

# Annual KKOW-AM NRSC-2 Bandwidth Compliance, Harmonics and Spurious Emissions Measurements and Observations Report

Measurements Performed by  
Eric Morris  
on  
September 7, 2023

## Test Methodology

NRSC measurements were made with a Spectrum Analyzer as prescribed by FCC rules 73.1590 and 73.44. Measurements were taken with normal broadcast programming. Harmonics were measured with a Spectrum Analyzer and corrected by the calibration factor data supplied with the Scott Antenna. A tunable notch filter was used to attenuate the fundamental. A communications receiver was used to monitor activity of spurious emissions. The receiver continuously tunes AM broadcast through 12 megahertz.

## Equipment Used

Spectrum Analyzer:  
Anritzu MS2721A

Antenna:  
Chris Scott LP-3 Shielded Loop Antenna

Multi-Band Communication Receiver

## Station

Call Sign:	KKOW-AM
City of License:	Pittsburg, KS
Frequency:	860 Khz
Antenna Mode:	ND
Power:	10000 Watts
Date Measured:	9/7/2023
Location:	Approximately 1.05km WNW of antenna bearing 275°.

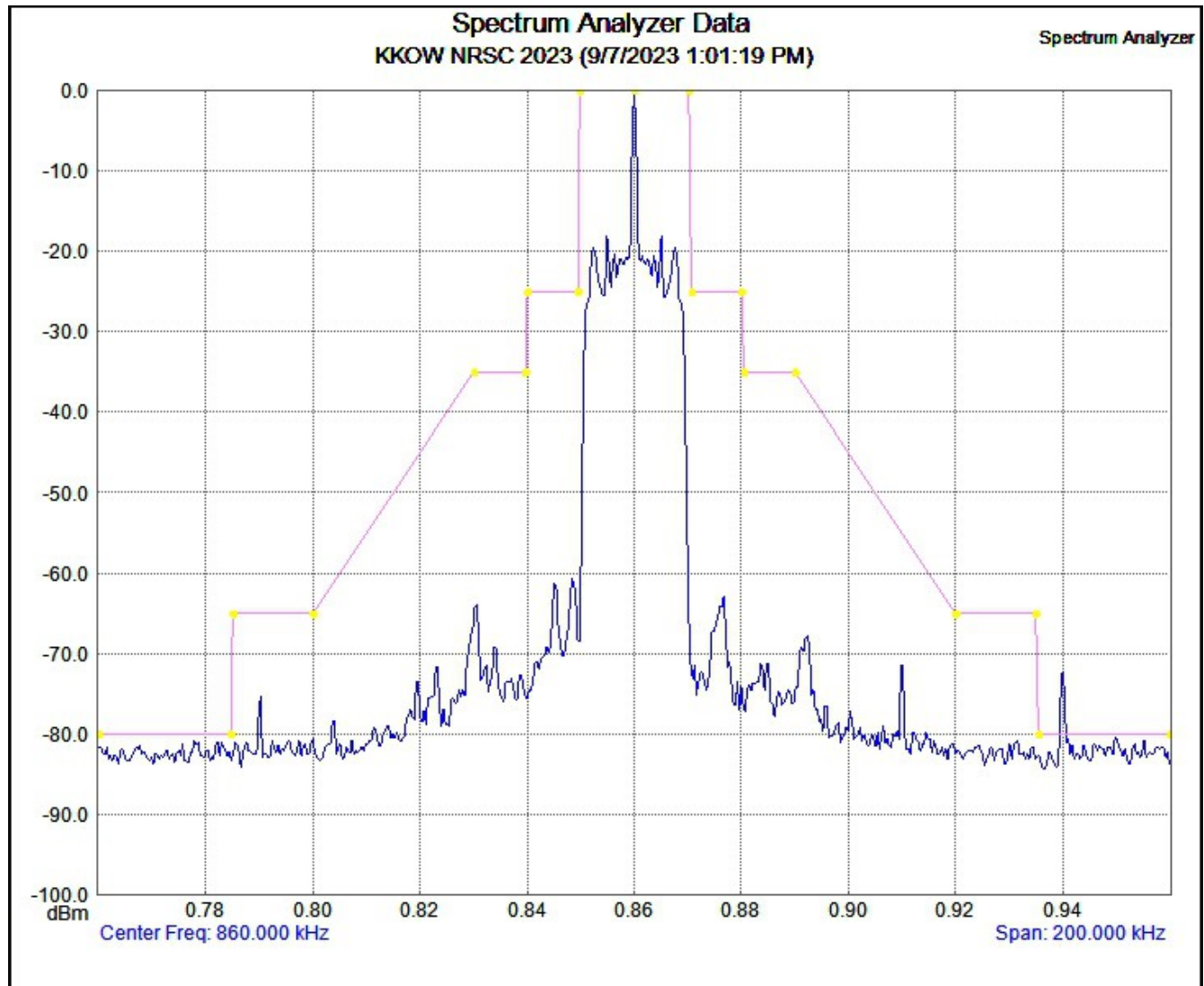
## Harmonic and Spurious Emission Measurements and Observations

Harmonics are required to be 80dB below the carrier level.

Second Harmonic:	1720 Khz	85dB below the carrier level
Third Harmonic:	2580 Khz	80dB below the carrier level

No spurious emissions observed through 12 Mhz on a continuous tune communications receiver.

# NRSC Measurement



Measurement Parameters			
Trace Mode	Max Hold	Start Frequency	760.000 000 kHz
Trace Mode	Max Hold	Stop Frequency	960.000 000 kHz
Preamp	ON	Frequency Span	200.000 000 kHz
Min Sweep Time	5E-05 S	Reference Level	-39.996 dBm
Reference Level Offset	-39.996 dB	Scale	10.0 dB/div
Input Attenuation	10.0 dB	Serial Number	648140
RBW	300.0 Hz	Base Ver.	V1.78
VBW	1.0 MHz	App Ver.	V1.79
Detection	Peak	Date	9/7/2023 1:01:19 PM
Center Frequency	860.000 000 kHz	Device Name	

The proceeding Spectrum Analyzer Data shows the full NRSC mask the only excursion above the mask is a known carrier on 940Khz.

**Qualifications of Engineer**

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Eric Morris has served as a broadcast engineer for more than 33 years and holds a General Radiotelephone Operator License from the FCC and has been recognized as a Certified Professional Broadcast Engineer by the Society of Broadcast Engineers.

Eric Morris serves as the Chief Engineer or primary contract engineer for more than 10 radio stations in Arkansas and Oklahoma.

I hereby certify that the information contained in this report is true and accurate to the best of my ability.



Eric Morris

9-7-23

Date