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Public File

WELCOME TO OUR PUBLIC FILE

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**Occupied Bandwidth
And
Harmonic Measurement**

**Prepared for
KTRE-AM
1230khz
Thief River Falls, MN**

7-7-2017

Occupied Bandwidth and Harmonic Measurement Report

As required by 73.1590, 73.44, and 73.317 of Title 47 CFR FCC Rules & Regulations

Date 7-7-2016

Measurement Time 1333

Station KTRF-AM

Frequency 1230 KHZ

Measurements

Harmonic

Miniumum Atten.

Fundamental Freq. 1230 KHZ — +1-0db

1kw.....-73db

Second Harmonic Freq. 2460 KHZ - 7-84db

2.5kw.....-76.9db

Third Harmonic Freq. 3690 KHZ - 7-84.0db

3kw.....-77.8db

5kw.....-79.9db

Above 5kw -80db

Bandwidth AM

+/-15khz to +/-30khz from Fund. -49.0 db Min. -25db(-35db NRSC)

+/-30khz to +/-75khz from Fund. -60.0db Min. -35db

+/-75khz and greater from Fund. -72.0db Min. 43+10(log10)(pw)

Bandwidth FM

+/-120khz to +/-240khz from Fund. N/A db Min. -25db

+/-240khz to +/-600khz from Fund. N/A db Min. -35db

+/-600khz and greater from Fund. N/A db Min. 43+10(log10)(pw)

Measurement Location:

*Occupied bandwidth taken 30ft. Area below OUTSIDE FENCE,
Harmonic measurement taken .6 mi. North of site on thwy 32, outside of ROAD.*

The above measurements were taken at the specified location with a Tektronix 7L12 spectrum analyzer feed with the off-air signal of the transmitter being measured. Bandwidth measurements were taken while modulating the transmitter with normal programming of speech and music.

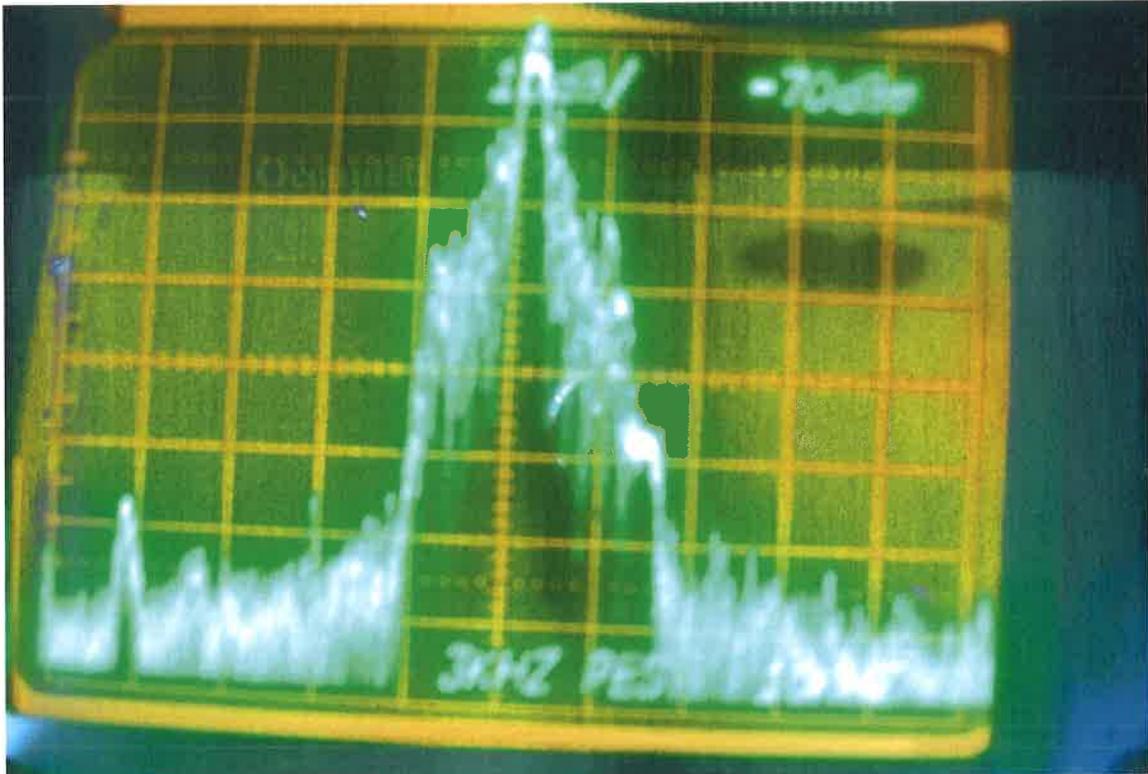
Signed:



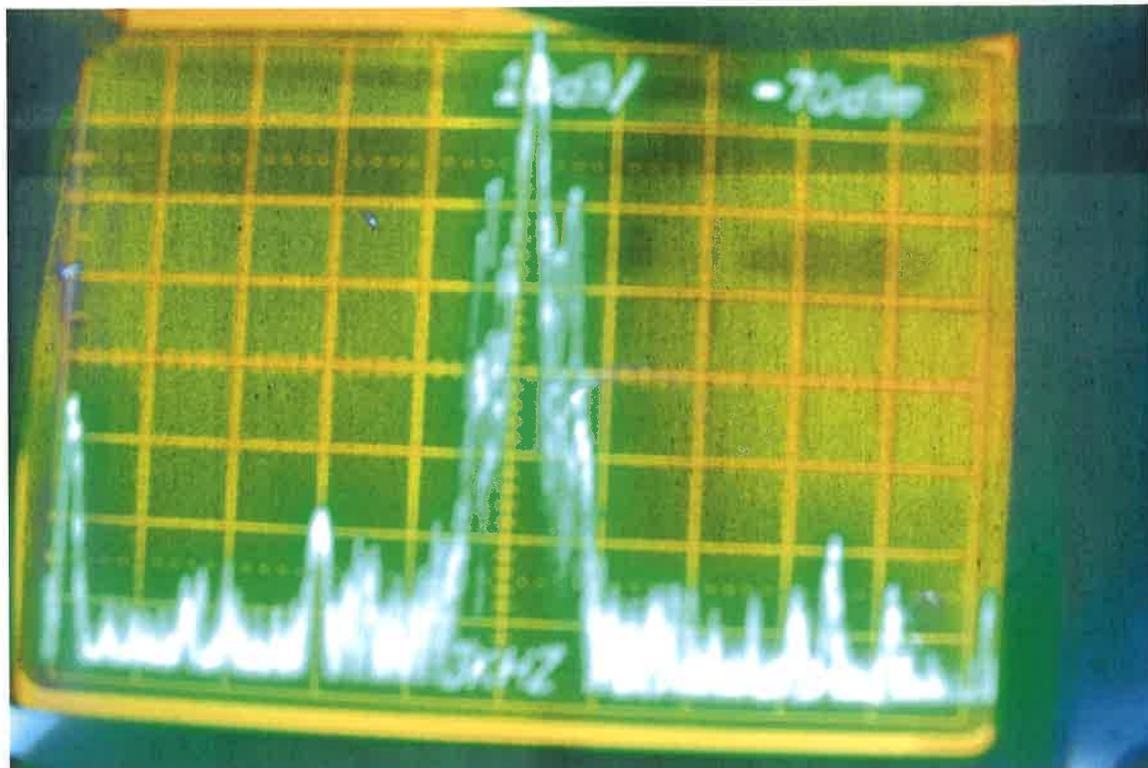
Occupied Bandwidth Measurement

KTRF-AM

7-7-2017



10db/div 10khz/div



10db/div 20khz/div

THIEF RIVER FALLS RADIO

KTRF AM 1230

KKAQ AM 1460

KKDQ FM 99.3



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We will appreciate your care in the handling and proper re-filing of these important documents following your review.

This station operates in full compliance of the rules and regulations of the United States Federal Communications Commission and is proud to serve the public interest, convenience and necessity. We welcome your comments and suggestions. Thank you for your interest.

The Station Management and Staff

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