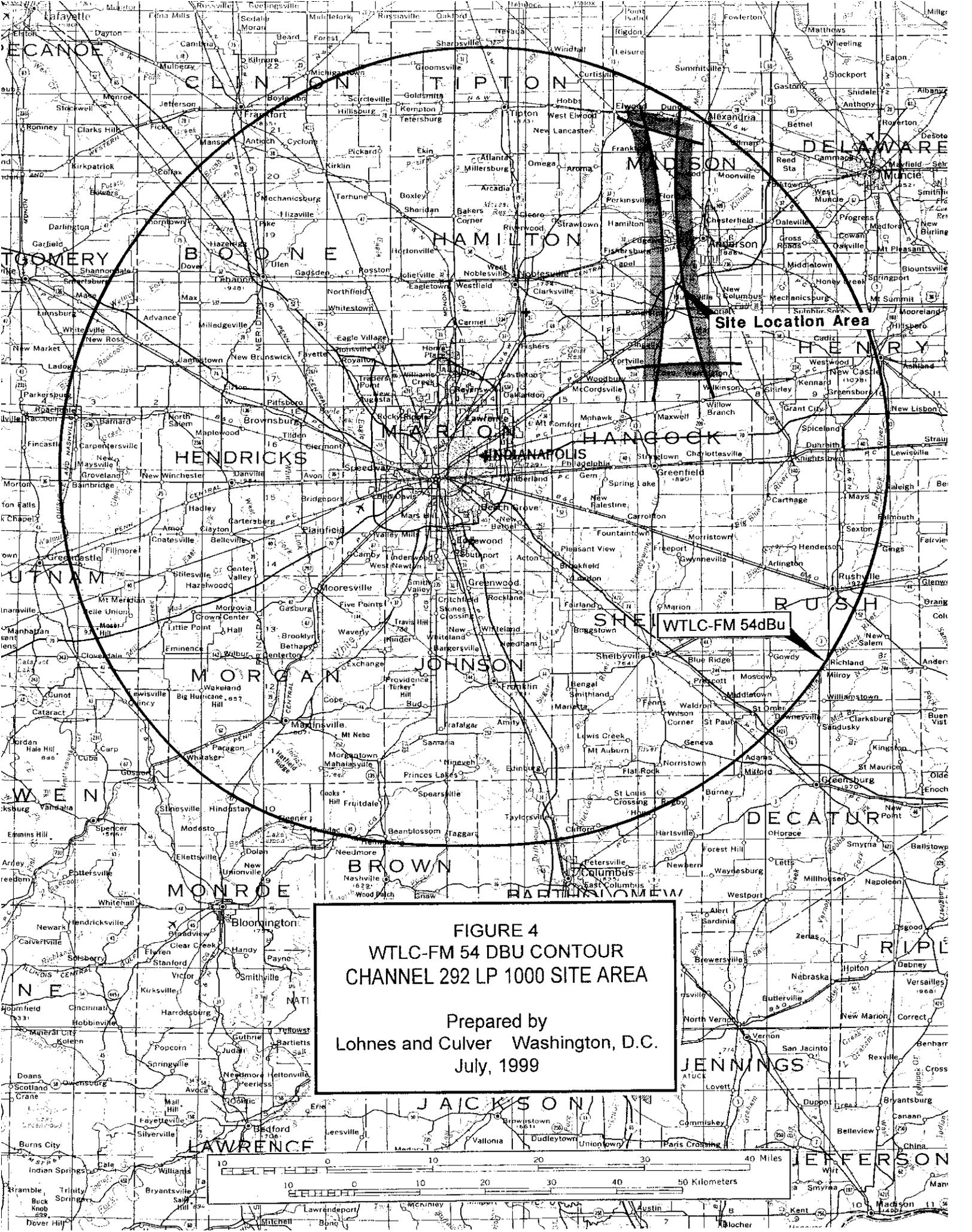
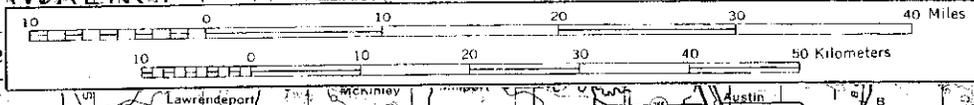
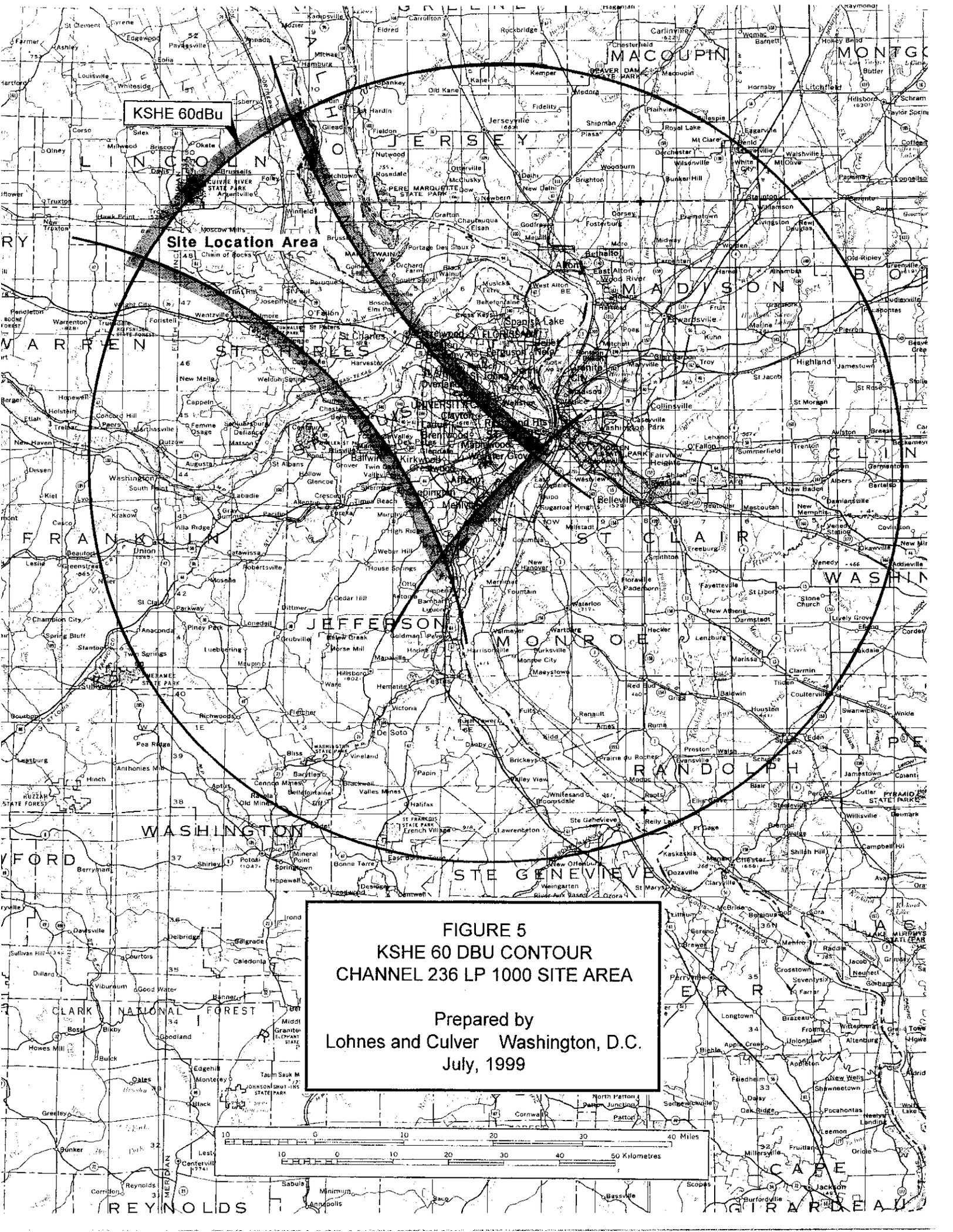


FIGURE 4
WTLC-FM 54 DBU CONTOUR
CHANNEL 292 LP 1000 SITE AREA
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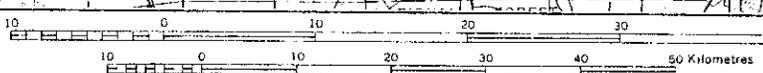


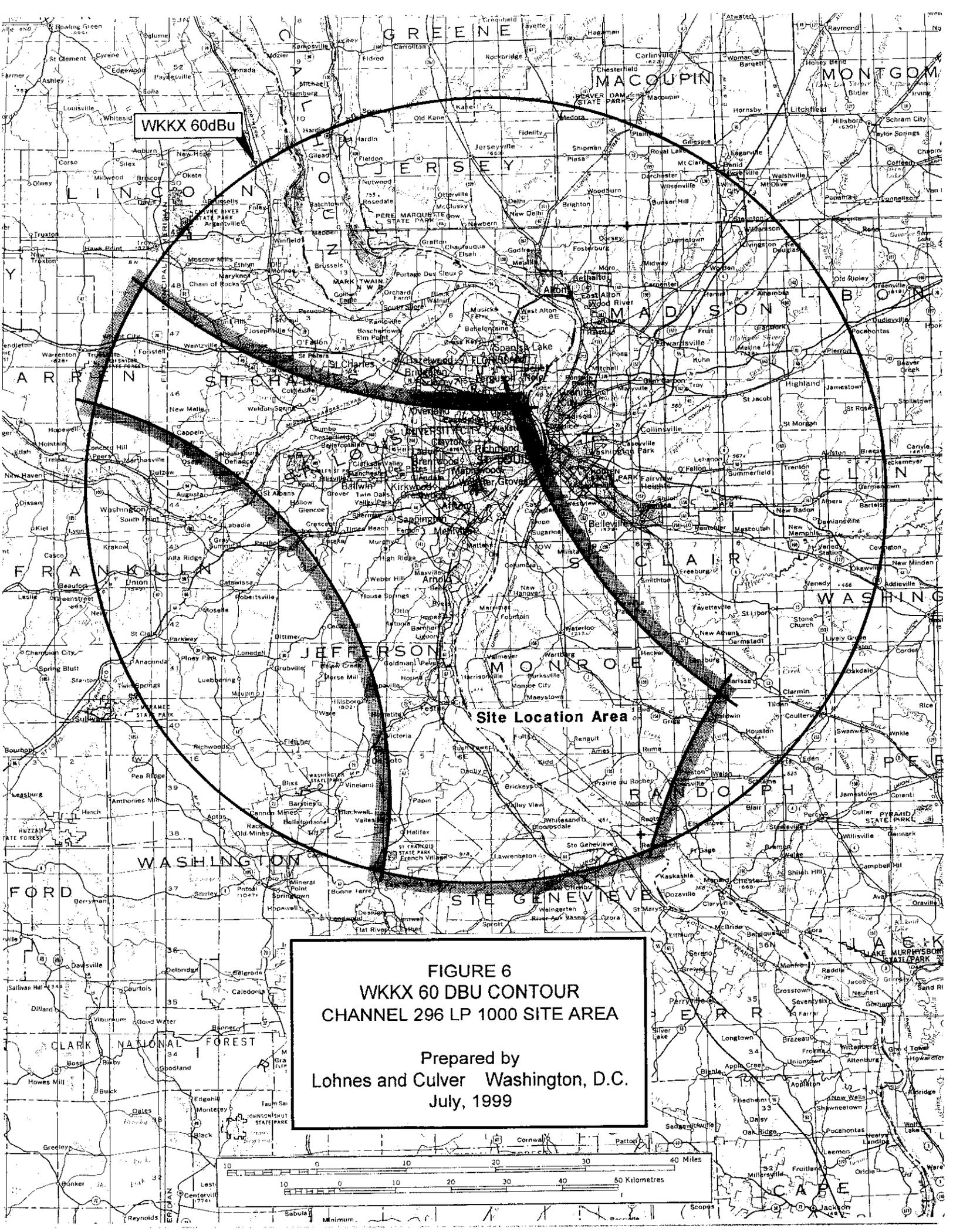
KSHE 60dBu

Site Location Area

FIGURE 5
KSHE 60 DBU CONTOUR
CHANNEL 236 LP 1000 SITE AREA

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Lohnes and Culver Washington, D.C.
July, 1999



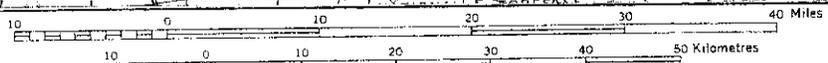


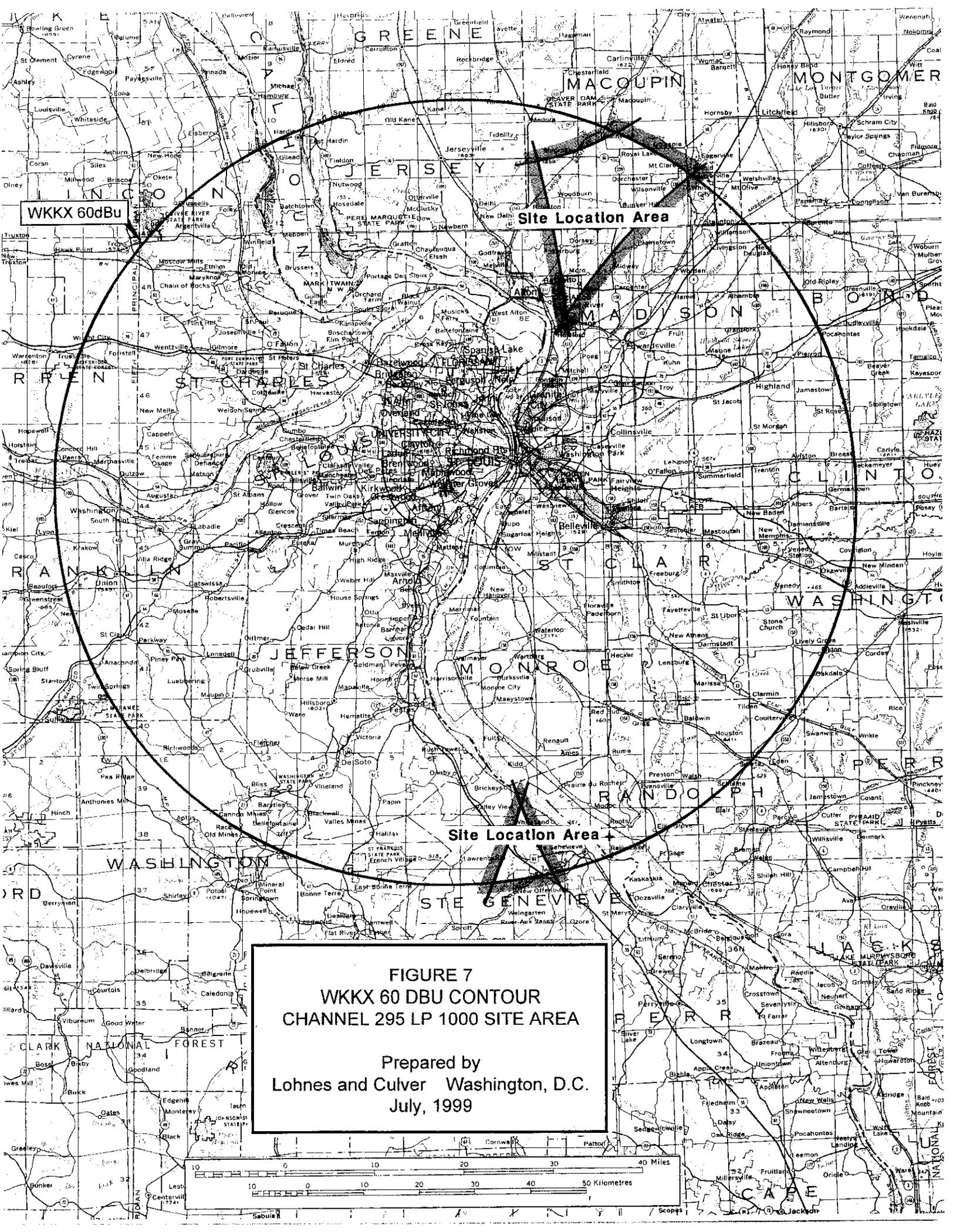
WKKX 60dBu

Site Location Area

FIGURE 6
WKKX 60 DBU CONTOUR
CHANNEL 296 LP 1000 SITE AREA

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July, 1999





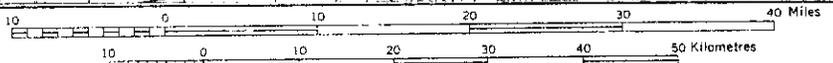
WKKX 60dBu

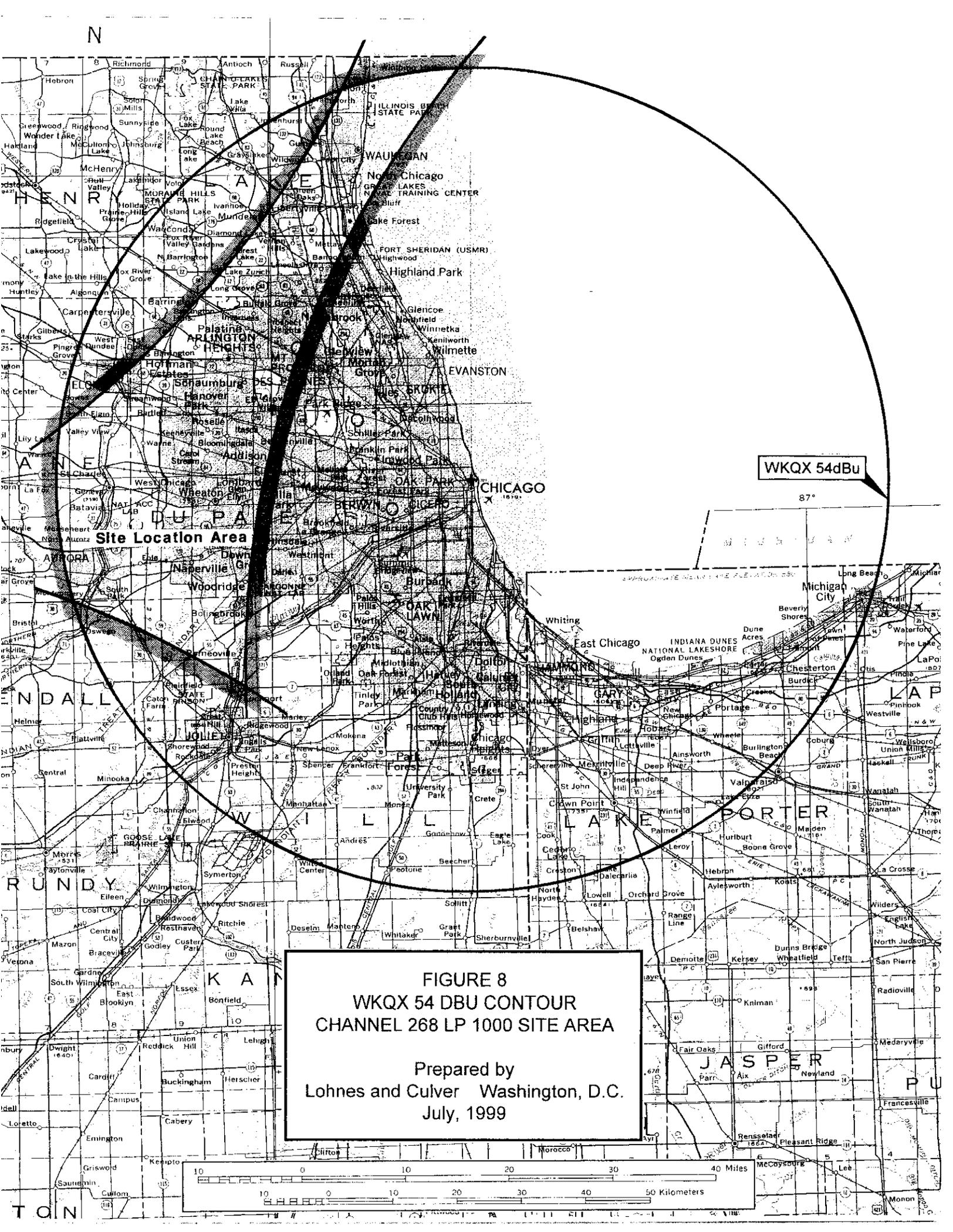
Site Location Area

Site Location Area

FIGURE 7
WKKX 60 DBU CONTOUR
CHANNEL 295 LP 1000 SITE AREA

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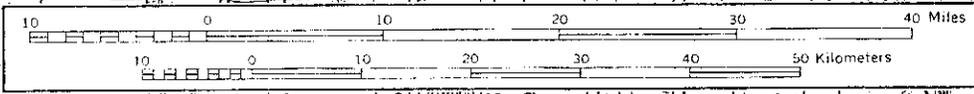
WKQX 54dBu

87°

Site Location Area

FIGURE 8
WKQX 54 DBU CONTOUR
CHANNEL 268 LP 1000 SITE AREA

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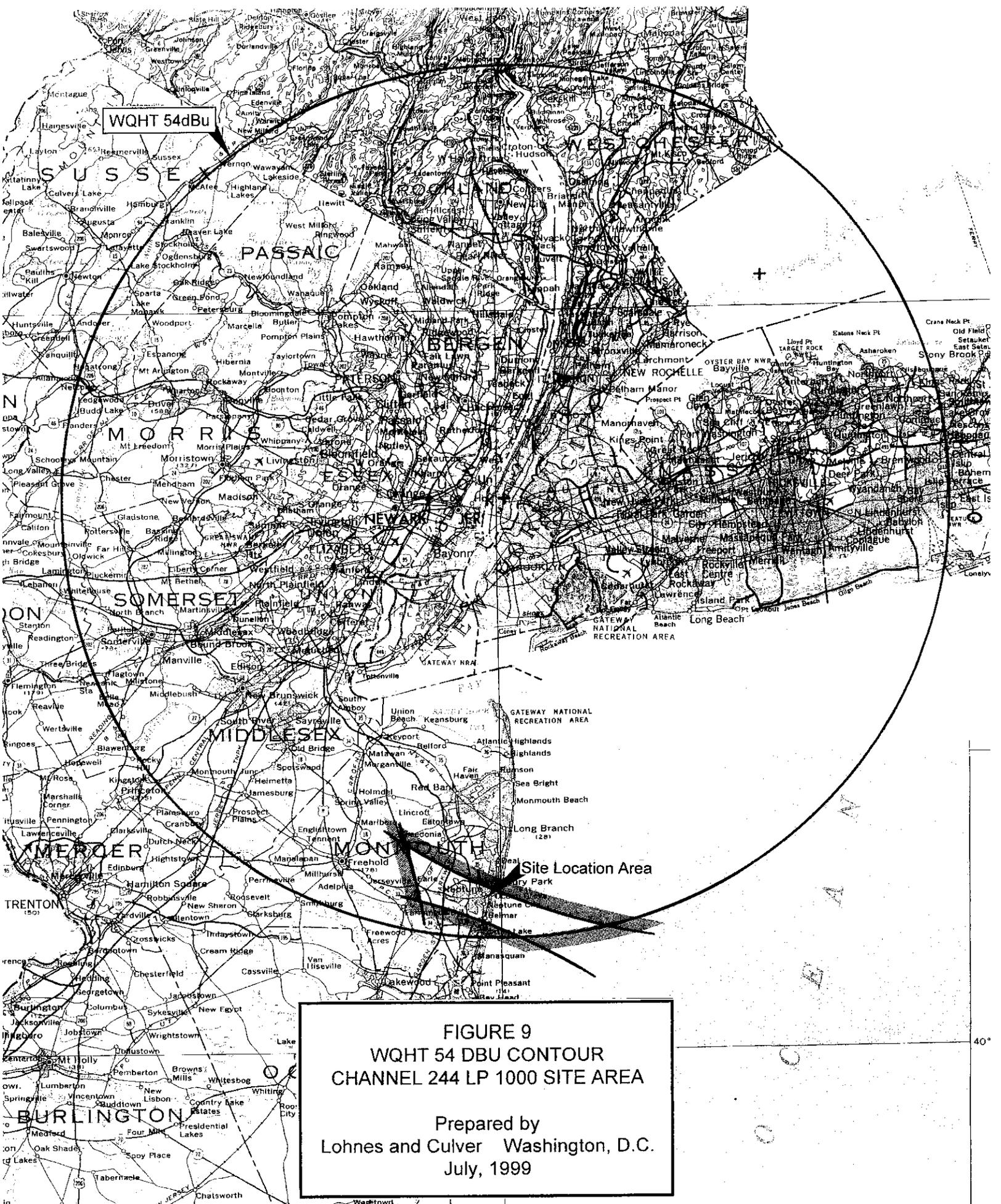
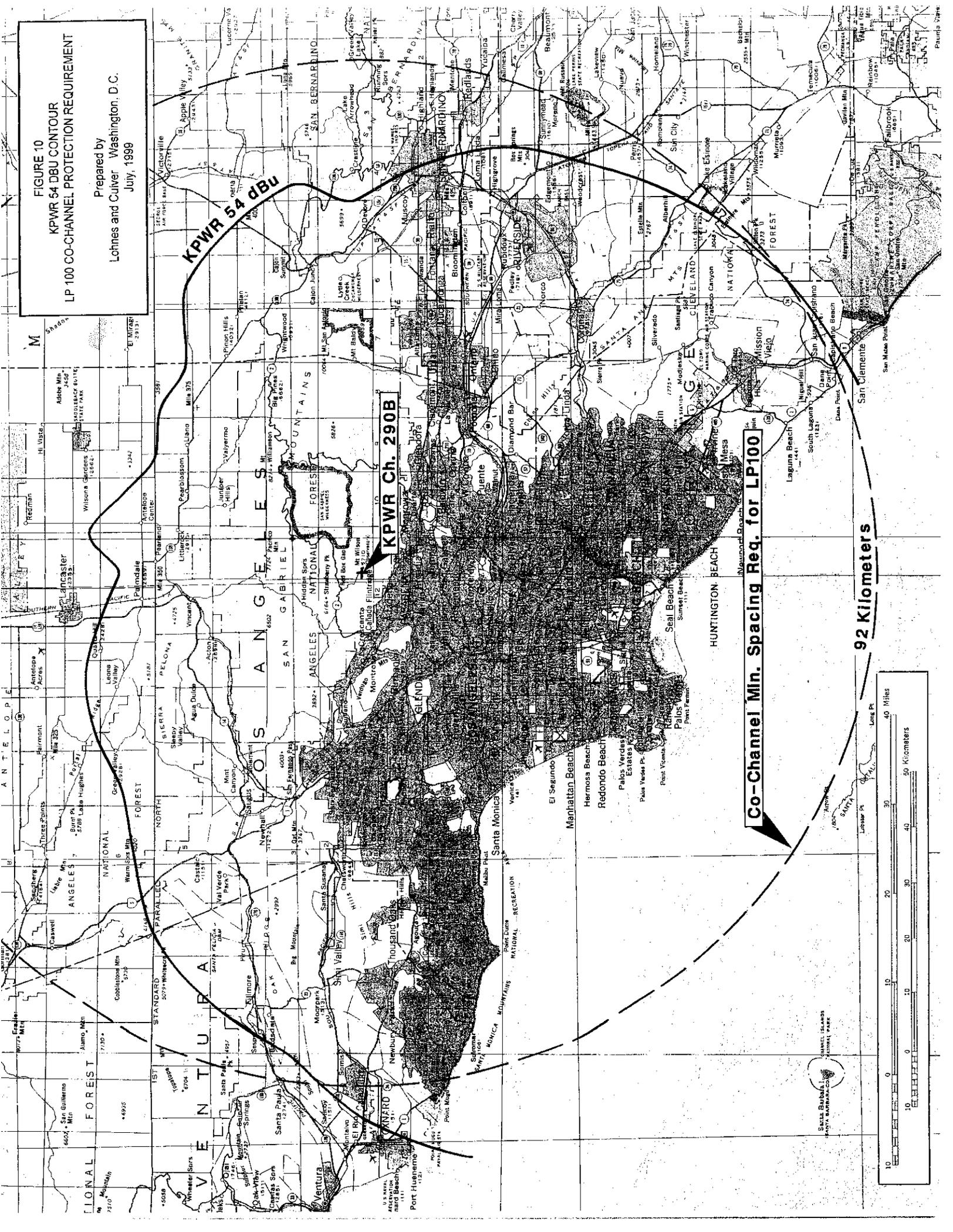


FIGURE 9
WQHT 54 DBU CONTOUR
CHANNEL 244 LP 1000 SITE AREA

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 Lohnes and Culver Washington, D.C.
 July, 1999



FIGURE 10
KPWR 54 DBU CONTOUR
LP 100 CO-CHANNEL PROTECTION REQUIREMENT
 Prepared by
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 July, 1999



Co-Channel Min. Spacing Req. for LP100

92 Kilometers

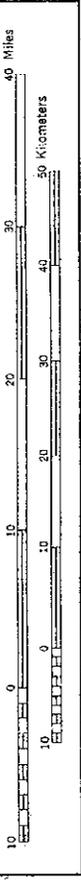


FIGURE 11
KPWR 54 DBU CONTOUR
LP 100 ADJACENT CHANNEL PROTECTION REQUIREMENT

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 July, 1999

KPWR 54 DBU

KPWR Ch. 290B

1st Adj. Channel Min. Spacing Req. for LP100

77 kilometers

