

EXHIBIT \_\_\_\_\_

INTERNATIONAL BROADCASTING CORPORATION

PROPOSED INTERIM OPERATION  
NEW TELEVISION BROADCAST STATION  
SHREVEPORT, LOUISIANA

A. EARL CULLUM, JR.  
CONSULTING RADIO ENGINEERS  
530708 DALLAS

D. A. PETERSON  
T. A. WRIGHT, JR.  
C. M. DANIELL  
J. G. ROUNTREE

**A. EARL CULLUM, JR.**  
CONSULTING RADIO ENGINEERS  
HIGHLAND PARK VILLAGE  
DALLAS 5, TEXAS

July 14, 1953

Mr. Harry J. Ockershausen  
Despoy and Koplovits  
Attorneys at Law  
938 Bowen Building  
Washington, D. C.

Dear Harry:

We are forwarding to you two engineering statements giving the results of our studies of the possibility of using the Commercial National Bank Building as a site for interim operation which would use a 2-kilowatt transmitter and a 3-bay antenna. In accordance with our telephone conversation of last week, fifteen copies are being furnished to you at this time. Recipients of copies of this letter are each receiving a copy of the material.

Yours very truly,

A. EARL CULLUM, JR.  
Consulting Radio Engineers

T. A. Wright

TAW/mk  
Encl.

cc-Mr. William H. Bronson  
Mr. Henry Clay  
Mr. W. E. Antony

ENGINEERING STATEMENT OF THOMAS A. WRIGHT, JR., OF THE FIRM OF A. EARL CULLUM, JR., CONSULTING RADIO ENGINEERS, IN CONNECTION WITH STUDIES MADE REGARDING A POSSIBLE INTERIM TELEVISION OPERATION WHICH WOULD OPERATE ON CHANNEL 3 WITH AN EFFECTIVE RADIATED POWER OF 5.70 KILOWATTS VISUAL, 2.85 KILOWATTS AURAL, AND AN EFFECTIVE ANTENNA HEIGHT OF 188 FEET ABOVE AVERAGE TERRAIN FROM A SITE IN DOWNTOWN SHREVEPORT

\* \* \*

I THOMAS A. WRIGHT, JR., AM A RADIO ENGINEER ASSOCIATED WITH THE FIRM OF A. EARL CULLUM, JR., CONSULTING RADIO ENGINEERS, WITH OFFICES LOCATED IN DALLAS, TEXAS. I RECEIVED THE DEGREE OF ELECTRICAL ENGINEER FROM COLUMBIA UNIVERSITY IN 1936. MY EXPERIENCE INCLUDES ASSOCIATION WITH A FIRM OF CONSULTING RADIO ENGINEERS IN WASHINGTON, D. C., AND SERVICE AS AN ELECTRONICS OFFICER IN THE UNITED STATES NAVY. FROM 1948 TO 1951, I WAS ASSISTANT PROFESSOR OF ELECTRICAL ENGINEERING AT SOUTHERN METHODIST UNIVERSITY. SINCE OCTOBER 1, 1951, I HAVE BEEN ASSOCIATED WITH THIS FIRM. I AM A REGISTERED PROFESSIONAL ENGINEER.

THIS FIRM HAS BEEN EMPLOYED BY INTERNATIONAL BROADCASTING CORPORATION TO MAKE ENGINEERING STUDIES REGARDING A POSSIBLE INTERIM TELEVISION OPERATION WHICH WOULD OPERATE ON CHANNEL 3 WITH AN EFFECTIVE RADIATED POWER OF 5.70 KILOWATTS VISUAL, 2.85 KILOWATTS AURAL, AT AN EFFECTIVE ANTENNA HEIGHT OF 188 FEET ABOVE AVERAGE TERRAIN FROM A SITE IN DOWNTOWN SHREVEPORT.

INTERNATIONAL BROADCASTING CORPORATION HAS IN ITS POSSESSION A 3-BAY ANTENNA SUITABLE FOR OPERATION ON CHANNEL 3. INTERNATIONAL BROADCASTING CORPORATION HAS BEEN PROMISED IMMEDIATE DELIVERY OF A 2-KILOWATT LOWBAND TRANSMITTER SUITABLE FOR OPERATION ON CHANNEL 3, CONTINGENT ONLY UPON RECEIVING A CONSTRUCTION PERMIT FROM THE FEDERAL COMMUNICATIONS COMMISSION. ARRANGEMENTS HAVE BEEN MADE SO THAT SPACE WILL BE AVAILABLE IN THE COMMERCIAL NATIONAL BANK BUILDING IN DOWNTOWN SHREVEPORT FOR THE INSTALLATION OF THE TRANSMITTER, AND FOR THE INSTALLATION OF THE ANTENNA ON THE ROOF OF THE BUILDING.

OUR STUDIES SHOW THAT, THROUGH THE USE OF THE ABOVE EQUIPMENT, INTERNATIONAL BROADCASTING CORPORATION COULD BEGIN OPERATION OF A TELEVISION STATION ON CHANNEL 3 WITHIN APPROXIMATELY ONE WEEK AFTER RECEIVING A CONSTRUCTION PERMIT. IN ADDITION, THE INTERIM OPERATION WOULD PROVIDE A SIGNAL INTENSITY EQUAL TO, OR GREATER THAN, THE MINIMUM SIGNAL REQUIRED FOR THE PRINCIPAL COMMUNITY TO ALL OF SHREVEPORT, EXCEPT FOR SMALL AREAS TO THE SOUTH AND SOUTHWEST WHICH, TOGETHER, DO NOT TOTAL MORE THAN TWO-TENTHS OF A SQUARE MILE.

### LIST OF ATTACHED FIGURES

IN CARRYING OUT THE ENGINEERING STUDIES, THE FOLLOWING ATTACHED FIGURES WERE PREPARED BY ME, OR UNDER MY DIRECT SUPERVISION:

1. PROPOSED ENGINEERING SPECIFICATIONS
2. ELEVATION DRAWING OF THE ANTENNA SYSTEM
3. ELEVATION PROFILES AND MAPS SHOWING THE TERRAIN IN 8 DIRECTIONS FROM THE SITE
4. TABULATION OF TERRAIN AND COVERAGE DATA
5. MAPS SHOWING THE 74 DBU, THE GRADE-A AND GRADE-B CONTOURS
6. LETTER FROM THE CIVIL AERONAUTICS ADMINISTRATION

### FREQUENCY MONITOR

IT IS ANTICIPATED THAT THE INTERIM OPERATION COULD BEGIN BEFORE AN APPROVED FREQUENCY MONITOR COULD BE DELIVERED. DURING THE BEGINNING OPERATION, UNTIL THE APPROVED EQUIPMENT CAN BE DELIVERED, IT IS PROPOSED TO USE A FREQUENCY METER SUCH AS THE SIGNAL CORPS BC-221 TO MEASURE THE AURAL AND VISUAL CARRIER FREQUENCIES.

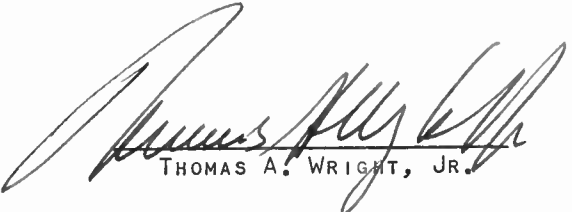

### OPERATING POWER

IT IS PROPOSED TO DETERMINE THE OPERATING POWER OF THE VISUAL TRANSMITTER BY CALORIMETRIC MEASUREMENTS MADE WITH A DUMMY LOAD. IT IS PROPOSED TO MAINTAIN THE OPERATING POWER OF THE VISUAL TRANSMITTER WITHIN THE AUTHORIZED LIMITS THROUGH THE DIRECT MEASUREMENTS OF RADIO-FREQUENCY POWER BY MEANS OF CALIBRATED REFLECTOMETER APPARATUS INSTALLED ON THE TRANSMISSION LINE. IT IS PROPOSED TO DETERMINE AND MAINTAIN THE OPERATING POWER OF THE AURAL TRANSMITTER WITHIN THE AUTHORIZED LIMITS BY THE INDIRECT METHOD. IN THIS METHOD, THE POWER IS THE PRODUCT OF THE PLATE VOLTAGE OF THE LAST RADIO STAGE, THE PLATE CURRENT OF THE LAST RADIO STAGE, AND AN EFFICIENCY FACTOR ESTABLISHED BY THE TRANSMITTER MANUFACTURER.

SUBSCRIBED AND SWORN TO BEFORE ME

THIS 14TH DAY OF JULY, 1953

MY COMMISSION EXPIRES JUNE 1, 1955

  
THOMAS A. WRIGHT, JR.  
  
NOTARY PUBLIC IN AND FOR  
DALLAS COUNTY, TEXAS

ENGINEERING SPECIFICATIONS  
PROPOSED INTERIM OPERATION  
NEW TELEVISION BROADCAST STATION  
SHREVEPORT, LOUISIANA

A. TRANSMITTER SITE

GEOGRAPHIC COORDINATES SCALED FROM U.S.G.S. TOPOGRAPHIC MAP:

NORTH LATITUDE	32° 30' 51"
WEST LONGITUDE	93° 44' 48"

STREET ADDRESS

COMMERCIAL NATIONAL BANK BUILDING  
SHREVEPORT, CADDO PARISH, LOUISIANA

B. MAIN STUDIO SITE

STREET ADDRESS

COMMERCIAL NATIONAL BANK BUILDING  
SHREVEPORT, CADDO PARISH, LOUISIANA

C. OTHER STUDIOS PROPOSED

NONE

D. PROPOSED EQUIPMENT

CHANNEL:	NUMBER	3
	FREQUENCY	FROM 60 MC TO 66 MC
TRANSMITTER:	MAKE	RCA
	TYPE	TT-2AL
	RATED POWER OUTPUT: VISUAL	3.00 DBK
		2.0 KW
	AURAL	0.00 DBK
		1.0 KW
	ENGINEERING DETAILS	ON FILE WITH FCC
SUPPORTING STRUCTURE:		
	TOWER	22 FT
	COMMERCIAL NATIONAL BANK BUILDING	131 FT
TRANSMISSION LINE:	MAKE	RCA
	TYPE	MI-19112
	DESCRIPTION	COAXIAL
	SIZE	1-5/8 IN
	LENGTH	205 FT
ANTENNA:	MAKE	RCA
	TYPE	TF-3A
	NUMBER OF BAYS	3
	HEIGHT	49 FT
MODULATION MONITOR:		
		<u>VISUAL</u>
	MAKE	RCA
	TYPE	WM-20B/TM-6A
		<u>AURAL</u>
		GENERAL RADIO
		1183-T1
FREQUENCY MONITOR:	MAKE	GENERAL RADIO
	TYPE	1183-T1
	ACCURACY	ON FILE

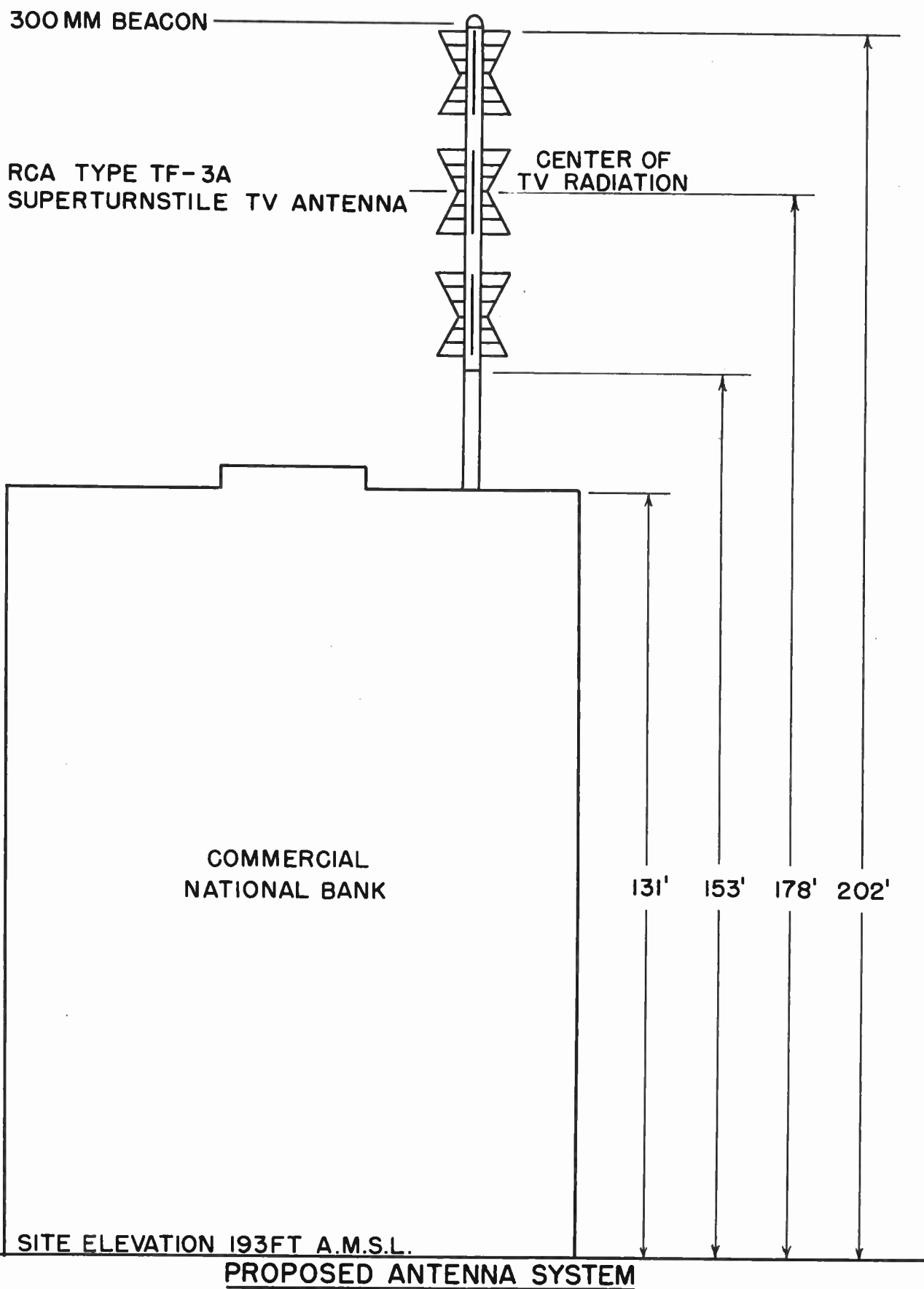
# E. ANTENNA HEIGHT

HEIGHT OF SITE ABOVE MEAN SEA LEVEL	193 FT
OVERALL HEIGHT OF STRUCTURE	202 FT
OVERALL HEIGHT ABOVE MEAN SEA LEVEL	395 FT

HEIGHT OF SITE ABOVE AVERAGE TERRAIN	10 FT
EFFECTIVE HEIGHT OF ANTENNA ABOVE SITE	178 FT
EFFECTIVE HEIGHT OF ANTENNA ABOVE AVERAGE TERRAIN	188 FT
EFFECTIVE HEIGHT OF ANTENNA ABOVE MEAN SEA LEVEL	371 FT

# F. PROPOSED OPERATION

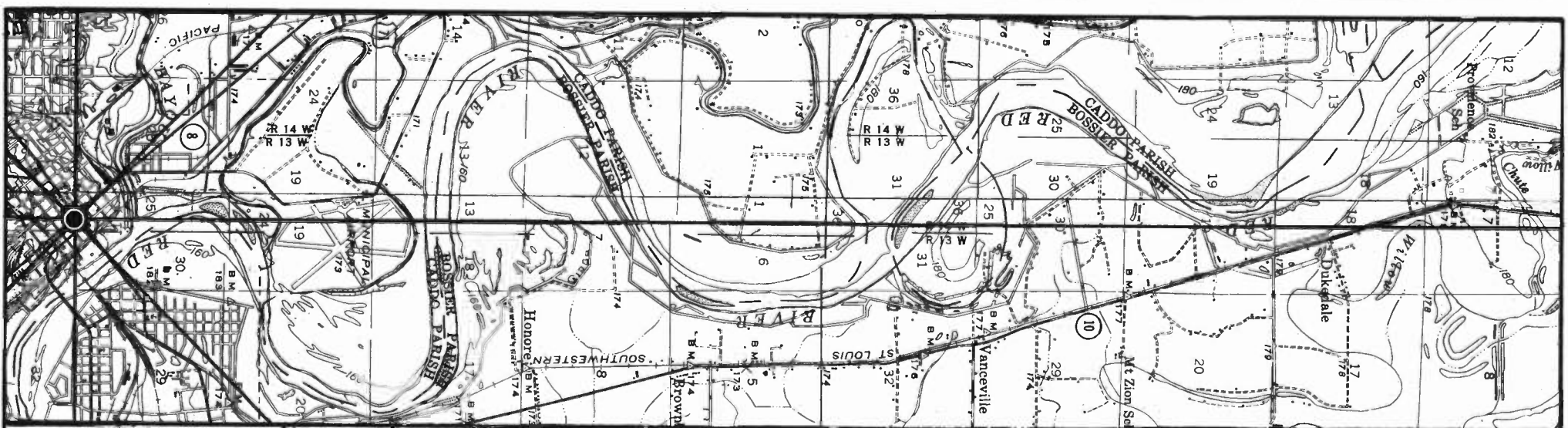
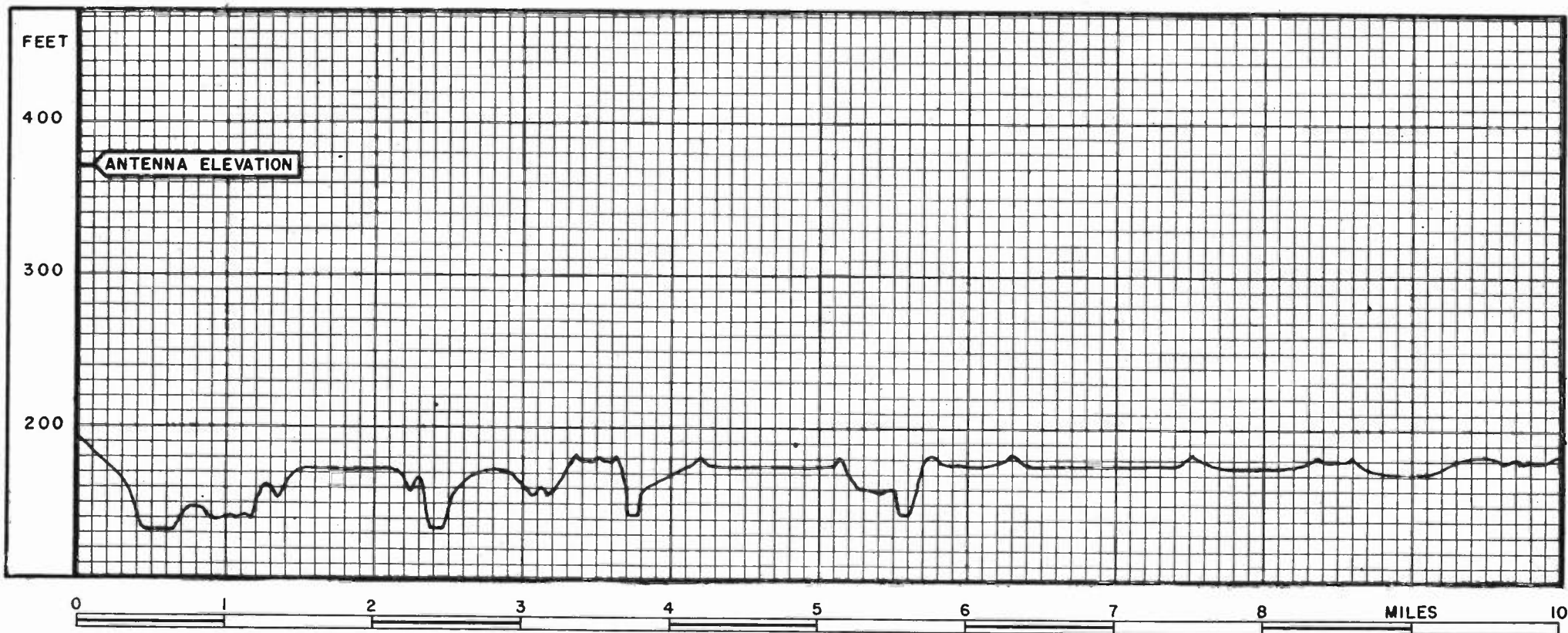
	<u>VISUAL</u>	
TRANSMITTER POWER OUTPUT	2.0 KW 3.01 DBK	1.0 KW 0.00 DBK
MULTIPLEXER LOSS	NEGLIGIBLE	NEGLIGIBLE
INPUT TO TRANSMISSION LINE	3.01 DBK	0.00 DBK
TRANSMISSION LINE LOSS	0.36 DB	0.36 DB
INPUT TO ANTENNA	2.65 DBK	-0.36 DBK
ANTENNA GAIN	4.91 DB	4.91 DB
EFFECTIVE RADIATED POWER	7.56 DBK 5.70 KW	4.55 DBK 2.85 KW



A. EARL CULLUM, JR.  
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DALLAS TEXAS

INTERNATIONAL BROADCASTING CORP.  
SHREVEPORT, LOUISIANA  
530708 FIGURE 2

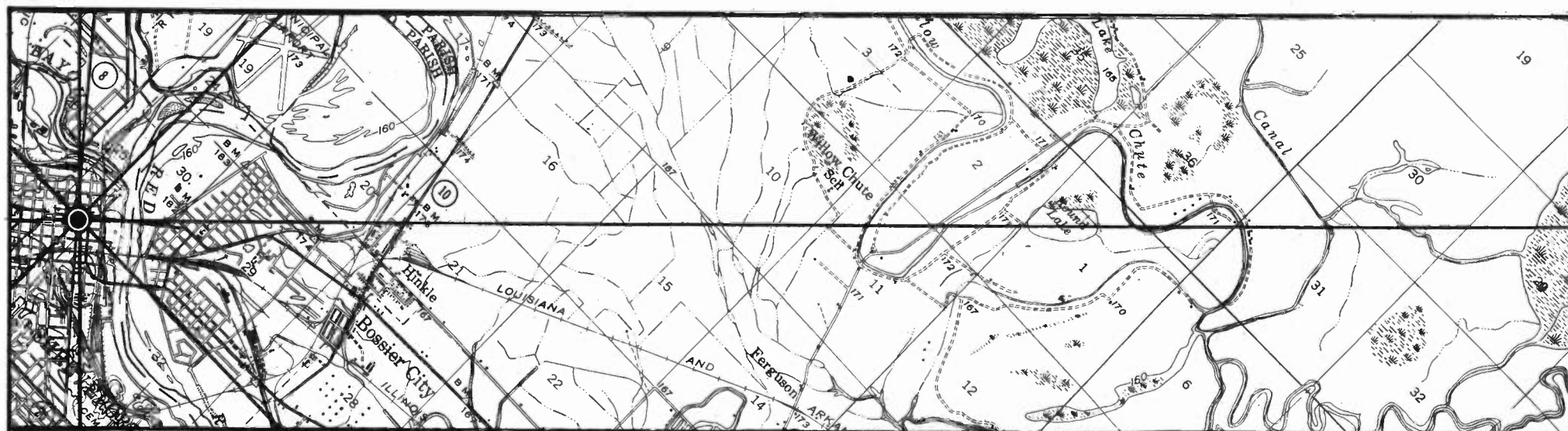
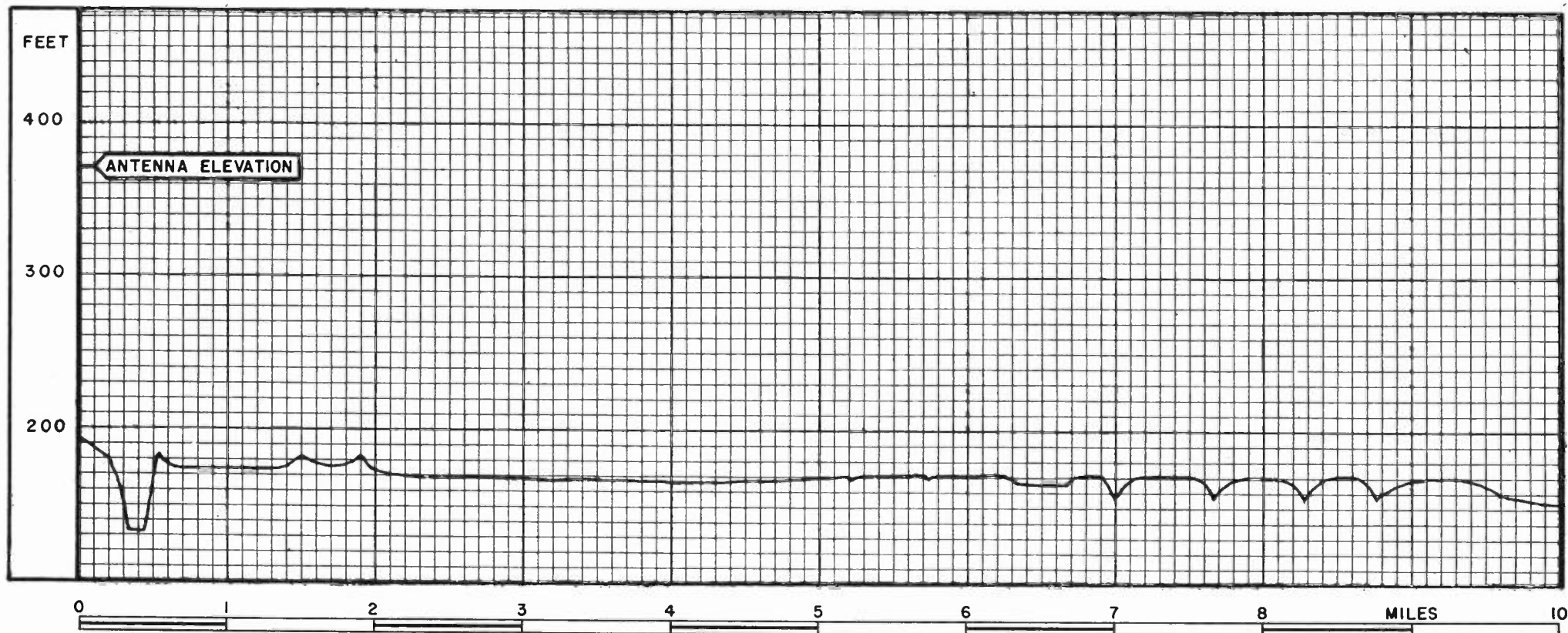




INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 00° E FIGURE 3A

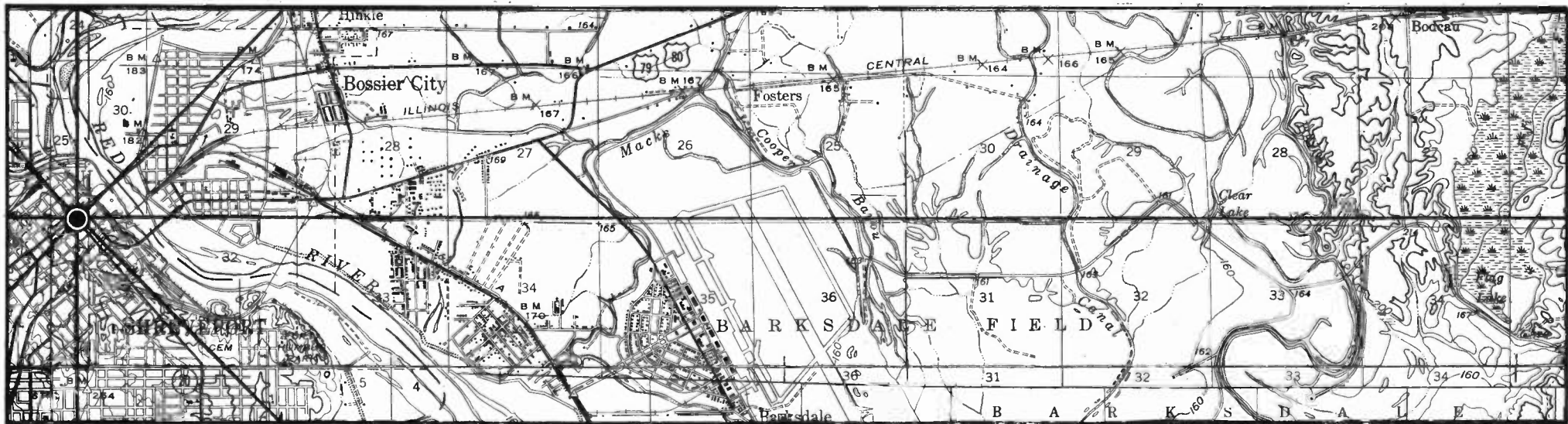
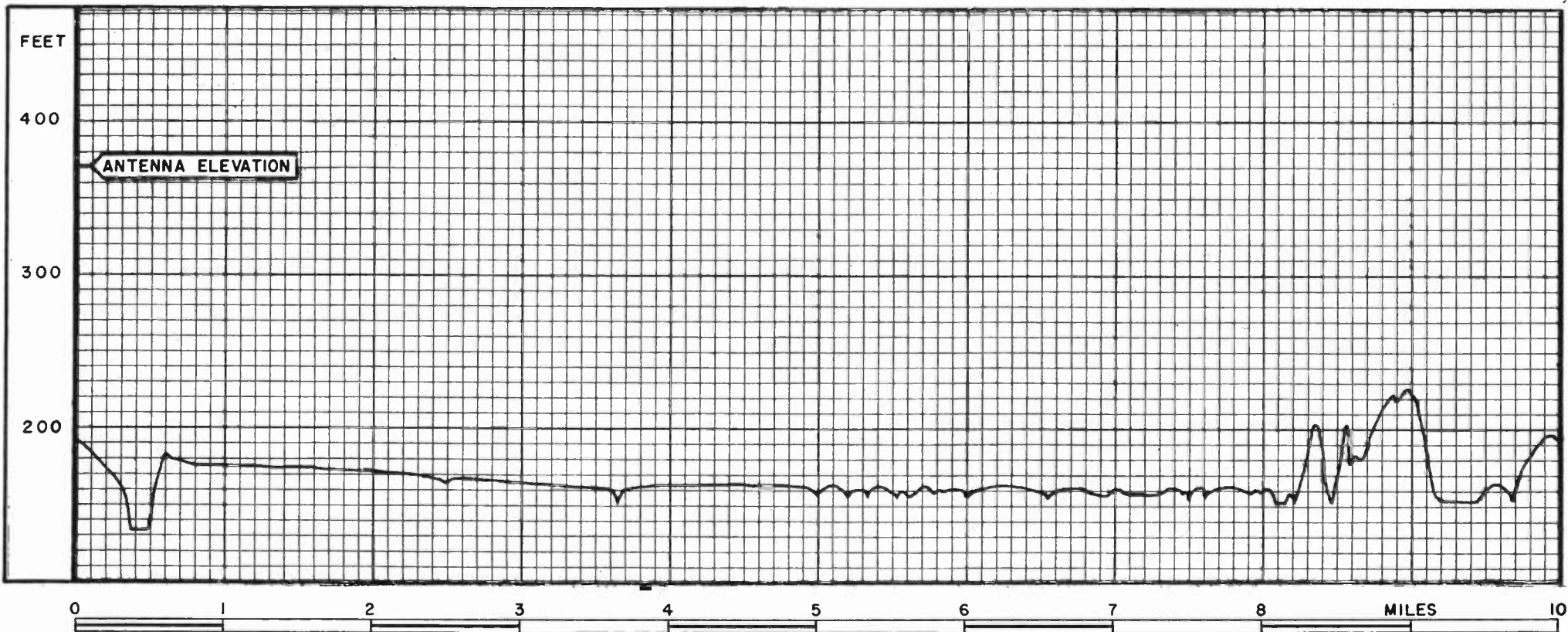




INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 45° E FIGURE 3B

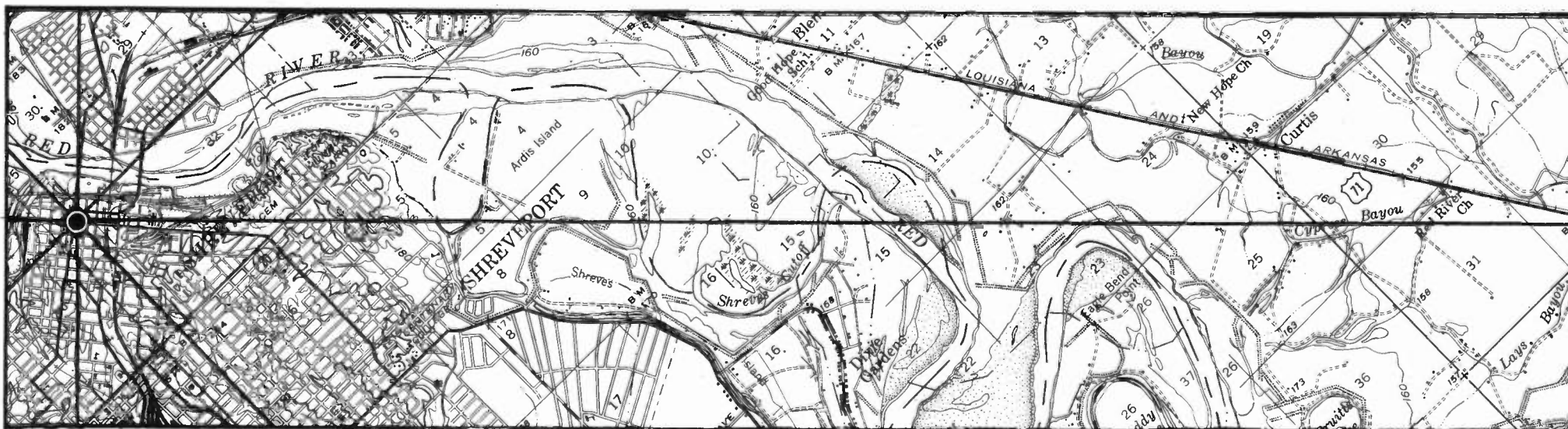
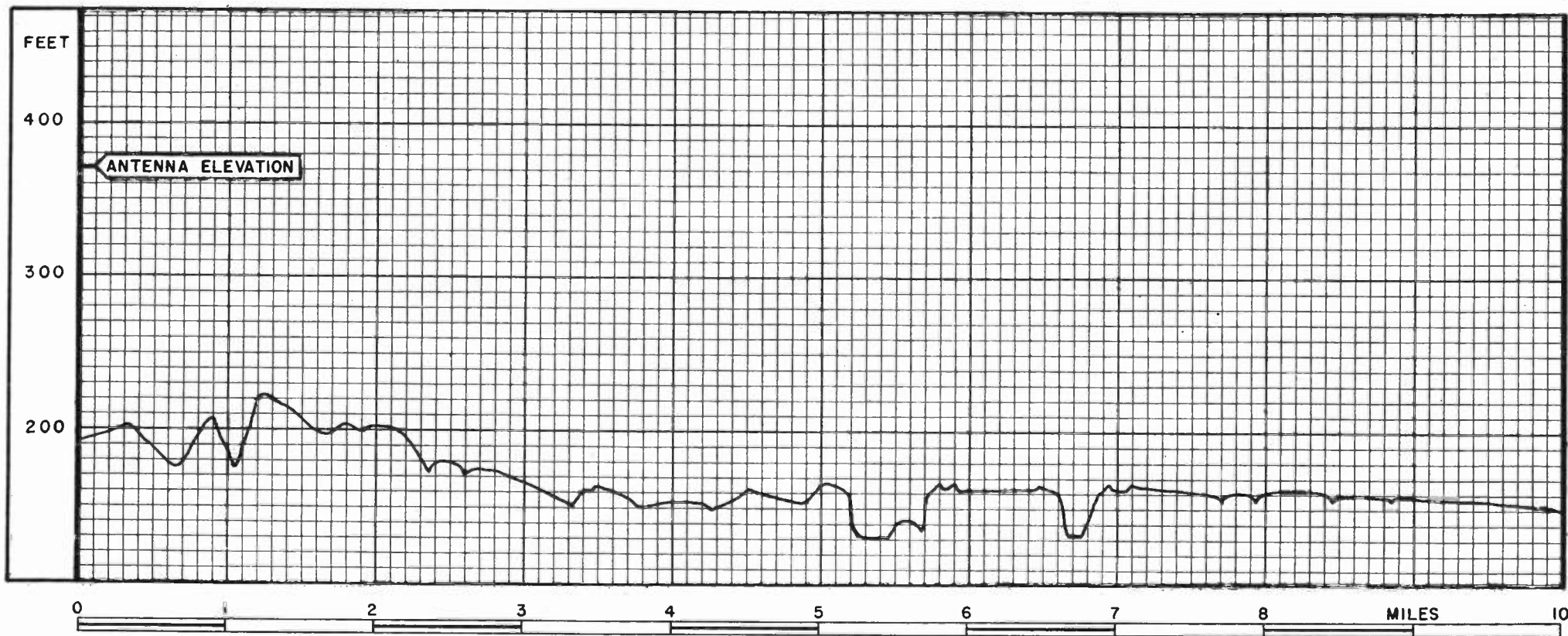




INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 90°E FIGURE 3C





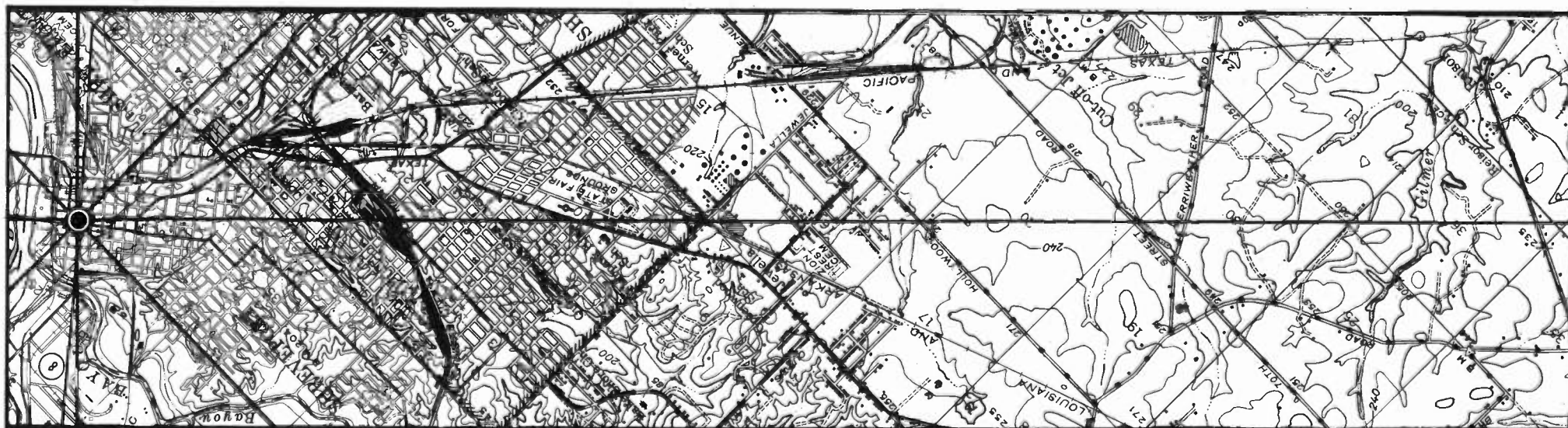
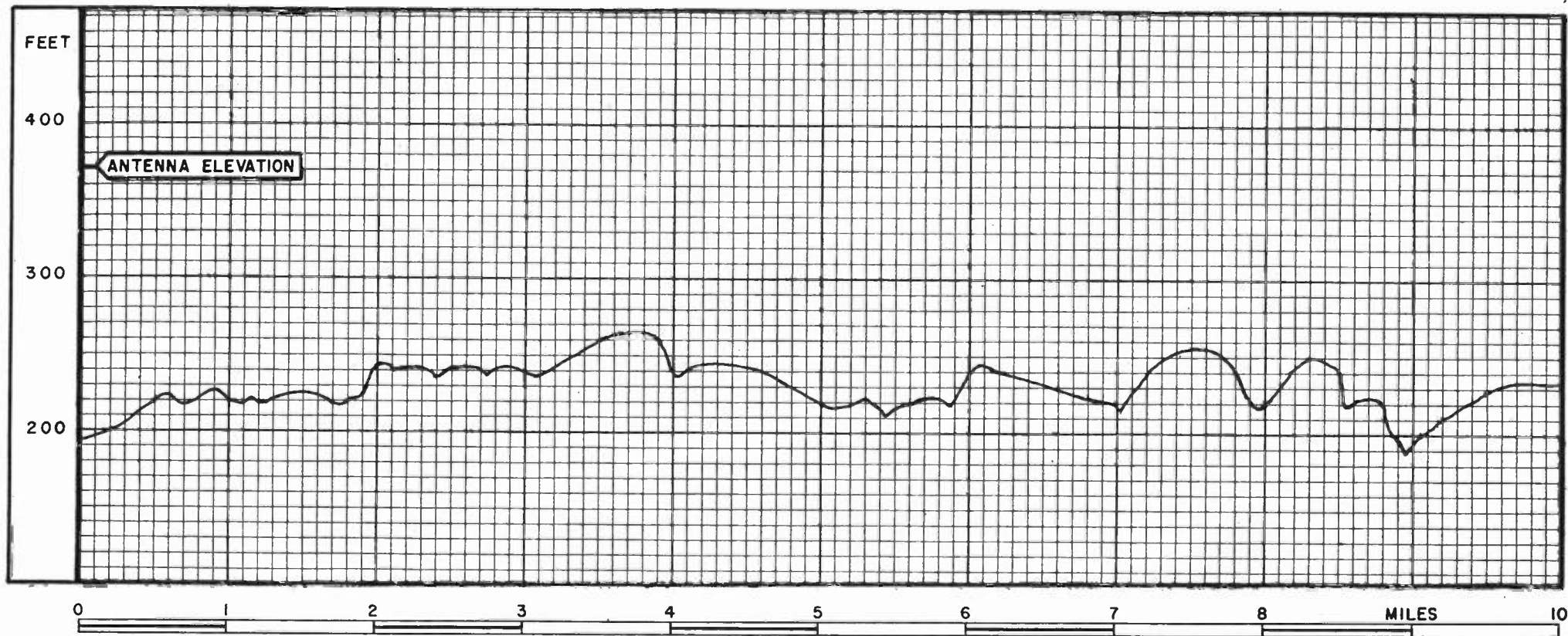
INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 135° E FIGURE 3D





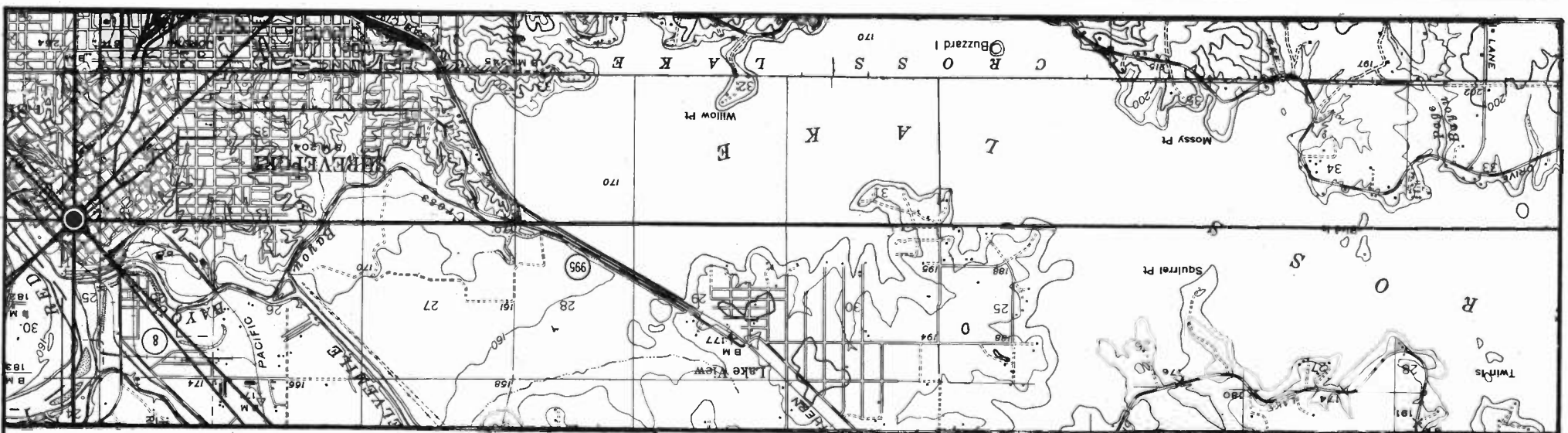
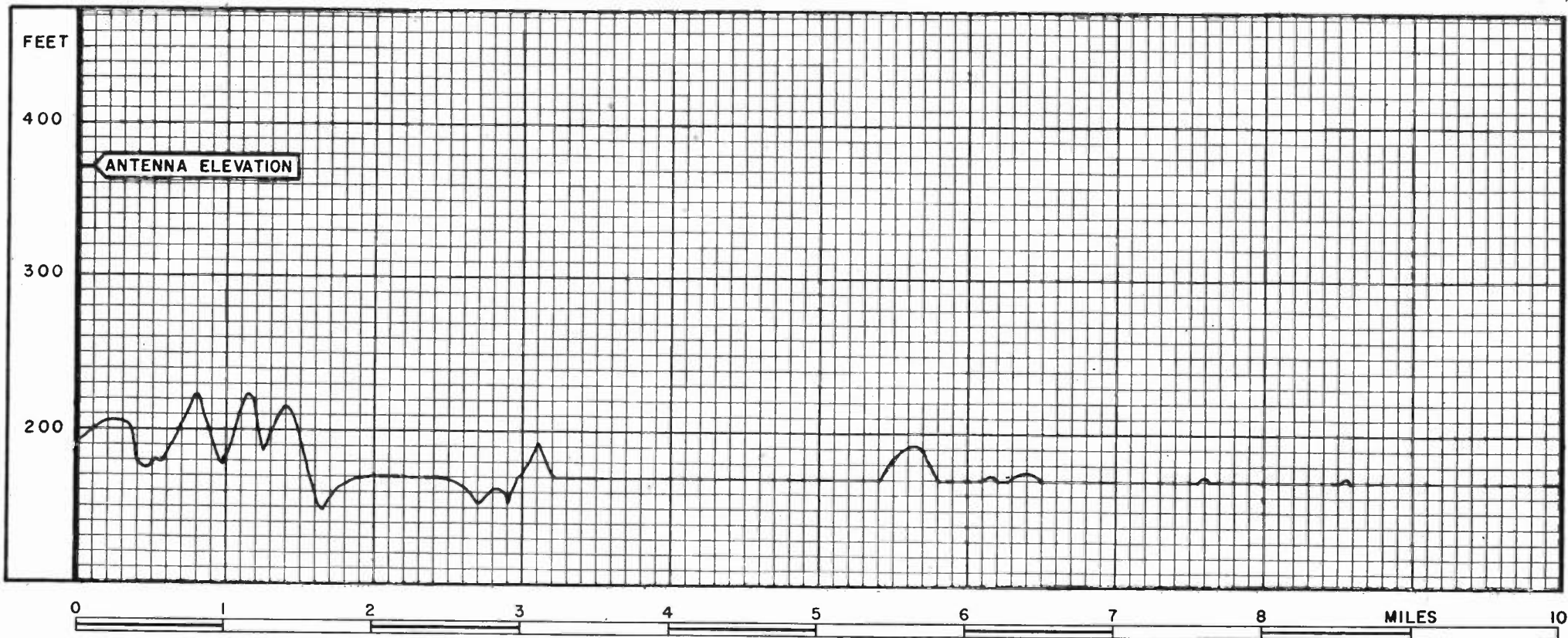




INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 225° E FIGURE 3F

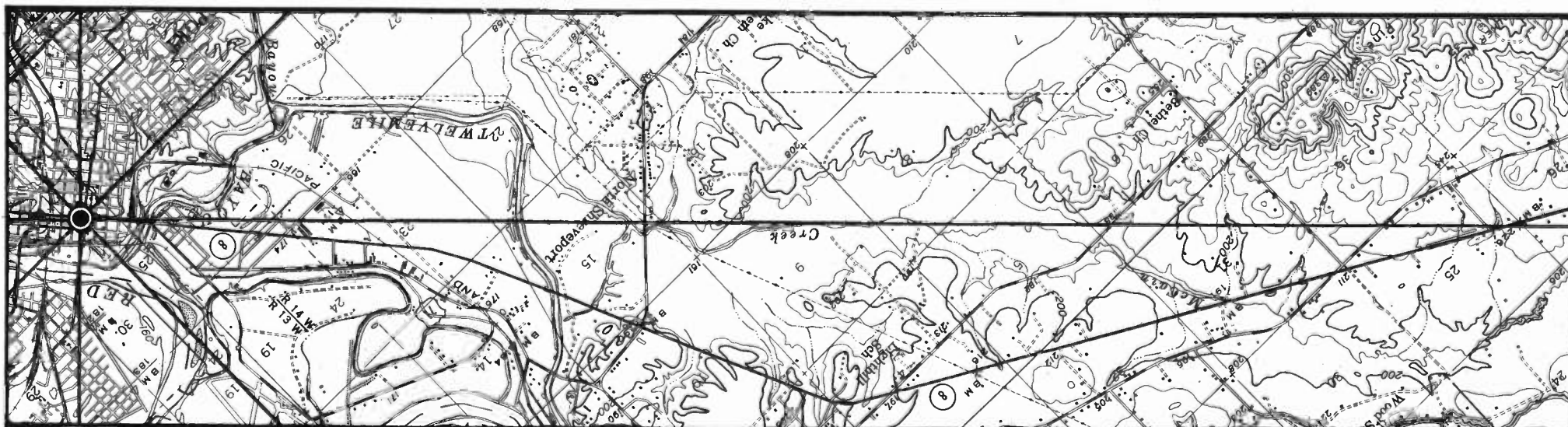
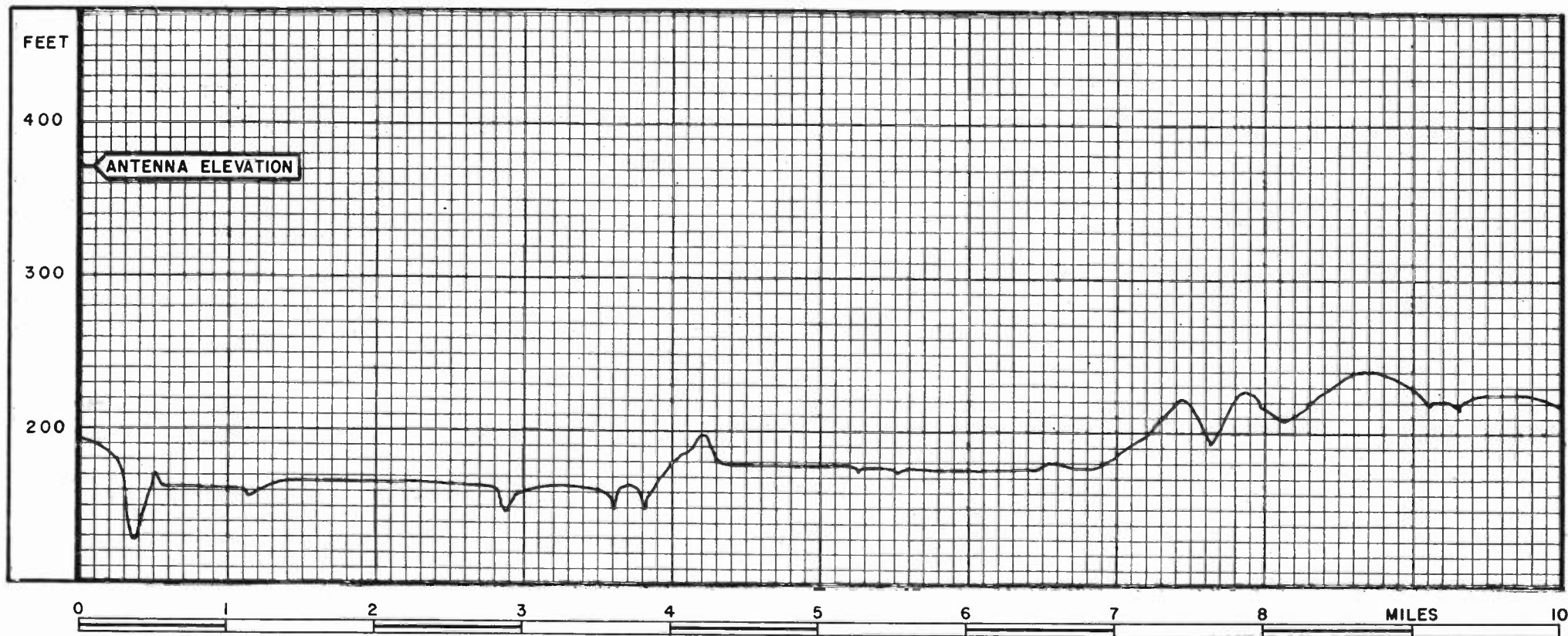




INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 270°E FIGURE 3G





INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

USGS TOPOGRAPHIC MAP  
N 315° E FIGURE 3H

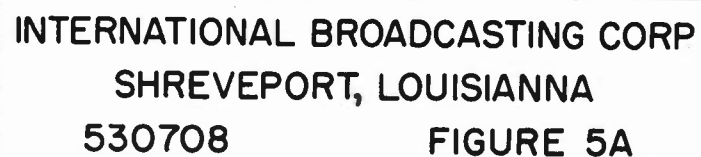
INTERNATIONAL BROADCASTING CORPORATION  
SHREVEPORT, LOUISIANA

TERRAIN AND COVERAGE DATA

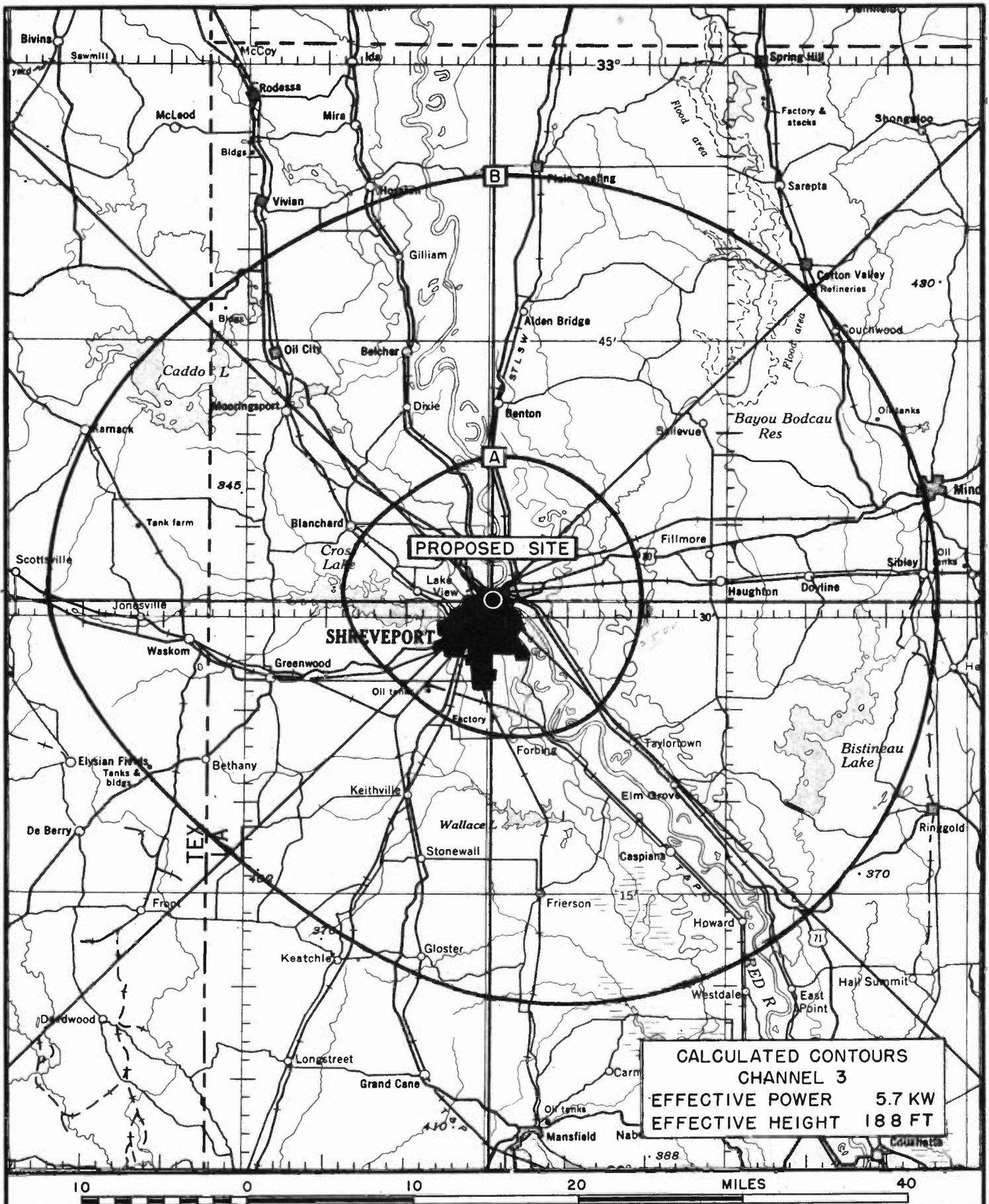
<u>RADIAL</u>	<u>DIRECTION</u>	<u>AVERAGE ELEVATION 2 TO 10 MILES</u>	<u>ANTENNA HEIGHT ABOVE AVERAGE TERRAIN</u>	<u>EFFECTIVE RADIATED POWER</u>	<u>DISTANCE TO 74 DBU CONTOUR</u>	<u>DISTANCE TO GRADE A CONTOUR</u>	<u>DISTANCE TO GRADE B CONTOUR</u>
A	N 00° E	173 FT	198 FT	7.56 DBK	6.5 MI	8.9 MI	26.6 MI
B	N 45° E	167	204	7.56	6.6	9.1	27.1
C	N 90° E	166	205	7.56	6.6	9.1	27.1
D	N 135° E	161	210	7.56	6.7	9.2	27.5
E	N 180° E	200	171	7.56	6.0	8.2	24.6
F	N 225° E	236	135	7.56	5.3	7.3	22.1
G	N 270° E	172	199	7.56	6.5	8.9	26.7
H	N 315° E	190	181	7.56	6.1	8.5	25.4
AVERAGE OF ALL RADIALS			188				

SPECIFIED	U.S.G.S. TOPOGRAPHIC MAPS	ENGINEERING SPECIFICATIONS	ENGINEERING SPECIFICATIONS	FCC PROPAGATION CURVES	FCC PROPAGATION CURVES	FCC PROPAGATION CURVES
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A. EARL CULLUM, JR.  
CONSULTING RADIO ENGINEERS  
DALLAS TEXAS

INTERNATIONAL BROADCASTING CORP.  
SHREVEPORT, LOUISIANA  
530708 FIGURE 5B

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION

IN REPLY ADDRESS  
REGIONAL ADMINISTRATOR  
CIVIL AERONAUTICS ADMINISTRATION

P. O. Box 1689  
Fort Worth 1, Texas

July 10, 1953

A. Earl Cullum, Jr.  
Consulting Radio Engineers  
Highland Park Village  
Dallas, Texas

Gentlemen:

This is to advise we have checked your proposal to place a temporary 70 foot television antenna on top of the old Commercial Bank Building at Texas and Market Streets, in Shreveport, Louisiana.

No objections will be offered and insofar as we are concerned, no painting or lighting will be necessary.

Sincerely yours,



Paul H. Boatman  
Program Coordinator

ENGINEERING STATEMENT OF THOMAS A. WRIGHT, JR., OF THE FIRM OF A. EARL CULLUM, JR.,  
CONSULTING RADIO ENGINEERS, REGARDING THE FEASIBILITY OF PROVIDING AN INTERIM  
TELEVISION OPERATION ON CHANNEL 3 IN SHREVEPORT, LOUISIANA

\* \* \*

I THOMAS A. WRIGHT, JR., AM A RADIO ENGINEER ASSOCIATED WITH THE FIRM OF A. EARL CULLUM, JR., CONSULTING RADIO ENGINEERS, WITH OFFICES LOCATED IN DALLAS, TEXAS. I RECEIVED THE DEGREE OF ELECTRICAL ENGINEER FROM COLUMBIA UNIVERSITY IN 1936. MY EXPERIENCE INCLUDES ASSOCIATION WITH A FIRM OF CONSULTING RADIO ENGINEERS IN WASHINGTON, D. C., AND SERVICE AS AN ELECTRONICS OFFICER IN THE UNITED STATES NAVY. FROM 1948 TO 1951, I WAS ASSISTANT PROFESSOR OF ELECTRICAL ENGINEERING AT SOUTHERN METHODIST UNIVERSITY. SINCE OCTOBER 1, 1951, I HAVE BEEN ASSOCIATED WITH THIS FIRM. I AM A REGISTERED PROFESSIONAL ENGINEER.

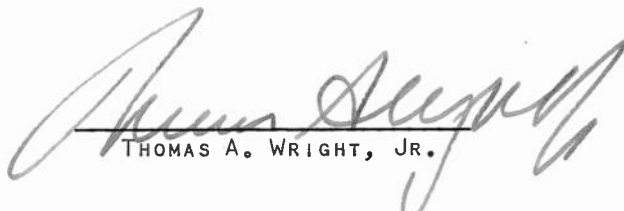
THIS FIRM HAS BEEN EMPLOYED BY INTERNATIONAL BROADCASTING CORPORATION TO MAKE ENGINEERING STUDIES OF THE FEASIBILITY OF PROVIDING AN INTERIM TELEVISION OPERATION ON CHANNEL 3 IN THE EVENT A CONSTRUCTION PERMIT IS GRANTED TO INTERNATIONAL BROADCASTING CORPORATION. IT IS UNDERSTOOD THAT INTERNATIONAL BROADCASTING CORPORATION HAS A COMMITMENT FROM RADIO CORPORATION OF AMERICA TO SUPPLY A 2-KILOWATT TRANSMITTER IMMEDIATELY, IN THE EVENT INTERNATIONAL BROADCASTING CORPORATION IS GRANTED A CONSTRUCTION PERMIT. IT IS UNDERSTOOD THAT ARRANGEMENTS HAVE BEEN MADE SO THAT THE TRANSMITTER CAN BE INSTALLED IN THE COMMERCIAL NATIONAL BANK BUILDING IN DOWNTOWN SHREVEPORT AND THAT A 3-BAY TELEVISION ANTENNA, WHICH INTERNATIONAL BROADCASTING CORPORATION NOW HAS IN ITS POSSESSION, CAN BE INSTALLED ON THE ROOF OF THE COMMERCIAL NATIONAL BANK BUILDING. INTERNATIONAL BROADCASTING CORPORATION NOW HAS A TELEVISION STUDIO, AND STUDIO CAMERA EQUIPMENT, IN USE WHICH WOULD BE IMMEDIATELY AVAILABLE FOR THE ORIGINATION OF LIVE PROGRAM MATERIAL. IT IS UNDERSTOOD THAT THE EQUIPMENT NECESSARY FOR THE ORIGINATION OF PROGRAM MATERIAL FROM FILM OR SLIDES WILL BE DELIVERED IMMEDIATELY UPON REQUEST BY INTERNATIONAL BROADCASTING CORPORATION AT ANY TIME AFTER JULY 15, 1953.

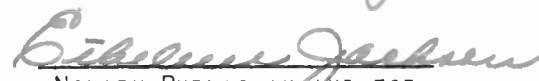
I HAVE STUDIED THE PROPOSED EQUIPMENT LIST AND HAVE REVIEWED THE DELIVERY AND INSTALLATION SCHEDULE WITH REPRESENTATIVES OF THE MANUFACTURER. AS A RESULT, I BELIEVE THAT AN INTERIM OPERATION, MAKING USE OF THE ABOVE EQUIPMENT, COULD BEGIN WITHIN APPROXIMATELY ONE WEEK AFTER RECEIVING A CONSTRUCTION PERMIT.



I HAVE STUDIED THE OPERATION WHICH WOULD BE POSSIBLE USING THE EQUIPMENT WHICH INTERNATIONAL BROADCASTING CORPORATION HAS AVAILABLE, OR CAN OBTAIN IMMEDIATE DELIVERY ON, AND FIND THAT THIS PROPOSED OPERATION, WHEN USING THE COMMERCIAL NATIONAL BANK BUILDING AS A TRANSMITTER AND ANTENNA SITE, WILL PROVIDE A SIGNAL INTENSITY OVER ALL OF SHREVEPORT, WHICH WILL EQUAL OR EXCEED THE REQUIREMENTS OF THE FEDERAL COMMUNICATIONS COMMISSION FOR SERVICE TO BE PROVIDED TO THE PRINCIPAL CITY, EXCEPT FOR AN AREA OF TWO-TENTHS OF A SQUARE MILE. ALL OF THE CITY OF SHREVEPORT LIES WELL WITHIN THE PREDICTED GRADE-A CONTOUR. THE PROPOSED OPERATION WOULD PROVIDE A SERVICE WHICH WOULD BE BETTER THAN THE INTERIM SERVICE PROVIDED BY MANY INTERIM OPERATIONS WHICH HAVE BEEN AUTHORIZED BY THE FEDERAL COMMUNICATIONS COMMISSION.

SUBSCRIBED AND SWORN TO BEFORE ME  
THIS 14TH DAY OF JULY, 1953

  
THOMAS A. WRIGHT, JR.

  
NOTARY PUBLIC IN AND FOR  
DALLAS COUNTY, TEXAS

MY COMMISSION EXPIRES JUNE 1, 1955