F.C.C. ORIGINAL

F.C.C. ORIGINAL

KKHK-FM - 99.5 MHz.
AUXILIARY TRANSMITTER FACILITY
EQUIPMENT PERFORMANCE MEASUREMENTS
TRIBUNE DENVER RADIO

OCTOBER 2001

J.C. Humke and Associates, Inc.
Broadcast and Communications Consultants
5457 South Jericho Way
Centennial, Colorado 80015-3648

EQUIPMENT PERFORMANCE MEASUREMENTS
KKHK FM
AUXILIARY TRANSMITTER FACILITIES
TRIBUNE DENVER RADIO
DENVER, COLORADO
OCTOBER 2001

TABLE OF CONTENTS

* * * * * * * * * * * *

KKHK-FM - 99.5 MHz. EXHIBIT 200
Auxiliary Transmitter Facility
RF Equipment Performance Measurements
Tribune Denver Radio
Denver, Colorado
October 2001

Technical Statement:

Tribune Denver Radio has retained the services of J.C. Humke and Associates, Inc. to perform RF Equipment Performance Measurements for the KKHK-FM auxiliary transmitter facility, as required by FCC rules section 73.1590.

This regulation requires that the transmitted signal of the station be measured for compliance with the FM transmission system requirements set forth in FCC rules section 73.317, which states as follows:

FM transmission system requirements. – (a) FM broadcast stations employing transmitters authorized after January 1, 1960, must maintain the bandwidth occupied by their emissions in accordance with the specifications detailed below. FM broadcast stations employing installed or type accepted before January 1, 1960, must achieve the highest degree of compliance with these specifications practicable with their existing equipment. In either case, should harmful interference to other authorized stations occur, the licensee shall correct the problem promptly or cease operation.

(b) Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated by at least 25 dB below the level of the unmodulated carrier. Compliance with this requirement will be deemed to show the occupied bandwidth to be 240 kHz or less.

(c) Any emission appearing on a frequency removed from the carrier by more than 240 kHz and up to and including 600 kHz must be attenuated by at least 35 dB below the level of the unmodulated carrier.

(d) Any emission appearing on a frequency removed from the carrier by more than 600 kHz must be attenuated by at least $43 + 10 \log_{10}$ (Power, in watts) dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.

(e) Preemphasis shall not be greater than the impedance-frequency characteristics of a series resistance network having a time constant of 75 microseconds. (see upper curve of Figure 2 of 73.333.)

* * * * * * * * * *

KKHK-FM - 99.5 MHz.
Auxiliary Transmitter Facility
RF Equipment Performance Measurements
Tribune Denver Radio
Denver, Colorado
October 2001

Spectrum analysis measurements performed near the KKHK-FM auxiliary transmitter site on the morning of Wednesday October 24, 2001, between 1:45 AM and 2:30 AM Mountain Daylight Time, show that the transmitter facility far exceeds the requirements of FCC rule 73.317.

The measurements are included as Exhibit 300. A Tektronix 7L12-7613 spectrum analyzer was used, serial numbers B213740 and B377996. During the measurement of the second and third harmonics, a fundamental carrier filter was used to prevent overload of the analyzer input amplifier and mixer stages from producing harmonic signals within the analyzer itself. This filter affects the levels of actual harmonics by less than 1 dB, while lowering the fundamental carrier input by approximately 35 dB.

Respectfully submitted,

Joel Clark Humke

Joel Clark Humke
November 6, 2001

J.C. Humke and Associates, Inc.
5457 South Jericho Way
Centennial, Colorado 80015-3648

KKHK-FM - 99.5 MHz.
Auxiliary Transmitter Facility
RF Equipment Performance Measurements
Tribune Denver Radio
Denver, Colorado
October 2001

EXHIBIT 300

KKHK EQUIPMENT PERFORMANCE MEASUREMENTS

Frequency from Carrier	Measured Suppression	FCC Required Suppression
120 KHz.	Over –35 dB	-25 dB
121 to 239 KHz.	Over –35 dB	-25 dB
240 KHz.	Over –45 dB	-25 dB
241 KHz to 599 KHz.	Over –45 dB	-35 dB
600 KHz.	Over –90 dB	-35 dB
601 KHz Up	Over –90 dB	-80 dB
199.0 MHz. 2nd Harmonic	Over –90 dB (noise floor)	-80 dB
298.5 MHz. 3rd Harmonic	Over –90 dB (noise floor)	-80 dB

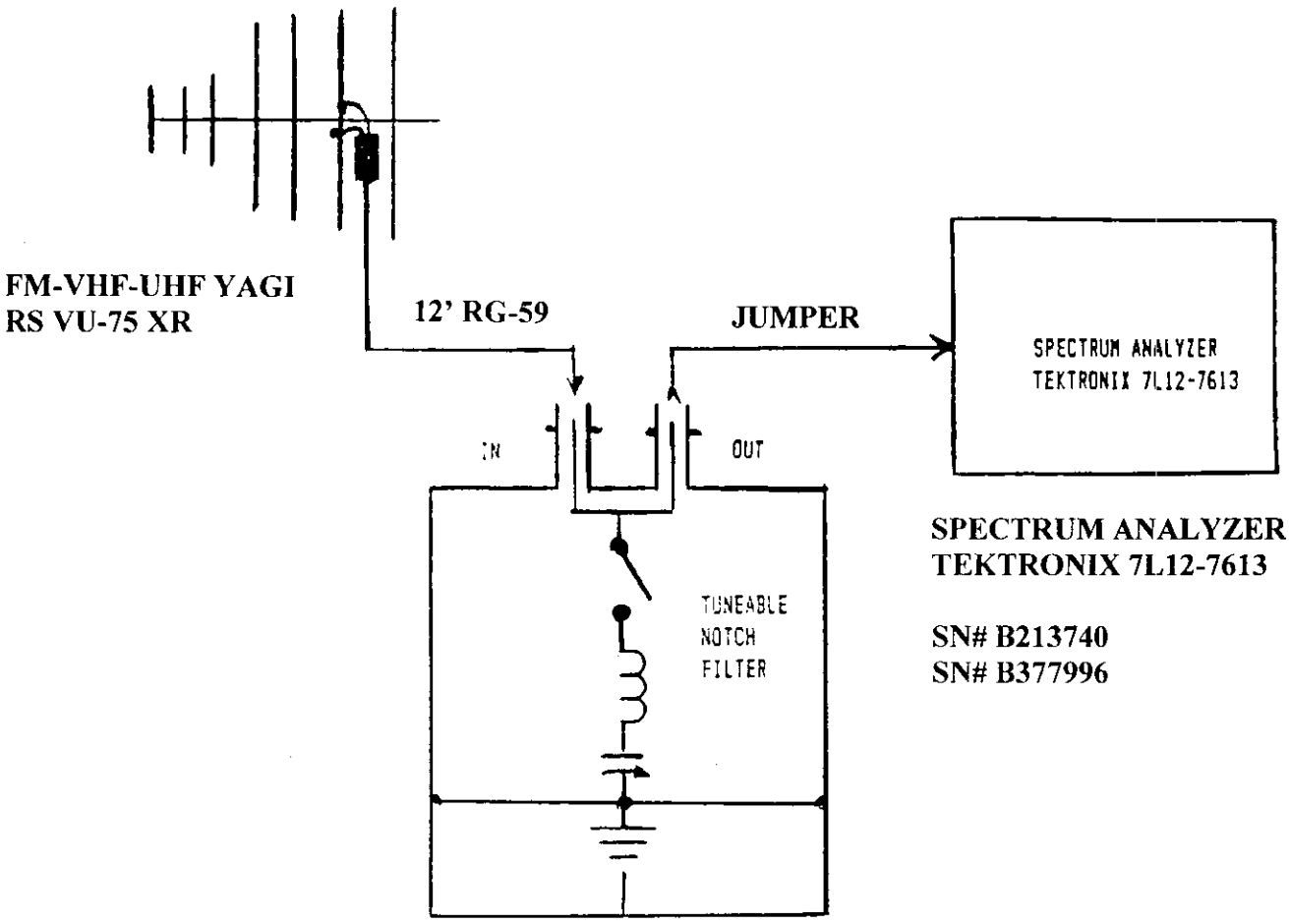
** Note: The KKHK-FM auxiliary transmitter is coupled to the KKHK auxiliary antenna through 4 cavities of a 8 cavity, 2 station antenna combiner.

Measurements were taken in a park located 0.1 miles north-northwest of the intersection of West Jewell Avenue and South Navajo Street, which is approximately 0.15 miles due east of the transmitter site.

KKHK-FM - 99.5 MHz.
Auxiliary Transmitter Facility
RF Equipment Performance Measurements
Tribune Denver Radio
Denver, Colorado
October 2001

EXHIBIT 400

MEASUREMENT EQUIPMENT SETUP DRAWING



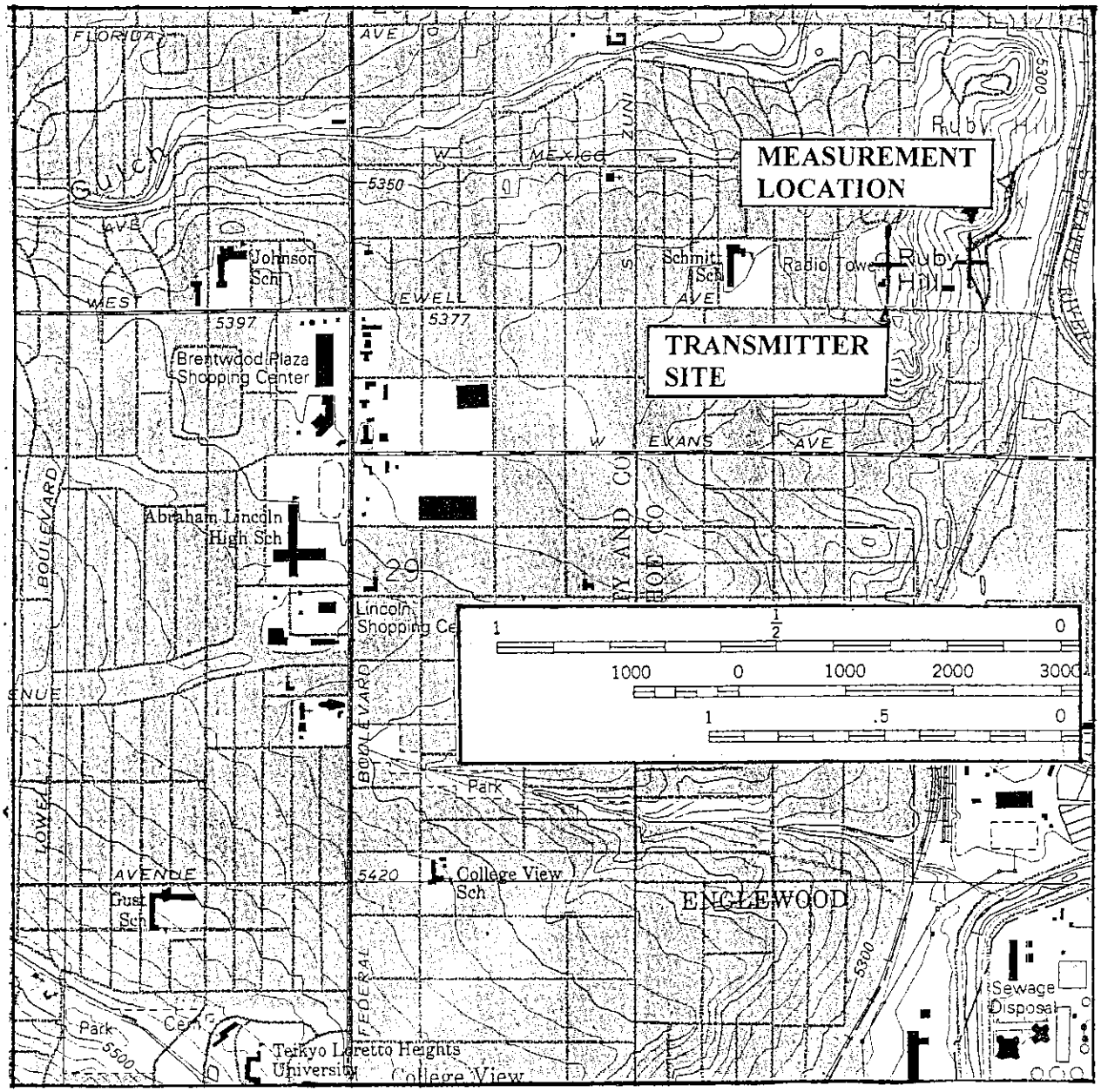
SPECTRUM ANALYZER
TEKTRONIX 7L12-7613

SN# B213740
SN# B377996

KKHK-FM - 99.5 MHz.
Auxiliary Transmitter Facility
RF Equipment Performance Measurements
Tribune Denver Radio
Denver, Colorado
October 2001

EXHIBIT 500

MEASUREMENT LOCATION MAP



J.C. Humke and Associates, Inc., 5457 South Jericho Way, Centennial, CO 80015-3648

STATE OF COLORADO)
)
COUNTY OF ARAPAHOE)
)
CITY OF CENTENNIAL)

EXHIBIT 1000

Joel Clark Humke, being first duly sworn states:

That he is the principal of J.C. Humke and Associates, Incorporated, Broadcast and Communications Consultants, with offices located at 5457 South Jericho Way, Centennial, Colorado 80015-3648

That since 1971 he has held the highest class of Commercial Radiotelephone Operators License issued by the Federal Communications Commission.

That he holds an Associate of Applied Science Degree in Electronics Technology from Ellsworth College, Iowa Falls, Iowa. That he is a graduate of Brown Institute of Broadcasting and Electronics, Minneapolis, Minnesota, in both electronics and broadcasting courses.

That he is a full and active member of the Society of Broadcast Engineers, and the Society of Motion Picture and Television Engineers.

That since 1973 he has been licensed by the Federal Aviation Administration as a Private Pilot with ratings in high performance, complex, single engine fixed wing aircraft.

That from 1977 to 1982 he was retained as the Chief Field Engineer of the Registered Professional Engineering firm of Larry D. Ellis and Associates, P.C., Denver, Colorado.

That he has experience in direct technical consultation with AM, FM, TV, satellite and telecommunications facilities since 1971. That he is an experienced technical consultant whose qualifications are a matter of record with the Federal Communications Commission of the United States Government.

That he as been retained as an expert witness regarding communications matters before the courts and commissions of numerous jurisdictions.

That measurements and / or calculations and exhibits herein were made by him personally or under his direction, and that all facts contained herein are true of his own personal knowledge or belief.

GEORGINA KIRSTEIN NOTARY PUBLIC STATE OF COLORADO

Joel Clark Humke

Joel Clark Humke

Subscribed and sworn before me this 6 day of November, 2001.

Notary Public _____ Date of Commission Expiration: ~~6-12-01~~ 6-12-05