PROOF OF PERFORMANCE MEASUREMENTS

Radio Station KYOK

1590 Khz

Houston, Texas

June 29, 1981

The following equipment performance measurements for Radio Station KYOK were conducted on June 29, 1981 between the hours of 1:00 and 4:00 AM. All measurements were made directly by, or under supervision of Ronald D. Haney, chief engineer and chief operator of Radio Station KYOK. Andrew Waldrop, a third class operator assisted in the tests. The test equipment listed in Figure 1 was connected as shown in Figure 2.

Prior to its use, the test equipment frequency response was checked and found to be within 0.01 dB between 30 hertz and 30 kilohertz. The residual hum, noise and distortion of the Potomac equipment was found to be under 0.05%.

All station equipment was adjusted for normal operation and all equipment normally used in the system was included in the tests. The AGC function of the CBS Audimax was disabled by a switch provided for this purpose. The Orban Equalizer as well as the Tapco Reverberation were switched into the test modes. The UREI BL-40 Modulimiter was switched to "bypass" for proof measurements.

The frequency response of the system was measured by adjusting the output of the audio generator to produce the modulating level indicated with a modulating frequency of 400 hertz, then varying the frequency while recording the generator output required to produce the same modulation level at the frequencies indicated.

The harmonic distortion was measured by adjusting the audio generator to produce the modulation levels indicated and measuring the distortion at the "audio test" jack provided for this purpose on the rear of the Belar AMM-3 modulation monitor. The carrier shift at 400 hertz was measured at each modulation level using the carrier level meter position on the Belar monitor.

The input signal was removed and the system noise was measured at the modulation monitor output. The noise level given is relative to 400 hertz at 100% modulation.

The Potomac Field Intensity meter was tuned to the harmonics of the transmitter operating frequency at a distance of .55 miles from the antenna array to avoid internally generated spurious responses due to reciever overload.

ALL OF THE DATA CONTAINED HEREIN IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Ronald D. Haney

KYOK • 3001 LA BRANCH • HOUSTON, TEXAS 77004 • 713/526-7131

SYSTEM FREQUENCY RESPONSE
Radio Station KYOK
June 29, 1981

FREQUENCY Hertz	100% Modulation	85% Modulation	50% Modulation	25% Modulation
50	-1.3	-1.4	-1.8	-1.7
100	-1.0	-1.1	-1.0	-1.2
400	-0.2	-0.3	-0.4	-0.2
1,000	±0.0	±0.0	±0.0	±0.0
5,000	+1.4	+0.6	+0.3	+0.4
7,500	+1.7	+1.7	+1.6	+1.4
10,000	+2.0	+2.0	+2.1	+2.0

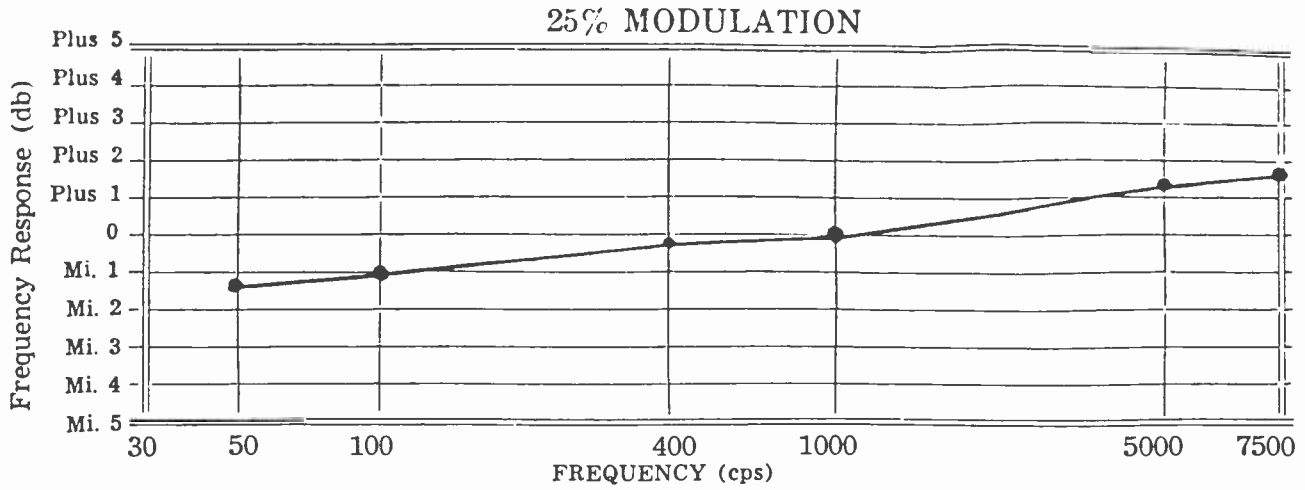
SYSTEM DISTORTION MEASUREMENTS
Radio Station KYOK
June 29, 1981

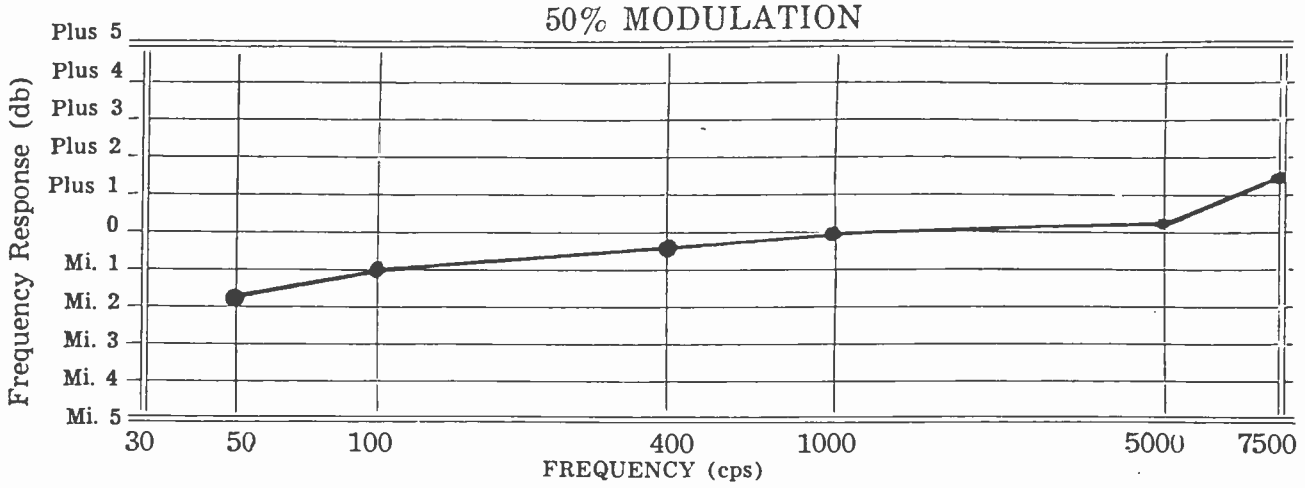
FREQUENCY Hertz	100% Modulation	85% Modulation	50% Modulation	25% Modulation
50	4.8%	4.8%	4.5%	4.6%
100	2.85%	2.80%	2.50%	3.40%
400	1.85%	1.86%	1.90%	3.25%
1,000	1.75%	1.72%	1.85%	3.20%
5,000	1.80%	1.95%	2.95%	3.80%
7,500	3.50%	3.60%	3.90%	4.10%
10,000	1.30%	1.10%	1.45%	3.05%

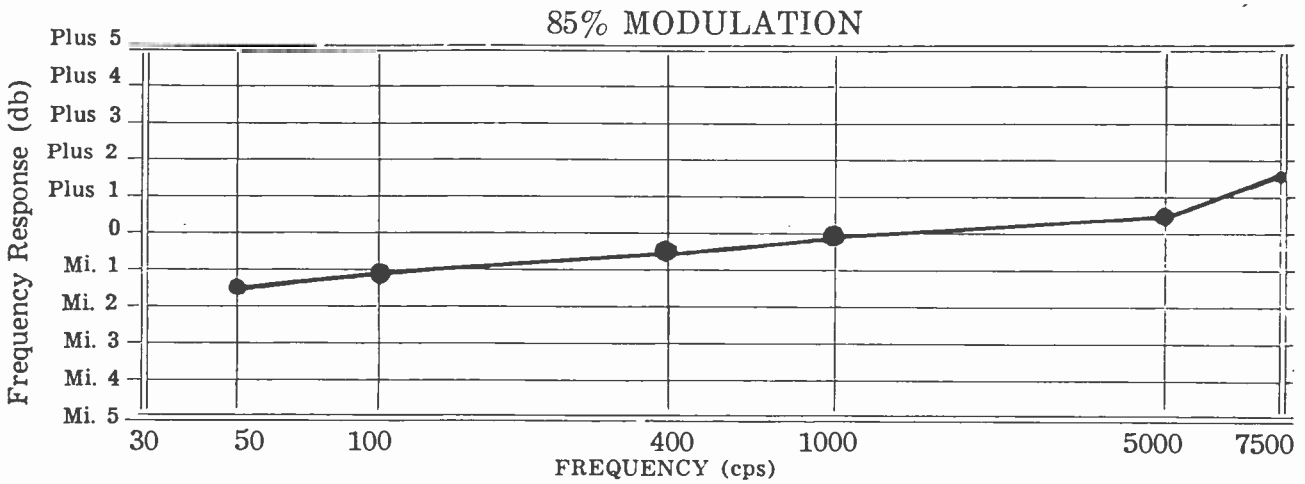
ALL TESTS PERFORMED BY Ronald D Haney

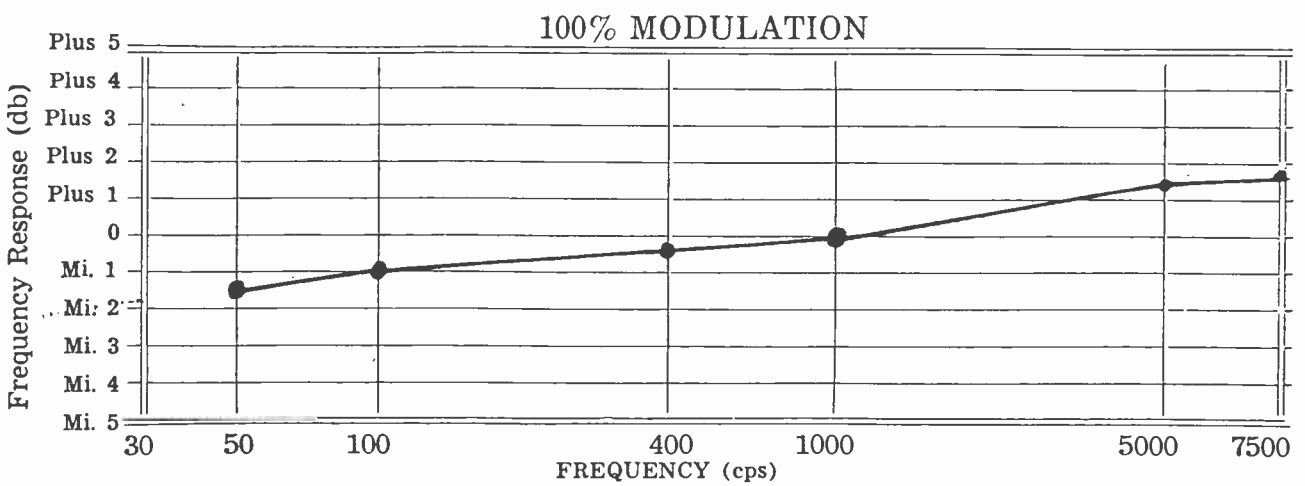
DATE 6-29-81

RADIO STATION KYOK









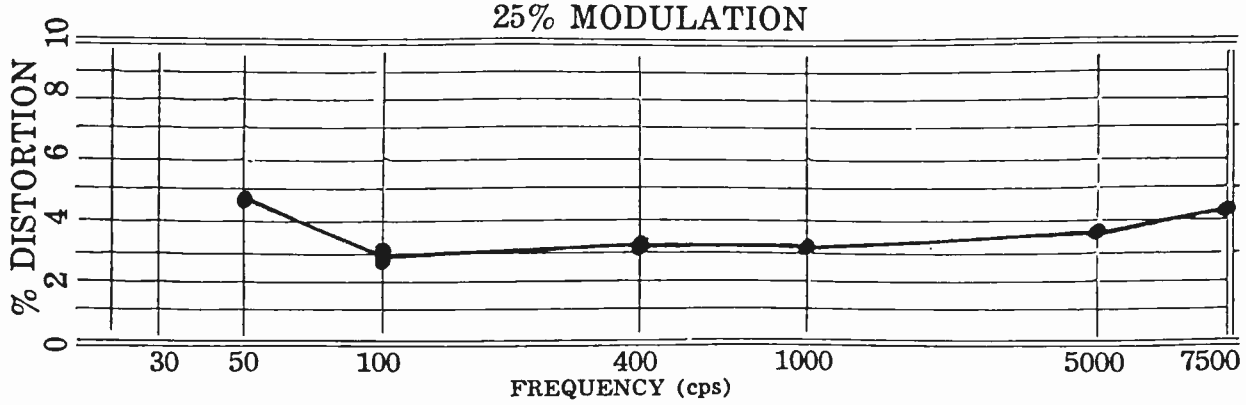
Engineer RONALD D. HANEY
License No. P1-9-11388
Date June 29, 1981

RADIO STATION KYOK
June 29, 1981

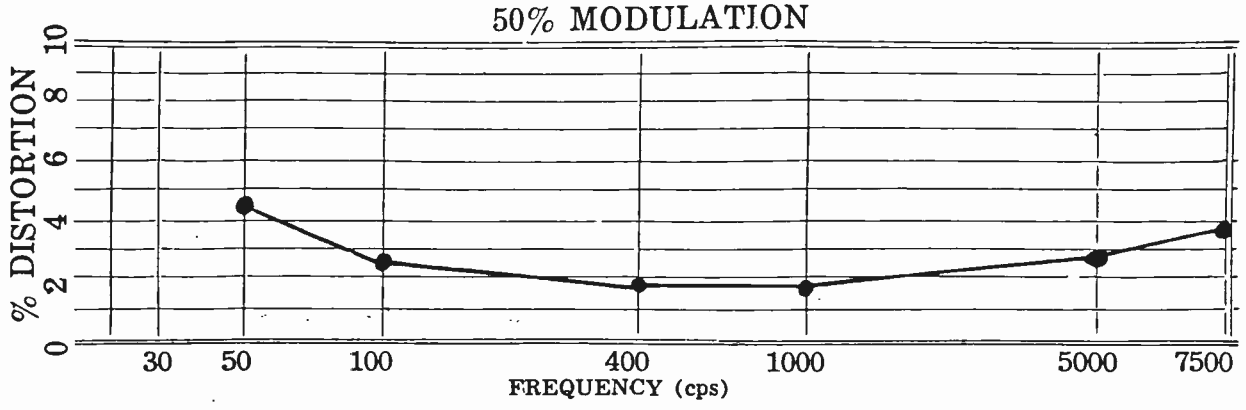
HARMONIC FREQUENCY CONTENT

	30 CPS	50 CPS	100 CPS	400 CPS	1000 CPS	5000 CPS	7500 CPS
25% Modulation	n/r	4.6%	3.40	3.25	3.20	4.10	3.05
50% Modulation	n/r	4.50	2.50	1.90	1.85	2.95	3.90
85% Modulation	n/r	4.80	2.80	1.86	1.72	1.95	3.60
100% Modulation	n/r	4.80	2.85	1.85	1.75	1.80	3.50

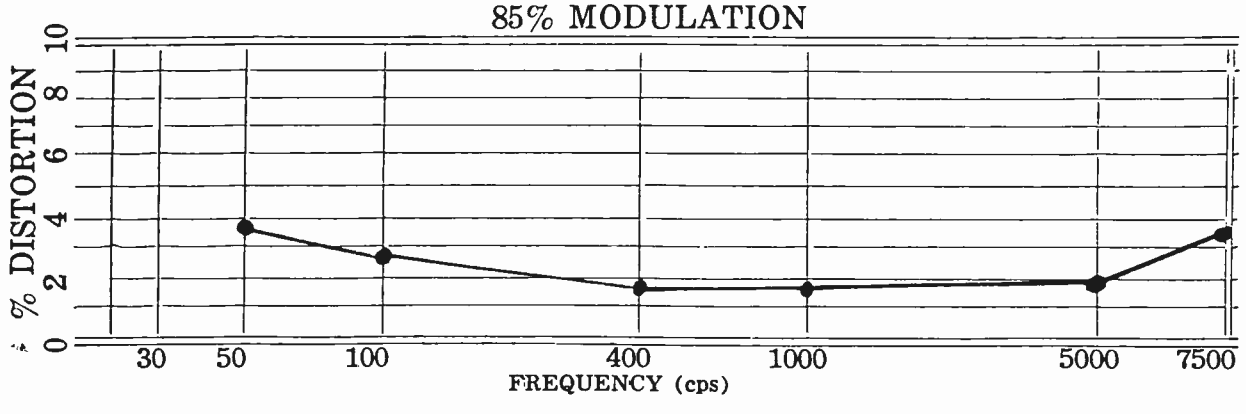
25% MODULATION



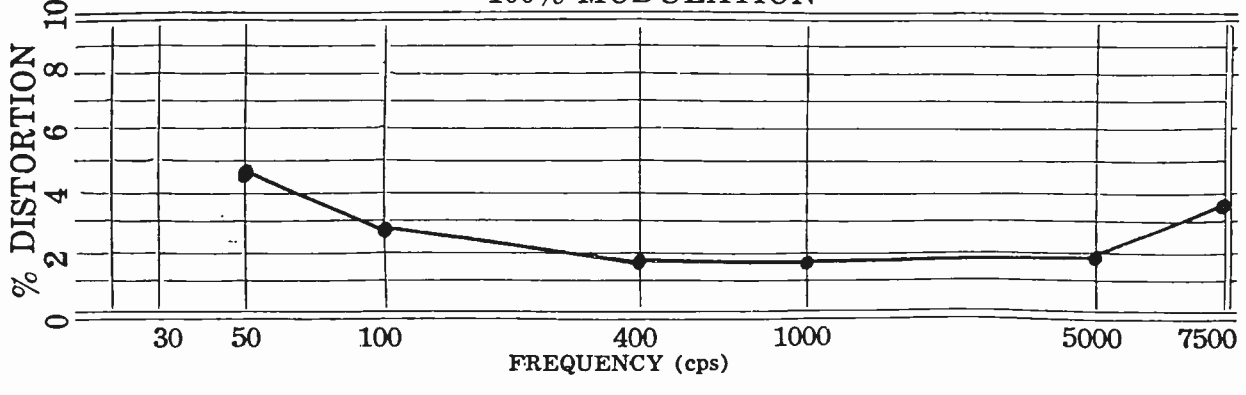
50% MODULATION



85% MODULATION



100% MODULATION



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CARRIER SHIFT

100% Modulation	85% Modulation	50% Modulation	25% Modulation
0.5%	0.2%	0.0%	0.0%

SYSTEM NOISE

-46 dB below 100% modulation reference 400 hertz.

RF HARMONIC MEASUREMENTS

1st harmonic	no indication on meter	no audio
2nd harmonic	no indication on meter	no audio

ALL READINGS TAKEN BY: Ronald O Haines

DATE: June 29, 1981

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LIST OF TEST EQUIPMENT:

Potomac Instruments Audio Generator Model AG-51 Serial 407

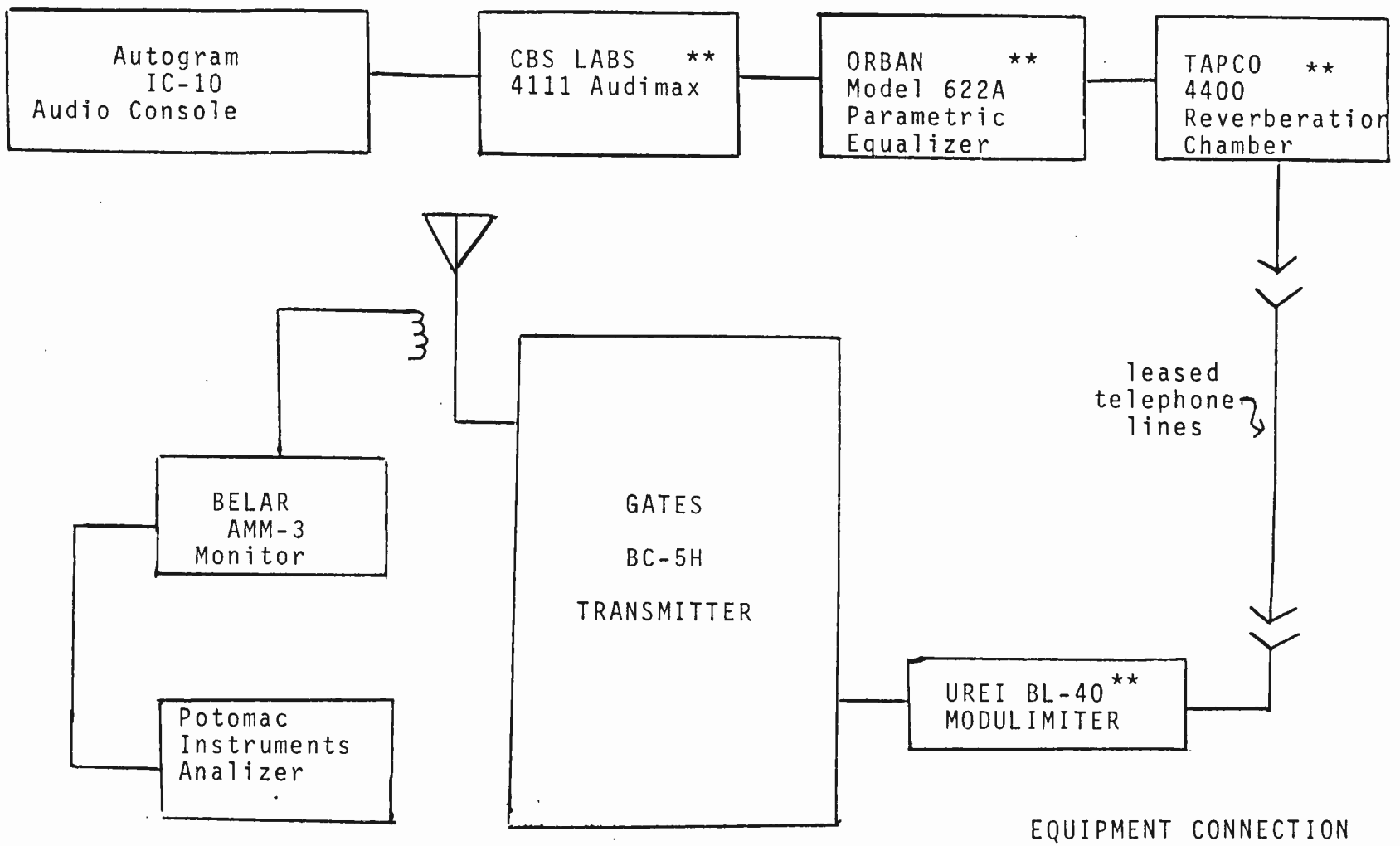
Potomac Instruments Audio Analizer Model AA-51 Serial # 465

Telequipment Oscilloscope

Potomac Instruments Field Intensity Meter FIM-41 Serial #238

Belar Modulation Monitor Model AMM-3 Serial # 141620

Figure 1



EQUIPMENT CONNECTION
DIAGRAM

FIGURE 2

Radio Station KYOK
Proof of Performance
June 29, 1981

** Switched out or defeated for measurements