

MUNN – REESE

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August 30, 2022

Hello Kevin:

Re: NRSC Measurements

Station: WILS(AM), Lansing, MI.

Please find attached the AM Spectrum Analysis report for your station. This field measurement includes a check for compliance with the NRSC-2 Broadcast Transmission Bandwidth Specifications, along with the annual spurious and harmonic checks required for the station. A frequency measurement is also included. This information is to be kept on file with your Engineering records at the station in the event an FCC inspector requests it. No filing of this data with the FCC in Washington, D.C. is required.

I am pleased to report that the station passed all of the measurement tests for this calendar year. I am supplying you with an original PDF copy of the spectrum analyzer results. Feel free to make as many copies as deemed necessary.

If you have questions regarding this information, please do not hesitate to contact Mr. Ed Trombley, senior engineer, or myself.

Sincerely,



Bruce Bellamy, President

**ENGINEERING REPORT
OCCUPIED SPECTRUM ANALYSIS**

CFR 47 §73.44 Compliance

WILS(AM) - Lansing, MI

1320 kHz

August 2022

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AM OCCUPIED SPECTRUM ANALYSIS

Station Data

Call: WILS

City of License: Lansing, MI

Frequency: 1320 kHz

Operating Mode: DA2

Schedule: Unlimited

Day Power: 25.0 kW

Nighttime Power 1.9 kW

Facility ID: 39537

Measurement Date: 08/10/22

Discussion

The measurement data obtained for this report indicates the operation of WILS to be IN COMPLIANCE with the provisions of CFR 47 §73.44 of the FCC rules regarding AM Broadcast Stations. Occupied Spectrum measurements were taken during the regular broadcast day by Edmond R. Trombley, Staff Engineer in the regular employ of Munn-Reese. In addition, spurious emission and harmonic measurements were made using a calibrated field strength meter. All measurements were made within 1 km of the transmitter, to provide sufficient signal to the analyzer.

Equipment employed

Anritsu MS2721B Spectrum Master. Technical specifications of the Anritsu MS2721B are available on the Internet at www.anritsu.com.

Potomac Instruments FIM-41, Field Meter, Serial No: 1149. Calibration Date: 06/24/2022. Technical specifications of the FIM-41 field intensity meter are available at www.pi-usa.com.

EXHIBITS

Measured Carrier Frequency – 1,320,000.483 Hz.

Figure A - Plot of Occupied Spectrum – Span 50 kHz Daytime

Figure B - Plot of Occupied Spectrum – Span 200 kHz Daytime

Figure C - Plot of Occupied Spectrum – Span 50 kHz Nighttime


Figure D - Plot of Occupied Spectrum – Span 200 kHz Nighttime

Figure E - Tabulation of Harmonic Measurement Data

Daytime Operating Power:	25.0 kW			
Nighttime Operating Power:	1.9 kW			
Required Attenuation Daytime:	-80.00 dB			
Required Attenuation Nighttime:	-75.79 dB			
Fundamental Field Daytime:	3740 mV/M			
Fundamental Field Nighttime:	1840 mV/M			
2nd. Harmonic:	0.088 mV/m	-92.57	dB below Day reference	
	0.017 mV/m	-100.69	dB below Night reference	
3rd. Harmonic:	0.094 mV/m	-91.99	dB below Day reference	
	0.021 mV/m	-98.85	dB below Night reference	

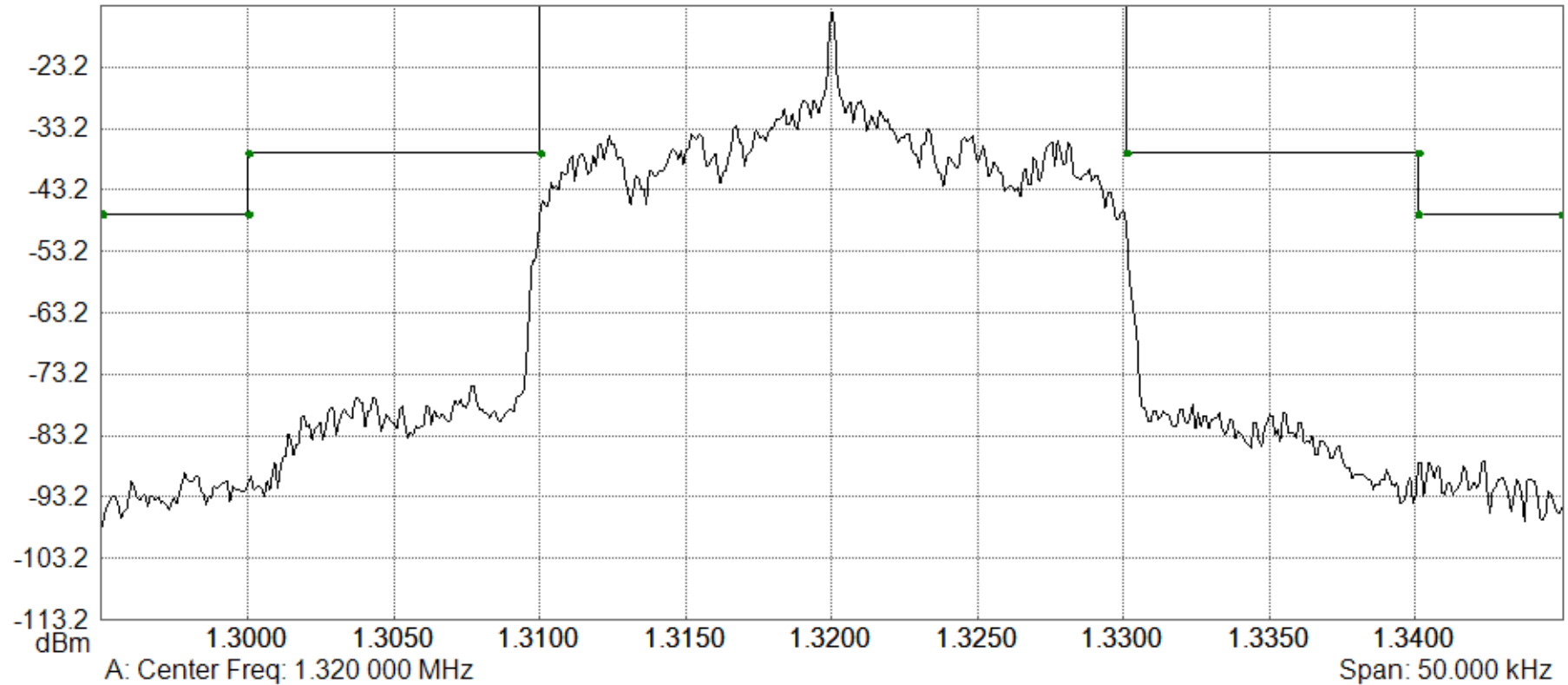
This report has been prepared by properly trained electronics specialists under the direction of the undersigned whose qualifications are a matter of record before the Federal Communications Commission. I declare under penalty of laws of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

August 30, 2022

By 
Edmond R. Trombley, Project Engineer

Spectrum Analyzer Data
WILS-A (8/10/2022 11:50:11 AM)

Spectrum Analyzer



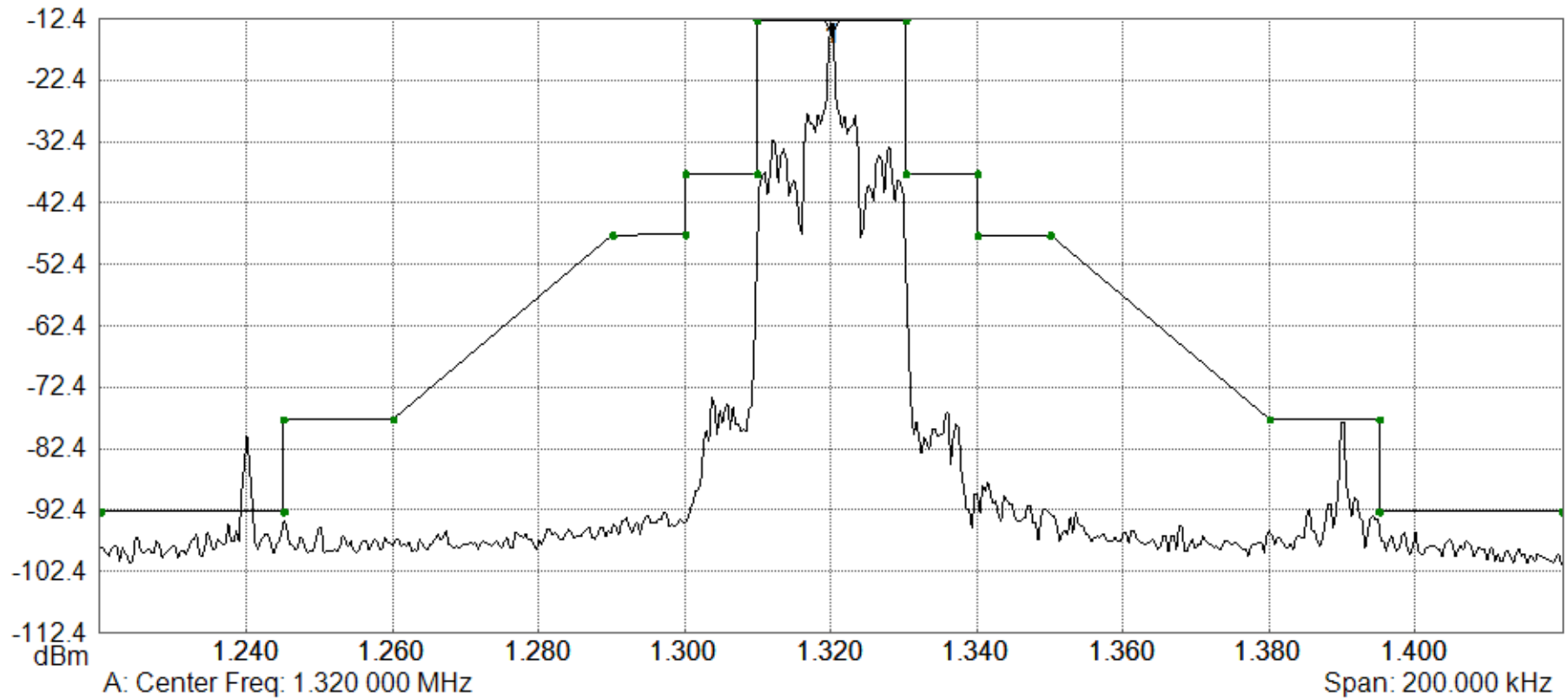
Trace A data:
Trace Mode = Max Hold
Preamplifier = OFF
Min Sweep Time = 0.001 S
Reference Level Offset = 0 dB

Input Attenuation = 10.0 dB
RBW = 100.0 Hz
VBW = 30.0 Hz
Detection = Peak
Center Frequency = 1.320 000 MHz

Start Frequency = 1.295 000 MHz
Stop Frequency = 1.345 000 MHz
Frequency Span = 50.000 000 kHz
Reference Level = -13.200 dBm
Scale = 10.0 dB/div

Spectrum Analyzer Data
WILS-B (8/10/2022 11:47:27 AM)

Spectrum Analyzer



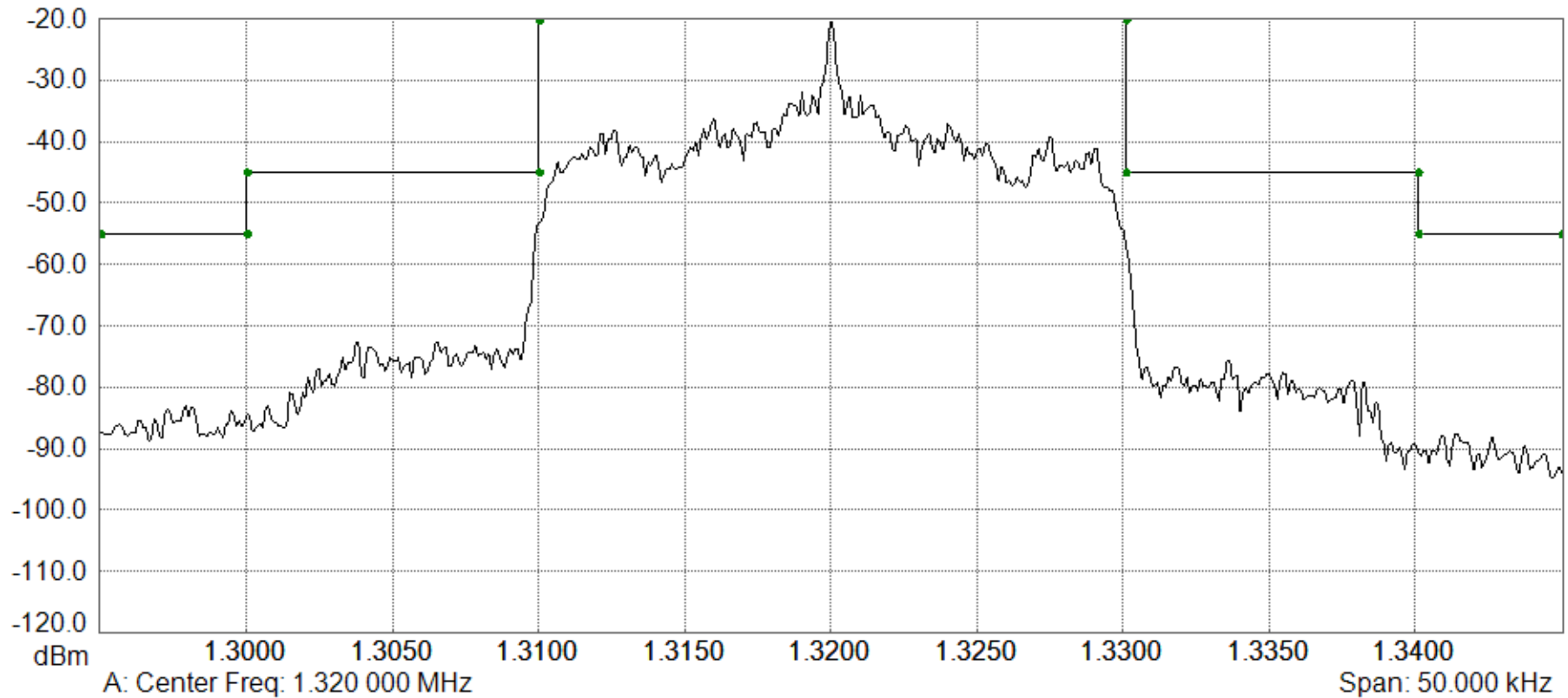
Trace A data:
Trace Mode = Max Hold
Preamplifier = OFF
Min Sweep Time = 0.001 S
Reference Level Offset = 0 dB

Input Attenuation = 10.0 dB
RBW = 300.0 Hz
VBW = 100.0 Hz
Detection = Peak
Center Frequency = 1.320 000 MHz

Start Frequency = 1.220 000 MHz
Stop Frequency = 1.420 000 MHz
Frequency Span = 200.000 000 kHz
Reference Level = -12.400 dBm
Scale = 10.0 dB/div

Spectrum Analyzer Data
WILS-C (8/10/2022 12:00:40 PM)

Spectrum Analyzer



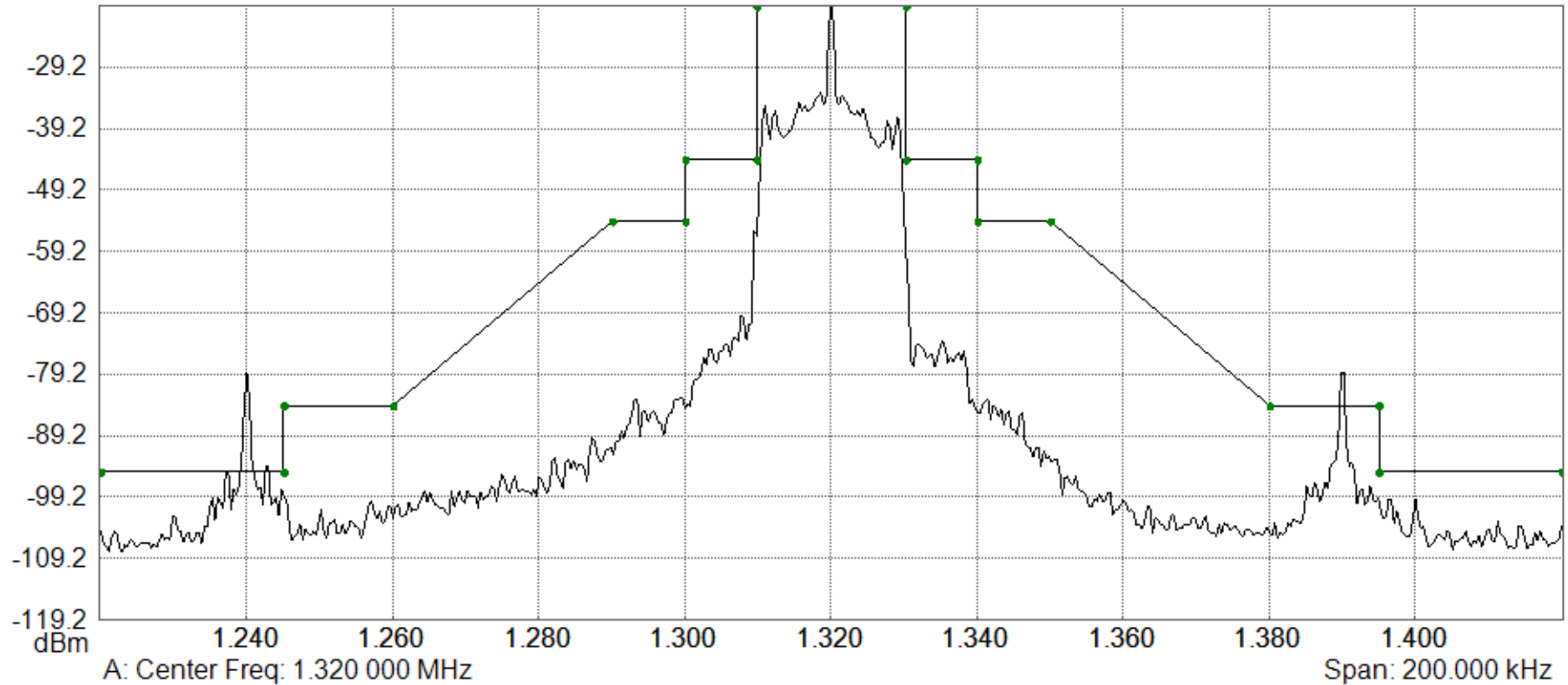
Trace A data:
Trace Mode = Max Hold
Preamplifier = OFF
Min Sweep Time = 0.001 S
Reference Level Offset = 0 dB

Input Attenuation = 0.0 dB
RBW = 100.0 Hz
VBW = 30.0 Hz
Detection = Peak
Center Frequency = 1.320 000 MHz

Start Frequency = 1.295 000 MHz
Stop Frequency = 1.345 000 MHz
Frequency Span = 50.000 000 kHz
Reference Level = -20.000 dBm
Scale = 10.0 dB/div

Spectrum Analyzer Data
WILS-D (8/10/2022 11:55:06 AM)

Spectrum Analyzer



Trace A data:
Trace Mode = Max Hold
Preamplifier = OFF
Min Sweep Time = 0.001 S
Reference Level Offset = 0 dB

Input Attenuation = 5.0 dB
RBW = 300.0 Hz
VBW = 100.0 Hz
Detection = Peak
Center Frequency = 1.320 000 MHz

Start Frequency = 1.220 000 MHz
Stop Frequency = 1.420 000 MHz
Frequency Span = 200.000 000 kHz
Reference Level = -19.200 dBm
Scale = 10.0 dB/div