

Ref. ASB 12/24/52

H-209

ENGINEERS COPY

BROADCAST APPLICATION FOR TELEVISION BROADCAST ENGINEERING DATA FEDERAL COMMUNICATIONS COMMISSION Section V-C

Name of applicant: **Las Vegas Broadcasting Company** BPECT-1239

1. Purpose of authorization applied for: (Indicate by check mark)

(If application is for a new station or for any of the changes numbered B through E, complete all paragraphs of this form; if change F is of a character which will change coverage or increase the overall height of the antenna structure more than 20 feet, answer all paragraphs, otherwise complete only paragraphs 2 and 3 and the appropriate other paragraphs; for changes G through I, complete only paragraph 2 and the appropriate other paragraphs; for change J, complete only paragraphs 2 and 16)

- A. Construct a new station
- B. Change effective radiated power or antenna height above average terrain
- C. Change transmitter location
- D. Change frequency
- E. Approval of site and antenna
- F. Change antenna system
- G. Change transmitter
- H. Install auxiliary or alternate main transmitter
- I. Other changes (specify)
- J. Change studio location

FEDERAL COMMUNICATIONS COMMISSION
JUL 14 1952
OFFICE OF SECRETARY

2. Facilities requested

Frequency: 180 — 186 Mc. Channel number: 8

Effective Radiated Power (visual): In dbk: 13.9 In kw: 24.4

Antenna height above average terrain in feet. (Must agree with height given in Para. 12 of this Section) 800

4. Transmitters

(a) Visual		
Make	Type No.	Rated power
General Electric	TT-6-E	In dbk: 6.99 In kw: 5.0
(b) Aural		
Make	Type No.	Rated power
General Electric	TT-6-E	In dbk: 3.98 In kw: 2.5

3. (a) Antenna structure

Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station? If "Yes", attach as Exhibit No. complete engineering data thereon. Yes No

Will proposed structure be constructed on the top of an existing structure? If "Yes", describe and give height above ground of existing structure. Yes No

Overall height in feet above ground. (Do not include the height of any obstruction lighting which may be required.) 100

Overall height in feet above mean sea level. (Do not include the height of any obstruction lighting which may be required.) 3030

Height of antenna radiation center in feet above mean sea level. 3012

(b) Antenna data

Visual

Make: **General Electric** Type No.: **2Y-28-F**

Number of sections: 6 Power gain in db: **Approx. 7.0**

Aural (if separate) Same as above

Make: _____ Type No.: _____

Number of sections: _____ Power gain in db: _____

Is directional antenna proposed? Yes No

If "Yes", attach as Exhibit No. complete engineering data thereon.

If the above transmitters are composite or of types for which data have not been filed with the F.C.C., attach as Exhibit No. a complete showing of transmitter details in accordance with the Commission's Rules. The showing should include schematic diagrams, makes and types of tubes, operating constants of the last radio stages, full details of frequency control, vestigial sideband filter (if used), multiplex networks and isolation networks. If changes are to be made in a licensed transmitter, include a schematic diagram and give full details of the changes. **On File**

(c) Describe in Exhibit No. I means which will be used for determining and maintaining power output of the transmitters to the values specified in this application.

5. Modulation monitors

(a) Visual monitor or monitoring equipment		
Make	Type No.	
General Electric	TV-21-B	
(b) Aural monitor		
Make	Type No.	
General Radio	GR-1183-T2	

6. Frequency monitors

(a) Visual monitor		
Make	Type No.	Accuracy
General Radio	1183-T2	.001%
(b) Aural monitor		
Make	Type No.	Accuracy
General Radio	1183-T2	.001%

7. If the above monitors or monitoring equipment have not been approved by the F.C.C., include as Exhibit No. II a brief technical description of each.

8. Transmission line proposed to supply power to the antenna from the transmitter

(a) Visual		
Make	Type No.	Description
Andrew	551-1	51.5 ohm concentric
Size (nominal inside transverse dimensions) in inches	Length in feet	Power loss in db for this length
1 5/8	100	0.08

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8. Transmission line (Continued) **Same as Pix**

(b) Aural (if separate)

Make	Type No.	Description
Size (nominal inside transverse dimension) in inches	Length in feet	Power loss in db for this length

10. Will the studios, cameras, microphones, and other equipment proposed for transmission of programs be designed for compliance with the Commission's Rules? Yes No

9. Proposed operation

(a) Visual

Transmitter power output (after vestigial side-band filter, if used)	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: 6.99 In kw: 5.0	0.05	6.94
Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:
0.08	6.86	Approx. 7.0
		Effective radiated power
		In dbk: 13.9 In kw: 24.4

11. (a) Attach as Exhibit No. **III** a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and show drawn thereon the following data:

- Proposed transmitter location—accurately plotted;
- Transmitter location and call letters of all known radio stations (except amateur) and the location of known commercial and government receiving stations within 2 miles of the proposed transmitter location;
- Proposed location of main studio;
- Character of the area within 2 miles of proposed transmitter location, suitably designated as to residential, business, industrial, and rural nature;
- At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location, one or more of which must extend through the principal city or cities to be served.

(b) Aural

Transmitter power output	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: 3.98 In kw: 2.5	0.05	3.93
Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:
0.08	3.85	Approx. 7.0
		Effective radiated power
		In dbk: 10.85 In kw: 12.2

(b) Attach as Exhibit No. **IV** profile graphs with reasonably large scales for the radials in (a) (5) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction of true north shall be zero azimuth, with angles measured clockwise. Show source of topographical data on each.

12. From the profile graphs in 11(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in the Commission's Rules, supply the following tabulation of data: (Grade A and Grade B contours are those in the absence of interference.)

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10 mi.)	Effective radiated power in radial direction	Predicted distance in miles to the Grade A contour	Predicted distance in miles to the Grade B contour
0	2230	782	13.9 dbk	71 db	56 db
45	2120	892	13.9	27.5 mi.	46 mi.
93	2130	882	13.9	29.5	48.5
135	2120	892	13.9	29.5	48
188	1910	1102	13.9	29.5	48.5
220	2292	720	13.9	32	52
270	2875	137	13.9	25.5	45
313.8	1916	1096	13.9	10	22.5
			13.9	32	51.5

$17597/8 = 2199$
 $(507) 813$

Antenna height above average terrain 800 feet (Must be identical with Paragraph 2)

13. Attach as Exhibit No. **V** map(s) (Sectional Aeronautical charts where obtainable, preferably without aeronautical overlay) of the area proposed to be served and shown drawn thereon:

- Proposed transmitter location and the radials along which the profile graphs have been prepared;
- The predicted Grade A and Grade B contours from 12 above;
- Scale of miles.

14. Attach as Exhibit No. **VI** a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.

3014

15. Proposed location of transmitter

State Nevada	County Clark	Geographical coordinates (to be determined to nearest second) of the proposed TV antenna structure.	
City or town 0.3 Mi. NE Alunite	Street address Mountain peak No St. Address	North latitude 35° 58' 43"	West longitude 114° 54' 18"
How were coordinates determined? U. S. Topo map			

16. Proposed location of main studio

State Nevada	County Clark	Other studios proposed None at present
City or town Las Vegas	Street address Not yet determined	

17. State the minimum value of field strength in dbu, predicted in accordance with the method prescribed in the Commission's Rules, that will be provided over the entire city in which the main studio is located.

78

18. (a) Does the proposed transmitter location comply with the minimum separation requirements of the Commission's Rules?

Yes No

(b) If any co-channel separations are proposed that are less than the applicable minimum separation requirement plus 20 miles, or if other channel separations are proposed that are less than the applicable minimum separations plus 10 miles, list such separations below. (Include existing stations, proposed stations and assignments; the location and geographical coordinates of each antenna; the distance to each from the proposed transmitter location; and the method used in each instance to measure the distance.) If none, so state.

None

A F F I D A V I T

STATE OF CALIFORNIA)
COUNTY OF SANTA CRUZ) (SS

Subscribed and sworn to before me this 8th day of
July, 1952.

Notary

My Commission expires _____

I certify that I am the Technical Director, Chief Engineer, or Consulting Engineer of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Date July 8, 1952

Grauw S. Mathall

Technical Director, Chief Engineer or Consulting Engineer

ANTENNA AND SITE INFORMATION
 (see instruction B Section I)

Name of applicant
Las Vegas Broadcasting Co.
 Address where applicant can be reached in person
**Wilbur Clark's Desert Inn
 Las Vegas, Nevada**

Since this Section is submitted to the Regional Airspace Subcommittee of the Air Coordinating Committee for clearance in connection with obstructions to air navigation, it is necessary that all the data called for be supplied. Previously and separately filed data must not be incorporated by reference.

Legal Counsel
 Address
McKenna and Wilkinson
1028 Connecticut Avenue, N. W.
Washington, D. C.

Consulting Engineer
 Address
Grant R. Wrathall
Aptos, California

Class of station
TV

Facilities requested
Channel 8

L. Location of antenna
 State
Nevada

County
Clark

City or Town
0.3 Mi. NE Alunite

Exact antenna location (street address) (If outside city limits, give distance and direction from, and name of nearest town)
0.3 Mi. NE Alunite

Geographic coordinates (to be determined to nearest second. For directional antenna give coordinates of center of array.)
 For single vertical radiator give tower location.

North latitude
35° 58' 43"

West longitude
114° 54' 18"

3. Designation, distance, and bearing to center line of nearest established airway within 5 miles
Las Vegas 299° (Red 15) 3 Mi. NE

4. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

Landing Area	Distance	Direction
(a) Boulder City	3.0 MI.	ESE
(b) _____	_____	_____
(c) _____	_____	_____

5. Description of antenna system (If directional, give spacing and orientation of towers).

Steel tower - top 37 ft. 6 section TV Batwing Antenna

Type	Self supporting					
Description of tower(s)	Guyed			Tubular (Pole)		
	#1	#2	#3	#4	#5	#6
Self-supporting Yes						
Tower (height figures should not include obstruction lighting)						
Height of radiating elements						
Overall height above ground	37'					
Overall height above mean sea level	100'					
	3030'					

If a combination of Standard, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. _____ a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing.

Submit as Exhibit No. **FIX** a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting painting and lighting.

Is the proposed antenna system designed so that obstruction lights may be installed and maintained at the uppermost point(s)? Yes No

6. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission? Yes No

If the answer is "Yes", give
 Call letters _____ File numbers _____

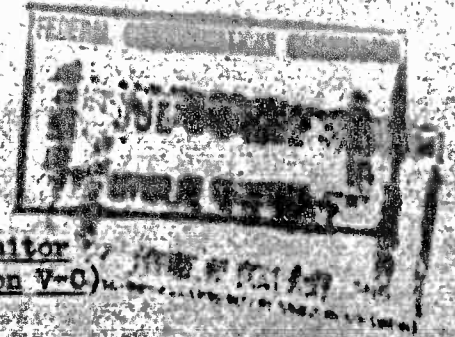
Purpose of application (Check appropriate box)

a. New antenna construction
 b. Alteration of existing antenna structures
 c. Change in location

2. Features of surrounding terrain
 List any natural formations or existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.
Hills approx. 2.0 miles NE and 2.5 miles SW site have heights which exceed overall height of proposed tower.

Submit as Exhibit No. **VII** a chart on which is plotted the exact location of the antenna site, and also the relative location of the natural formations and/or the existing man-made structures listed above.
 The chart used shall be an Instrument Approach Chart (or the landing chart on reverse side thereof), or a Sectional Aeronautical Chart, choice depending upon proximity of the antenna site to landing areas. 1/ In general, the Sectional Aeronautical Chart should be used only when the antenna site is more than 10 miles from a landing area or when an Instrument Approach Chart is unobtainable. 2/ These charts may be purchased from the U. S. Coast and Geodetic Survey, Washington 25, D. C.
 1/ Exception - Where the proposed antenna site is within the boundary of a landing area for which no Instrument Approach Chart is available, submit a self-made, large scale map showing antenna site, runway(s) and existing man-made structures listed above.

Date **July 8, 1952**
 Signature of Engineer preparing data
Grant R. Wrathall

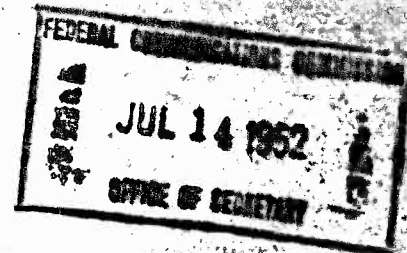


Brief Description Visual Modulation Monitor
In Answer to Section 7 (FCC 301 - Section V-C)

General Electric TV-21-B visual modulation monitor is designed to permit a visual quality observation of the signal delivered to the antenna by TV "Pix" transmitter. The picture information supplied by the instrument is equivalent to that which would be obtained from an ideal television receiver located remotely from the station. The signal is free from interference by the accompanying aural transmitter. Portions of the TV transmitter R-F output are sampled and delivered to the master monitor to provide the following information:

Waveform characteristic such as wave shape, per cent sync, white compression, depth of modulation, resolution and transient response and a composite picture of the radiated TV signal to serve as a basis for checking compliance with RTMA and FCC Standards.

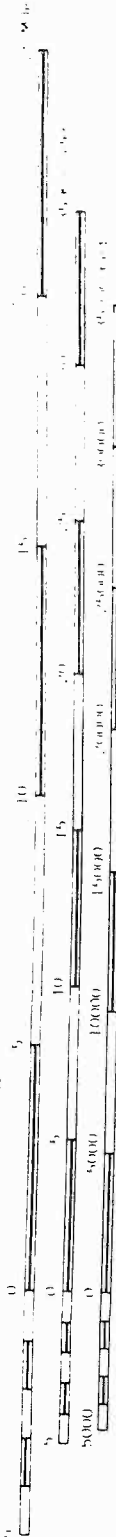
EXHIBIT I



Determining and Maintaining
Power Output of Transmitters
In Answer to FCC RQ1 - Section V-C-4(a)

Two measuring units will be used in determining and maintaining power output of the visual transmitter to the value specified in station license.

Reflectometers, incorporated in the visual and aural portions of the transmitter will be calibrated in terms of pre-operation calibration obtained with transmitter operating into laboratory type dummy load. Readings thus obtained on the reflectometer will be used in day to day operational power measurement determination.



CONTOUR INTERVAL 500 FEET WITH AUXILIARY CONTOURS AT 250 FOOT INTERVALS
 DATUM IS MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

1927 NORTH AMERICAN DATUM

R. 60 E. 15'

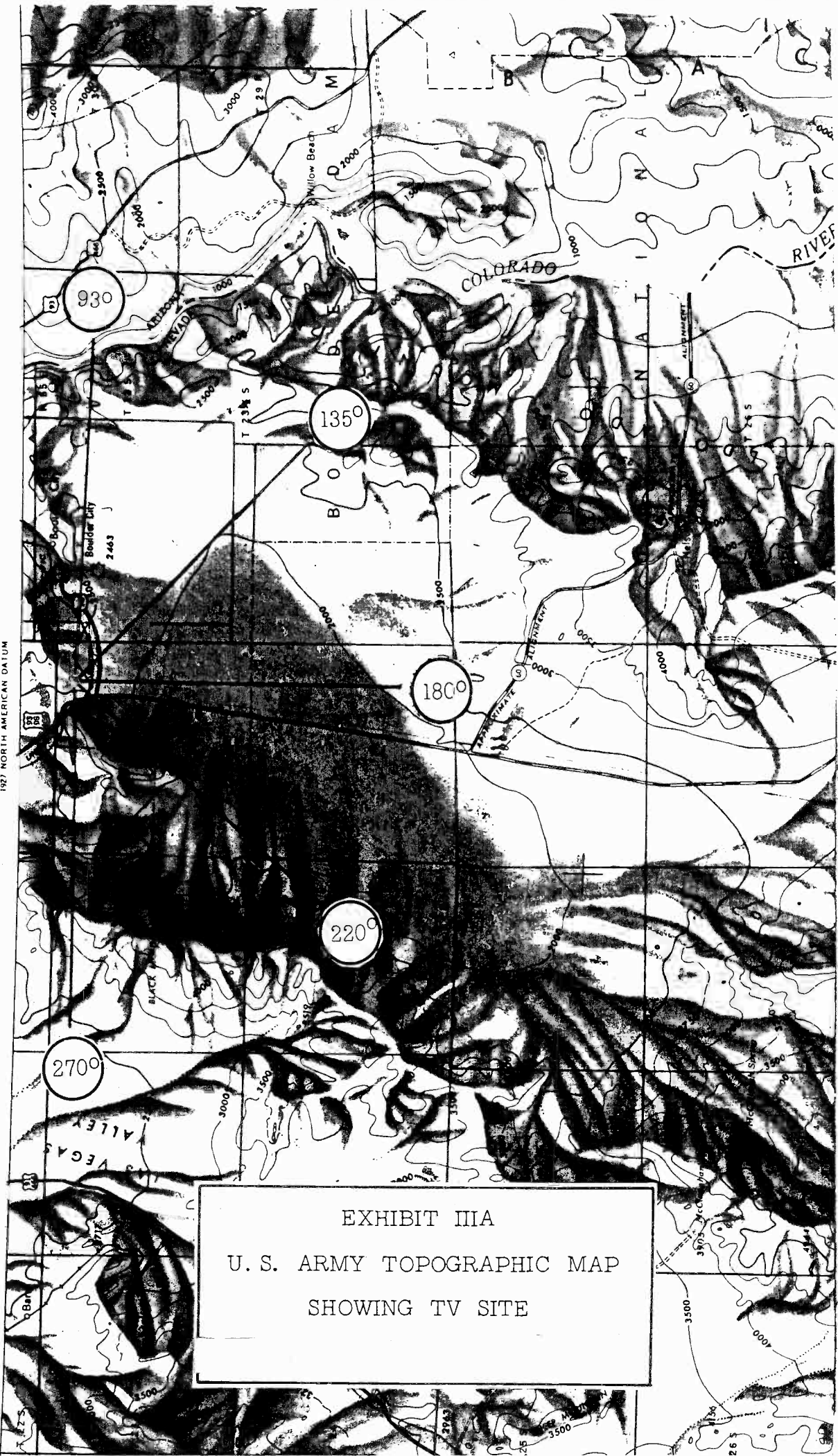
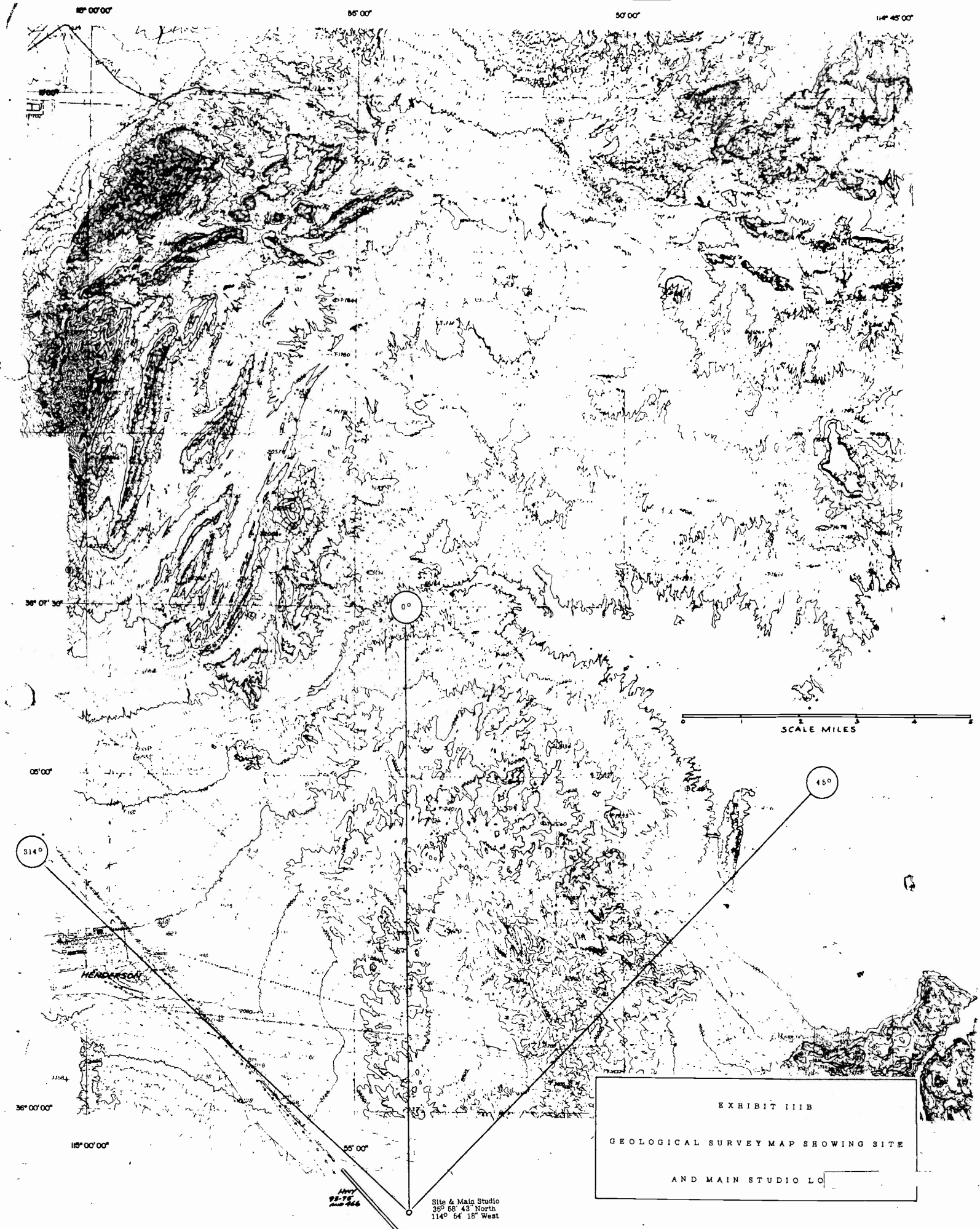


EXHIBIT IIIA
 U. S. ARMY TOPOGRAPHIC MAP
 SHOWING TV SITE

NOTE
This is a copy of a U. S. Geological Survey map
revised and photoreproduced.
It does not contain information to be obtained
during field reconnaissance.

BOULDER CANYON #3, NEV
N 3600 W 11445 /15
SCALE 1:48,000



REPORT FIELD COMPLETION
This is a copy of a U.S. Geological Survey map
corrected according to photogrammetric methods.
It does not include alterations to be shown
on a field modification map.

LAS VEGAS # 4, NEV
N3600 W11500 /15
SCALE 148,000

1500'

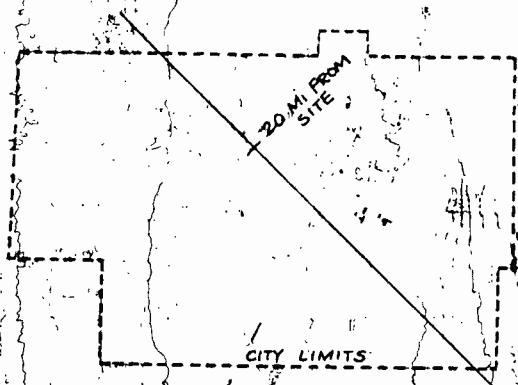


EXHIBIT III C
GEOLOGICAL SURVEY MAP SHOWING CITY
AND EXTENDED 314° RADIAL

SCALE MILES
0 1 2 3 4 5
HP OF W

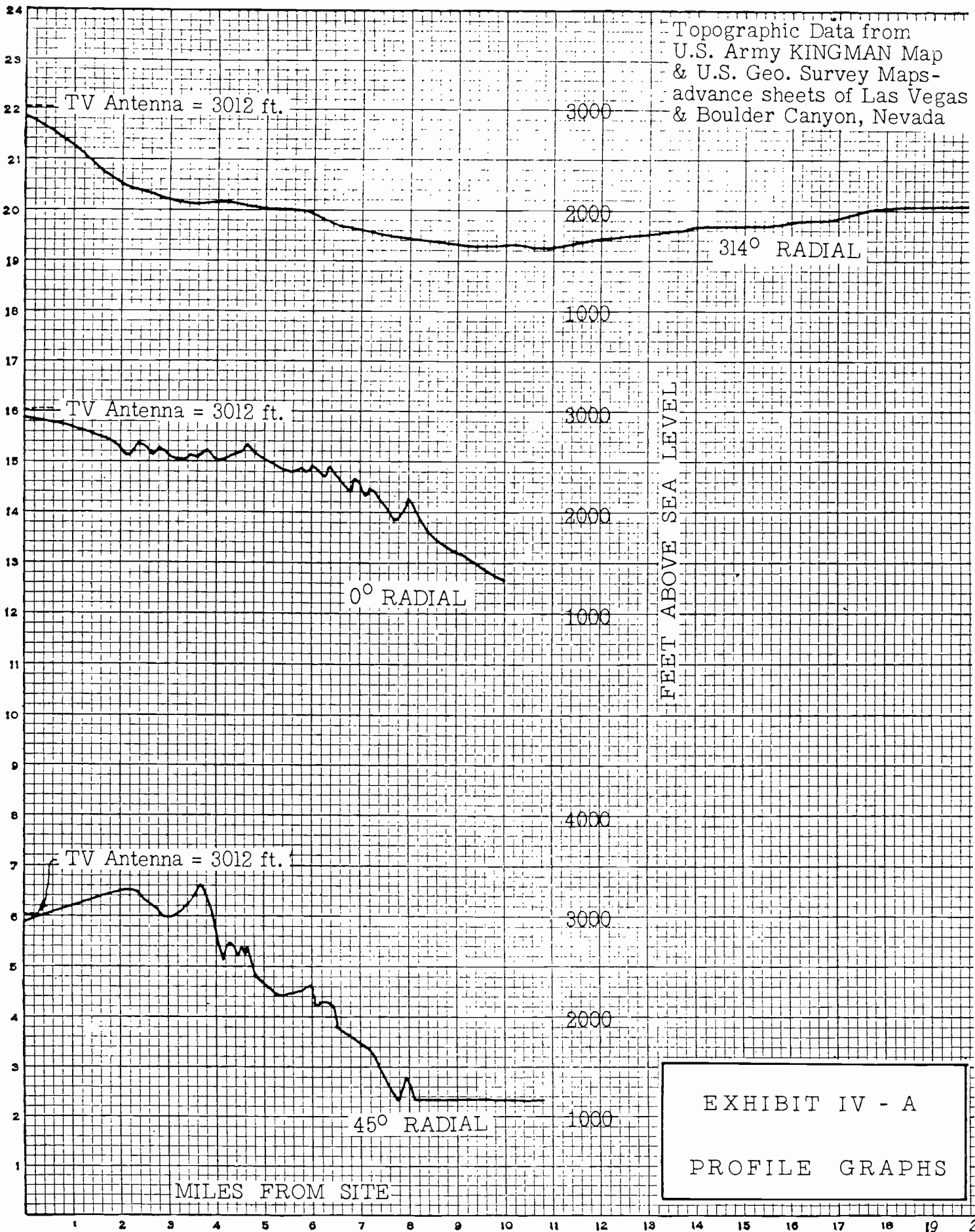
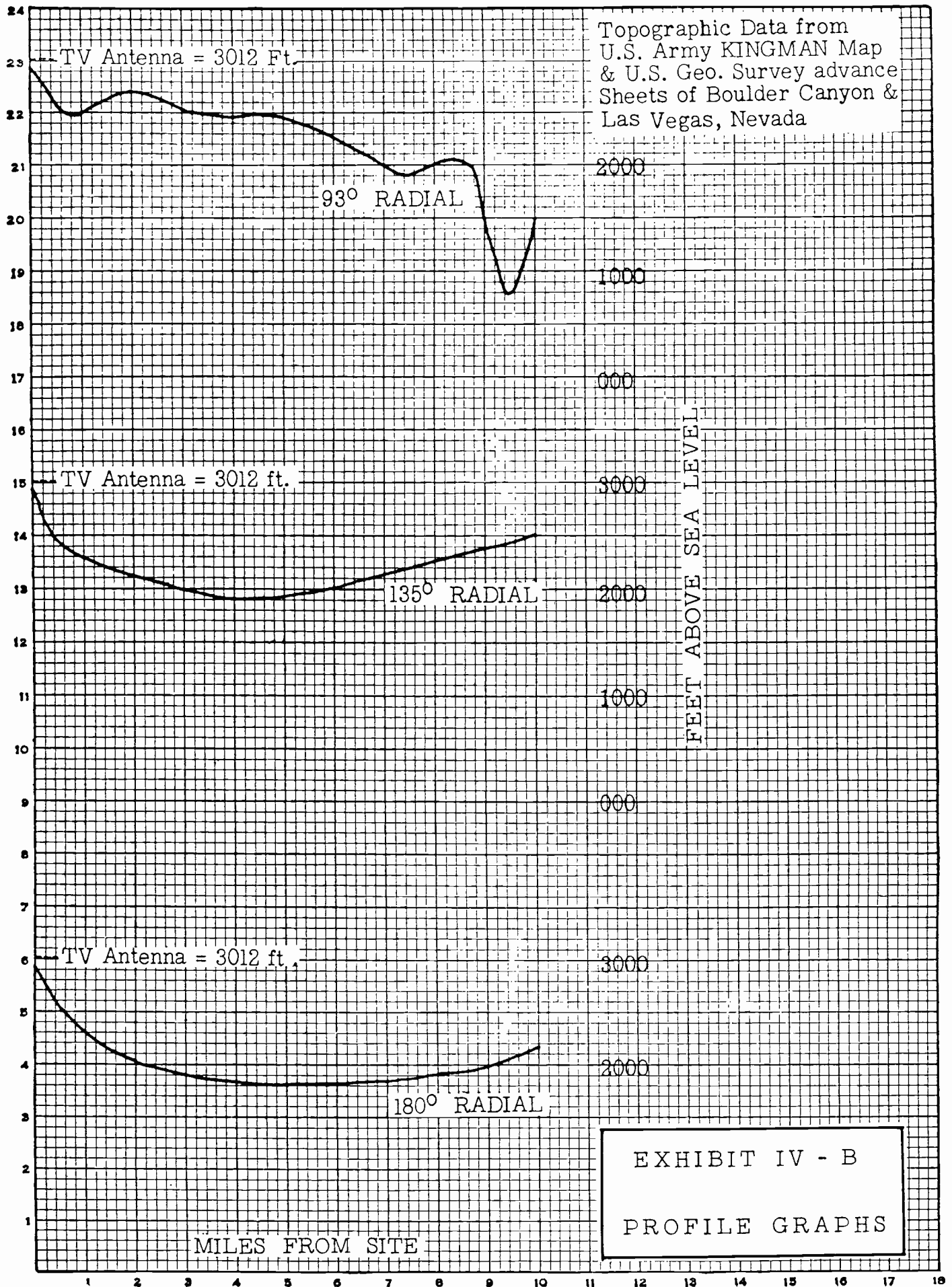


EXHIBIT IV - A
PROFILE GRAPHS



Topographic Data from
U.S. Army KINGMAN Map
& U.S. Geo. Survey advance
sheets of Boulder Canyon
& Las Vegas, Nevada

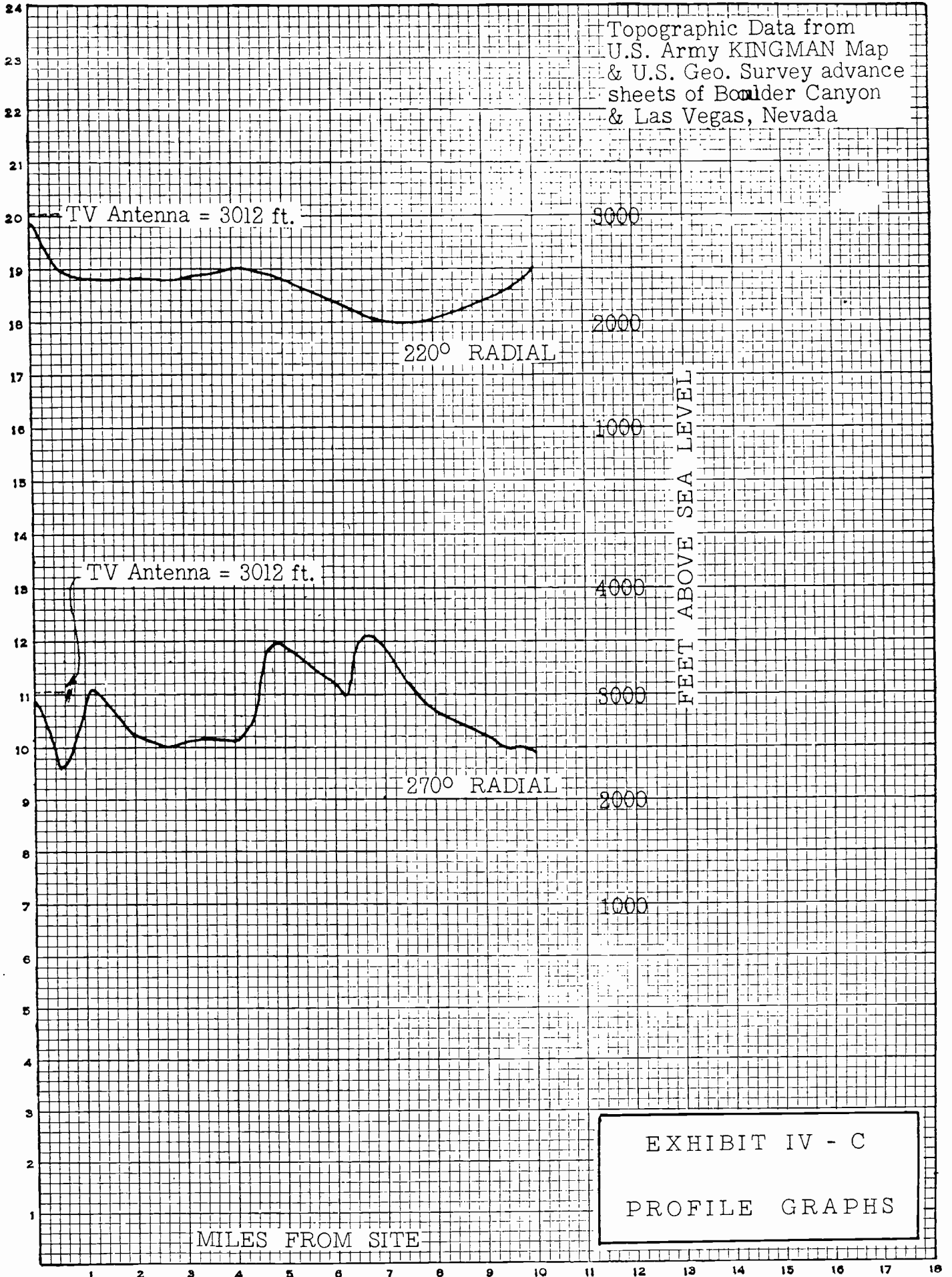
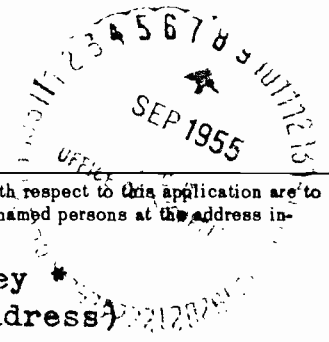


EXHIBIT IV - C
PROFILE GRAPHS

Engr's Copy KLAS-TV

<p>FCC Form 302 April 1953 Section I</p> <p style="text-align: center;">United States of America Federal Communications Commission</p> <p style="text-align: center;">APPLICATION FOR NEW BROADCAST STATION LICENSE</p>	<p>Form Approved Budget Bureau No. 62-R016.11</p> <p style="text-align: right;">File No. 3LCT-360</p> <p>Name and post office address of applicant (See Instruction D) Las Vegas Television, Inc. P. O. Box 711 Las Vegas, Nevada</p>	<p style="text-align: center;">INSTRUCTIONS</p> <p>A. This form is to be used in all cases when applying for a Broadcast Station License. It consists of this part, Section I, and the following sections: Section II-A, License Application Engineering Data Standard Broadcast Section II-B, License Application Engineering Data FM Broadcast Section II-C, License Application Engineering Data Television Broadcast</p> <p>B. Prepare and file three copies of this form and all exhibits and swear to one copy. File with Federal Communications Commission, Washington 25, D. C.</p> <p>C. Number exhibits serially in the space provided in the body of the form and list each exhibit in the space provided on page 2 of this Section. Date each exhibit and each antenna pattern.</p> <p>D. The name of the applicant must be stated exactly as it appears on the construction permit which is being covered.</p> <p>E. Information called for by this application which is already on file with the Commission need not be refiled in this application provided (1) the information is now on file in another application or FCC form filed by or on behalf of this applicant; (2) the information is identified fully by reference to the file number (if any), the FCC form number, and the filing date of the application or other form containing the information and the page or paragraph referred to, and (3) after making the reference, the applicant states; "No change since date of filing." Any such reference will be considered to incorporate into this application all information, confidential or otherwise, contained in the application or other form referred to. The incorporated application or other form will thereafter, in its entirety, be open to the public.</p> <p>F. This application must be executed by applicant, if an individual; by a partner of applicant, if a partnership; by an officer of applicant, if a corporation or association; or by attorney of applicant only under conditions shown in Section 1.803, Rules Relating to Organization and Practice and Procedure, in which event satisfactory evidence of disability of applicant or his absence from the Continental United States and authority of attorney to act must be submitted with application.</p> <p>G. BE SURE ALL NECESSARY INFORMATION IS FURNISHED AND ALL PARAGRAPHS ARE FULLY ANSWERED. IF ANY PORTIONS OF THE APPLICATION ARE NOT APPLICABLE, SPECIFICALLY SO STATE. DEFECTIVE OR INCOMPLETE APPLICATIONS MAY BE RETURNED WITHOUT CONSIDERATION.</p>								
<p>Notices and communications with respect to this application are to be addressed to the following - named persons at the address indicated</p> <p style="text-align: center;">R. G. Jolley (at above address)</p>										
<p>1. Facilities authorized by construction permit</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Frequency 180-186 MC</td> <td style="width:17%;">Channel No. 8</td> <td style="width:17%;">Power in kilowatts Night 7.2 Day 14.7</td> <td style="width:33%;">Visual Aural</td> </tr> <tr> <td colspan="2">Hours of operation Unlimited</td> <td colspan="2">Call letters KLAS-TV</td> </tr> </table>			Frequency 180-186 MC	Channel No. 8	Power in kilowatts Night 7.2 Day 14.7	Visual Aural	Hours of operation Unlimited		Call letters KLAS-TV	
Frequency 180-186 MC	Channel No. 8	Power in kilowatts Night 7.2 Day 14.7	Visual Aural							
Hours of operation Unlimited		Call letters KLAS-TV								
<p>2. Construction permit covered by this application</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>File number BPCT-1239</td> <td>Date March 18, 1953</td> </tr> <tr> <td>Construction begun March 18, 1953</td> <td>Construction completed September 1, 1955</td> </tr> </table>			File number BPCT-1239	Date March 18, 1953	Construction begun March 18, 1953	Construction completed September 1, 1955				
File number BPCT-1239	Date March 18, 1953									
Construction begun March 18, 1953	Construction completed September 1, 1955									
<p>Is the station now in satisfactory operating condition and ready for regular operation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If not, explain</p>										
<p>PROGRAM DATA</p> <p>3. Has applicant any contract, arrangement, or understanding, expressed or implied, with a network organization for the broadcasting of network programs? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Does applicant, in the event this application is granted, propose to broadcast network programs? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If network programs are to be broadcast, state as Exhibit No. A arrangements under which they are to be obtained and attach copies of any contractual arrangement which may have been made. If the arrangement is based on an oral understanding, a written statement of the arrangement should be submitted.</p>										
<p>FINANCIAL DATA</p> <p>4. Give actual costs of making installation for which construction was authorized</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%;">Transmitter proper including tubes \$ 96,281.95</td> <td style="width:25%;">Antenna system, including antenna-ground system, coupling equipment, transmission line \$ 36,144.63</td> <td style="width:25%;">Frequency and modulation monitors \$ 5,000.00</td> <td style="width:25%;">Studio technical equipment, microphones, transcription equipment, etc. \$ 91,339.35</td> </tr> <tr> <td>Acquiring land \$ Leased</td> <td>Acquiring or constructing buildings \$ 38,155.26</td> <td>Other items, state nature \$ -</td> <td>Total \$266,921.19</td> </tr> </table>			Transmitter proper including tubes \$ 96,281.95	Antenna system, including antenna-ground system, coupling equipment, transmission line \$ 36,144.63	Frequency and modulation monitors \$ 5,000.00	Studio technical equipment, microphones, transcription equipment, etc. \$ 91,339.35	Acquiring land \$ Leased	Acquiring or constructing buildings \$ 38,155.26	Other items, state nature \$ -	Total \$266,921.19
Transmitter proper including tubes \$ 96,281.95	Antenna system, including antenna-ground system, coupling equipment, transmission line \$ 36,144.63	Frequency and modulation monitors \$ 5,000.00	Studio technical equipment, microphones, transcription equipment, etc. \$ 91,339.35							
Acquiring land \$ Leased	Acquiring or constructing buildings \$ 38,155.26	Other items, state nature \$ -	Total \$266,921.19							



FINANCIAL DATA (Continued)

5. (a) Attach a detailed balance sheet, as at the completion date of the authorized construction, showing applicant's financial position as Exhibit No. B (b) If the actual cost of construction materially exceeds the original estimated cost of construction, attach as Exhibit No. C a detailed statement showing the plan used to finance such construction. (If applicant is licensee of a broadcast station having on file with the Commission an Annual Financial Report (FCC Form 324) showing its financial position within the past 12 months and the request in this application is for a change in existing facilities, these exhibits need not be supplied provided that no substantial reduction in financial position has occurred.)

6. State changes, if any, in capitalization, and report any contracts affecting ownership not shown in the application for construction permit. (If none, so state)

No changes

7. Apart from the apparatus constructed, have all the terms, conditions, and obligations set forth in the above-described application for construction permit been fully met? If "No", state exceptions. Yes No

8. Is a request for authority to conduct program tests a part of this application? Yes No

The applicant waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests a station license in accordance with this application. (See Section 304 of the Communications Act of 1934)

The applicant represents that this application is not filed for the purpose of impeding, obstruction, or delaying determination on any other application with which it may be in conflict.

All the statements made in the application and attached exhibits are considered material representations, and all the exhibits are a material part hereof and are incorporated herein as if set out in full in the application.

The applicant, or the undersigned on the applicant's behalf, states that he has endeavored to supply full and correct information as to all matters which are relevant to this application and that he has done so as to all matters within his own knowledge.

Dated this 1st day of September, 19 55.

Las Vegas Television, Inc.

(Name of applicant)

By R. G. Jolley
President and General Manager
 Title

Subscribed and sworn to before

Ralph E. Smith
 Notary Public

me this 1st day of September, 19 55.
 (SEAL)

(Notary public's seal must be affixed where the law of jurisdiction requires, otherwise state the law does not require seal.)

My commission expires January 10, 1959

EXHIBITS furnished as required by this form:

Exhibit No.	Section and Para. No. of Form	Name of officer or employee (1) by whom or (2) under whose direction exhibit was prepared (show which)	Official title
A	I - 3	R. G. Jolley (2)	Pres. & Gen. Mgr.
B, C	I - 5	" "	" " " "
K	II - C, 5	R. E. Smith (1)	Chief Engineer
L	II - C, 8	" (1)	" "
M, N, O	II - C, 9	" "	" "
P	II - C, 10	" "	" "

Broadcast Application		FEDERAL COMMUNICATIONS COMMISSION		Section II-C	
LICENSE APPLICATION ENGINEERING DATA TELEVISION BROADCAST			Name of applicant Las Vegas Television, Inc.		
1. Facilities authorized in construction permit			Aural transmitter		
Call letters	Channel No.	File No. of construction permit		D. C. plate current in last radio stage, in amperes	Applied D. C. plate voltage of last radio stage, in volts
KLAS-TV 8	8	BPTC-1239		1.41	3650
Frequency		Carrier frequency		Plate input power to last radio stage in kilowatts	Efficiency factor F of transmitter at operating power in percent
180 — 186		181.24		5.15	53.3% computed
Effective Radiated Power (visual)		Effective Radiated Power (aural)		Transmitter power output	RF transmission line meter reading
In dbk: 14.35		In dbk: 11.66		In dbk: 4.31	185
In kw: 27.2		In kw: 14.7		In kw: 2.7	
Antenna height above average terrain		6. Antenna and transmission line			
140		feet		Antenna make and Type No.	Number of sections
				GS TY-28-F	6
2. Station location (principal community)			Power gain in db		
State Nevada			7.78		
City or town Las Vegas					
3. Transmitter location			Antenna supporting structure		
State Nevada			209' Ideco Triangular Self-Supporting Tower		
City or town 1 mile south of Las Vegas.			Overall height of antenna system above ground in feet		
County Clark			246		
Highway address Hiway 91 at Clark's Desert Inn.			Geographical coordinates of antenna (to nearest second)		
City or town Las Vegas			North latitude 36 08 06		
Street address Wilbur Clark's Desert Inn.			West longitude 115 09 44		
4. Main studio location			If directional antenna is used, give full details including horizontal and vertical plane radiation patterns, as Exhibit No.		
State Nevada			County Clark		
City or town Las Vegas			Street address Hiway 91 at Wilbur Clark's Desert Inn.		
5. Transmitters Installed			Is electrical or mechanical beam tilting employed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Visual			If so, describe fully in Exhibit No. including horizontal and pertinent vertical radiation patterns.		
Make	Type No.	Rated power		Has antenna been altered to provide null fill-in? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
General Electric	TT6E	6.99		If so, describe fully in Exhibit No.	
		In dbk:	5.0	Transmitter	
		In kw:		Communications	
Aural			Make		
Make	Type No.	Rated power		Type No.	
General Electric	TT6E	4.31		Products Co. Inc. Type No. 506	
		In dbk:	2.7	Coaxial cable	
		In kw:		Size (nominal inside transverse dimensions) in inches	
Operating constants			Length in feet		
Visual transmitter (while transmitting black)			3-1/8"		
D. C. plate current in last radio stage, in amperes	Applied D. C. plate voltage of last radio stage, in volts		Power loss in db for this length		
3.1	2850		.42		
Transmitter power output (after vestigial sideband filter, if used, and after multiplexer, if combined)	Multiplexer loss in db, if separate:	Input to transmission line in dbk:		Multiplexer	
6.99	.004	6.986		General Electric	
In dbk: 5.0				Type No. 16C	
In kw:				If emergency antenna or transmission line measures are provided, describe in Exhibit No.	
Transmission line power loss in db	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power		
.42	6.57	7.78	14.35		
			In dbk: 27.2		
			In kw:		
Attach as Exhibit No. K complete information concerning the method of power output determination. If power is measured at output of multiplexer, so state.					
Reading of power output meter (transmission line voltage, current or power; indicate which) while operating at authorized power:					
reflectometer reading on visual peak R. F. power output.					
7. Modulation monitors					
(a) Visual monitor or monitoring equipment					
Demodulator			Type No. (or describe in Exhibit No.) TV-21-B		
(b) Aural monitor					
Make			Type No.		
General Radio			GR1183-T2		
8. Frequency monitors					
(a) Visual monitor					
Make			Normal limits of deviation of carrier frequency shown by monitor		
General Radio			250 high to 300 low		
Type No. GR1171-AT2			cps. low to cps. low		

8. (Continued)

(b) Aural monitor

Make

General Radio

Normal limits of deviation of carrier frequency shown by monitor

Type No.

GR1183-T2

100 cps. ^{high} to 400 cps. ^{high}
low _{low}

If either frequency monitor indicates any carrier deviation in excess of the permissible tolerance, describe in Exhibit No. _____ and state the corrective measures taken.

If the carrier frequencies have been measured by other means, describe in Exhibit No. _____, giving the date, method used or frequency measuring service employed, the results obtained and the monitor readings (high or low) at the time.

9. Performance data - Visual transmitter

a. Attach as Exhibit No. _____ data showing the following:

1. Overall attenuation versus frequency of the visual transmitter; **11612**

2. Field strength or voltage of the lower side-band for a modulating frequency of 1.25 mc. or greater, and of the upper side-band for a modulating frequency of 4.75 mc. or greater;

3. A description of the equipment and technique used in making these measurements.

b. Attach as Exhibit No. _____ data demonstrating that the waveform of the transmitted signal conforms to that specified by the standards. Until the form of these measurements may be specified by the Commission, the character of this data is left to the discretion of the applicant.

c. Attach as Exhibit No. _____ a photograph of a test pattern taken from a receiver or monitor connected to the transmitter output.

10. Performance data - Aural transmitter

Attach as Exhibit No. _____ data, diagrams, and appropriate graphs together with description of measurement procedures and instruments with regard to the following: (All measurements shall be made with the equipment adjusted for normal program operation and shall include all circuits between the main studio microphone terminals and the antenna output, including telephone lines, pre-emphasis circuits and any equalizers employed except for microphones, and without compression if a compression amplifier is installed.)

a. Audio frequency response from 50 to 15,000 cycles for approximately 25, 50 and 100 percent modulation. Measurements shall be made on at least the following audio frequencies: 50, 100, 400, 1000, 5000, 10,000 and 15,000 cycles. The frequency response measurements should normally be made without deemphasis; however, standard 75 microsecond deemphasis may be employed in the measuring equipment or system provided the accuracy of the deemphasis circuit is sufficient to insure that the measured response is within the prescribed limits.

b. Audio frequency harmonic distortion for 25, 50 and 100 percent modulation for the fundamental frequencies of 50, 100, 400, 1000 and 5000 cycles. Audio frequency harmonics for 100 percent modulation for fundamental frequencies of 10,000 and 15,000 cycles. Measurements shall normally include harmonics to 30,000 cycles. The distortion measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.

c. Output noise level (frequency modulation) in the band of 50 to 15,000 cycles in decibels below the audio frequency level representing a frequency swing of 25 kilocycles. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.

d. Output noise level (amplitude modulation) in the band of 50 to 15,000 cycles in decibels below the level representing 100 percent amplitude modulation. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.

11. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

Same

I certify that I am the Technical Director, Chief Engineer or Consulting Engineer for the applicant of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Date 1 September 1955

Robert E. Smith
~~XXXXXXXXXX~~ Chief Engineer ~~XXXXXXXXXX~~

KLAS-TV
CHANNEL 8 (-)
LAS VEGAS TELEVISION, INC.
P.O. BOX 711
LAS VEGAS, NEVADA



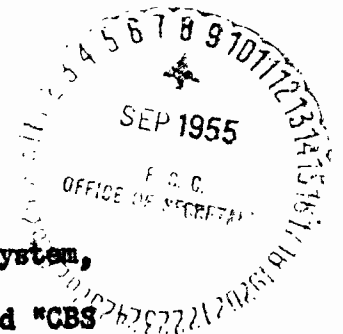
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<u>SECTION</u>	<u>DESCRIPTION</u>
Form 302	Executed copy of FCC Form 302
Ex. A	Copy of affiliation agreements with the CBS Television Network
Ex. B	Financial statement for applicant, Las Vegas Television, Incorporated
Ex. C	Statement of financing of construction costs which exceeded original estimate
Ex. K	Method of determining output power of transmitter
Ex. L	Check of transmitter carrier frequencies and results.
Ex. M	Performance data for visual transmitter amended to conform to FCC Letter 11612, dated October 1, 1954
Ex. N	Photographs and data concerning the waveform of the transmitted signal
Ex. O	Photographs of transmitted test pattern taken from receiver and station monitor
Ex. P	Performance data for aural transmitter and system amended to conform to FCC Letter 11612, dated October 1, 1954
Misc.	Additional information concerning color transmission modifications of transmitter

CBS TELEVISION
A division of Columbia Broadcasting System, Inc.

TELEVISION AFFILIATION AGREEMENT
EXTENDED MARKET GROUP

AGREEMENT made this 21st day of January , 1955 by and
between CBS TELEVISION, a division of Columbia Broadcasting System,
Inc., 485 Madison Avenue, New York 22, New York (herein called "CBS
TELEVISION ") and LAS VEGAS TELEVISION, INC., P. O. BOX 711, Las
Vegas, Nevada
(herein called "Station") licensed to operate television station
KLAS-TV at Las Vegas, Nevada full time on
a frequency of 180 - 186 mc. on Channel number 8 .
CBS Television is engaged in operating a television broadcasting net-
work and in furnishing programs to affiliated television stations
over program transmission facilities leased by CBS Television, by
"off-the-tube" TV recordings, or otherwise. Some of such programs,
herein called "sponsored programs", are sold by CBS Television for
sponsorship by its client-advertisers. All non-sponsored programs
are herein called "sustaining programs". "Network sustaining pro-
grams", "network sponsored programs" and "network programs" as used
herein mean network television programs. Station and CBS Television
recognize that the regular audience of Station will be increased, to
their mutual benefit, if CBS Television provides Station with televi-
sion programs not otherwise locally available.



Accordingly, it is mutually agreed as follows:

1. CBS Television will offer to Station for broadcasting by Station network sustaining programs as hereinafter provided, and network sponsored programs for which clients may request broadcasting by Station and which are consistent with CBS Television's sales and program policies. Network sustaining programs made available by CBS Television are for sustaining use only and may not be sold for local sponsorship or used for any other purpose without the written consent of CBS Television in each instance.

2. This Agreement does not provide for, and CBS Television has no understanding, express or implied, with Station for option time within the purview of subparagraph (d) of Section 3.658 of the Federal Communications Commission rules and regulations. Subject to Station's right to reject network programs as provided in subparagraph (e) of Section 3.658 and subject to all other applicable sections of the rules and regulations of the Federal Communications Commission, Station agrees to accept and broadcast network sponsored programs offered and furnished to Station by CBS Television in time periods to be mutually agreed upon between the parties. If any network sponsored program is accepted by Station for broadcast in a specified time period, Station agrees that such program will continue to be broadcast by Station at the same hour of the day on the same day of the week for the duration of the term of this Agreement, or for the duration of CBS Television's agreement with the sponsor and all renewals thereof, whichever may be the shorter, except as otherwise herein provided.

3. Nothing herein shall be construed (i) with respect to network programs offered pursuant hereto, to prevent or hinder Station from rejecting or refusing network programs which Station reasonably believes to be unsatisfactory or unsuitable, or (ii) with respect to network programs so offered or already contracted for, (A) to prevent Station from rejecting or refusing any program which, in its opinion, is contrary to the public interest, or (B) from substituting a program of outstanding local or national importance. CBS Television may, also, substitute for one or more of the programs offered hereunder other network programs, sponsored or sustaining, of outstanding local or national importance, without any obligation to make any payment on account thereof (other than for the substitute program, if the substitute program is sponsored). In the event of any such rejection, refusal or substitution by either party, it will notify the other by private wire or telegram thereof as soon as practicable.

4. Station will not make either aural or visual commercial spot announcements in the "break" occurring in the course of a single network program or between contiguous network sponsored programs for the same sponsor where the usual station break does not occur.

5. CBS Television will pay Station for broadcasting network sponsored programs furnished by CBS Television as specified in Schedule A, attached hereto and hereby made a part hereof. Payment to Station will be made by CBS Television for network sponsored programs broadcast over Station within twenty (20) days following the

termination of CBS Television's four (4) or five (5) week fiscal period, as the case may be, during which such network sponsored programs were broadcast.

6. The network programs to be offered to Station hereunder will be made available in the form of TV recordings, or, if Station so elects and transmission arrangements satisfactory to CBS Television can be effected, such programs will be made available over coaxial cable or microwave relay transmission lines. Anything contained herein to the contrary notwithstanding, CBS Television shall not be obligated to offer any programs to Station in the form of TV recordings unless CBS Television has the right so to do and shall have made TV recordings for broadcast on stations other than stations affiliated with CBS Television on an Extended Market basis.

7. Station agrees to observe any limitations CBS Television may place on the use of TV recordings and to return to CBS Television, transportation prepaid by Station, immediately following a single broadcast thereof, at such place as CBS Television may direct, and in the same condition as received by Station, ordinary wear and tear excepted, each print or copy of the TV recording of any network program, together with the reels and containers furnished therewith. Each such TV recording shall be used by Station only for the purpose herein contemplated.

8. Station shall pay CBS Television, as a service fee, the sum of Five Dollars (\$5.00) for each program (of whatever length) furnished to Station hereunder by means of TV recording. CBS Television shall have the right from time to time to increase and/or

decrease the service fee by giving Station at least four (4) weeks' notice to such effect, provided, that in the event of any increase in the service fee, Station may terminate this Agreement, effective on or before the effective date of such increase, by giving CBS Television at least two (2) weeks' notice to such effect. Payment of service fees for programs furnished to Station for broadcast during each of the fiscal periods referred to in paragraph 5 hereof shall be made within thirty (30) days following termination of such fiscal period. CBS Television may deduct the aggregate amount of such service fees from sums due Station pursuant to paragraph 5 hereof.

9. Station shall pay all interconnection and transmission charges in connection with the transmission to Station of network programs furnished to Station by coaxial cable and/or microwave relay transmission lines.

10. Neither party hereto shall be liable to the other for claims by third parties, or for failure to operate facilities or supply programs for broadcasting if such failure is due to failure of equipment or action or claims by network clients, labor dispute or any similar or different cause or reason beyond the party's control.

11. The obligations of the parties hereunder are subject to all applicable laws, rules and regulations, present and future, especially including rules and regulations of the Federal Communications Commission.

12. If Station applies to the Federal Communications Commission for consent to a transfer of its license, or proposes to

transfer all or any of its assets without which it would be unable to perform its obligations hereunder, it will procure the agreement of the proposed transferee that, upon the consummation of the transfer, the transferee will assume and perform Station's obligations hereunder, unless CBS Television shall waive this condition in writing.

13. All notices required to be given hereunder shall be given in writing, either by personal delivery or by mail or by telegram or by private wire (except as otherwise expressly herein provided) at the respective addresses of the parties hereto set forth above, or at such other addresses as may be designated in writing by registered mail by either party. Notice given by mail shall be deemed given on the date of mailing thereof. Notice given by telegram shall be deemed given on delivery of such telegram to a telegraph office, charges prepaid or to be billed. Notice given by private wire shall be deemed given on the sending thereof.

14. This Agreement shall be construed in accordance with the laws of the State of New York applicable to contracts fully to be performed therein, and this Agreement cannot be changed or terminated orally.

15. As of the beginning of the term hereof, this Agreement takes the place of, and is substituted for, any and all television affiliation agreements heretofore existing between the parties hereto concerning the market area to which this Agreement relates, subject only to the fulfillment of any accrued obligations thereunder.

16. The term of this Agreement shall begin on January 21, 1955 and shall continue for a period of two (2) years from such date; provided, however, that unless either party shall send written notice to the other at least six (6) months prior to the expiration of the then current two-year period that the party sending such notice does not wish to have the term extended beyond such two-year period, the term of this Agreement shall be automatically extended upon the expiration of the original term and each subsequent extension thereof for an additional period of two years; and provided, further, that this Agreement may be terminated effective at any time by CBS Television by sending written notice to Station at least six (6) months prior to the effective date of termination specified therein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

CBS TELEVISION
A division of Columbia
Broadcasting System, Inc.

By (s) H. T. Aherly

LAS VEGAS TELEVISION, INC.

By (s) R. G. Jolley

SCHEDULE A

(Attached to and forming part of the agreement between CBS Television and LAS VEGAS TELEVISION, INC., dated January 21, 1955.)

This Schedule A contains provisions supplementary to said agreement and in case of any conflict therewith, the provisions of this Schedule A shall govern.)

- I. CBS Television will pay Station for broadcasting network sponsored programs furnished by CBS Television during each week of the term hereof, thirty per cent (30%) of the gross time charges for such week, less the ASCAP and BMI deduction.
- II. The ASCAP and BMI deduction for any week shall be the amount obtained by multiplying thirty per cent (30%) of the gross time charges for such week by the ASCAP and BMI percentage.
- III. As used herein, the term "gross time charges" for any week shall mean the aggregate of the gross card rates charged and received by CBS Television for broadcasting time over Station for all network sponsored programs broadcast by Station during such week at the request of CBS Television.
- IV. As used herein, the term "ASCAP and BMI percentage" shall mean the aggregate of the percentages of CBS Television's "net receipts from sponsors after deductions" and of CBS Television's "net receipts from advertisers after deductions" paid or payable, respectively to American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI) under CBS Television's network blanket license agreements with ASCAP

and BMI. (Currently such percentages are 3.025 and 1.2, respectively.)

V. In the event that CBS Television shall have license agreements with ASCAP or BMI which shall provide for the payment of license fees computed on a basis other than a percentage of CBS Television's "net receipts from sponsors after deductions" or "net receipts from advertisers after deductions", as the case may be, CBS Television shall deduct from each payment to Station, in lieu of the ASCAP and BMI deduction, the proportionate share of music license fees paid or payable by CBS Television which is properly allocable to such payment.

We refer to our affiliation agreement with you dated January 21, 1955 relating to Station KLAS-TV.

It is hereby agreed that, effective June 1, 1955, said agreement is amended and supplemented as follows:

1. From time to time we will, subject to the approval of the network sponsor thereof, offer to you television programs which have been included in our Extended Program Service plan and, subject to the conditions hereinafter set forth, you shall have the right to broadcast such programs by giving us written notice of your acceptance thereof not later than ten days after your receipt of our offer thereof, it being understood that you shall be under no obligation to accept or broadcast any such programs.
2. All programs offered pursuant to the terms hereof are for sustaining use only and you agree that you will not permit any aural or visual announcement to be made, either in the course of such programs or otherwise which may directly or indirectly imply the sponsorship thereof by any sponsor, provided, however, that you may, of course, insert public service messages and/or program promotion announcements in such programs in those places wherein the commercial message has been deleted.
3. Programs accepted by you hereunder may be delivered by us over coaxial cable or radio relay transmission lines or in the form of TV recordings, as we may from time to time elect.
4. You shall have the right to broadcast the programs accepted by you hereunder only on the days and at the times specified in our offer thereof, and you agree to make no other use thereof.
5. You agree to return to us, or forward as per our instructions, shipping expenses prepaid, immediately following a single broadcast thereof, to such place as we may direct, and in the same condition as received by you, ordinary wear and tear excepted, each print or copy of TV recordings furnished hereunder, together with the reels and containers furnished therewith.
6. You agree to pay us, with respect to each program accepted hereunder which is
 - (a) delivered over coaxial cable or radio relay transmission lines, such costs, if any, as we may be required to pay to interconnect your station for the broadcast thereof at the time specified by us,
 - (b) delivered in the form of a TV recording, the sum of Ten Dollars (\$10) per recording.

7. With respect to offers of TV recordings accepted by you hereunder,
- (a) you agree that your acceptance shall be for a minimum of four consecutive weeks, payment to be made for each recording delivered whether broadcast or not as outlined in Paragraph 6(b) above, and
 - (b) we agree that such acceptance may be cancelled effective after such fourth consecutive week on not less than 14 days' prior notice given by letter, telegram, or telephone.
8. We may recapture, on not less than ten days' prior notice to you, any program accepted by you hereunder and may terminate
- (a) said affiliation agreement forthwith upon any breach of paragraph 2 or 4 hereof by you, or
 - (b) this amendment on not less than ten days' prior written notice.
9. We shall not be liable to you for failure to deliver any program accepted by you hereunder if such failure is due to
- (a) causes beyond our control, or
 - (b) the substitution for such program of a program of outstanding local or national importance, if such substituted program is not available under our Extended Program Service plan.

Unless sooner terminated, this amendment shall automatically terminate effective as of the effective date of any expiration or termination of said affiliation agreement.

As herein amended and supplemented, said affiliation agreement is in all respects ratified and affirmed.

GBS TELEVISION, A division of
Columbia Broadcasting System, Inc.

By (s) Edward P. Shurick

Accepted and Agreed

LAS VEGAS TELEVISION, INC.

By (s) R. G. Jolley

Date: June 2, 1955

TELEVISION AFFILIATION AGREEMENT

CBS TELEVISION

A Division of Columbia Broadcasting
System, Inc.

A G R E E M E N T

between

COLUMBIA BROADCASTING SYSTEM, INC.*

485 Madison Avenue, New York, New York and

LAS VEGAS TELEVISION, INC. **

P. O. BOX 711, LAS VEGAS, NEVADA

licensed to operate

Television station KLAS-TV at Las Vegas, Nevada

full time on a frequency of 180-186 m.c. Channel No. 8

COLUMBIA is engaged in operating a television broadcasting network and in furnishing programs to television stations on the network over program transmission facilities leased by COLUMBIA, by "off-the-tube" TV recordings, or otherwise. Some of such programs, herein called "sponsored programs," are sold by COLUMBIA for sponsorship by its client-advertisers. All non-sponsored programs are herein called "sustaining programs." "Network sustaining programs" and "network programs" as used herein mean network television programs. The Station and COLUMBIA recognize that the regular audience of the Station will be increased, to their

*Herein called COLUMBIA. **Herein called the Station.

mutual benefit, if COLUMBIA provides the Station with television programs not otherwise locally available.

Accordingly, it is mutually agreed as follows:

1. COLUMBIA will offer to the Station for broadcasting by the Station network sustaining programs as hereinafter provided, without charge, and COLUMBIA network sponsored programs for which clients may request broadcasting by the Station and which are consistent with COLUMBIA'S sales and program policies. Network sustaining programs made available by COLUMBIA are for sustaining use only and may not be sold for local sponsorship or used for any other purpose without the consent of COLUMBIA in specific instances.

2. The Station will accept and broadcast all network sponsored programs offered and furnished to it by COLUMBIA during network option time; provided, however, that the Station shall be under no obligation to accept or broadcast any COLUMBIA network program (a) on less than 56 days' notice, or (b) for broadcasting during a period in which the Station is obligated by contract to broadcast a program of another network. The Station may, of course, at its election, accept and broadcast network sponsored programs which COLUMBIA may offer within hours other than network option time. The Station will not make either aural or visual commercial spot announcements in the "break" occurring in the course

of a single network program or between contiguous programs for the same sponsor where the usual station break does not occur.

Nothing herein shall be construed (a) with respect to network programs offered pursuant hereto, to prevent or hinder the Station from rejecting or refusing network programs which the station reasonably believes to be unsatisfactory or unsuitable, or (b) with respect to network programs so offered or already contracted for, to prevent the Station from rejecting or refusing any program which, in its opinion, is contrary to the public interest, or from substituting a program of outstanding local or national importance. COLUMBIA may, also, substitute for one or more of the programs offered hereunder other programs, sponsored or sustaining, of outstanding local or national importance, without any obligation to make any payment on account thereof (other than for the substitute program, if the substitute program is sponsored). In the event of any such rejection, refusal or substitution by either party, it will notify the other by wire thereof as soon as practicable.

Hours within network option time (expressed in local time current on the date of broadcast) are as follows:

Daily, including Sunday, 10:00 AM to 1:00 PM,
2:00 PM to 5:00 PM, and 7:30 PM to 10:30 PM

3. COLUMBIA will pay the Station for broadcasting

network sponsored programs furnished by COLUMBIA at the rates specified in Schedule A hereto and hereby in all respects made a part hereof.

Payment to the Station will be made by COLUMBIA for network sponsored programs broadcast over the Station within twenty (20) days following the termination of COLUMBIA'S four or five week fiscal period, as the case may be, during which such sponsored programs were broadcast.

4. COLUMBIA will offer to the Station for broadcasting such network sustaining programs as COLUMBIA is able to deliver or cause to be delivered to the Station over program transmission lines or radio relay links under arrangements satisfactory to COLUMBIA. COLUMBIA shall not be obligated to offer, or make available to the Station hereunder, such network sustaining programs as it may have available in the form of TV recordings, unless COLUMBIA has the right so to do and the Station shall agree to pay COLUMBIA'S charges therefor. When, in the opinion of COLUMBIA, the transmission of network sponsored programs over program transmission lines of radio relay links is for any reason impractical or undesirable, COLUMBIA reserves the right to deliver such program to the Station in the form of TV recordings, or otherwise. The Station agrees to observe any limitations COLUMBIA may place on the use of TV recordings and to return to COLUMBIA, transportation prepaid by Station, immediately following

a single broadcast thereof, at such place as COLUMBIA may direct, and in the same condition as received by Station, ordinary wear and tear excepted, each print or copy of the TV recording of each such program, together with the reels and containers furnished therewith. Each such TV recording shall be used by the Station only for the purpose herein contemplated.

5. Neither party shall be liable to the other for claims by third parties or for failure to operate facilities or supply programs for broadcasting if such failure is due to failure of equipment or action or claims by network clients, labor dispute or any cause or reason beyond the party's control.

6. The obligations under this agreement are subject to all applicable laws, rules and regulations, present and future, especially including rules and regulations of the Federal Communications Commission.

7. If the Station applies to the Federal Communications Commission for consent to a transfer of its license or proposes to transfer all or any of its assets without which it would be unable to perform this agreement, it will procure the agreement of the proposed transferee that, upon the consummation of the transfer, the transferee will assume and perform this agreement, unless COLUMBIA shall waive this condition in writing.

8. This agreement has been made in the State of New York and shall be governed by the laws of that State applicable to contracts fully to be performed therein, and this agreement is not subject to oral modification.

9. As of the beginning of the term hereof, this agreement takes the place of and is substituted for any and all television affiliation agreements heretofore existing between the parties hereto, subject only to the fulfillment of any accrued obligations thereunder.

The term of this agreement shall begin on July 20, 1953 and shall continue for a period of two (2) years from such date; provided, however, that unless either party shall send written notice to the other at least six months prior to the expiration of the then current two-year period that the party sending such notice does not wish to have the term extended beyond such two-year period, the term of this agreement shall be automatically extended upon the expiration of the original term and each subsequent extension thereof for an additional period of two years; and provided, further that this agreement may be terminated at any time by either party by sending written notice to the other at least twelve months prior to the effective date of termination thereof.

IN WITNESS WHEREOF, this agreement has been signed
by the parties and dated the 1st day of July, 1953.

COLUMBIA BROADCASTING SYSTEM, INC.

By (s) H. T. Aherly
CBS TELEVISION

Las Vegas Television, Inc.

By (s) Frederick G. Stoye

SCHEDULE A

(Attached to and forming part of Agreement between Columbia Broadcasting System, Inc. and Las Vegas Television, Inc.,

dated July 1, 1953.

This Schedule A contains provisions supplementary to said Agreement and in case of any conflict the provisions of this Schedule A shall govern.)

1. (a) COLUMBIA will pay the Station with respect to the broadcasting of network sponsored programs furnished by COLUMBIA during each week of the term hereof, thirty per cent (30%) of the gross time charges for such week, less the "converted hour" deduction and the ASCAP and BMI deduction.
- (b) The gross time charges for any week shall mean the aggregate of the gross card rates charged and received by COLUMBIA for broadcasting time over the Station for all network sponsored programs broadcast by the Station during that week at the request of COLUMBIA.
- (c) The "converted hour" deduction for each week shall be one hundred fifty per cent (150%) of the amount obtained by dividing the gross time charges for such week by the number of "converted hours" in that week.
- (d) A "converted hour" means an aggregate period of one hour during which there shall be broadcast over the Station one or more network sponsored programs for which COLUMBIA shall charge its Class A time card rate for the Station. An aggregate period of one hour during which there shall be broadcast over the Station one or more network sponsored programs for which COLUMBIA shall charge a percentage of its Class A time card rate, such as its Class B time card rate, shall be the equivalent of the same percentage of a "converted hour." Fractions of an hour shall be treated for all purposes, as their fractional proportions of a full hour within the same time classification.
- (e) The ASCAP and BMI deduction for any week shall be the amount obtained by (i) deducting the "converted hour" deduction for that week from thirty per cent (30%) of the gross time charges for that week, and (ii) multiplying the remainder by the ASCAP and BMI percentage.

- (f) The ASCAP and BMI percentage shall be the aggregate of the percentages of COLUMBIA'S "net receipts from sponsors after deductions" and of COLUMBIA'S "net receipts from advertisers after deduction" paid or payable, respectively, to American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music, Inc. (BMI) under COLUMBIA'S network blanket license agreements with ASCAP and BMI. (Currently such percentages are 3.025 and 1.2, respectively, so that the ASCAP and BMI percentage is 4.225%.)
- (g) In the event that COLUMBIA shall have license agreements with ASCAP and/or BMI which shall provide for the payment of license fees computed on a basis other than a percentage of COLUMBIA'S "net receipts from sponsors after deductions" or "net receipts from advertisers after deduction", as the case may be, COLUMBIA shall deduct from each payment to the Station, in lieu of the ASCAP and BMI deduction, the proportionate share of music license fees paid or payable by COLUMBIA which is properly allocable to such payment.
- II. The obligations of COLUMBIA hereunder are contingent upon its ability to make arrangements satisfactory to it for facilities for transmitting COLUMBIA network programs to the control board of the Station.
- III. Anything contained herein to the contrary notwithstanding, until such time as the Station becomes interconnected by co-axial cable or radio relay program transmission lines
- (i) COLUMBIA shall not be obligated to offer network sustaining programs to the Station, except such programs as COLUMBIA has available in the form of television recordings (and for which Station agrees to pay COLUMBIA'S charges); and
- (ii) network sponsored programs shall be delivered in the form of television recordings; and
- (iii) in lieu of the compensation specified in subparagraph (a) of I of this Schedule A, COLUMBIA will pay the Station with respect to the broadcasting of network sponsored programs furnished by COLUMBIA during each week of the term hereof, thirty per cent (30%) of the gross time charges for such week, less the ASCAP and BMI deduction (and in this case the ASCAP and BMI deduction for any week shall be the amount obtained by multiplying thirty per cent (30%) of the gross time charges for such week by the ASCAP and BMI percentage).

(End of Schedule A)

HAROLD L. EARL
Public Accountant

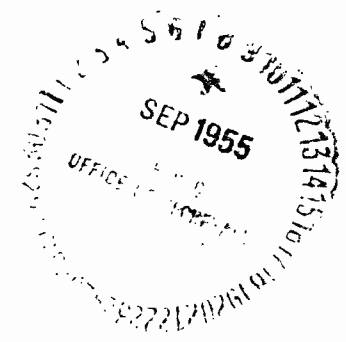
Exhibit B
KLAS-TV
Las Vegas, Ne
August 29, 19

615 So. Fifth St.

Dudley 4-2825

Las Vegas, Nevada

August 11, 1955



Mr. R. G. Jolley, President
Las Vegas Television, Inc.
P. O. Box 711
Las Vegas, Nevada

Dear Sir:

Enclosed are the following statements prepared
from the books of the LAS VEGAS TELEVISION, INC.:

- Exhibit A - Balance Sheet
- Exhibit B - Statement of Revenue & Expenses
- Exhibit C - Accounts Payable

The above statements were made from the
corporation's books without audit verification.

Respectfully submitted,

Harold L. Earl

HLE/gle

LAS VEGAS TELEVISION, INC.

BALANCE SHEET

AS OF JULY 31, 1955

ASSETS

CURRENT ASSETS:

Cash - 1st Nat'l Bk of Nevada	\$ 1,389.60	
Bank of Las Vegas	4,732.36	
Petty Cash	50.00	\$ 6,171.96
Accounts Receivable	\$ 81,350.35	
Less: Res. for Bad Debts	6,371.91	74,978.44
Other Receivables		818.40
Inventory - Tubes & Parts		3,018.12
Office Supplies		600.00
		<hr/>
TOTAL CURRENT ASSETS		\$ 85,586.92

FIXED ASSETS:

Transmitter Equipment	\$ 96,281.95	
Less: Res. for Depr.	17,976.98	\$ 78,304.97
Tower	\$ 9,322.56	
Less: Res. for Depr.	1,260.23	8,062.33
Antenna	\$ 26,822.07	
Less: Res. for Depr.	5,300.53	21,521.54
Control Room Equipment	\$ 18,797.25	
Less: Res. for Depr.	2,281.18	16,516.07
Test Equipment	\$ 3,440.36	
Less: Res. for Depr.	697.64	2,742.72
Studio Equipment	\$ 74,101.74	
Less: Res. for Depr.	14,278.62	59,823.12
Office Furniture & Fixtures	\$ 9,792.01	
Less: Res. for Depr.	1,834.24	7,957.77
Leasehold Improvements	\$ 38,155.26	
Less: Res. for Depr.	8,184.30	29,970.96
Intangible Station Costs	\$ 15,822.30	
Less: Res. for Depr.	3,208.39	12,613.91
		<hr/>
TOTAL FIXED ASSETS		237,513.39

OTHER ASSETS:

Prepaid Lease Expense	\$ 697.52	
Prepaid Insurance	598.13	
Deposits	272.00	
Organization Costs	494.71	
		<hr/>
TOTAL OTHER ASSETS		2,062.36
		<hr/>
TOTAL ASSETS		\$ 325,162.67



LAS VEGAS TELEVISION, INC.BALANCE SHEETAS OF JULY 31, 1955LIABILITIES & NET WORTHCURRENT LIABILITIES:

Accounts Payable - Exhibit C	\$	9,560.71
Notes Payable - DuMont Laboratories		2,489.02
Accrued Payroll		4,108.03
Accrued Payroll Taxes		2,329.08
Accrued Sales Commissions		716.06
Accrued Property Taxes		913.50
Accrued Interest - Stockholders		6,300.00
Accrued ASCAP		5,582.21
Accrued BNI		<u>1,607.96</u>

TOTAL CURRENT LIABILITIES

\$ 33,606.57

FIXED LIABILITIES:

Notes Payable - General Electric Stockholders	\$	113,997.71
		<u>60,000.00</u>

TOTAL FIXED LIABILITIES

173,997.71

NET WORTH:

Capital Stock - Auth. 5000 Shares Par Value \$100.00 per Share	\$	500,000.00
Less: Unissued & Unsubscribed		<u>200,000.00</u>
Total Subscribed Stock	\$	300,000.00
Less: Subscriptions Not Called		<u>150,000.00</u>
Total	\$	150,000.00
Net Loss Thru' 12-31-53	\$	78,049.05
Less: Net Profit-Exhibit B		<u>45,607.44</u>
		<u>32,441.61</u>

TOTAL NET WORTH

\$ 117,558.39

TOTAL LIABILITIES & NET WORTH

\$ 325,162.67

HAROLD L. EARL
 PUBLIC ACCOUNTANT
 DUDLEY 4-2825

615 SOUTH FIFTH STREET

LAS VEGAS, NEVADA

LAS VEGAS TELEVISION, INC.

KLAS-TV

<u>Equipment</u>	<u>Original Estimated Costs</u>	<u>Actual Costs</u>	<u>Difference</u>
(1) Transmitter	\$ 70,000.00	\$ 96,281.95	\$ 26,281.95
(2) Antenna System	10,000.00	36,144.63	26,144.63
(3) Frequency and modulation monitors	5,000.00	5,000.00	-
(4) Studio Technical equipment	60,000.00	91,339.35	31,339.35
(5) Acquiring land	-	-	-
(6) Acquiring or constructing buildings	20,000.00	38,155.26	18,155.26
(7) Roadways, freight, microwave and contingencies	25,000.00	None	(25,000.00)
	<u>\$190,000.00</u>	<u>\$266,921.19</u>	<u>\$ 76,921.19</u>

Method of Financing

- (1) Cash and Notes - See Below
- (2) Same as 1
- (3) Same as 1
- (4) Same as 1
- (5) None
- (6) Paid difference in cash
- (7) Change of transmitter site

Original Cost - 1 through 4	\$228,765.93
Balance due on Notes - July 31, 1955	<u>107,910.44</u>
Cash Paid	<u>\$120,855.49</u>

Notes Payable on Equipment - July 31, 1955

General Electric	\$ 87,626.83	Payable 12 mo. at \$ 3,129.51 per mo.
		Payable 12 mo. at \$ 4,172.68 per mo.
	13,797.25	Payable 5 mo. at \$ 293.56 per mo.
		Payable 12 mo. at \$ 587.12 per mo.
	3,157.34	Payable 12 mo. at \$ 440.34 per mo.
	840.00	Payable 15 mo. at \$ 210.48 per mo.
Total General Elec.	<u>\$ 105,421.42</u>	Payable 8 mo. at \$ 105.00 per mo.
Dumont Television	<u>2,489.02</u>	Payable 3 mo. at \$ 829.67 per mo.
Total	<u>\$ 107,910.44</u>	

LAS VEGAS TELEVISION, INC.
STATEMENT OF REVENUE AND EXPENSE
AS OF JULY 31, 1955



<u>REVENUE:</u>	<u>Month of</u> <u>July 1954</u>	<u>Month of</u> <u>July 1955</u>	<u>Year to</u> <u>Date</u>
<u>Sales of Station Time</u>			
Local: Programs	\$ 17,275.25	\$ 19,929.54	\$ 132,723.83
Announcements	3,054.35	8,098.18	42,520.97
Nat'l: Programs	3,488.80	2,232.28	15,722.38
Announcements	2,075.53	3,317.00	26,819.48
Network	813.00	158.12	2,506.70
	<u>\$ 26,706.93</u>	<u>\$ 33,735.12</u>	<u>\$ 220,293.36</u>
<u>Total Time Sales</u>			
 <u>Other Revenue</u>			
Sale of Film	\$ 5,803.26	\$ 6,795.75	\$ 63,420.47
Sale of Art, Photo & Slides	224.00	327.00	1,967.18
Sale of Talent	1,312.50	1,075.73	8,585.93
Sale of Misc. or Other Items	(29.20)	(111.37)	746.97
	<u>\$ 7,310.56</u>	<u>\$ 8,087.11</u>	<u>\$ 74,720.55</u>
<u>Total Other Revenue</u>			
	<u>\$ 34,017.49</u>	<u>\$ 41,822.23</u>	<u>\$ 295,013.91</u>
<u>TOTAL REVENUE</u>			
 <u>DIRECT EXPENSES:</u>			
Film	\$ 9,232.22	\$ 7,874.23	\$ 65,366.99
Art, Photo & Slides	256.25	274.21	2,831.06
Talent	1,473.45	1,486.66	12,585.88
Advertising Agency Commissions	1,172.41	1,552.67	10,578.34
ASCAP & BMI Fees	512.87	854.06	5,976.92
	<u>\$ 12,647.20</u>	<u>\$ 12,041.83</u>	<u>\$ 97,339.19</u>
<u>Total Direct Expenses</u>			
	<u>\$ 21,370.29</u>	<u>\$ 29,780.40</u>	<u>\$ 197,674.72</u>
<u>NET OPERATING REVENUE</u>			

LAS VEGAS TELEVISION, INC.
STATEMENT OF REVENUE & EXPENSE

As of July 31, 1955

<u>OPERATING EXPENSES:</u>	<u>Month of</u> <u>July 1954</u>	<u>Month of</u> <u>July 1955</u>	<u>Year to</u> <u>Date</u>
<u>Technical Department Expenses</u>			
Salaries	\$ 3,445.99	\$ 3,377.56	\$ 24,164.94
Outside Engineering	31.15	66.25	66.25
Tubes	589.80	768.46	4,244.07
Transmitter Power	162.48	161.14	986.00
Automobile Expense	-	50.00	350.00
Repair & Maint. Tech. Equip.	-	22.70	1,371.33
Other Technical Expense	5.52	-	19.31
<u>Total Technical Dept. Exp.</u>	<u>\$ 4,234.94</u>	<u>\$ 4,446.12</u>	<u>\$ 31,201.90</u>
<u>Program Department Expenses</u>			
Salaries	\$ 3,915.07	\$ 2,550.00	\$ 20,796.21
News Service	527.55	516.65	4,461.58
Royalties & Licenses	60.00	140.00	980.00
Studio Supplies	22.31	59.72	398.91
Studio Lighting	-	-	292.54
Telephone & Telegraph	59.49	64.01	424.38
Automobile Expense	65.00	50.00	500.00
Repair & Maint.-Studio Equip.	182.23	-	352.20
Other Program Expenses	16.60	52.40	593.07
<u>Total Program Dept. Exp.</u>	<u>\$ 4,848.25</u>	<u>\$ 3,432.78</u>	<u>\$ 28,798.89</u>
<u>Sales Department Expenses</u>			
Salaries	\$ 2,927.30	\$ 1,850.00	\$ 14,907.93
Salesmen's Commissions	634.23	1,015.04	5,903.54
Representatives Commissions	490.98	557.74	4,678.10
Telephone & Telegraph	-	64.01	402.49
Advertising	-	527.20	2,589.80
Sales Promotion	13.91	-	343.00
Automobile Expense	455.00	260.00	2,000.00
Other Sales Expenses	50.00	-	-
<u>Total Sales Dept. Exp.</u>	<u>\$ 4,571.42</u>	<u>\$ 4,273.99</u>	

Exhibit B

	<u>Month of</u> <u>July 1954</u>	<u>Month of</u> <u>July 1955</u>	<u>Year to</u> <u>Date</u>
<u>General & Administrative Expenses</u>			
Salaries - Officers	\$ 791.21	\$ 750.00	\$ 5,250.00
Clerical	1,251.55	795.29	6,124.68
Rent	400.00	500.00	3,500.00
Office Supplies	174.93	208.05	731.21
Utilities	177.47	235.70	1,201.88
Telephone & Telegraph	317.55	218.05	1,122.27
Dues & Subscriptions	57.92	123.17	469.52
Stationery & Supplies	144.87	495.85	687.17
Postage	62.53	53.00	483.34
Entertainment	189.11	136.59	878.12
Freight & Cartage	43.55	-	22.07
Travel & Automobile Expense	163.60	594.48	1,575.05
Repair & Maint.-Bldg. & Grounds	368.58	739.36	1,881.19
F.I.C.A.	231.16	188.82	1,520.58
State Unemployment	312.04	205.81	1,990.46
Federal Unemployment	30.01	20.02	211.56
Nevada Industrial Accident	84.05	62.80	488.23
Group Insurance	89.44	112.86	719.74
Insurance	42.88	50.31	361.41
License & Taxes	-	130.50	963.50
Legal & Accounting	200.00	275.00	2,268.25
Discount & Collection Expense	-	108.80	1,055.01
Donations	37.50	-	36.00
Other General & Adm. Expense	200.94	-	292.79
Director's Fees	-	-	240.00
	<hr/>	<hr/>	<hr/>
Total Gen. & Adm. Expense	\$ 5,370.89	\$ 6,003.74	\$ 34,074.53
	<hr/>	<hr/>	<hr/>
TOTAL EXPENSES	\$19,025.50	\$ 18,156.63	\$125,090.39
	<hr/>	<hr/>	<hr/>
NET PROFIT ON OPERATIONS	\$ 2,344.79	\$ 11,623.77	\$ 72,584.33
	<hr/>	<hr/>	<hr/>
Add: Recovery of Bad Debts	-	114.98	340.98
	<hr/>	<hr/>	<hr/>
TOTAL	\$ 2,344.79	\$ 11,738.75	\$ 72,925.31
	<hr/>	<hr/>	<hr/>
Less: Other Expenses			
Depreciation	1,812.85	1,851.86	12,963.02
Amortization	471.60	477.01	3,379.25
Interest	879.07	846.87	5,505.91
Bad Debts	658.74	804.46	5,469.69
	<hr/>	<hr/>	<hr/>
Total Other Expenses	\$ 3,822.26	\$ 3,980.20	\$ 27,317.87
	<hr/>	<hr/>	<hr/>
NET PROFIT	<u>\$ (1,477.47)</u>	<u>\$ 7,758.55</u>	<u>\$ 45,607.44</u>

LAS VEGAS TELEVISION, INC.

ACCOUNTS PAYABLE

As of July 31, 1955

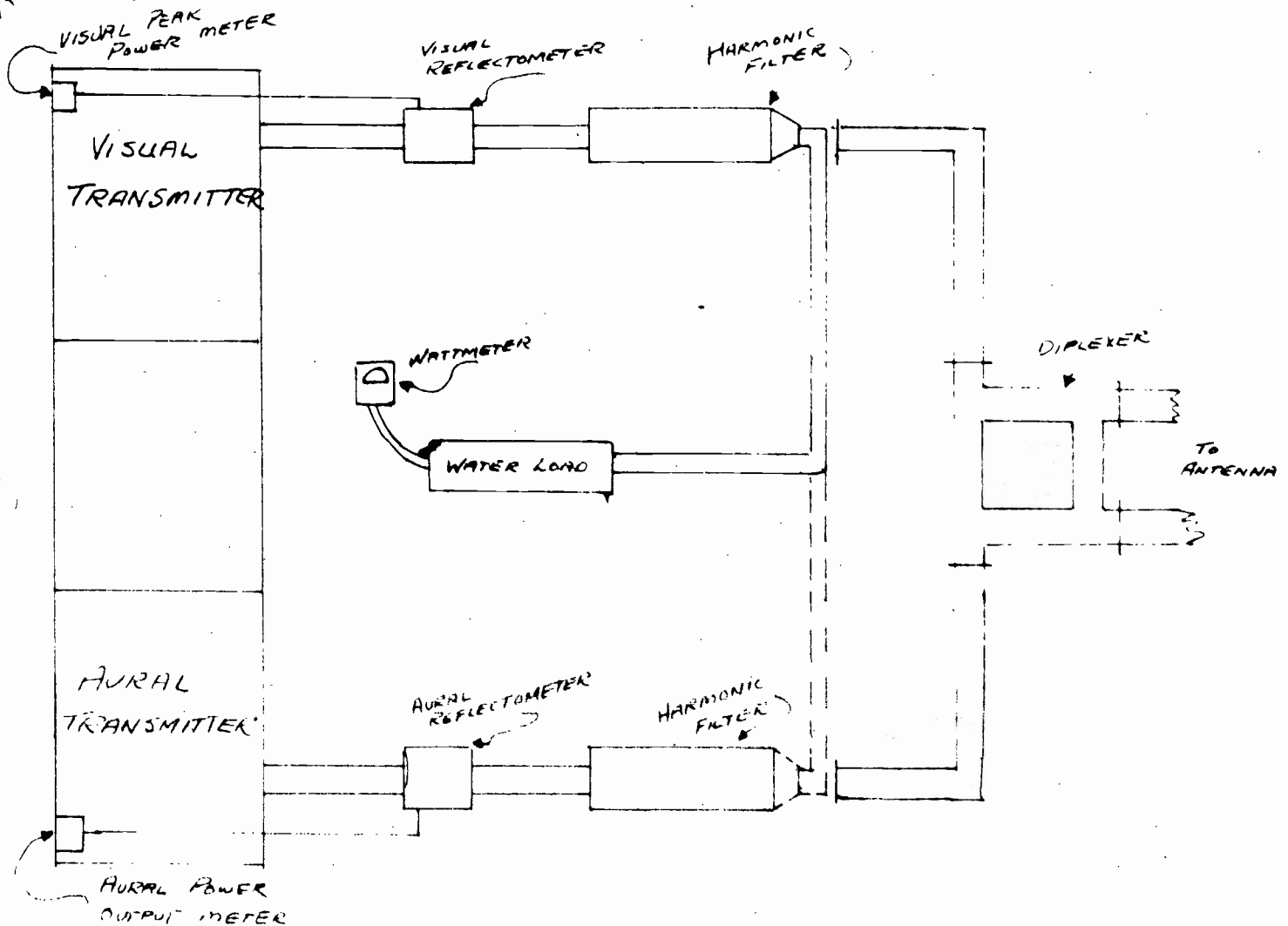
American Broadcasting Co.	\$ 382.20
CBS Television	520.75
CBS Television Film Sales	475.00
Hyman Insurance Agency	225.00
International News Service	30.00
Las Vegas Sun	300.00
McKenna & Wilkinson	1,087.00
MCA - TV	1,890.03
MPTV - Films	1,046.02
National Broadcasting Co.	1,095.40
New England Advertising	88.90
Quality Films	362.40
Ruppert Plumbing	14.67
Screen Gems	427.46
Southern Nevada Telephone	256.04
Texas Rasslin'	175.00
Weed Television	557.74
Ziv Television	<u>627.00</u>
TOTAL	<u>\$ 9,560.71</u>

EXHIBIT K

KLAS-TV, LAS VEGAS, NEV.

PREPARED: 7/28/55

Power output of aural and visual transmitter is determined by attaching an RCA, type MI-19024-A, Water Load and Wattmeter at the "output" of G.E. model 4PY1C1 Harmonic Filter. Wattmeter reading of visual transmitter (transmitting black picture) is multiplied by 1.68 to obtain Peak Power reading. Visual and aural reflectometers are then calibrated for proper readings on POWER OUTPUT meters.



Due to the isolated location of KLAS-TV no regular frequency measuring service is available. T&T Measurements Company made the herein exhibited frequency checks here in Las Vegas with field equipment on July 1, 1955.

VISUAL FREQUENCY CHECK

FREQUENCY MEASUREMENT REPORT

MADE BY THE

T & T RADIO MEASUREMENTS CO.

RADIO ENGINEERING
 CONSULTANTS

2887 ATLANTIC AVENUE
 LONG BEACH 6, CALIFORNIA
 TELEPHONE 4-2015

JAY E. TAPP

NO. OF MEASUREMENT 13020
 ASSIGNED FREQUENCY 181,240 KCS.
 TOLERANCE: PLUS OR MINUS 3624 CPS
 CLASS OF SERVICE TV

Station KLAS-TV
 Box 711
 Las Vegas, Nevada

Attn: Mr. Ralph E. Smith, Chief Engineer

DATE TIME AND ZONE MEASURED FREQUENCY SCHEDULE

July 1, 1955 11:10 A.M. PDST 181,240.000 KC Special

(ZERO deviation from assigned frequency)

The above measurement shows that at the time your station was measured it was found operating within the frequency tolerance limits permitted your class of service by the FCC.

REMARKS:

Confirmation - visual transmitter.

THIS MEASUREMENT WAS MADE BY Jay E. Tapp
 FIELD INTENSITY SURVEYS AM FM TV FX
 ANTENNA MEASUREMENTS
 FIELD ENGINEERING SERVICE
 BROADCAST ALLOCATIONS
 LONG BEACH OFFICE SERVICE AVAILABLE 24 HOURS
 Daily Except Saturday and Sunday
 FOR IMMEDIATE SERVICE TELEPHONE LONG BEACH 4-2015

Plan Your FM and TV with Engineering from T & T.

AURAL FREQUENCY CHECK

FREQUENCY MEASUREMENT REPORT

MADE BY THE

T & T RADIO MEASUREMENTS CO.

RADIO ENGINEERING
 CONSULTANTS

2557 ATLANTIC AVENUE
 LONG BEACH 6, CALIFORNIA
 TELEPHONE 4-2015

JAY E. TAPP

NO. OF MEASUREMENT 13019
 ASSIGNED FREQUENCY 185,740 KCS.
 TOLERANCE: PLUS OR MINUS 3714 CPS
 CLASS OF SERVICE TV

Station KLAS-TV
 P. O. Box 711
 Las Vegas, Nevada

Attn: Mr. Ralph E. Smith, Chief Engineer

DATE TIME AND ZONE MEASURED FREQUENCY SCHEDULE

July 1, 1955 10:45 A.M. PDST 185,740.000 KC Special

(ZERO deviation from assigned frequency)

The above measurement shows that at the time your station was measured it was found operating within the frequency tolerance limits permitted your class of service by the FCC.

REMARKS:

Confirmation - aural transmitter.

THIS MEASUREMENT WAS MADE BY Jay E. Tapp
 FIELD INTENSITY SURVEYS AM FM TV FX
 ANTENNA MEASUREMENTS
 FIELD ENGINEERING SERVICE
 BROADCAST ALLOCATIONS
 LONG BEACH OFFICE SERVICE AVAILABLE 24 HOURS
 Daily Except Saturday and Sunday
 FOR IMMEDIATE SERVICE TELEPHONE LONG BEACH 4-2015

EXHIBIT M
KLAS-TV, LAS VEGAS, NEV.
7/30/55

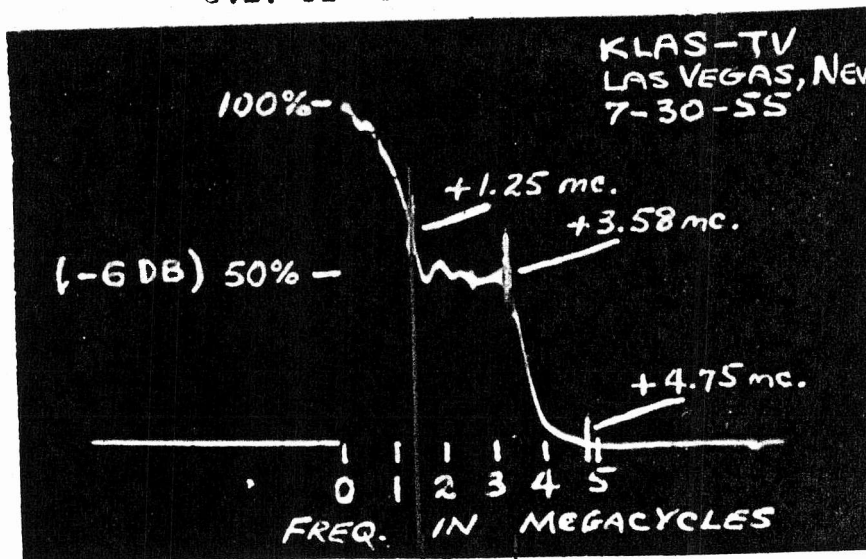
DEMODULATED CURVE VISUAL
TRANSMITTER, 0 TO 4.75 MC

Demodulated curve of TT6E visual transmitter was photographed from a Tektronix 524-D Oscilloscope. Transmitter modulator was fed a 0 to 5 mc. video sweep signal from a Marka-Sweep video sweep generator. Signal from transmission line feeding antenna was detected by a G.E. Demodulator, Model 4TV22-B1 being operated in the "Crystal Detection" position.

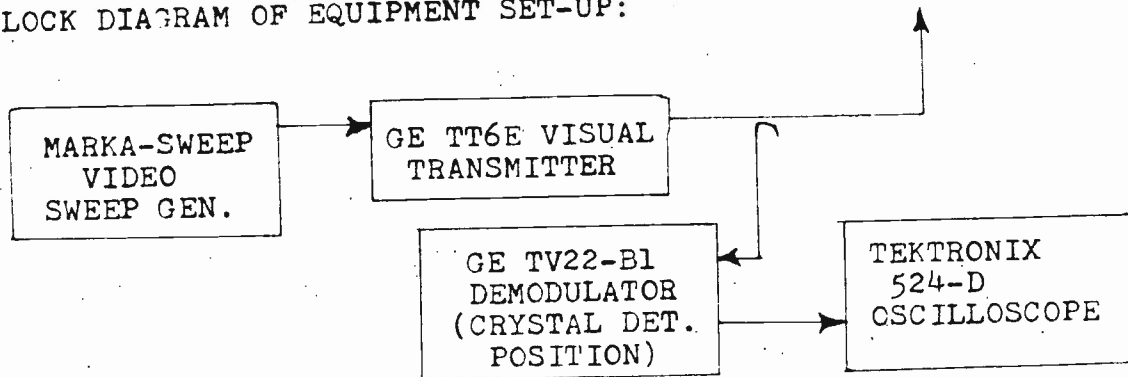
See below photograph of demodulated curve and block diagram of equipment set-up. See next page for graphic comparison with the FCC Ideal Demodulated Curve and the FCC lower tolerance curve.

PHOTOGRAPH OF DEMODULATED CURVE:

G.E. TT6E TRANSMITTER OPERATING INTO
G.E. TY-28 F SIX-BAY ANTENNA



BLOCK DIAGRAM OF EQUIPMENT SET-UP:



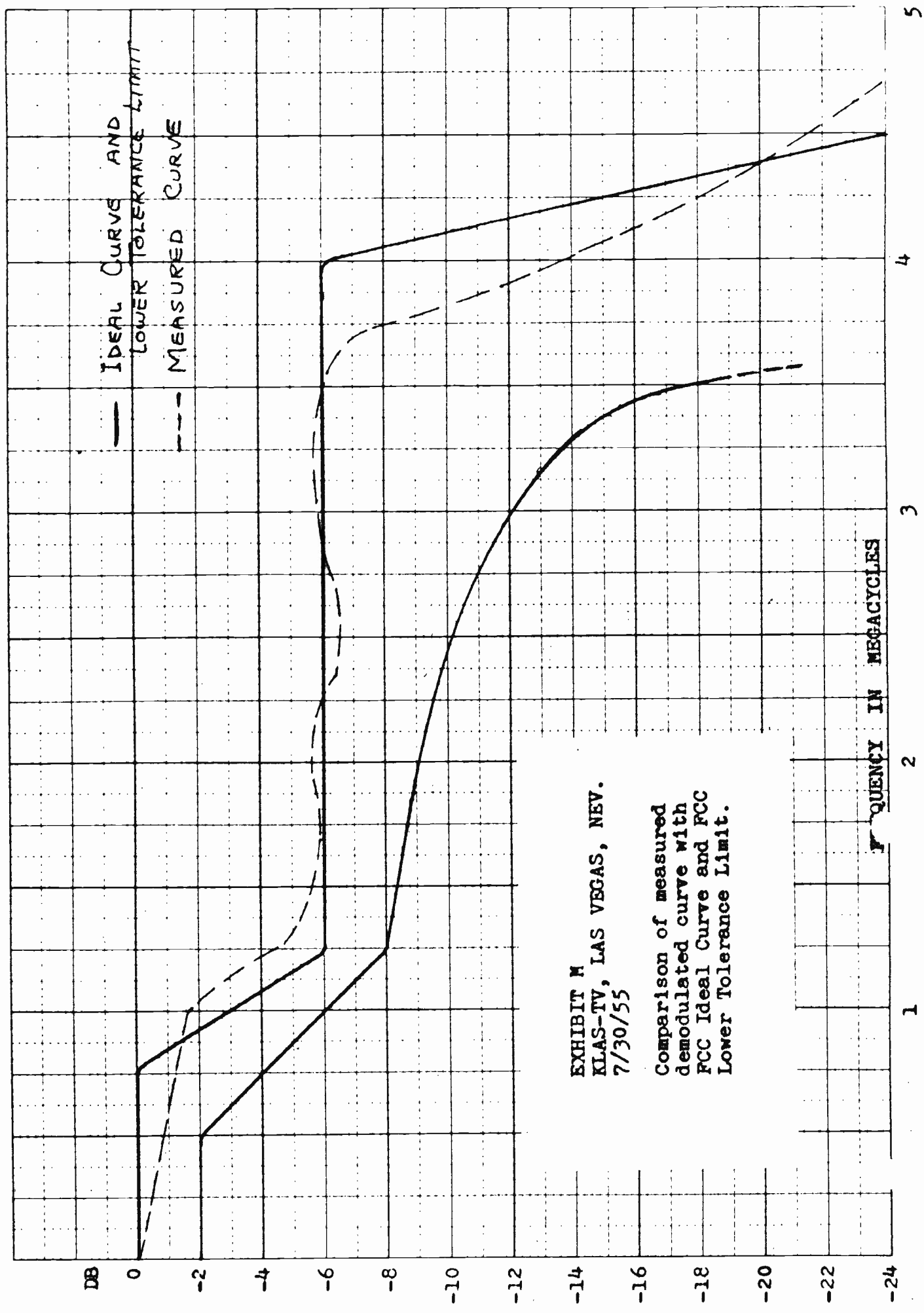


EXHIBIT M
KLAS-TV, LAS VEGAS, NEV.
7/30/55

Comparison of measured
demodulated curve with
FCC Ideal Curve and FCC
Lower Tolerance Limit.

EXHIBIT M
KLAS-TV, LAS VEGAS, NEV.
7/30/55

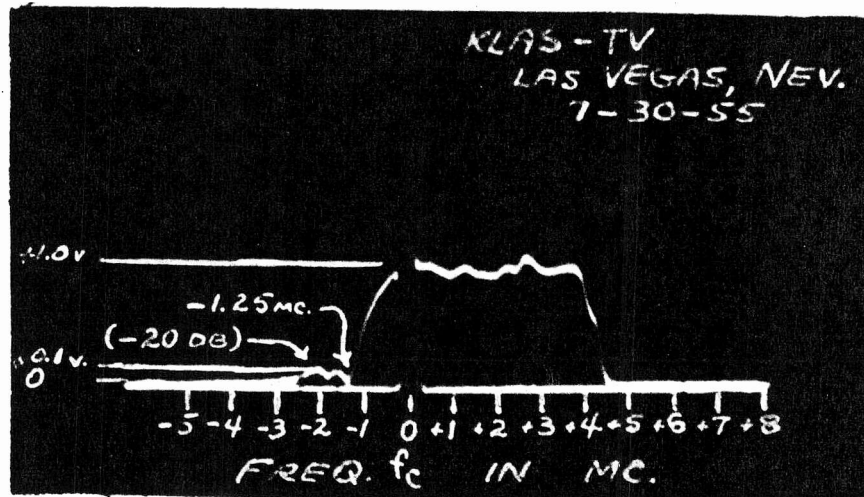
SIDEBAND RESPONSE, -5 TO
+8 MC. FOR VISUAL TRANS-
MITTER

Voltage measurements of the lower sideband to 5 mc below carrier frequency and of the upper sideband to 8 mc above carrier frequency were made on our TT6E Visual Transmitter utilizing an RCA BW-5A Sideband Response Analyzer and a Tektronix 524-D Oscilloscope. Measurements verify that lower sideband is attenuated 20 db or greater for all frequencies below 1.25 mc below carrier and also that upper sideband is attenuated 20 db or more for all frequencies above 4.75 mc above zero carrier. No measureable energy was present in the -3 mc to -5 mc and the +4.75 mc to +8 mc areas.

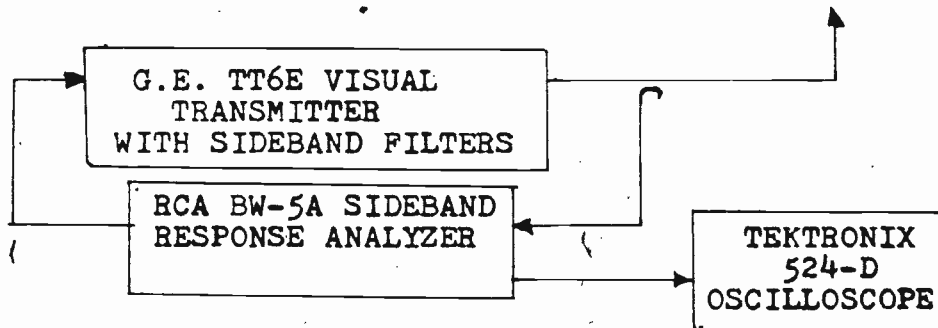
See below photograph of overall sideband response and a block diagram of equipment used.

PHOTOGRAPH OF OVERALL SIDEBAND RESPONSE:

G.E. TT6E TRANSMITTER OPERATING
INTO A G.E. TY28F 6-BAY ANTENNA



BLOCK DIAGRAM OF EQUIPMENT SET-UP:



R.F. HARMONIC MEASURE-
MENTS, VISUAL AND AURAL
TRANSMITTERS

The method used is as shown in Figures 1 and 2, and the results are tabulated in Figure 3.

The transmitter is fed through the harmonic filter at full power or black level, aural transmitter at full power into an RCA NI-19024-A dummy load. A short section of line is inserted containing a directional coupler used as a pick-up loop.

The fundamental was measured first as a calibrating voltage as shown in Figure (1). The voltage from the pick-up loop was fed through several GR-874 GG pads and a GR 874-F low pass filter into a GR 874-MR mixer. The local oscillator voltage was furnished by a GR-1021A oscillator. The mixer current was checked and calibrated for each change of frequency of the local oscillator by the GR-874-VI current indicator. The local oscillator was adjusted to give a beat frequency mixer output of 30 mc. The 30 mc. Intermediate Frequency was fed into a calibrated metering amplifier. This meter is the I.F. amplifier of a Stoddart MN-5 which reads directly in relative db.

After obtaining the fundamental calibrate voltage level, the fundamental rejection filters were inserted as shown in Figure (2). The rejection filters were tuned, which reduced the fundamental voltage in the meter to below the readable limit of the test equipment. The overall sensitivity limit of the test equipment has been established at minus 85 db.

To measure harmonics the local oscillator is tuned to a point 30 mc. below each harmonic and readings taken. This procedure was followed for each harmonic up to and including the 5th for both the aural and visual sections of the transmitter. At frequencies above 500 mc. the F500 low pass filter was replaced by the F1000 filter.

In all cases the harmonic content voltage was more than 85 db below the fundamental. These measurements are tabulated in Figure 3.

In addition to the required measurements, a check was made on the visual transmitter ahead of the harmonic filter. The 2nd harmonic content at this point was found to be 62 db below the fundamental and the higher harmonics were below this figure.

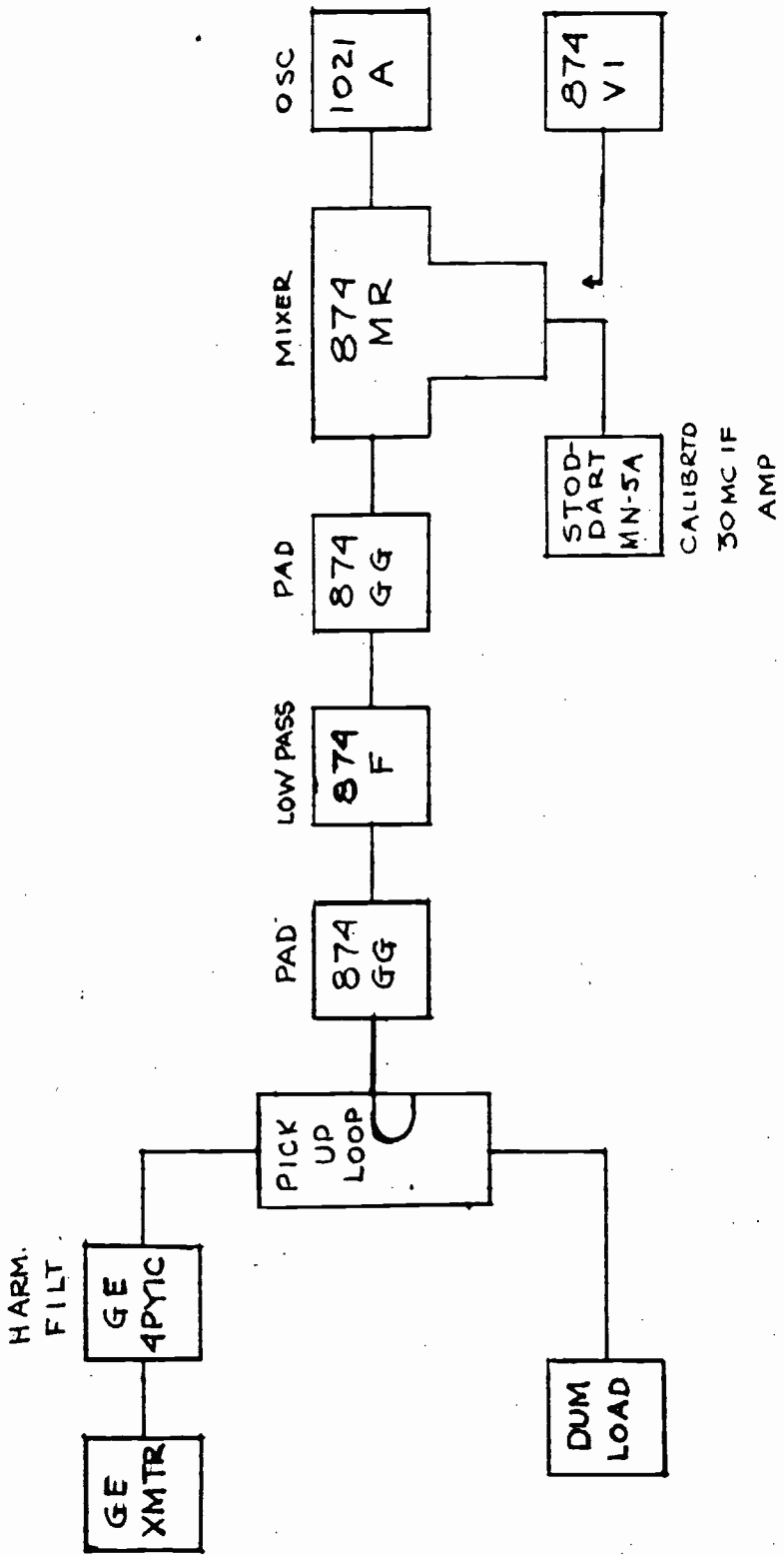


EXHIBIT M, FIGURE 1
 KLAS-TV, LAS VEGAS, NEVADA
 8/31/55

BLOCK DIAGRAM OF EQUIPMENT SET-UP FOR
 OBTAINING FUNDAMENTAL FREQUENCY CALIBRATING
 VOLTAGE FOR R.F. HARMONIC MEASUREMENT FOR
 VISUAL AND AURAL TRANSMITTERS

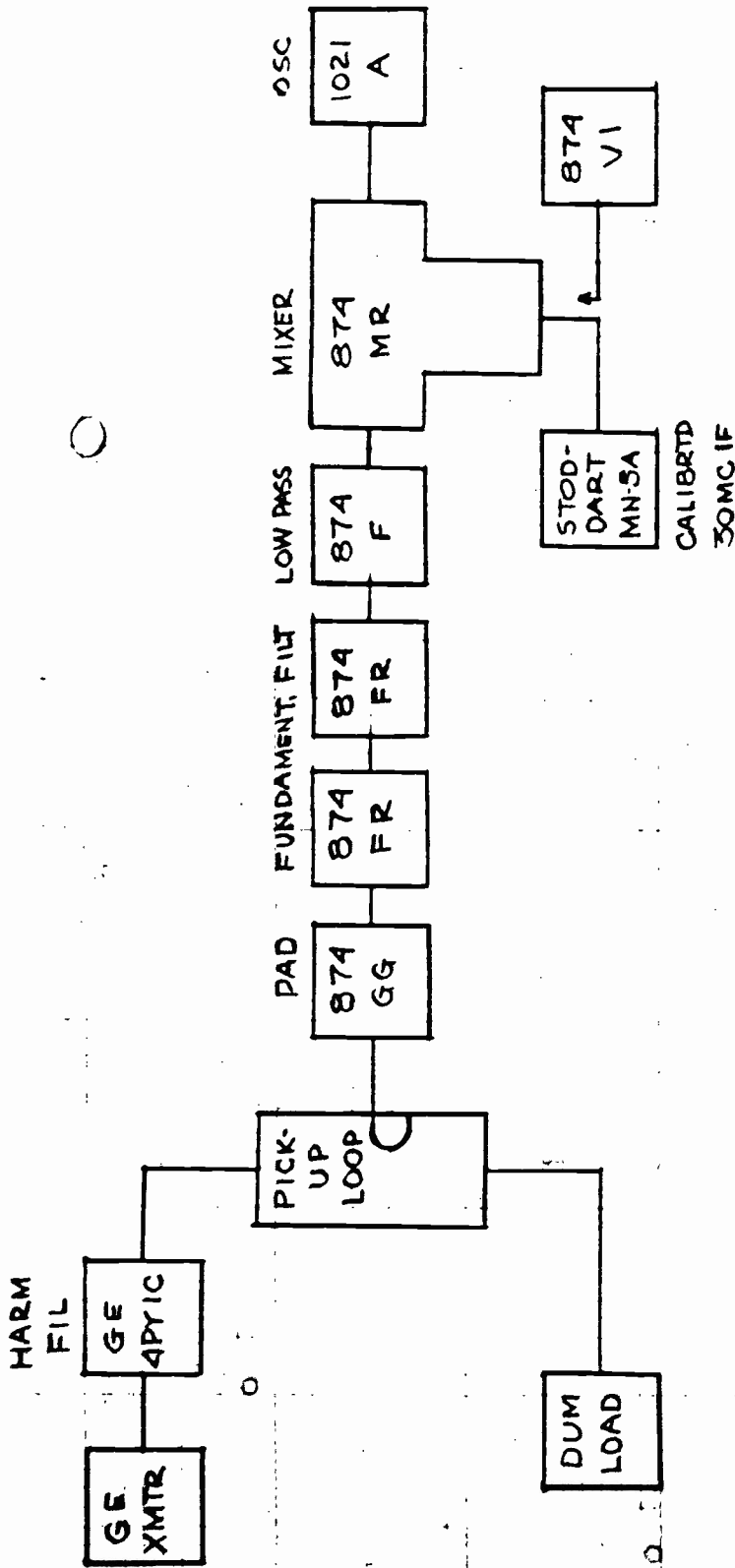


EXHIBIT M, FIGURE 2
 KLAS-TV, LAS VEGAS, NEVADA
 8/31/55

BLOCK DIAGRAM OF EQUIPMENT SET-UP FOR
 MEASUREMENT OF R.F. HARMONICS UP TO 1000 MC
 IN OUTPUT OF VISUAL AND AURAL TRANSMITTERS

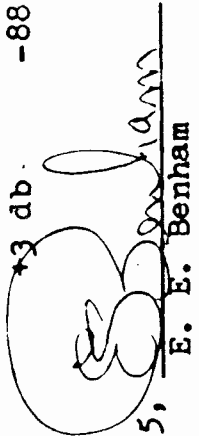
EXHIBIT M, FIGURE 3
 KLAS-TV, CH. 8-, LAS VEGAS, NEVADA
 R.F. HARMONIC MEASUREMENT TABULATION
 VISUAL AND AURAL TRANSMITTERS

VISUAL TRANSMITTER:

HARMONIC	FREQUENCY	LOCAL OSC. SETTING	LOW PASS FILTER	METER READING	PADS REMOVED	CORRECTION FOR LOOP	CORRECTION FOR FILTER	HARMONIC LEVEL
Fundamental (Filter Out)	181.24mc	151.24 mc.	F500	37 db (Calibrate)	---	---	+2 db	---
Fundamental (Filter In)	181.24mc	151.24 mc.	F500	0	---	---	+2 db	---
2nd Har.	362.48	332.48	F500	0	-50 db	-6 db	+3 db	-85 db
3rd "	543.72	513.72	F1000	0	-50 db	-9 db	+3 db	-88 db
4th "	724.96	694.96	F1000	0	-50 db	-12 db	+3 db	-91 db
5th "	906.20	876.20	F1000	0	-50 db	-14 db	+3 db	-93 db

AURAL TRANSMITTER:

Fundamental (Filter out)	185.74	155.74	F500	29 db (Calibrate)	---	---	+2 db	---
Fundamental (Filter In)	185.74	155.74	F500	0	---	---	+2 db	---
2nd Har.	371.48	341.48	F500	0	-50 db	-6 Db	+3 db	-80 db
3rd "	557.22	527.22	F1000	0	-50 db	-9 db	+3 db	-83 db
4th "	742.96	712.96	F1000	0	-50 db	-12 db	+3 db	-86 db
5th "	928.70	898.70	F1000	0	-50 db	-14 db	+3 db	-88 db



Submitted 8/31/55,
 E. E. Benham

EXHIBIT N
KLAS-TV, LAS VEGAS, NEV.
8/24/55

PHOTOGRAPHS OF WAVEFORM
OF TRANSMITTED SIGNAL

Included in this exhibit are two photographs of the transmitted signal derived from the output of the G.E. TV-21B demodulator and displayed on a 524-D Tektronix oscilloscope for photographing. The exhibit was prepared according to instructions in FCC Letter 11612, dated October 1, 1954, showing pedestal level, black level and maximum luminance (white) level as described by Section 3.682(a)(12), (13) and (14). The photographs indicate conformity with the rules showing white level at $12\frac{1}{2}$ percent modulation, black level at $72\frac{1}{2}$ percent modulation and pedestal level at 75 percent modulation. Zero carrier can be seen as a dot on the vertical presentation and a faint trace on horizontal presentation. Action of the "chopper" circuit in the demodulator causes the tilt in the vertical blanking period in the photograph of the vertical presentation.

HORIZONTAL PRESENTATION

VERTICAL PRESENTATION

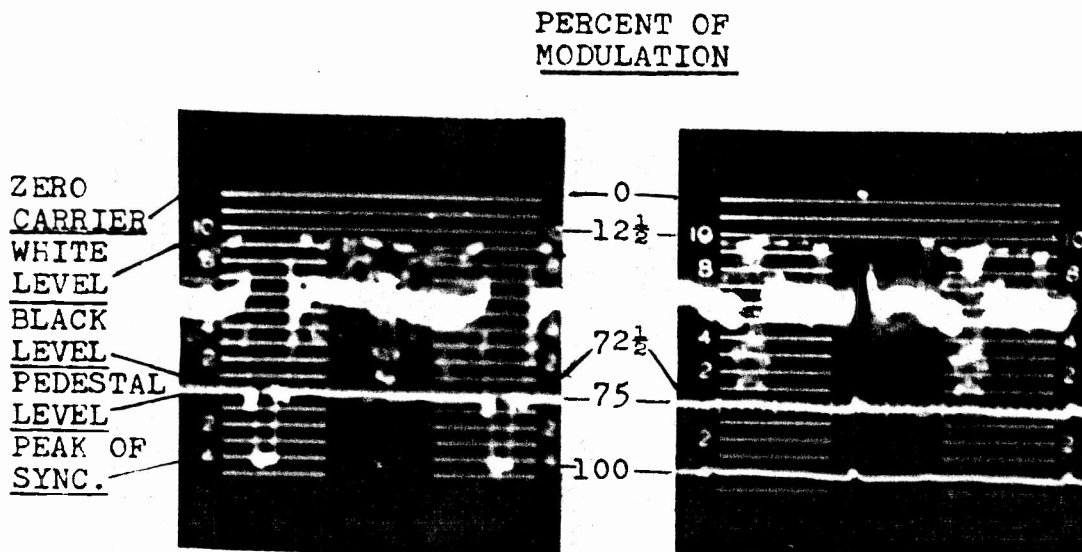


EXHIBIT O
KLAS-TV, LAS VEGAS, NEVADA
8/20/55

PHOTOGRAPHS OF TEST PATTERN
TAKEN "OFF THE AIR"

Included in this exhibit are three photographs taken while transmitter was operating at full power. Test pattern slides were projected into a General Electric PE-5C iconoscope film chain. The two larger photographs were taken from an RCA Model 21-S-362M receiver; the smaller photograph was taken from the station calibration monitor connected to a G.E. TV-22B Demodulator. Faint dark horizontal bars on photographs were caused by reaction between camera shutter speed and television frame rate and were not present in the pictures on monitor and television receiver.

PHOTOGRAPH OF 8-BALL TEST PATTERN (RESOLUTION 325 LINES,
5 GREY-SCALE CIRCLES) TAKEN FROM RCA 21-S-362M RECEIVER:

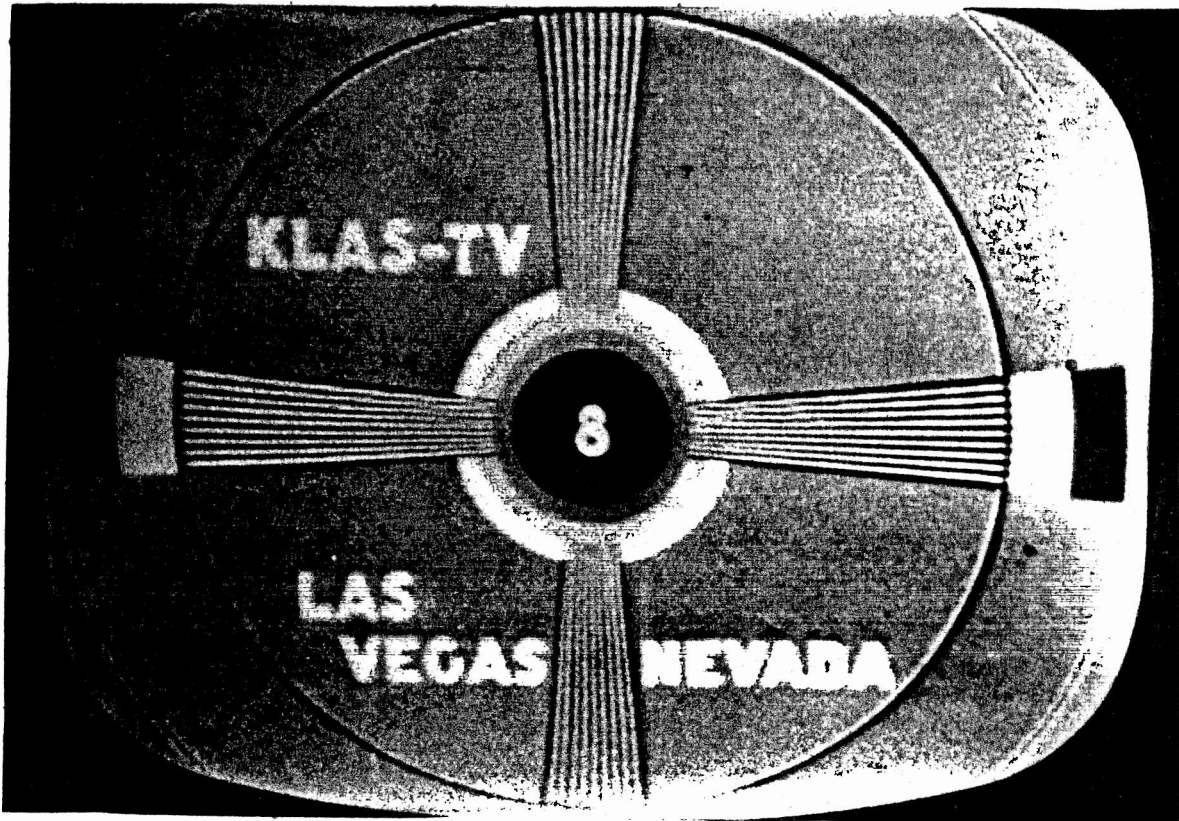
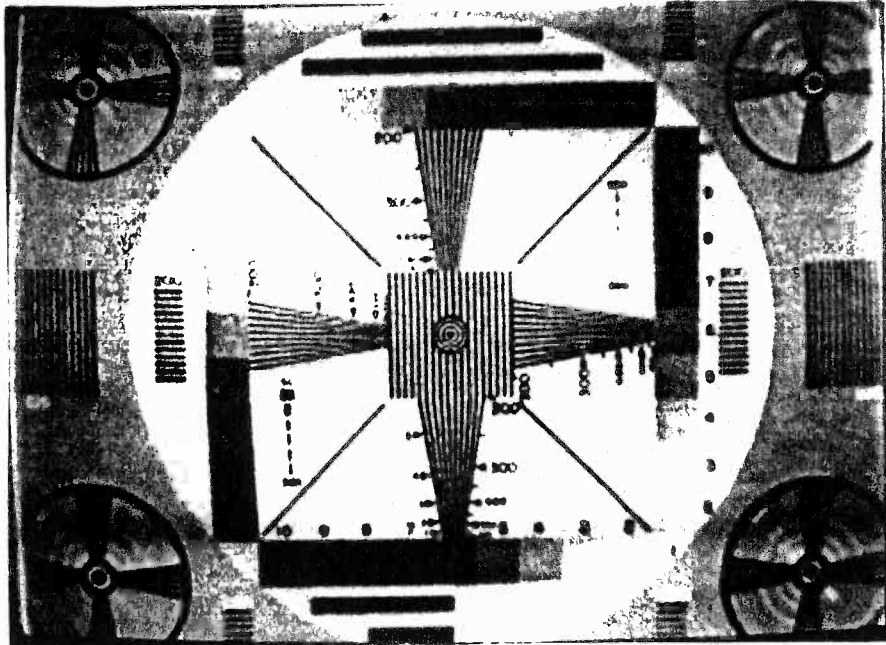


EXHIBIT O
KLAS-TV, LAS VEGAS, NEVADA
8/20/55

PHOTOGRAPHS OF TEST PATTERN
TAKEN "OFF THE AIR"

PHOTOGRAPH OF RTMA TEST PATTERN TAKEN FROM STATION
CALIBRATION MONITOR AND G.E. TV-22B DEMODULATOR:



PHOTOGRAPH OF RTMA TEST PATTERN TAKEN FROM RCA 21-S-362
RECEIVER:

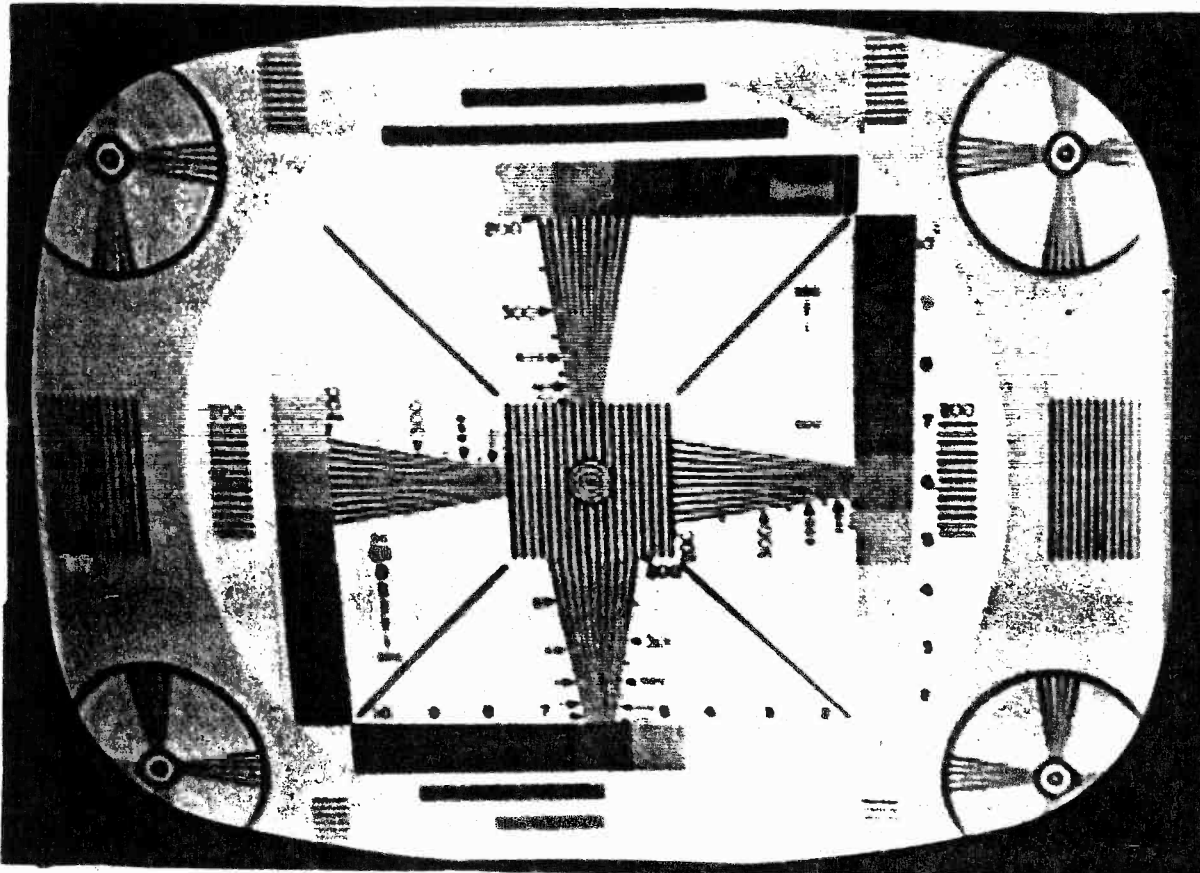
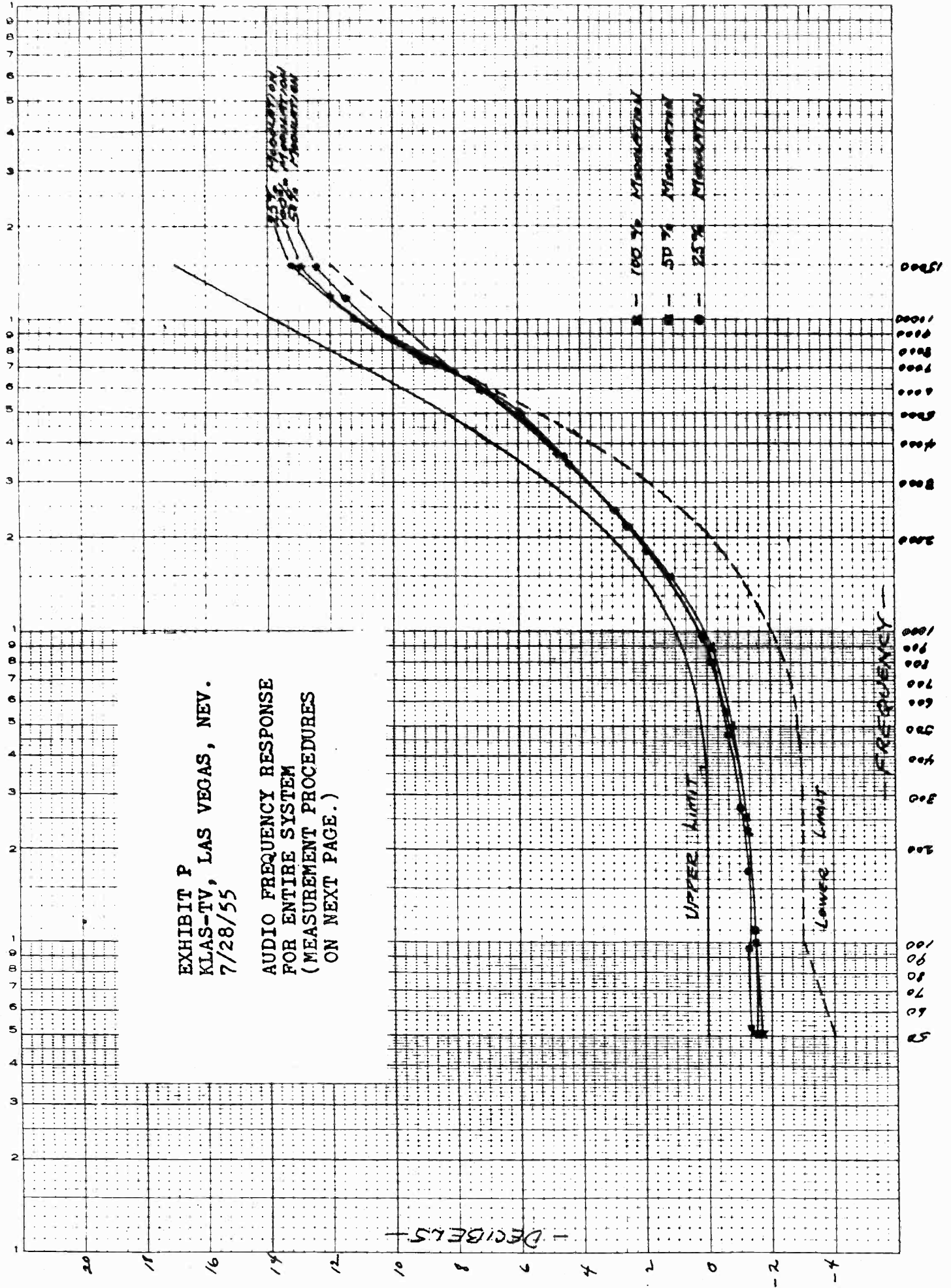


EXHIBIT P
KLAS-TV, LAS VEGAS, NEV.
7/28/55

AUDIO FREQUENCY RESPONSE
FOR ENTIRE SYSTEM
(MEASUREMENT PROCEDURES
ON NEXT PAGE.)



OVERALL FREQ. RESPONSE
 PROCEDURES AND TABLES
 (AUDIO SYSTEM)

For these tests pre-amp and line amplifier gain controls were set at normal operating levels. Limiting amplifier was removed from system. Accuracy of modulation monitor was first checked with heterodyne frequency meter using "Bessel Zero System" from first thru fifth nulls. Tests indicate monitor is accurate within ± 3 percent of theoretical values.

Measurements were taken for frequencies of 50 thru 15,000 cycles at 100, 50, and 25 percent modulation. For each measured frequency the percentage of modulation of transmitter was held constant by varying audio signal generator input level.

Below is table of input levels and frequency response and block diagram of equipment set-up.

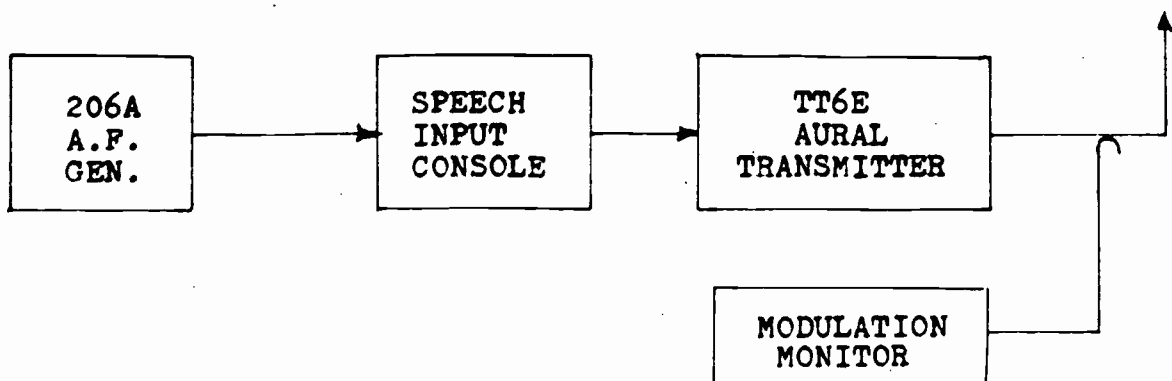
TABLE OF A.F. INPUT LEVELS AND FREQ. RESPONSE:

FREQ.	FOR 100 PERCENT MODULATION		FOR 50 PERCENT MODULATION		FOR 25 PERCENT MODULATION	
	REL. INPUT	FREQ. RESPONSE	REL. INPUT	FREQ. RESPONSE	REL. INPUT	FREQ. RESPONSE
50	-49.8db	-1.7 db	-55.4 db	-1.6 db	-60.3 db	-1.5 db
100	-50.0	-1.5	-55.4	-1.6	-60.5	-1.3
400	-50.5	-1.0	-56.0	-1.0	-61.0	-0.8
1000	-51.5	0	-57.0	0	-61.8	0
5000	-57.6	+6.1	-62.8	+5.8	-68.0	+6.2
7500	-60.0	+8.5	-66.0	+9.0	-70.7	+8.9
10000	-62.6	+11.1	-67.8	+10.8	-73.0	+11.2
15000	-64.5	+13.0	-69.5	+12.5	-75.0	+13.2

BLOCK DIAGRAM OF EQUIPMENT SET-UP:

Equipment:

- Hewlett-Packard 206A Audio Signal Generator
- (Hewlett-Packard 206A has output meter and attenuators)
- General Radio 1183-T2 TV Station Monitor



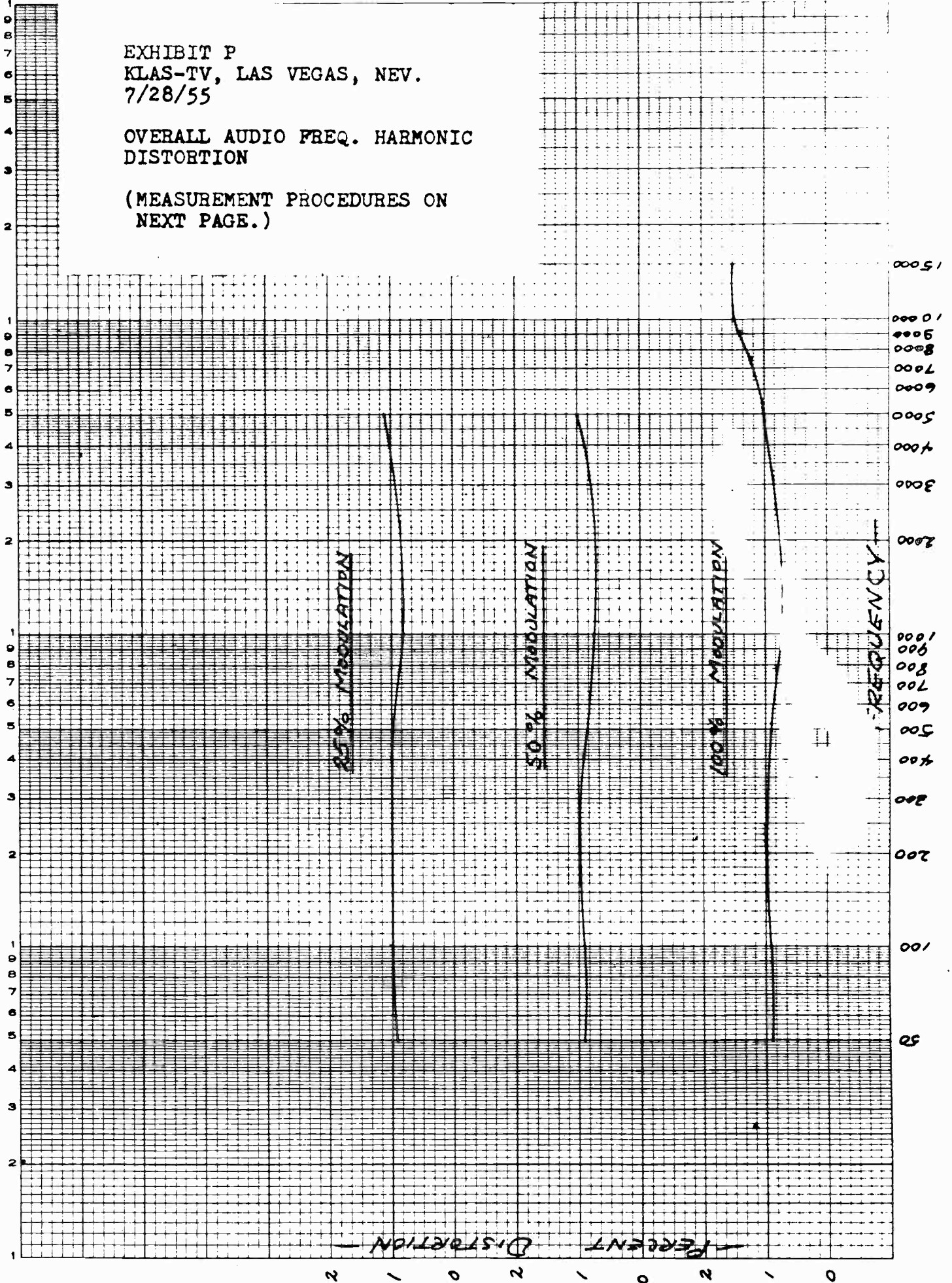
EUGENE DIETZEN CO.
MADE IN U.S.A.

NO. 340R L-112 DIETZEN GRAPH PAPER
SEMI-LOGARITHMIC
4 CYCLES X 12 DIVISIONS PER INCH

EXHIBIT P
KLAS-TV, LAS VEGAS, NEV.
7/28/55

OVERALL AUDIO FREQ. HARMONIC
DISTORTION

(MEASUREMENT PROCEDURES ON
NEXT PAGE.)



OVERALL HARMONIC DISTORTION
 (AUDIO SYSTEM)

Measurements of audio frequency harmonic distortion were made with the equipment set-up shown in block diagram below. Standard 75 micro-second deemphasis is incorporated in the audio system of the General Radio 1183-T2 TV Station Monitor. Measurements were made with gain controls of pre-amplifier and line amplifier in normal operating positions.

Table below shows measured percentages of harmonic distortion for 100, 50, and 25 percent modulation.

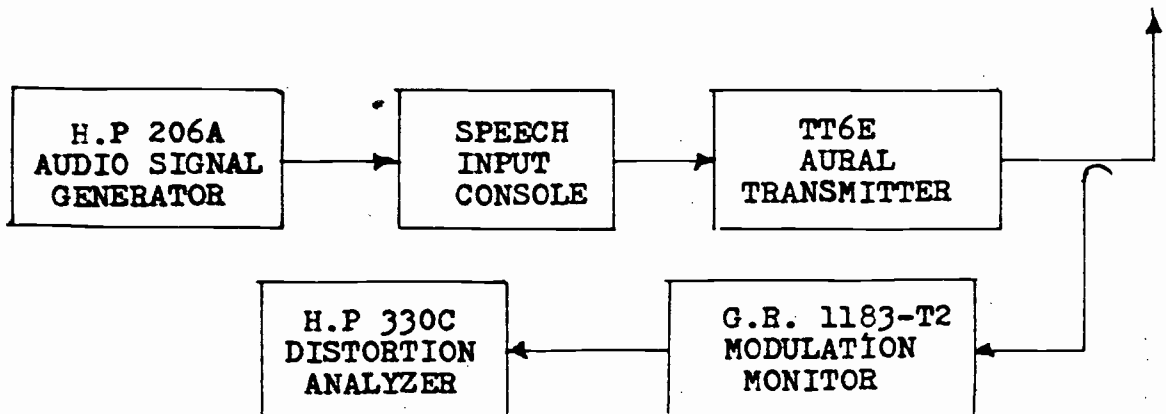
TABLE OF HARMONIC DISTORTION:

<u>FREQUENCY</u>	<u>100 PERCENT MODULATION</u>	<u>50 PERCENT MODULATION</u>	<u>25 PERCENT MODULATION</u>
50 cps	0.9 percent	0.9 percent	0.9 percent
100	0.9	0.9	1.0
400	0.9	0.9	1.0
1000	0.75	0.75	0.8
5000	1.0	1.0	1.1
7500	1.2		
10000	1.5		
15000	1.5		

BLOCK DIAGRAM OF EQUIPMENT SET-UP:

Equipment:

Hewlett-Packard 206A Audio Signal Generator
 Hewlett-Packard 330C Noise & Distortion Analyzer
 General Radio 1183-T2 TV Station Monitor



OVERALL NOISE LEVEL (FM)
OVERALL NOISE LEVEL (AM)
(AUDIO SYSTEM)

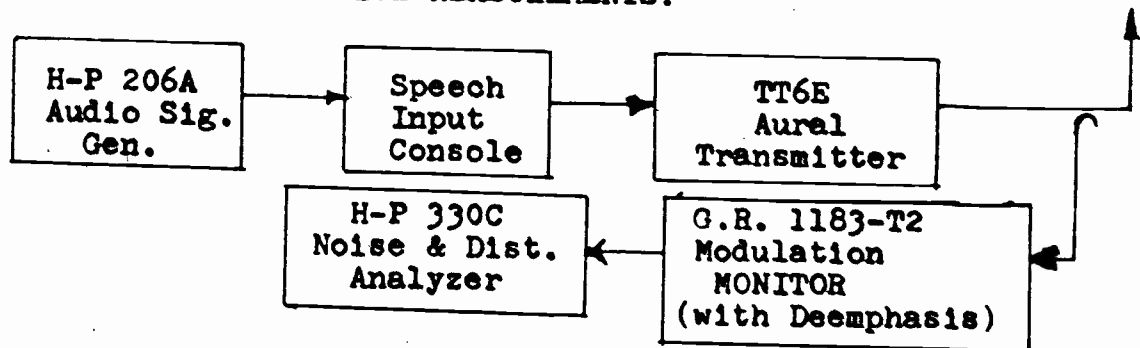
The FM noise level of the audio system was measured with the equipment set-up shown in block diagram below. Measurements were made through three separate pre-amplifiers and on through the audio system with all gain controls in normal operating positions.

Measured FM Noise below 100 percent modulation:

Through Pre-Amp #2 = -60.5 db
Through Pre-Amp #3 = -60.8 db
Through Pre-Amp #4 = -61.5 db

These measurements verify compliance with FCC requirement of -55 db or better.

BLOCK DIAGRAM FM NOISE MEASUREMENTS:



The AM noise level of the audio system was measured with the equipment set-up shown in block diagram below. A sample of the aural transmitter output was demodulated by a composite crystal detector and load containing 75 microsecond de-emphasis. The DC voltage across the load resistor was measured and an AC voltage having a peak value equal to the rectified DC voltage was fed across the load. The H-P 330C Noise meter was adjusted for zero, the AC voltage removed, and the AM noise level measured.

Measured AM Noise Level below 100 percent modulation:

Through Pre-Amp #2 = -52.5 db
Through Pre-Amp #3 = -52.5 db

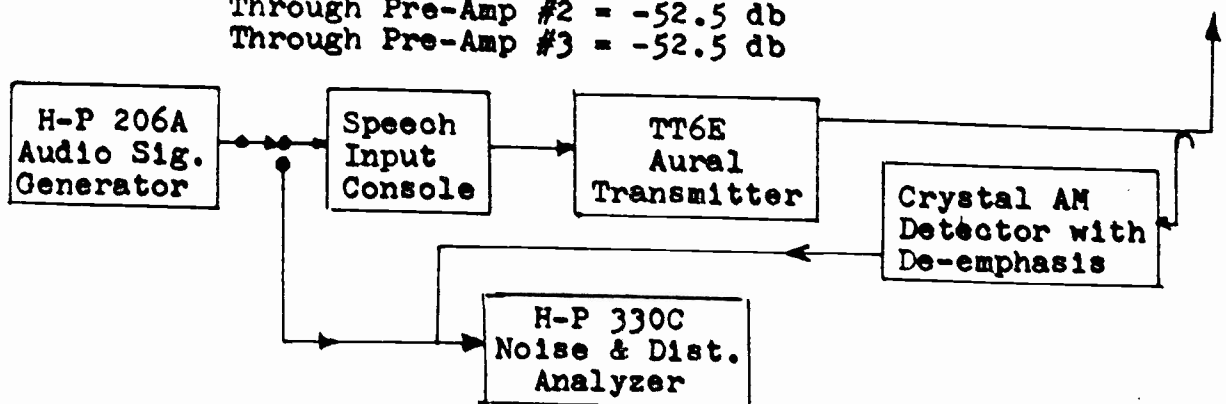


EXHIBIT P
KLAS-TV, LAS VEGAS, NEV.
8/31/55

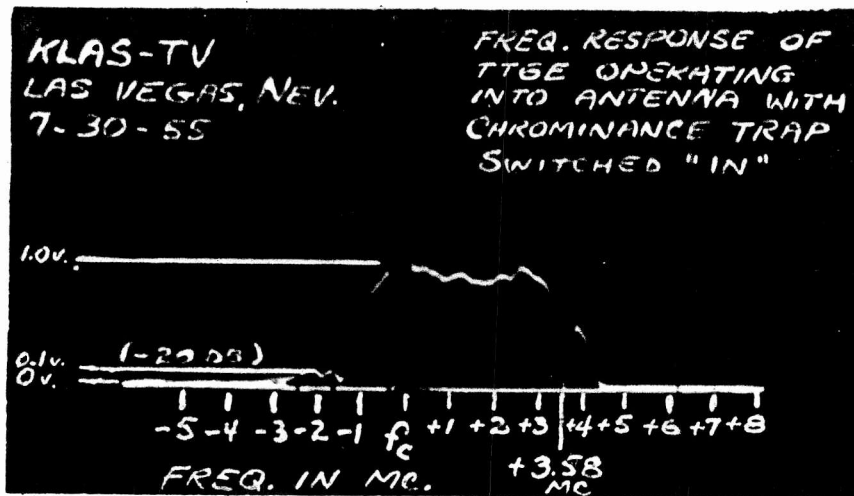
R.F. HARMONIC CONTENT
IN AURAL TRANSMITTED
SIGNAL

R. F. Harmonic measurements were prepared as a single exhibit by Mr. E. E. Benham, Chief Engineer of KTTV, Los Angeles, California. This exhibit constitutes the last portion of EXHIBIT M. For complete information turn to EXHIBIT M.

KLAS-TV, LAS VEGAS, NEV.
7/30/55

INFORMATION REQUIRED BY
FCC LETTER 11612, OCT. 1, '54

- I. Transmitting equipment of KLAS-TV has not been modified to meet color performance requirements per section 3.687.
- II. KLAS-TV does accept color programs from outside sources.
- III. Chrominance portion of such color programs have been attenuated by the installation of a General Electric Monochrome Modification Kit, PL-7145330-G2 in the modulator of our TT6E Visual Transmitter. See below photograph of TT6E transmitter operating into the antenna with chrominance trap switched "in". Photograph was taken utilizing an RCA BW-5A TV Sideband Response Analyzer and a Tektronix 524-D Oscilloscope. Photograph indicates that 3.58 mc and 4.75 mc. points are attenuated more than minimum FCC requirements.



- IV. Does not apply.
- V. Substitute Paragraph 9(a) is attached as EXHIBIT "M".
- VI. Addition to Paragraph 10 is attached as part of EXHIBIT "P".

Not Ref. Discontinued. B.M.P.C.T - 2195

TELEVISION BROADCAST ENGINEERING DATA Name of applicant **Las Vegas Television, Inc.** **KLV5-TV**

1. Purpose of authorization applied for: (Indicate by check mark)

(If application is for a new station or for any of the changes numbered B through E, complete all paragraphs of this form; if change F is of a character which will change coverage or increase the overall height of the antenna structure more than 20 feet, answer all paragraphs, otherwise complete only paragraphs 2 and 3 and the appropriate other paragraphs; for changes G through I, complete only paragraph 2 and the appropriate other paragraphs; for change J, complete only paragraphs 2 and 16)

- A. Construct a new station
- B. Change effective radiated power or antenna height above average terrain
- C. Change transmitter location
- D. Change frequency
- E. Approval of site and antenna
- F. Change antenna system
- G. Change transmitter
- H. Install auxiliary or alternate main transmitter
- I. Other changes (specify)
- J. Change studio location

TELEVISION FACILITIES DIVISION
BROADCAST BUREAU
JUN 17 1954

ENGINEERS COPY

2. Facilities requested

Frequency	Channel number
180 — 186 Mc.	8
Effective Radiated Power (visual)	Antenna height above average terrain in feet. (Must agree with height given in Para. 12 of this Section)
In dbk: 14.22 In kw: 26.53	110.9'

4. Transmitters

(a) Visual		
Make	Type No.	Rated power
General Electric	TT6E	In dbk: 6.99 In kw: 5.0
(b) Aural		
Make	Type No.	Rated power
General Electric	TT6E	In dbk: 4.31 In kw: 2.7

3. (a) Antenna structure

Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station? If "Yes", attach as Exhibit No. complete engineering data thereon. Yes No

Will proposed structure be constructed on the top of an existing structure? If "Yes", describe and give height above ground of existing structure. Yes No

If the above transmitters are composite or of types for which data have not been filed with the F.C.C., attach as Exhibit No. a complete showing of transmitter details in accordance with the Commission's Rules. The showing should include schematic diagrams, makes and types of tubes, operating constants of the last radio stages, full details of frequency control, vestigial sideband filter (if used), multiplex networks and isolation networks. If changes are to be made in a licensed transmitter, include a schematic diagram and give full details of the changes. **On File F.C.C.**

(c) Describe in Exhibit No. means which will be used for determining and maintaining power output of the transmitters to the values specified in this application. **On File F.C.C.**

Overall height in feet above ground. (Do not include the height of any obstruction lighting which may be required.)	Overall height in feet above mean sea level. (Do not include the height of any obstruction lighting which may be required.)
238'	2310'

5. Modulation monitors

(a) Visual monitor or monitoring equipment	
Make	Type No.
General Electric	TV-21-B
(b) Aural monitor	
Make	Type No.
General Radio	GR-1183-T2

Height of antenna radiation center in feet above mean sea level. **2292'**

(b) Antenna data

Visual	
Make	Type No.
General Electric	TY28F
Number of sections	Power gain in db
6	7.78
Aural (if separate) Same as Above.	
Make	Type No.

6. Frequency monitors

(a) Visual monitor		
Make	Type No.	Accuracy
General Radio	GR-1183-T2	0.001%
(b) Aural monitor		
Make	Type No.	Accuracy
General Radio	GR-1183-T2	0.001%

7. If the above monitors or monitoring equipment have not been approved by the F.C.C., include as Exhibit No. a brief technical description of each. **On File F.C.C.**

8. Transmission line proposed to supply power to the antenna from the transmitter

(a) Visual	
Make	Type No.
Communications Products, Co., Inc.	101-506
Number of sections	Power gain in db
Is directional antenna proposed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If "Yes", attach as Exhibit No. complete engineering data thereon.	

Make	Type No.	Description
Communications Products, Co., Inc.	101-506	5.15 ohm concentric
Size (nominal inside transverse dimensions) in inches	Length in feet	Power loss in db for this length
3 1/8"	237'	0.5

8. Transmission line (Continued)

(b) Aural (if separate) **Same as above.**

Make	Type No.	Description
Size (nominal inside transverse dimension) in inches	Length in feet	Power loss in db for this length

10. Will the studios, cameras, microphones, and other equipment proposed for transmission of programs be designed for compliance with the Commission's Rules? Yes No

9. Proposed operation

(a) Visual

Transmitter power output (after vestigial side-band filter, if used)	Multiplexer loss in db:	Input to transmission line in dbk:	
In dbk: 6.99 In kw: 5.0	0.05	6.94	
Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power
0.5	6.44	7.78	In dbk: 14.22 In kw: 26.53

11. (a) Attach as Exhibit No. _____ a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and show drawn thereon the following data:

- Proposed transmitter location—accurately plotted;
- Transmitter location and call letters of all known radio stations (except amateur) and the location of known commercial and government receiving stations within 2 miles of the proposed transmitter location;
- Proposed location of main studio;
- Character of the area within 2 miles of proposed transmitter location, suitably designated as to residential, business, industrial, and rural nature;
- At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location, one or more of which must extend through the principal city or cities to be served.

See Engineering Exhibits I, Ia, & II of EBPCT 1089, GR-5-21-53; No Change

(b) Aural

Transmitter power output	Multiplexer loss in db:	Input to transmission line in dbk:	
In dbk: 4.3 In kw: 2.7	0.05	4.25 (3.93)	
Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power
0.5	3.43	7.78	In dbk: 11.21 In kw: 13.27

(b) Attach as Exhibit No. **II** profile graphs with reasonably large scales for the radials in (a)(5) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction of true north shall be zero azimuth, with angles measured clockwise. Show source of topographical data on each.

12. From the profile graphs in 11(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in the Commission's Rules, supply the following tabulation of data: (Grade A and Grade B contours are those in the absence of interference.)

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10 mi.)	Effective radiated power in radial direction	Predicted distance in miles to the Grade A contour	Predicted distance in miles to the Grade B contour
0	2095	197	14.54 dbk	12.5 mi.	28 mi.
45	1845	147	14.54	19	38
90	1800	192	14.54	21	40
135	1931	362	14.54	18	36
180	2202	90	14.54	9.5	22
225	2470	-168	14.54	9.5 *	21 *
270	2542	-250	14.54	9.5 *	18 *
315	2352	-60	14.54	9.5 *	16 *

* Estimated by practical evaluation of terrain and line of sight considerations.

Antenna height above average terrain **140'9"** feet (Must be identical with Paragraph 2)

13. Attach as Exhibit No. _____ map(s) (Sectional Aeronautical charts where obtainable, preferably without aeronautical overlay) of the area proposed to be served and shown drawn thereon:

(a) Proposed transmitter location and the radials along which the profile graphs have been prepared;

(b) The predicted Grade A and Grade B contours from 12 above;

(c) Scale of miles.

See Engineering Exhibit IV of EBPCT-1089 GR 5-21-53; No Change.

14. Attach as Exhibit No. _____ a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.

See Engineering Exhibit V of EBPCT-1089 GR 5-21-53; No Change.

15. Proposed location of transmitter

State Nevada	County Clark	Geographical coordinates (to be determined to nearest second) of the proposed TV antenna structure.	
City or town 1 MI S. Las Vegas City Limits-Hwy 91	Street address Wilbur Clark's Desert Inn	North latitude 36° 08' 06"	West longitude 115° 09' 44"
How were coordinates determined? From 1/40,000 advance U.S. Topo sheet of area. See also Exhibit I of NBPCT 1089 GR 5-21-53; No Change.			

16. Proposed location of main studio **Same as transmitter site**

State Nevada	County Clark	Other studios proposed None at Present
City or town 1 MI S. Las Vegas City Limits-Hwy 91	Street address, if known. Wilbur Clark's Desert Inn	

17. State the minimum value of field strength in dbu, predicted in accordance with the method prescribed in the Commission's Rules, that will be provided over the entire city in which the main studio is located.

88 (77 Required)

18. (a) Does the proposed transmitter location comply with the minimum separation requirements of the Commission's Rules? Yes No

(b) If any co-channel separations are proposed that are less than the applicable minimum separation requirement plus 20 miles, or if other channel separations are proposed that are less than the applicable minimum separations plus 10 miles, list such separations below. (Include existing stations, proposed stations and assignments; the location and geographical coordinates of each antenna; the distance to each from the proposed transmitter location; and the method used in each instance to measure the distance.) If none, so state.

None

**STATE OF NEVADA)
COUNTY OF CLARK) SS**

Subscribed & sworn to before me this 26th day of March, 1954.

J.P. Embury
Notary Public

My Commission Expires Oct. 15, 1955

My commission expires _____

I certify that I am the Technical Director, Chief Engineer, or Consulting Engineer of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Date **MAR. 26, 1954**

ETER H. GUNDRAS
Technical Director, Chief Engineer or Consulting Engineer

Exhibit A

The instant application is a request by Las Vegas Television, Inc. to modify its outstanding construction permit (BMPCT-1089) to conform to the tower height and power with which KLAS-TV is currently operating under an STA. Upon the granting of this request, KLAS-TV will be in a position to file FCC Form 302 and request regular licensed operation. Minor changes in stockholdings (calling of stock subscriptions and debentures) are shown on 323 Reports on file with the Commission.

Broadcast Application

FEDERAL COMMUNICATIONS COMMISSION

Section V-G (Antenna)

ANTENNA AND SITE INFORMATION
(see instruction B
Section I)

Name of applicant
Las Vegas Television, Inc.
Address where applicant can be reached in person
**Wilbur Clark's Desert Inn
Las Vegas, Nevada**

Since this Section is submitted to the Regional Airspace Subcommittee of the Air Coordinating Committee for clearance in connection with obstructions to air navigation, it is necessary that all the data called for be supplied. Previously and separately filed data must not be incorporated by reference.

Legal Counsel
McKenna & Wilkinson

Address **1735 DeSales Street, N.W.
Washington 6, D. C.**

Consulting Engineer
Grant R. Wrathall

Address
Aptos, California

Class of station Facilities requested

1. Location of antenna
State **Nevada** County **Clark** City or Town **1.0 mi. SW
Las Vegas**

Exact antenna location (street address) (If outside city limits, give distance and direction from, and name of nearest town)
North side Wilbur Clark's Desert Inn 1.0 Mi SW city limits on U.S. Hwy 91.

Geographic coordinates (to be determined to nearest second. For directional antenna give coordinates of center of array.) For single vertical radiator give tower location.

North latitude **35° 08' 06"** West longitude **115° 09' 44"**

3. Designation, distance, and bearing to center line of nearest established airway within 5 miles
203° - 023° 0.5 Mi East

4. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

Landing Area	Distance	Direction
(McCarran - 2.8 Mi. - South		
(Nellis - 10 mi. - N.E.	(d) Vegas Sky Corral - 1.0 mi.	West
(D4C Ranch - 3 Mi. - S.W.	(e) Sky Haven	6.0 Mi. N.N.W.

5. Description of antenna system (If directional, give spacing and orientation of towers).

Steel Tower with Batwing TV Antenna on top.

Type **IDECO**

Description of tower(s) **Triangular**

Self-supporting **Yes**

Guyed

Tubular (Pole)

Tower (height figures should not include obstruction lighting)	Tubular (Pole)					
	#1	#2	#3	#4	#5	#6
Height of radiating elements						
Overall height above ground	37'3"					
Overall height above mean sea level	238'					
	2292'					

If a combination of Standard, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing. **Single Tower.**

Submit as Exhibit No. 1 a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting painting and lighting.

Is the proposed antenna system designed so that obstruction lights may be installed and maintained at the uppermost point(s)?

Yes No

6. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission?

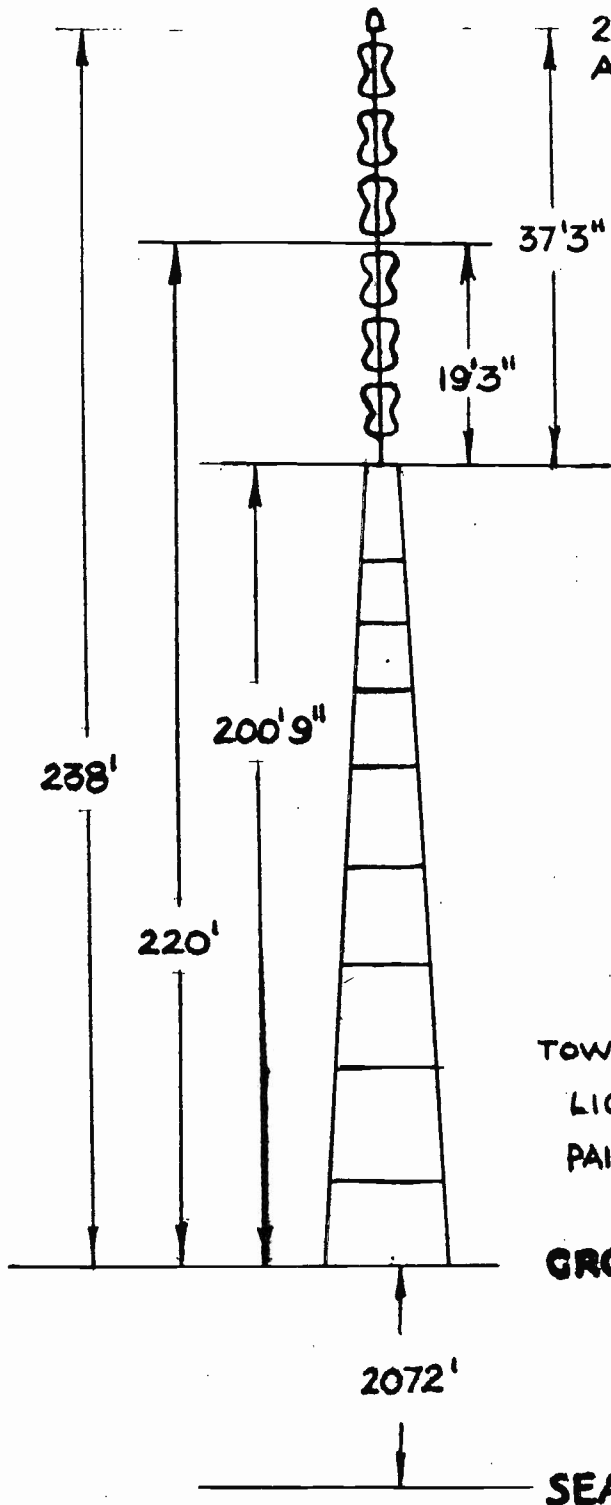
Yes No

Date **March 26, 1954**

If the answer is "Yes", give Call letters **KENO & KORK**

File numbers

/s/ Peter H. Gingras
Signature of Engineer preparing data



2310'
ABOVE M.S.L.

EXHIBIT NO. 1

ANSWER TO QUESTION 5 SECTION V G

VERTICAL
PLAN SKETCH
GE ANTENNA
TYPE TY-28 H

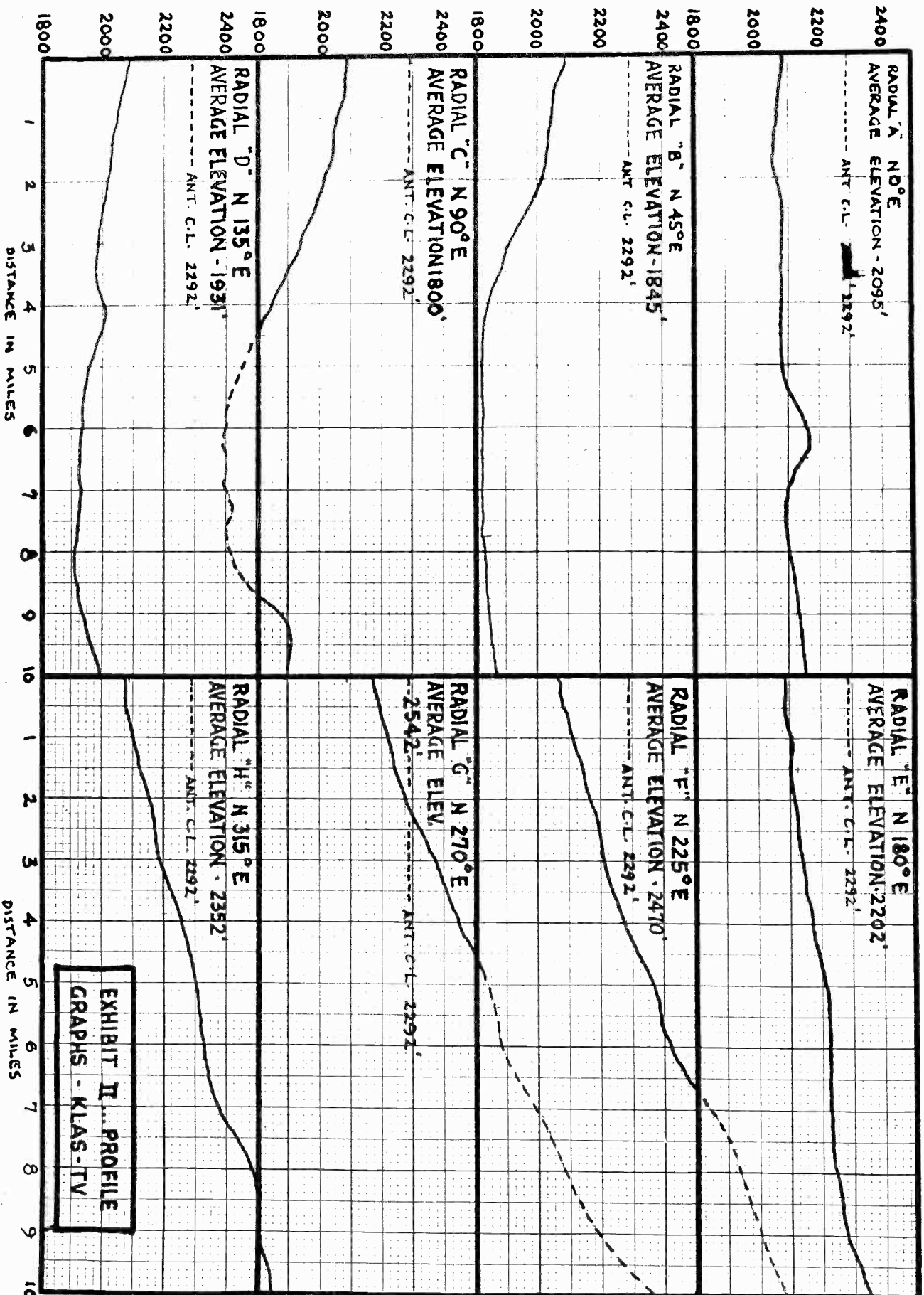
TOWER TYPE - IDECO SELF-SUPPORTING
LIGHTING - AS REQUIRED
PAINTING - AS REQUIRED

GROUND LEVEL

2072'

SEA LEVEL

APPLICANT
LAS VEGAS TELEVISION, INC.
LAS VEGAS, NEVADA



**EXHIBIT II... PROFILE
GRAPHS - KLAS-TV**

LAW OFFICES
MCKENNA & WILKINSON

JAMES A. MCKENNA, JR.
VERNON L. WILKINSON
DAVID S. STEVENS
LEONIDAS R. B. EMERSON

TELEPHONE NATIONAL 8-2931
1028 CONNECTICUT AVENUE
WASHINGTON 6, D. C.

June 29, 1953

Mr. T. J. Slowie, Secretary
Federal Communications Commission
Washington 25, D. C.

Dear Mr. Slowie:

On behalf of Las Vegas Broadcasters, Inc., per-
mittee of television station KLAS-TV, Las Vegas, Nevada,
I hand you herewith application for Special Temporary
Authority to commence equipment tests on July 1 and
program tests on July 15, 1953.

Very truly yours,

Vernon L. Wilkinson

Enclosures

C O P Y

APPLICATION FOR STA **KLAS-TV**

FCC Form 301
Section I

Form Approved
Budget Bureau No. 52-RO14.10

United States of America
Federal Communications Commission

APPLICATION FOR AUTHORITY TO CONSTRUCT A NEW BROADCAST STATION OR MAKE CHANGES IN AN EXISTING BROADCAST STATION (Revised 8-6-52)

INSTRUCTIONS

A. This form is to be used in applying for authority to construct a new AM (standard), commercial FM (frequency modulation), or commercial television broadcast station, or to make changes in existing commercial broadcast stations. This form consists of this part, Section I, and the following sections:

- Section II, Legal Qualifications of Broadcast Applicant
- Section III, Financial Qualifications of Broadcast Applicant
- Section IV, Statement of Program Service of Broadcast Applicant
- Section V-A, Standard Broadcast Engineering Data
- Section V-B, FM Broadcast Engineering Data
- Section V-C, Television Broadcast Engineering Data
- Section V-G, Antenna and Site Information

B. Prepare three copies of this form and all exhibits. Swear to one copy of Section I. Prepare two additional copies (a total of five) of Section V-G and associated exhibits. File all the above with Federal Communications Commission, Washington 25, D. C.

C. Number exhibits serially in the space provided in the body of the form and list each exhibit in the space provided on page 2 of this Section. Show date of preparation of each exhibit, antenna pattern, and map, and show date when each photograph was taken.

D. The name of the applicant stated in Section I hereof shall be the exact corporate name, if a corporation; if a partnership, the names of all partners and the name under which the partnership does business; if an unincorporated association, the name of an executive officer, his office; and the name of the association. In other Sections of the form the name need be only sufficient for identification of the applicant.

E. Information called for by this application which is already on file with the Commission (except that called for in Section V-G) need not be refiled in this application provided (1) the information is now on file in another application or FCC form filed by or on behalf of this applicant; (2) the information is identified fully by reference to the file number (if any), the FCC form number, and the filing date of the application or other form containing the information and the page of paragraph referred to, and (3) after making the reference, the applicant states: "No change since date of filing." Any such reference will be considered to incorporate into this application all information, confidential or otherwise, contained in the application or other form referred to. The incorporated application or other form will thereafter, in its entirety, be open to the public.

F. This application must be executed by applicant, if an individual; by a partner of applicant, if a partnership; by an officer of applicant, if a corporation or association; or by attorney of applicant only under conditions shown in Section 1.303, Rules Relating to Organization and Practice and Procedure, in which event satisfactory evidence of disability of applicant or his absence from the Continental United States and authority of attorney to act must be submitted with application.

G. Before filling out this application, the applicant should familiarize himself with the Communications Act of 1934, as amended, Parts 1, 2, 3 and 17 of the Commission's Rules and Regulations and the Standards of Good Engineering Practice.

H. BE SURE ALL NECESSARY INFORMATION IS FURNISHED AND ALL PARAGRAPHS ARE FULLY ANSWERED. IF ANY PORTIONS OF THE APPLICATION ARE NOT APPLICABLE, SPECIFICALLY SO STATE. DEFECTIVE OR INCOMPLETE APPLICATIONS MAY BE RETURNED WITHOUT CONSIDERATION.

File No. *7-1-53*

Name and post office address of applicant (See Instruction D)

Las Vegas Broadcasters, Inc.
P. O. Box 1510
Las Vegas, Nevada

FEDERAL COMMUNICATIONS COMMISSION
JUN 20 1953
OFFICE OF RECORDS

Send notices and communications to the following-named person at the post office address indicated

Frederick G. Stoye *
(above address)

1. Requested facilities

Frequency	Channel No.	Power in kilowatts		Minimum hours operation daily
		Night	Day	
180-186 mc	8	27.9	27.9	6

Hours of operation

Unlimited	<input checked="" type="checkbox"/>	Sharing with (Specify Stations)	Other (Specify)
Daytime only	<input type="checkbox"/>	None	None
Limited	<input type="checkbox"/>		

Type of station (as Standard, FM, Television)

Television

Location of main studio **3003 South 5th Street**

City **Las Vegas** State **Nevada**

2. If authority to make changes in an existing station is requested **See attached exhibit**

a. Present facilities

Frequency	Call	Channel No.	Power in kilowatts		Minimum hours operation daily
			Night	Day	

Hours of operation

Unlimited	<input type="checkbox"/>	Sharing with (Specify Stations)	Other (Specify)
Daytime only	<input type="checkbox"/>		
Limited	<input type="checkbox"/>		

Location of main studio

City State

b. If this application is for changes in an existing authorization, complete Section I and any other sections necessary to show all substantial changes in information filed with the Commission in prior applications or reports. In the spaces below check Sections submitted herewith and as to Sections not submitted herewith refer to the prior application or report containing the requested information in accordance with Instruction E. (If contemplated expenditures are less than \$1,000, do not complete Section III. Section IV not required for applications for minor changes not involving change in power, change in frequency, change in hours of operation, or moving from city to city.)

Section No. Para. No. Reference (File or Form No. and Date)

- Section II)
- Section III) **See BMPCT-1089, granted**
- Section IV) **May 26, 1953**
- Section V)

Have there been any substantial changes in the information incorporated in this application by reference in this paragraph? Yes No

3. If this application is contingent on the grant of another pending application, state name of other applicant and file number of other application.

Not applicable

FCC Form 301

The applicant hereby waives any claim to the use of any particular frequency or of the ether as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934).

The applicant represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

All the statements made in the application and attached exhibits are considered material representations, and all the exhibits are a material part hereof and are incorporated herein as if set out in full in the application.

The applicant, or the undersigned on the applicant's behalf, states that he has endeavored to supply full and correct information as to all matters which are relevant to this application and that he has done so as to all matters within his own knowledge.


Dated this 27th day of June, 1953

Las Vegas Television, Inc.
(Name of Applicant)

By /s/ Frederick G. Stoye
Treasurer
title

Subscribed and sworn to before me this 27th day of June, 1953

/s/ F. Perry Knowles
Notary Public

 (Notary public's seal must be affixed where the law of jurisdiction requires, otherwise state that law does not require seal.)

My commission expires _____

If applicant is represented by legal or engineering counsel, state name and post office address: Legal, McKenna & Wilkinson, 1028 Connecticut Ave., Washington 6, D. C.; Engineering, Grant Wrathall, Rio Del Mar, Aptos, California

EXHIBITS furnished as required by this form:

Exhibit No.	Section and Para. No. of Form	Name of officer or employee (1) by whom or (2) under whose direction exhibit was prepared (show which)	Official title
<p>This is a request for special temporary authority to commence equipment tests on July 1 and program tests on July 15, 1953, using a single bay batwing antenna pending delivery of the authorized six-bay unit. As shown by the attached engineering report the STA operations here proposed will provide a signal greatly in excess of minimum requirements over the entire city of Las Vegas.</p>			

ENGINEERING DESCRIPTION
PROPOSED TEMPORARY OPERATION
KLAS-TV - LAS VEGAS, NEVADA

RECEIVED
JUN 19 1953
FEDERAL BUREAU OF INVESTIGATION

June, 1953

GRANT R. WRATHALL
Radio Engineer
Aptos, California

A F F I D A V I T

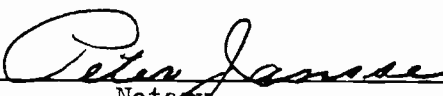
STATE OF CALIFORNIA)
) S S
COUNTY OF SANTA CRUZ)

GRANT R. WRATHALL, having first been duly sworn, on his
oath states that he has prepared the attached engineering
statement and exhibit; That he believes all parts of same
to be true and correct.



Grant R. Wrathall

Subscribed and sworn to before me this 19th day of June, 1953.



Notary

My Commission Expires April 3rd 1954

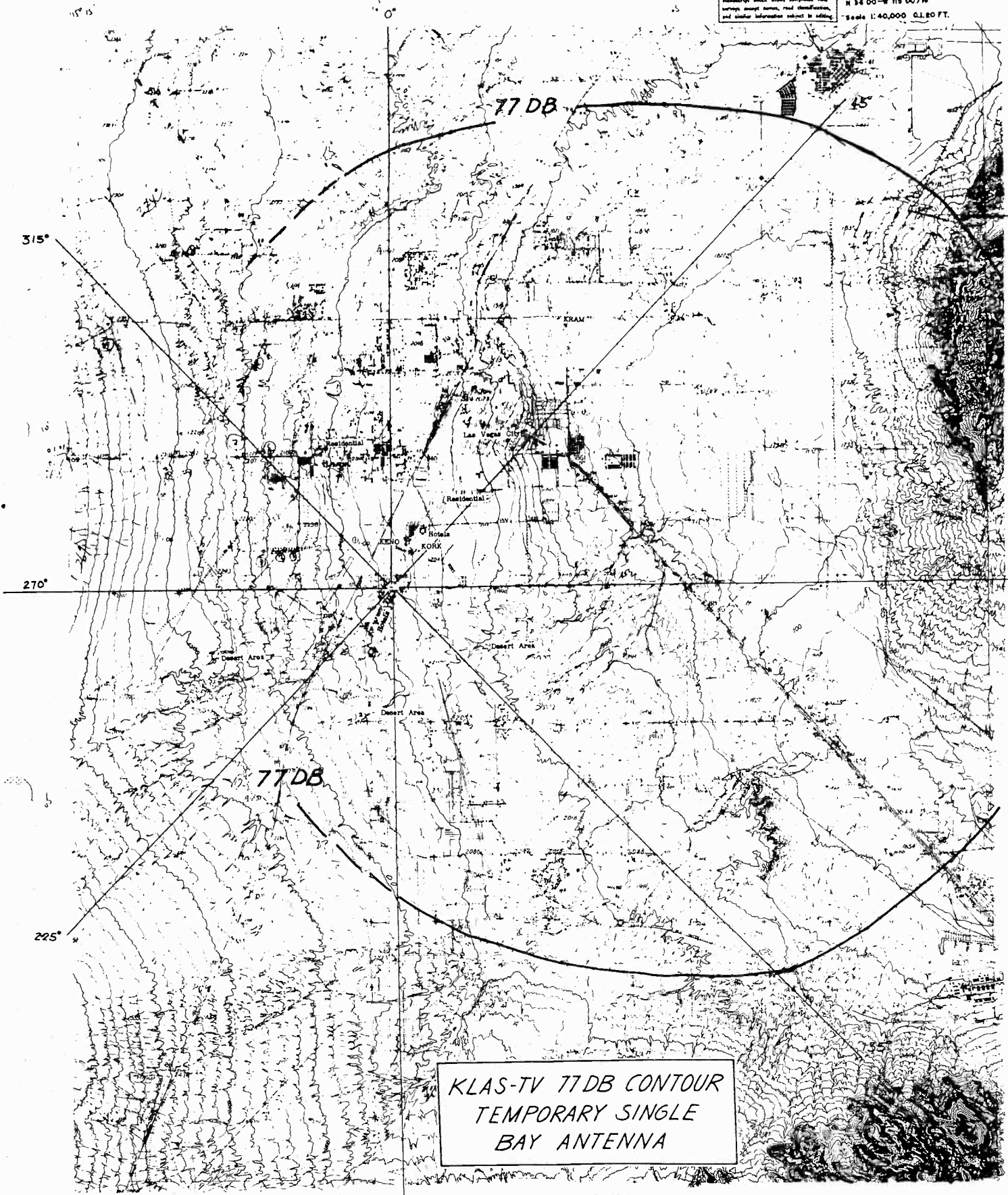
Engineering Description
Proposed Temporary Operation
KLAS-TV - Las Vegas, Nevada

KLAS-TV proposes to operate from the site specified in the construction permit with a single-bay batwing temporary antenna pending the delivery of the authorized six-bay unit. The single-bay antenna will be mounted approximately eight feet above the top level of the 250-foot, self-supporting tower now under construction at the site location. Mean elevation of the batwing above ground elevation will be approximately 256 feet.

Assuming +0.41 db antenna gain and 6.5 db antenna input power level, the 77 db signal will extend beyond the limits of greater Las Vegas in all directions. Approximate limits of the temporary 77 db signal contour in pertinent directions is shown on the exhibit attached.

AFTER FIELD COMPLETION
This is a copy of a U.S. Geological Survey
document which shows topographic and
survey data, road classification,
and similar information subject to editing.

LAS VEGAS # 4, NEV.
N 34 00-W 116 00 / W
Scale 1:40,000 G.L. 80 FT.



KLAS-TV 77DB CONTOUR
TEMPORARY SINGLE
BAY ANTENNA

SCALE MILES

180°

RJ QSB 5/13/53

Amendment
KLAS-TV
Duplicate BMPCT-1089

3RD AMENDMENT TO BMPCT 1089

Las Vegas Television, Inc. herewith amends the above entitled application filed April 20, 1953 in the following particular:

1. Corrects the geographical coordinates to show transmitter site as North latitude $36^{\circ} 07' 49''$ and West longitude as $115^{\circ} 09' 52''$.

Respectfully submitted,
LAS VEGAS TELEVISION INC.

TELEVISION FACILITIES DIVISION

MAY 13 1953

BROADCAST BUREAU

By:

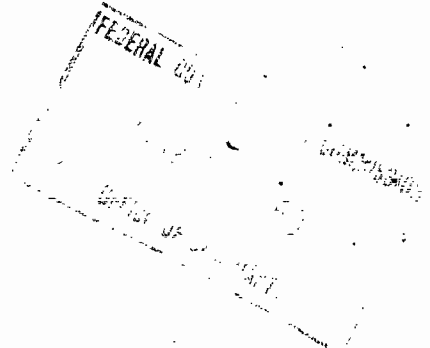
Treasurer

Subscribed and sworn to before
me this 12th day of May, 1953

/s/ Virginia S. Breen
Notary Public

My Commission Expires April 14, 1954

SEAL



LAW OFFICES
MCKENNA & WILKINSON

JAMES A. MCKENNA, JR.
VERNON L. WILKINSON
LEONIDAS P. B. EMERSON

*Blinded copy
5-12-53*

TELEPHONE NATIONAL 2931
1028 CONNECTICUT AVENUE
WASHINGTON 6, D. C.

May 12, 1953

Mr. T. J. Slowie, Secretary
Federal Communications Commission
Washington 25, D.C.

Dear Mr. Slowie:

On behalf of Las Vegas Television, Inc., I
hand you herewith 3rd Amendment to the application
(File No. BMPCT-1089) for modification of construction
permit for KLAS-TV at Las Vegas, Nevada.

Very truly yours,

Vernon L. Wilkinson

Enclosures

/car

C O P Y

4/11/53 2/11/53

Duplicate Amendment
BMPCT-1089
KLAS-TV

OFFICE OF SECRETARY

FURTHER AMENDMENT TO BMPCT-1089

LAS VEGAS TELEVISION, INC., herewith amends the above-entitled application filed April 20, 1953 in the following additional particulars:

1. Corrects the geographical coordinates to show transmitter site as North latitude 36° 07' 51" and West longitude as 115° 09' 46".

2. Corrects a clerical error in the amendment filed April 27, 1953 by changing "Las Vegas Telecasters, Inc." in the subscription to the proper corporate name, to wit "Las Vegas Television, Inc."

Respectfully submitted,

LAS VEGAS TELEVISION, INC.

By: /s/ Frederick G. Stoye
Frederick G. Stoye

Subscribed and sworn to before me this 6th day of May, 1953

_____/s/____Virginia S. Breen
Virginia S. Breen
Notary Public

My commission expires 4/14/54

SEAL

TELEVISION FACILITIES DIVISION
MAY 11 1953
BROADCAST BUREAU

*Blind copy
5-12-53*

3RD AMENDMENT TO BMPCT 1089

Las Vegas Television, Inc. herewith amends the above entitled application filed April 20, 1953 in the following particular:

1. Corrects the geographical coordinates to show transmitter site as North latitude 36° 07' 49" and West longitude as 115° 09' 52".

Respectfully submitted,
LAS VEGAS TELEVISION INC.

By:

Treasurer

Subscribed and sworn to before
me this 12th day of May, 1953

/s/ Virginia S. Breen

Notary Public

My Commission Expires April 14, 1954

SEAL

Amendment
ENGINEERS COPY

BMPCT-1089
KLAS-TV

AMENDMENT TO BMPCT - 1089

Las Vegas Television, Inc., herewith amends
the above entitled application filed April 20, 1953
in the following particulars:

1. Amends answer to paragraph 3B
(Section V-C) from "General
Electric....8Y-28-F" to "General
Electric....TY-28-F".
2. Amends Exhibit VII to show
"General Electric Antenna Type
TY-28-F" rather than "RCA Antenna
Type TF-6AH/6A1".

TELEVISION

Handwritten: (unclear)

APR 27 1953
COMMUNICATIONS SECTION

Respectfully submitted,
LAS VEGAS TELECASTERS, INC.

By *Fredrick G. Stoye*
Secretary-Treasurer

Subscribed and sworn to before me this 24th day of
April, 1953.

[Signature]
Notary Public
My Commission Expires Oct. 15, 1953

BMPCT-1089
KLAS-TV

ENGINEERS COPY
FEDERAL COMMUNICATIONS COMMISSION
APR 20 1:53
OFFICE OF SECRETARY

ENGINEERING REPORT
LAS VEGAS TELEVISION, INC.
PROPOSED SITE CHANGE AND
ANTENNA MODIFICATIONS

March, 1953

GRANT R. WRATHALL
Radio Engineer
Aptos, California

Las Vegas Television, Inc.
Proposed Site Change and
Antenna Modifications

Exhibits

- I Topo map showing site and surrounding terrain,
other radio stations, profile radials, etc.
- I-A Consideration of nearby radio stations
- II Topo map and profile directions
- III Profiles
- IV Grand A and Grade B signal contours
- V Sheets A and B - Pictures taken at site
- VI CAA approach chart showing site, etc.
- VII Vertical plan sketch of TV tower

Ref ASB 4/30/53

KLAS-TV

Broadcast Application		FEDERAL COMMUNICATIONS COMMISSION		Section V-C											
TELEVISION BROADCAST ENGINEERING DATA		Name of applicant Las Vegas Television, Inc.		BMPCT-1089											
<p>1. Purpose of authorization applied for: (Indicate by check mark)</p> <p>(If application is for a new station or for any of the changes numbered B through E, complete all paragraphs of this form; if change F is of a character which will change coverage or increase the overall height of the antenna structure more than 20 feet, answer all paragraphs, otherwise complete only paragraphs 2 and 3 and the appropriate other paragraphs; for changes G through I, complete only paragraph 2 and the appropriate other paragraphs; for change J, complete only paragraphs 2 and 16)</p> <table style="width:100%;"> <tr> <td style="width:50%;">A. <input type="checkbox"/> Construct a new station</td> <td style="width:50%;">F. <input type="checkbox"/> Change antenna system</td> </tr> <tr> <td>B. <input checked="" type="checkbox"/> Change effective radiated power or antenna height above average terrain</td> <td>G. <input checked="" type="checkbox"/> Change transmitter</td> </tr> <tr> <td>C. <input checked="" type="checkbox"/> Change transmitter location</td> <td>H. <input type="checkbox"/> Install auxiliary or alternate main transmitter</td> </tr> <tr> <td>D. <input type="checkbox"/> Change frequency</td> <td>I. <input type="checkbox"/> Other changes (specify)</td> </tr> <tr> <td>E. <input checked="" type="checkbox"/> Approval of site and antenna</td> <td>J. <input checked="" type="checkbox"/> Change studio location</td> </tr> </table>						A. <input type="checkbox"/> Construct a new station	F. <input type="checkbox"/> Change antenna system	B. <input checked="" type="checkbox"/> Change effective radiated power or antenna height above average terrain	G. <input checked="" type="checkbox"/> Change transmitter	C. <input checked="" type="checkbox"/> Change transmitter location	H. <input type="checkbox"/> Install auxiliary or alternate main transmitter	D. <input type="checkbox"/> Change frequency	I. <input type="checkbox"/> Other changes (specify)	E. <input checked="" type="checkbox"/> Approval of site and antenna	J. <input checked="" type="checkbox"/> Change studio location
A. <input type="checkbox"/> Construct a new station	F. <input type="checkbox"/> Change antenna system														
B. <input checked="" type="checkbox"/> Change effective radiated power or antenna height above average terrain	G. <input checked="" type="checkbox"/> Change transmitter														
C. <input checked="" type="checkbox"/> Change transmitter location	H. <input type="checkbox"/> Install auxiliary or alternate main transmitter														
D. <input type="checkbox"/> Change frequency	I. <input type="checkbox"/> Other changes (specify)														
E. <input checked="" type="checkbox"/> Approval of site and antenna	J. <input checked="" type="checkbox"/> Change studio location														
2. Facilities requested			4. Transmitters												
Frequency 180 — 186 Mc.		Channel number 8	(a) Visual												
			Make General Electric	Type No. TT-6-E	Rated power In dbk: 6.99 In kw: 5.0										
Effective Radiated Power (visual) In dbk: 14.54 In kw: 27.9		Antenna height above average terrain in feet. (Must agree with height given in Para. 12 of this Section) 190	(b) Aural												
			Make General Electric	Type No. TT-6-E	Rated power In dbk: 3.98 In kw: 2.5										
3. (a) Antenna structure			If the above transmitters are composite or of types for which data have not been filed with the F.C.C., attach as Exhibit No. a complete showing of transmitter details in accordance with the Commission's Rules. The showing should include schematic diagrams, makes and types of tubes, operating constants of the last radio stages, full details of frequency control, vestigial sideband filter (if used), multiplex networks and isolation networks. If changes are to be made in a licensed transmitter, include a schematic diagram and give full details of the changes. On file FCC												
Is the proposed construction in the immediate vicinity or does it serve to modify the construction of any standard broadcast station, FM broadcast station, television broadcast station, or other class of radio station? If "Yes", attach as Exhibit No. I complete engineering data thereon. and I-A			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
Will proposed structure be constructed on the top of an existing structure? If "Yes", describe and give height above ground of existing structure.			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>												
Overall height in feet above ground. (Do not include the height of any obstruction lighting which may be required.) 287'3"		Overall height in feet above mean sea level. (Do not include the height of any obstruction lighting which may be required.) 2359'3"													
Height of antenna radiation center in feet above mean sea level. 2341'3"															
(b) Antenna data															
Visual															
Make General Electric		Type No. 2Y-28-F													
Number of sections 6		Power gain in db Approx. 8.1													
Aural (if separate) Same as above															
Make															
Type No.															
Number of sections		Power gain in db													
Is directional antenna proposed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															
If "Yes", attach as Exhibit No. complete engineering data thereon.															
			5. Modulation monitors												
			(a) Visual monitor or monitoring equipment												
			Make General Electric	Type No. TV-21-B											
			(b) Aural monitor												
			Make General Radio	Type No. GR-1183-T2											
6. Frequency monitors															
(a) Visual monitor															
Make General Radio		Type No. GR 1183-T2	Accuracy .001%												
(b) Aural monitor															
Make General Radio		Type No. GR 1183-T2	Accuracy .001%												
7. If the above monitors or monitoring equipment have not been approved by the F.C.C., include as Exhibit No. a brief technical description of each. On file FCC															
8. Transmission line proposed to supply power to the antenna from the transmitter															
(a) Visual															
Make Communications Products Co., Inc.		Type No. 101-506	Description 51.5 ohm concentric												
Size (nominal inside transverse dimensions) in inches 3 1/8"		Length in feet 260'	Power loss in db for this length 0.5												

8. Transmission line (Continued) **Same as pix**

(b) Aural (if separate)

Make	Type No.	Description
Size (nominal inside transverse dimension) in inches	Length in feet	Power loss in db for this length

10. Will the studios, cameras, microphones, and other equipment proposed for transmission of programs be designed for compliance with the Commission's Rules? Yes No

9. Proposed operation

(a) Visual

Transmitter power output (after vestigial side-band filter, if used)	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: 6.99	0.05	6.94
In kw: 5.0		

Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power
0.5	6.44	8.1	In dbk: 14.54
			In kw: 27.9

11. (a) Attach as Exhibit No. **II** a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and show drawn thereon the following data:

- Proposed transmitter location--accurately plotted;
- Transmitter location and call letters of all known radio stations (except amateur) and the location of known commercial and government receiving stations within 2 miles of the proposed transmitter location;
- Proposed location of main studio;
- Character of the area within 2 miles of proposed transmitter location, suitably designated as to residential, business, industrial, and rural nature;
- At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location, one or more of which must extend through the principal city or cities to be served.

See also Exhibit I

(b) Aural

Transmitter power output	Multiplexer loss in db:	Input to transmission line in dbk:
In dbk: 3.98	0.05	3.93
In kw: 2.5		

Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power
0.5	3.43	8.1	In dbk: 11.53
			In kw: 14.2

(b) Attach as Exhibit No. **III** profile graphs with reasonably large scales for the radials in (a) (5) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction of true north shall be zero azimuth, with angles measured clockwise. Show source of topographical data on each.

12. From the profile graphs in 11(b), for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in the Commission's Rules, supply the following tabulation of data: (Grade A and Grade B contours are those in the absence of interference.)

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial (2-10 mi.)	Effective radiated power in radial direction	Predicted distance in miles to the Grade A contour	Predicted distance in miles to the Grade B contour
0	2095	246	14.54	14.5	31.0
45	1845	496	14.54	21.5	41.0
90	1800	541	14.54	22.0	42.0
135	1931	410	14.54	19.5	39.0
180	2202	139	14.54	11.0	25.0
225	2470	-129	14.54	11.0*	23.0*
270	2542	-201	14.54	11.0*	20.0*
315	2352	-11	14.54	11.0*	18.0*

*Estimated by practical evaluation of terrain and line of sight considerations

Antenna height above average terrain **190** feet (Must be identical with Paragraph 2)

13. Attach as Exhibit No. **IV** map(s) (Sectional Aeronautical charts where obtainable, preferably without aeronautical overlay) of the area proposed to be served and shown drawn thereon:

- Proposed transmitter location and the radials along which the profile graphs have been prepared;
- The predicted Grade A and Grade B contours from 12 above;
- Scale of miles.

14. Attach as Exhibit No. **V** a sufficient number of aerial photographs taken in clear weather at appropriate altitudes and angles to show the nature of the surrounding terrain in the vicinity of the proposed transmitter site. The photographs must be marked so as to show compass directions. Photographs taken in eight different directions from an elevated position on the ground will be acceptable in lieu of the aerial photographs if the area can be clearly shown. Give date photographs were taken.

Sheets A and B

15. Proposed location of transmitter

State Nevada	County Clark	Geographical coordinates (to be determined to nearest second) of the proposed TV antenna structure.	
------------------------	------------------------	---	--

City or town 1 Mi. S Las Vegas city limits-Hwy 91	Street address Wilbur Clark's Desert Inn	North latitude 36° 08' 06"	West longitude 115° 09' 44"
---	--	--------------------------------------	---------------------------------------

How were coordinates determined? **From Exhibit No. I - 1/40,000 advance U. S. topo sheet of area.**

16. Proposed location of main studio **Same as transmitter site**

State Nevada	County Clark	Other studios proposed
------------------------	------------------------	------------------------

City or town 1 Mi. S. Las Vegas city limits-Hwy 91	Street address, if known. Desert Inn	None at present
--	--	------------------------

17. State the minimum value of field strength in dbu, predicted in accordance with the method prescribed in the Commission's Rules, that will be provided over the entire city in which the main studio is located.

90 (77 required)

18. (a) Does the proposed transmitter location comply with the minimum separation requirements of the Commission's Rules?

Yes No

(b) If any co-channel separations are proposed that are less than the applicable minimum separation requirement plus 20 miles, or if other channel separations are proposed that are less than the applicable minimum separations plus 10 miles, list such separations below. (Include existing stations, proposed stations and assignments; the location and geographical coordinates of each antenna; the distance to each from the proposed transmitter location; and the method used in each instance to measure the distance.) If none, so state.

None

County of Santa Cruz }
State of California } S S

Subscribed to and sworn to before me this 31st day of March, 1953.

Notary _____

My Commission Expires _____

I certify that I am the Technical Director, Chief Engineer, or Consulting Engineer of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Date March 31, 1953

Frank L. Marshall
Technical Director, Chief Engineer or Consulting Engineer

ANTENNA AND SITE INFORMATION (see instruction B Section I)	Name of applicant Las Vegas Television, Inc.	
	Address where applicant can be reached in person Wilbur Clark's Desert Inn Las Vegas, Nevada	

Since this Section is submitted to the Regional Airspace Subcommittee of the AIC- Coordinating Committee for clearance in connection with obstructions to air navigation, it is necessary that all the data called for be supplied. Previously and separately filed data may not be incorporated by reference.

Legal Counsel McKenna and Wilkinson	Purpose of application (Check appropriate box)
Address 1028 Connecticut Avenue, N. W. Washington, D. C. 44-8-2931	a. New antenna construction <input type="checkbox"/> b. Alteration of existing antenna structures <input type="checkbox"/> c. Change in location <input checked="" type="checkbox"/>

Consulting Engineer Grant R. Wrathall	2. Features of surrounding terrain List any natural formations or existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.
Address Aptos, California	KENO and KORK towers in same area

Class of station TV	Facilities requested Channel 8
-------------------------------	--

1. Location of antenna		
State	County	City or Town
Nevada	Clark	1.0 Mi. SW Las Vegas

Exact antenna location (street address) (If outside city limits, give distance and direction from, and name of nearest town)
**North side Wilbur Clark's Desert Inn
 1.0 Mi. SW city limits on Hwy 91**

Geographic coordinates (to be determined to nearest second. For directional antenna give coordinates of center of array.)
 For single vertical radiator give tower location.

North latitude	West longitude
36° 08' 06"	115° 09' 44"

3. Designation, distance, and bearing to center line of nearest established airway within 5 miles
203° - 023° 0.5 Mi. East

4. List all landing areas within 10 miles of antenna site. Give distance and direction to the nearest boundary of each landing area from the antenna site.

(a) McCarran - 2.8 Mi. - South (b) Nellis - 10 Mi. - NE (c) D4C Ranch - 3 Mi. - SW	(d) Vegas Sky Corral - 1.0 Mi. West (e) Sky Haven - 6.0 Mi. NNW
---	--

5. Description of antenna system (If directional, give spacing and orientation of towers):
Steel tower with batwing TV tower on top

Type IDECO						
Description of tower(s) Triangular						
Self-supporting Yes	Guyed			Tubular (Pole)		
Tower (height figures should not include obstruction lighting)	#1	#2	#3	#4	#5	#6
Height of radiating elements	37'3"					
Overall height above ground	287'3"					
Overall height above mean sea level	2359'3"					

If a combination of Standard, FM, or TV operation is proposed on the same multi-element array (either existing or proposed) submit as Exhibit No. a horizontal plan for the proposed antenna system, giving heights of the elements above ground and showing their orientation and spacing in feet. Clearly indicate if any towers are existing. **Single tower**

Submit as Exhibit No. VII a vertical plan sketch for the proposed total structure (including supporting building if any) giving heights above ground in feet for all significant features. Clearly indicate existing portions, noting painting and lighting.

Is the proposed antenna system designed so that obstruction lights may be installed and maintained at the uppermost point(s)? Yes No

6. Is the proposed site the same or immediately adjoining the transmitter-antenna site of other stations authorized by the Commission or specified in another application pending before the Commission? Yes No

Date **March 31, 1953**

Grant R. Wrathall
Signature of Engineer preparing data

Call letters KENO and KORK	File numbers
-----------------------------------	--------------

AFTER FIELD COMPLETION
This is a copy of a U.S. Geological Survey
topographic map which shows completed field
work only. It does not show, and should not
be used for, any other information unless it
is specifically stated on the map.

LAS VEGAS #4, NEV.
U.S. GEOLOGICAL SURVEY
Scale 1:40,000 61.90 FT.

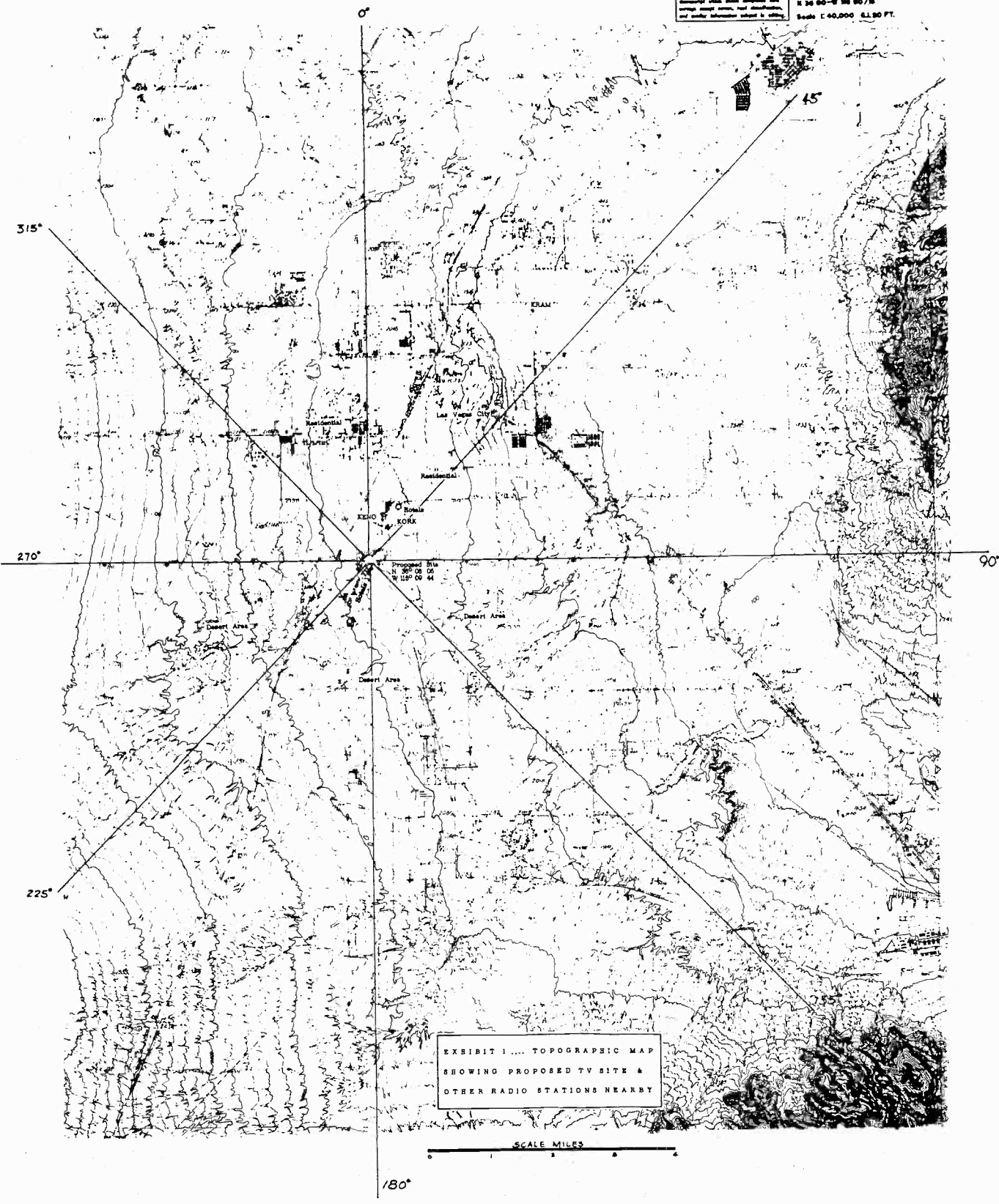


EXHIBIT I ... TOPOGRAPHIC MAP
SHOWING PROPOSED TV SITE &
OTHER RADIO STATIONS NEARBY

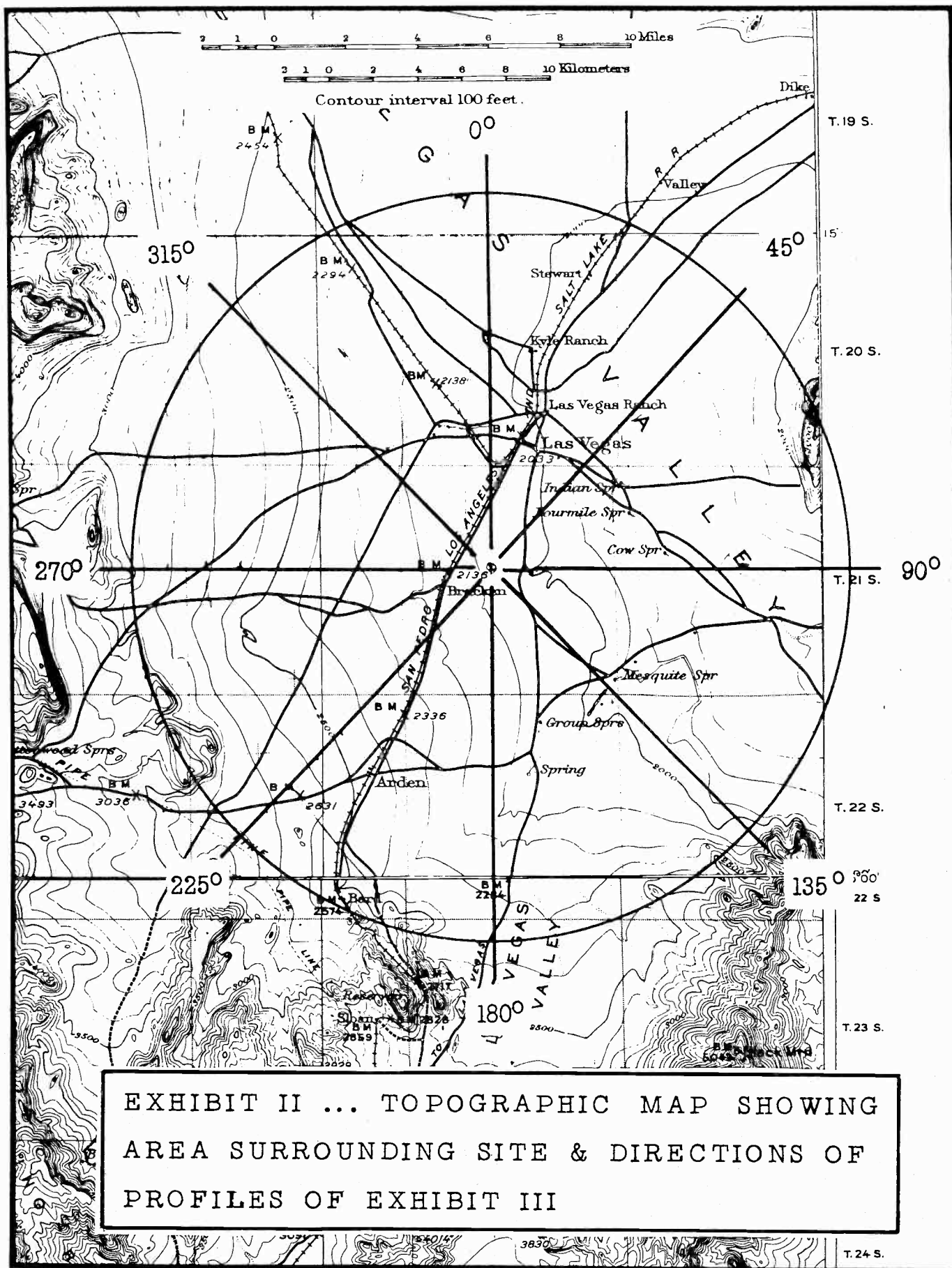
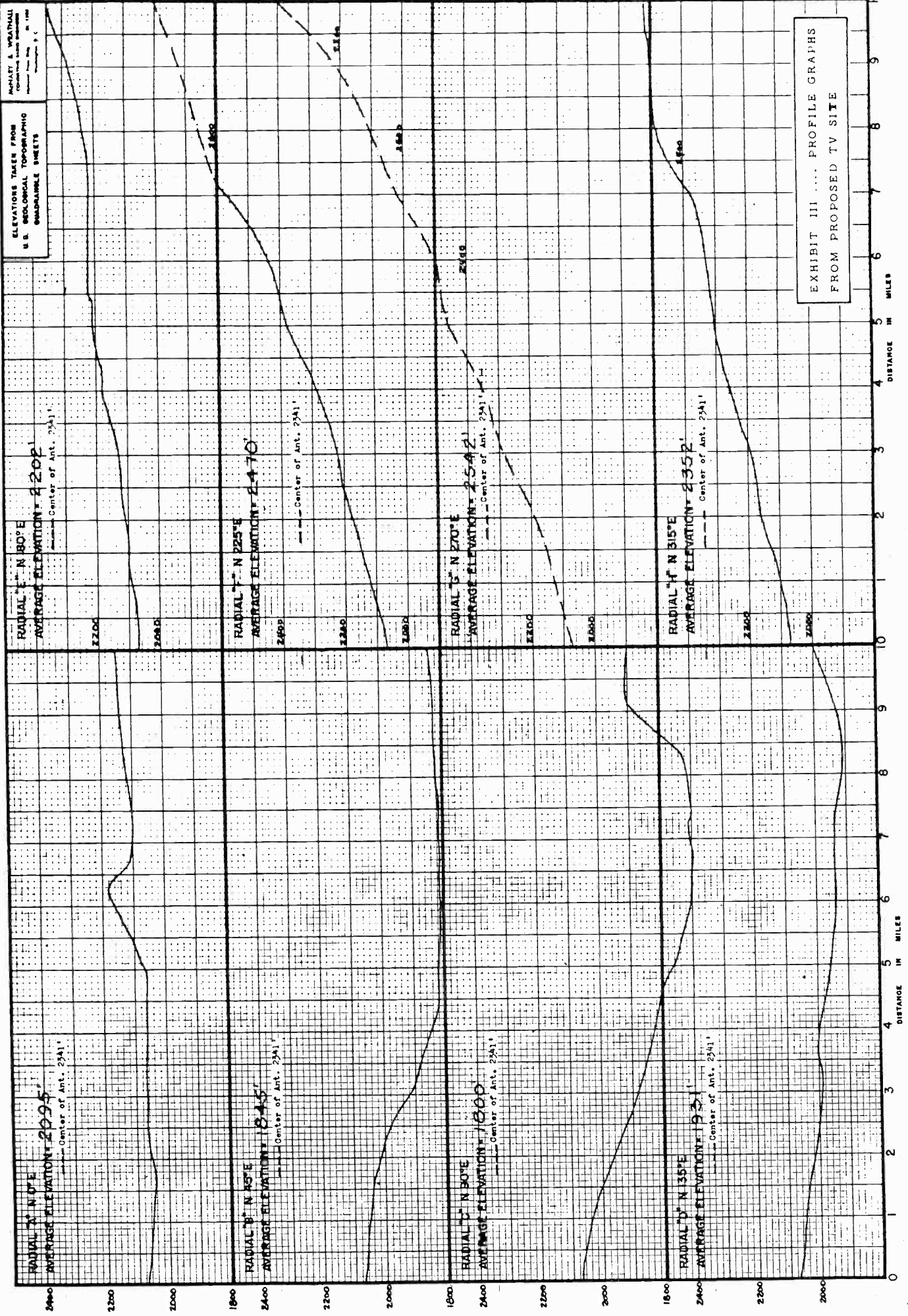


EXHIBIT II ... TOPOGRAPHIC MAP SHOWING
 AREA SURROUNDING SITE & DIRECTIONS OF
 PROFILES OF EXHIBIT III



ELEVATIONS TAKEN FROM
U. S. GEOLOGICAL TOPOGRAPHIC
QUADRANGLE SHEETS

ROBERT A. WERNAL
Consulting Engineer
1000 ...

EXHIBIT III ... PROFILE GRAPHS
FROM PROPOSED TV SITE

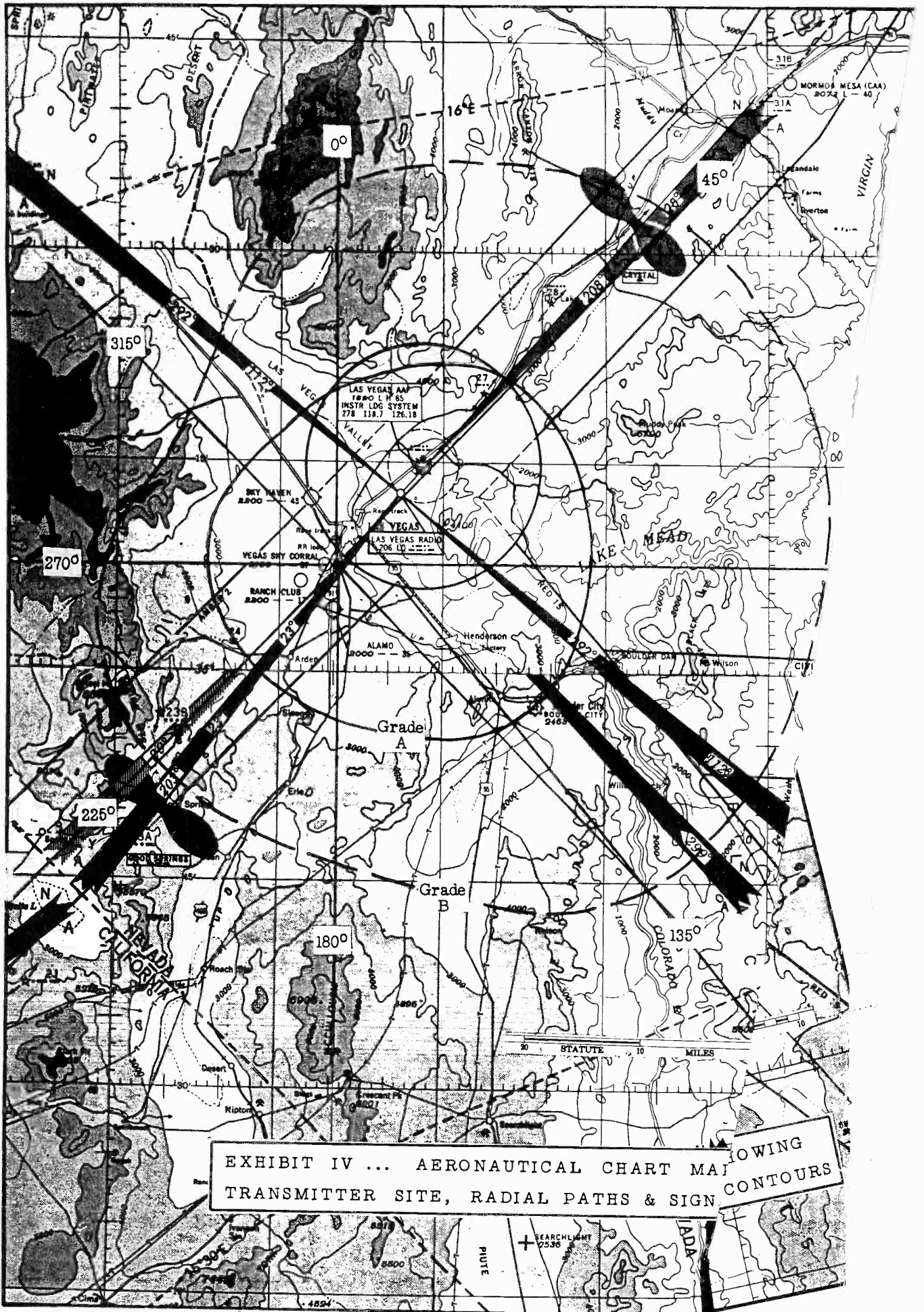
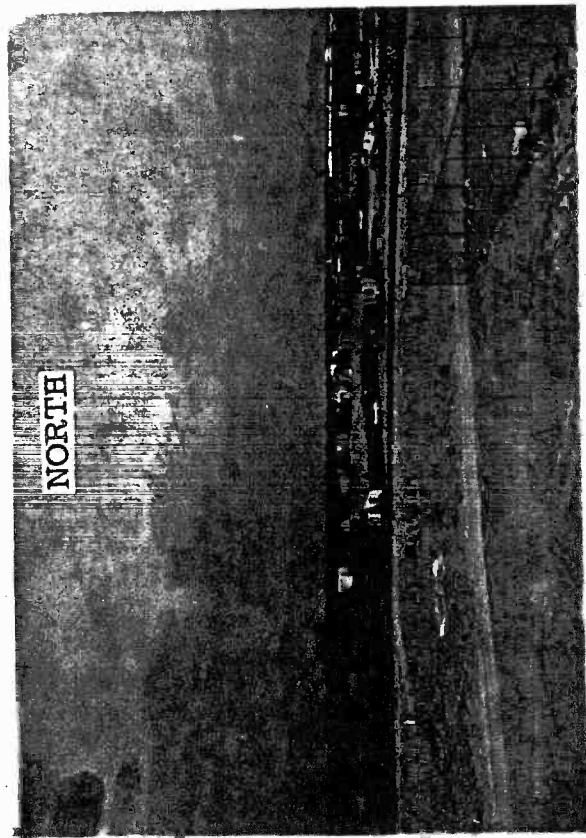
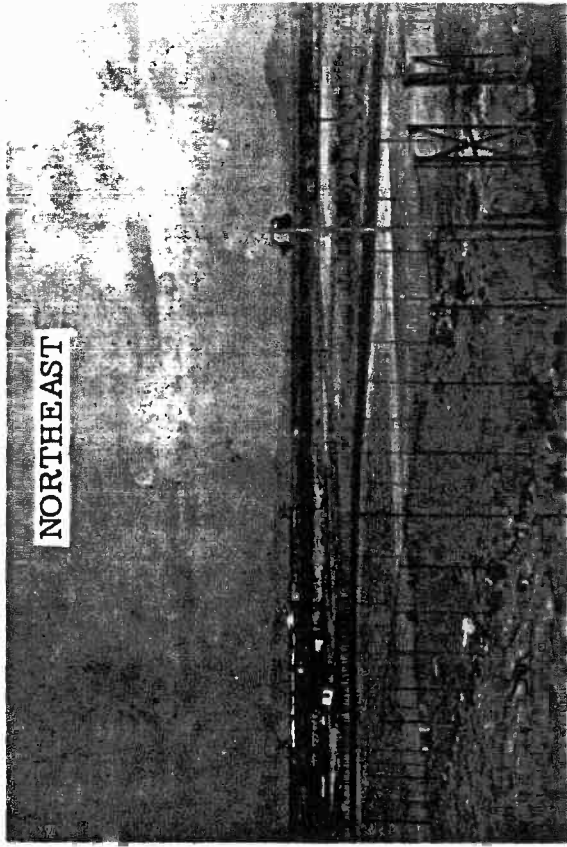


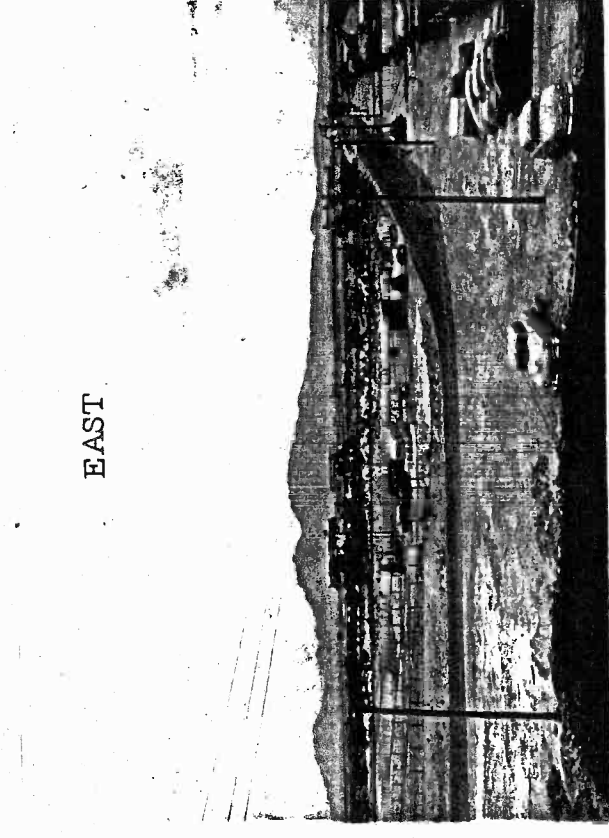
EXHIBIT IV ... AERONAUTICAL CHART MAJOWING TRANSMITTER SITE, RADIAL PATHS & SIGN CONTOURS



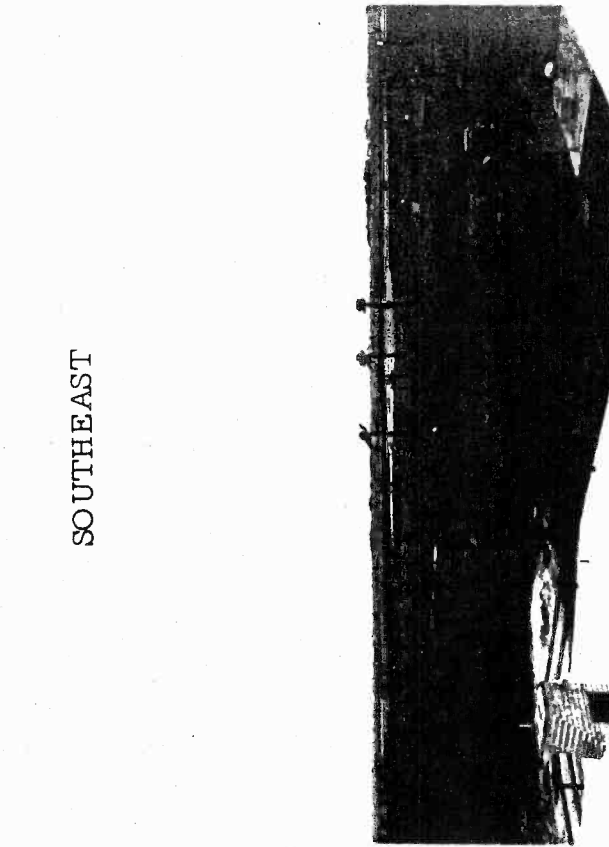
NORTH



NORTHEAST



EAST



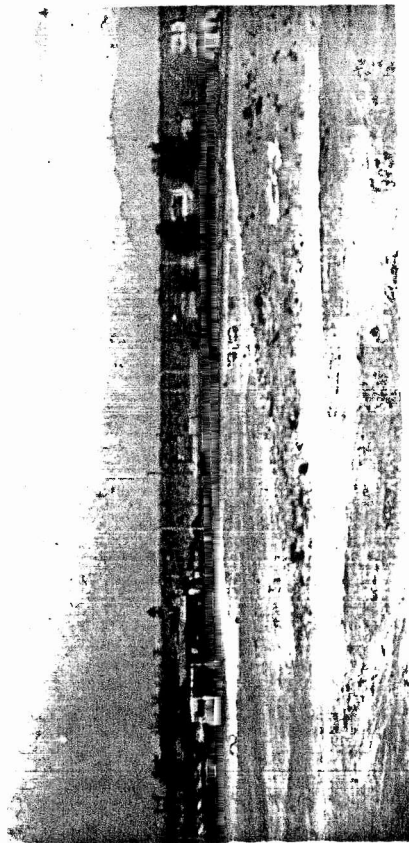
SOUTHEAST

EXHIBIT V-A ... PHOTOGRAPHS TAKEN MARCH 29, 1953.
FROM ELEVATION ADJACENT TO PROPOSED TV SITE

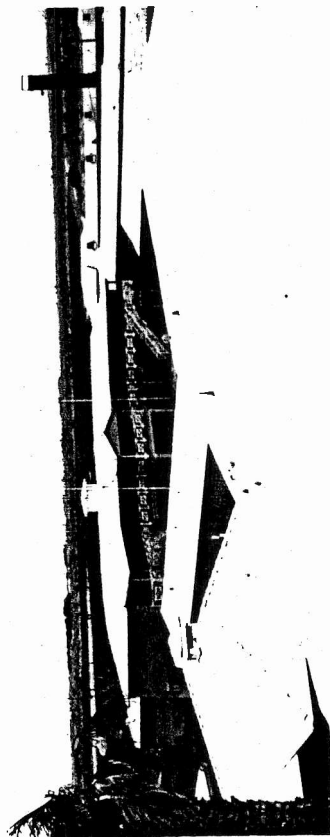
SOUTHWEST



NORTHWEST



SOUTH



WEST

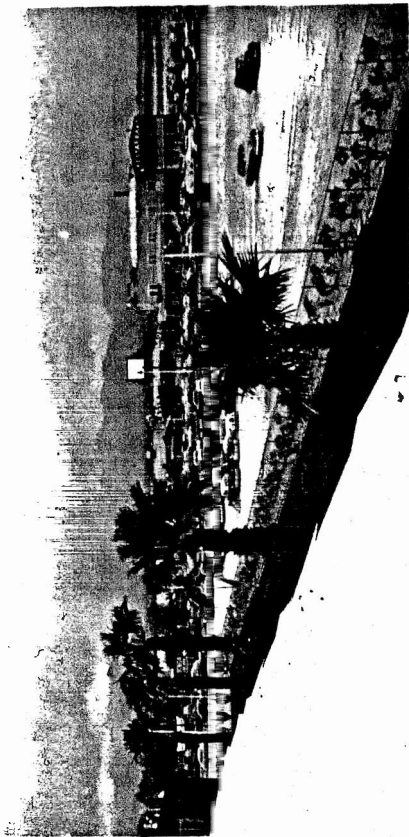
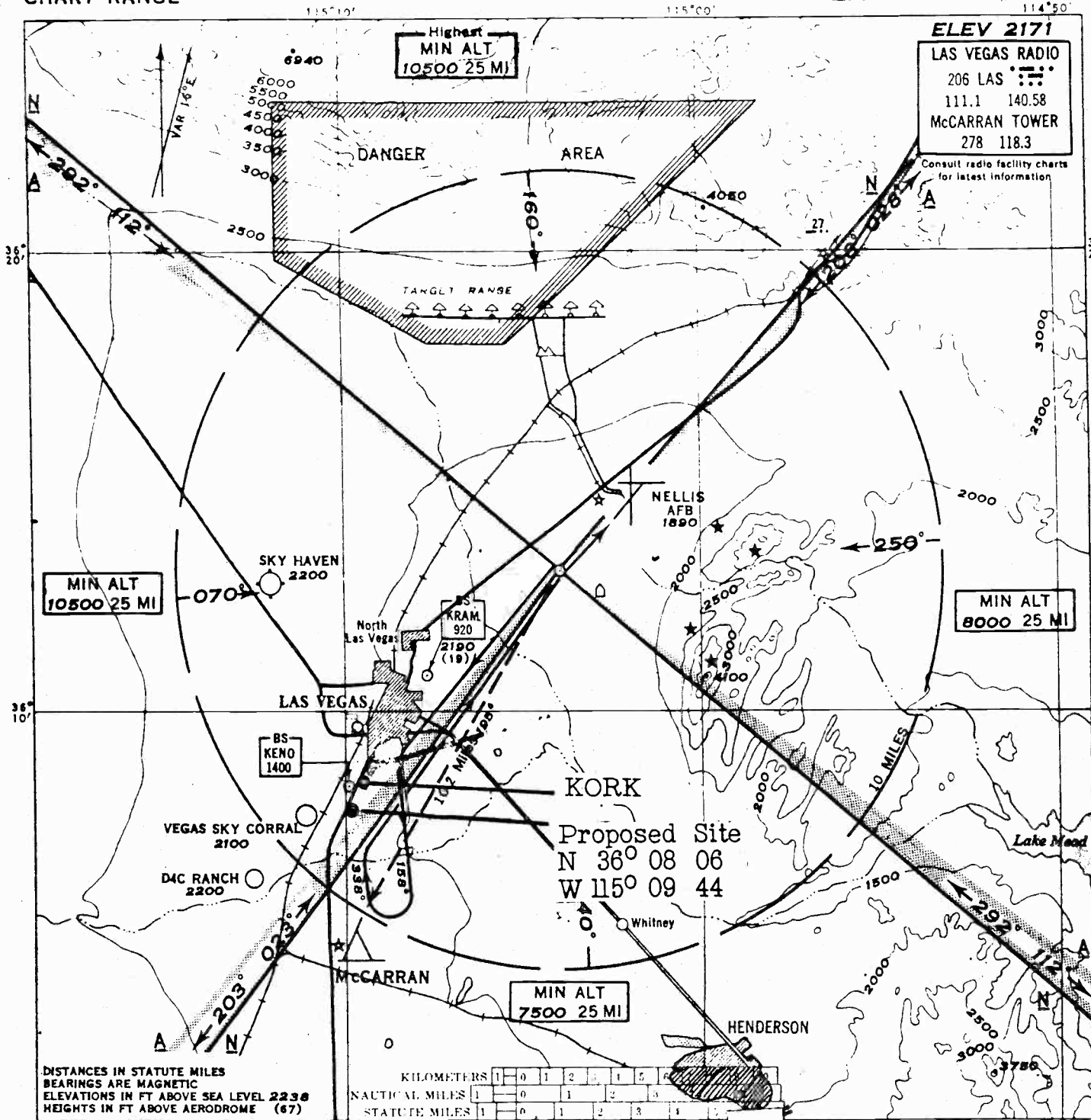


EXHIBIT V-B ... PHOTOGRAPHS TAKEN MARCH 29, 1953.
FROM ELEVATION ADJACENT TO PROPOSED TV SITE

**INSTRUMENT APPROACH
CHART-RANGE**

LAS VEGAS, NEV.



DISTANCES IN STATUTE MILES
BEARINGS ARE MAGNETIC
ELEVATIONS IN FT ABOVE SEA LEVEL 2238
HEIGHTS IN FT ABOVE AERODROME (67)

KILOMETERS	1	0	1	2	3	4	5	6
NAUTICAL MILES	1	0	1	2	3	4	5	6
STATUTE MILES	1	0	1	2	3	4	5	6

STANDARD INSTRUMENT APPROACH PROCEDURE INITIAL APPROACH

For USAF use:
Min Alt over Aerodrome 3671
Ceiling over Aerodrome (1500)

SHUTTLE to 7000 on NE and SW courses within 20 miles of range station. Turns to South.

PROCEDURE TURN
South side SW course
5000 within 15 miles
7000 within 20 miles
10000 within 25 miles

NE course 10000 from ENP Range
7000 from Crystal FM
SE course 8000 from int N course EED Range
SW course 9500 from SIL Range
7500 from Goodsprings RBn
NW course min enroute altitude

If visual contact not established at authorized landing minimums within 0.0 miles after passing Las Vegas Range, or if landing not accomplished, climb to 7000 on NE course within 20 miles

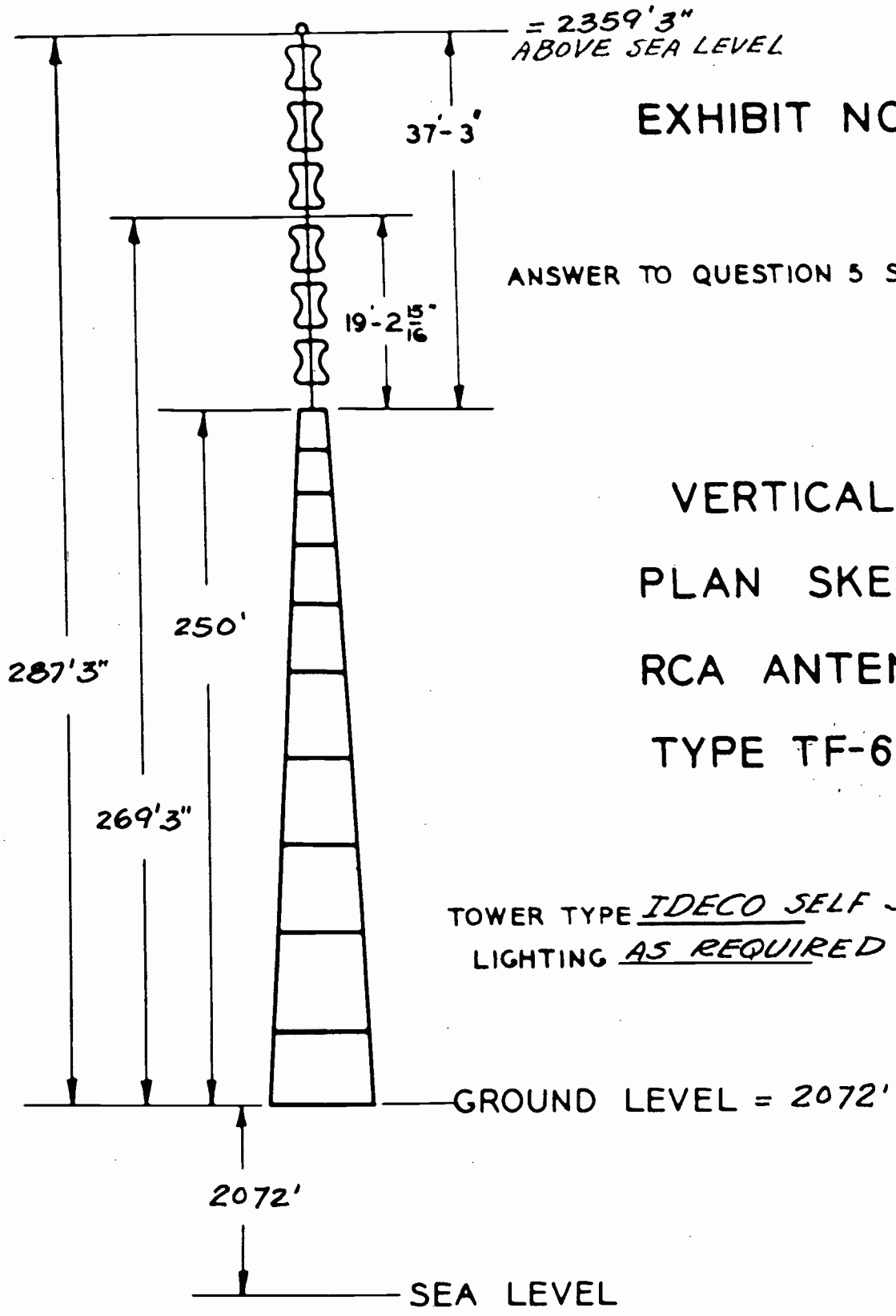
Fly visual contact from range 10.2 miles 195°

203°
023°
028°
3670

SW											NE														
ELEV 2171											Statute Miles														
11	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11			
10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7	8	9	10	11				
CEILING AND VISIBILITY MINIMA											TIME IN MINUTES AND SECONDS TO AERODROME-DISTANCE 10.2 STAT. 8.9 NAUT. MILES														
TAKE-OFF: DAY		NIGHT		100 M.P.H.		120 M.P.H.		140 M.P.H.		160 M.P.H.		90 KNOTS		100 KNOTS		110 KNOTS		120 KNOTS		130 KNOTS					
LANDING: DAY		NIGHT																							

PRICE FIVE CENTS

**EXHIBIT VI LAS VEGAS INSTRUMENT APPROACH CHART
SHOWING PROPOSED TV SITE & OTHER RADIO STATIONS**



= 2359'3"
ABOVE SEA LEVEL

EXHIBIT NO. VII

ANSWER TO QUESTION 5 SECTION V G

VERTICAL
PLAN SKETCH
RCA ANTENNA
TYPE TF-6AH/6A1

TOWER TYPE IDECO SELF SUPPORTING
LIGHTING AS REQUIRED

GROUND LEVEL = 2072'

2072'

SEA LEVEL

<p>APPLICANT</p> <p>Las Vegas Television, Inc. Las Vegas, Nevada</p>	<p>CONSULTANT</p> <p>Grant R. Wrathall Aptos, California</p>
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EXHIBIT NO. 1
FEDERAL COMMUNICATIONS COMMISSION
APR 20 1953
OFFICE OF SECRETARY

Waiver of Rule 3.613

The main studio of Station KLAS is located in the Desert Inn., one of the more fashionable hotels of Las Vegas. The Desert Inn is located exactly 1.0 miles from the present city limits of Las Vegas on U.S. Highway 91, four-lane arterial highway connecting Las Vegas and Los Angeles. The City of Las Vegas has long outgrown its official limits and many of the more fashionable hotels and business establishments are now located on U.S. Highway 91 outside the technical boundaries of the city. In fact, U. S. Highway 91 (South Fifth Street) is the main street of the town, buildings are numbered, and mail to such establishments is addressed to Las Vegas.

Tentative arrangements have been concluded with the Desert Inn which proposes to construct and lease television studios to Las Vegas Television, Inc. at 3003 South Fifth Street, Las Vegas, Nevada. These studios would be within five minutes of down-town Las Vegas, on a four-lane paved highway, with ample parking facilities. City bus service from Las Vegas and North Las Vegas serve this point every 20 minutes. In the instant M.P. application, authority is also requested to change the transmitter site to the Desert Inn. A waiver of Rule 3.613 is requested to permit combined studio and transmitter operations. Since some of the operating personnel of KLAS-TV will continue their duties with KLAS (also located in the Desert Inn), considerable economy of operation can be effected by granting the requested waiver of Rule 3.613.

Proposed Site as Related to
Other Nearby Radio Operations

As is shown on Exhibit I, radio stations KENO and KORK operate from sites approximately 0.5 miles north of the proposed TV site herein being considered. KORK operates non-directional and no interaction from the TV tower structure is expected. KENO operates on 1460 KC with a night directional antenna. At 1460 KC the 0.5-mile separation is approximately 4.0 wavelengths and the 287-foot TV antenna near 0.42 wavelengths. TV antenna will have a base impedance near 133-j90 at 1460 KC. Because of the 4.0 wavelengths spacing and the relatively high base impedance, any interaction with the KENO antenna system is not expected. However, to eliminate any complications, Las Vegas Television, Inc., will make tests to assure full protection to KENO before the TV tower construction is started. The tests contemplated are simple but conclusive. During the hours when KENO is operating directional, a balloon will raise a grounded wire at the proposed TV site to a height near that proposed for the TV tower. KENO directional monitor points will be checked before and when the grounded wire is supported by the balloon.

If the tests indicate there might be interference problems to KENO, the TV tower will be constructed with base insulators and the transmission line insulated from the tower from ground to a point approximately 0.25 wavelengths at 1460 KC. With such an installation any KENO interaction can be eliminated with a suitable inductor at the tower base with one side of the inductor grounded.

APR 17 1953 8320

Mr. R. T. Warner
539 Birch Street
Boulder City, Nevada

KLAS

Dear Mr. Warner:

This is in reply to your letter of March 20, 1953, in which you express concern that Las Vegas Television, Inc. may request a change of transmitter site for KLAS-TV which might provide inadequate reception in Boulder City.

The Commission has not received an application from KLAS-TV for a change in transmitter site, however, your letter will be associated with the file of that station.

Very truly yours,

T. J. Slowie
Secretary

JD:ccc/tv:8

RECEIVED FOR AT
MAILED BY
APR 17 1953
MAIL & FILES

~~CONFIDENTIAL~~

April 24, 1953

6320

KLAS

Boulder City Chamber of Commerce
Boulder City, Nevada

Gentlemen:

This is in reply to your telegram of March 26, 1953, in which you request that Las Vegas Television, Inc. be required to construct their tower and transmitter at the same location specified in their construction permit, and that no change in site be approved without a public hearing.

The Commission has not received an application from KLAS-TV for a change in transmitter site; however, your telegram and a petition from residents of Boulder City will be associated with the file of that station.

Very truly yours,

T. J. Slowie
Secretary

GWR:hod/tvt:B

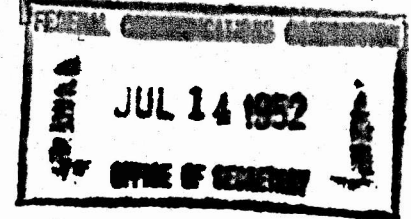
SIGNED BY ABOVE
MAILED BY

APR 24 1953

MAIL & FILES

ENGINEERS COPY

BPCT-1239

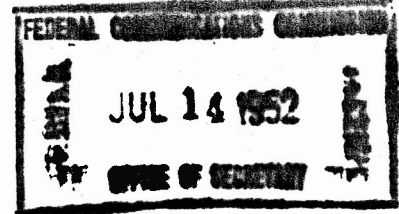


ENGINEERING REPORT
PROPOSED TV OPERATION
LAS VEGAS BROADCASTING COMPANY
KLAS-TV - LAS VEGAS, NEVADA

July, 1952

GRANT R. WRATHALL
Consulting Radio Engineer
Aptos, California

TELETYPE UNIT
RECEIVED



Index of Contents
KLAS-TV - Las Vegas, Nevada
Engineering Report

Sections V-C and V-G, FCC Form 301 - 4 sheets

<u>Exhibit No.</u>	<u>Description</u>
I	Determining and Maintaining Power in Transmitters
II	Description of Visual Modulation Monitor
III	Topographic Maps (3 sheets - A, B and C)
IV	Profile Graphs Eight Radials (3 sheets - A, B and C)
V	Map Showing Computed Field Intensity Contours
VI	Aerial Photograph and Pictures of Site (3 sheets - A, B and C)
VII	CAA Chart Showing Site Location
III	Vertical Plan Sketch Antenna Structure