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ENGINEERING REPORT
OCCUPIED SPECTRUM ANALYSIS

CFR 47 §73.44 Compliance

WGDN(AM) - Gladwin, MI

1350 kHz

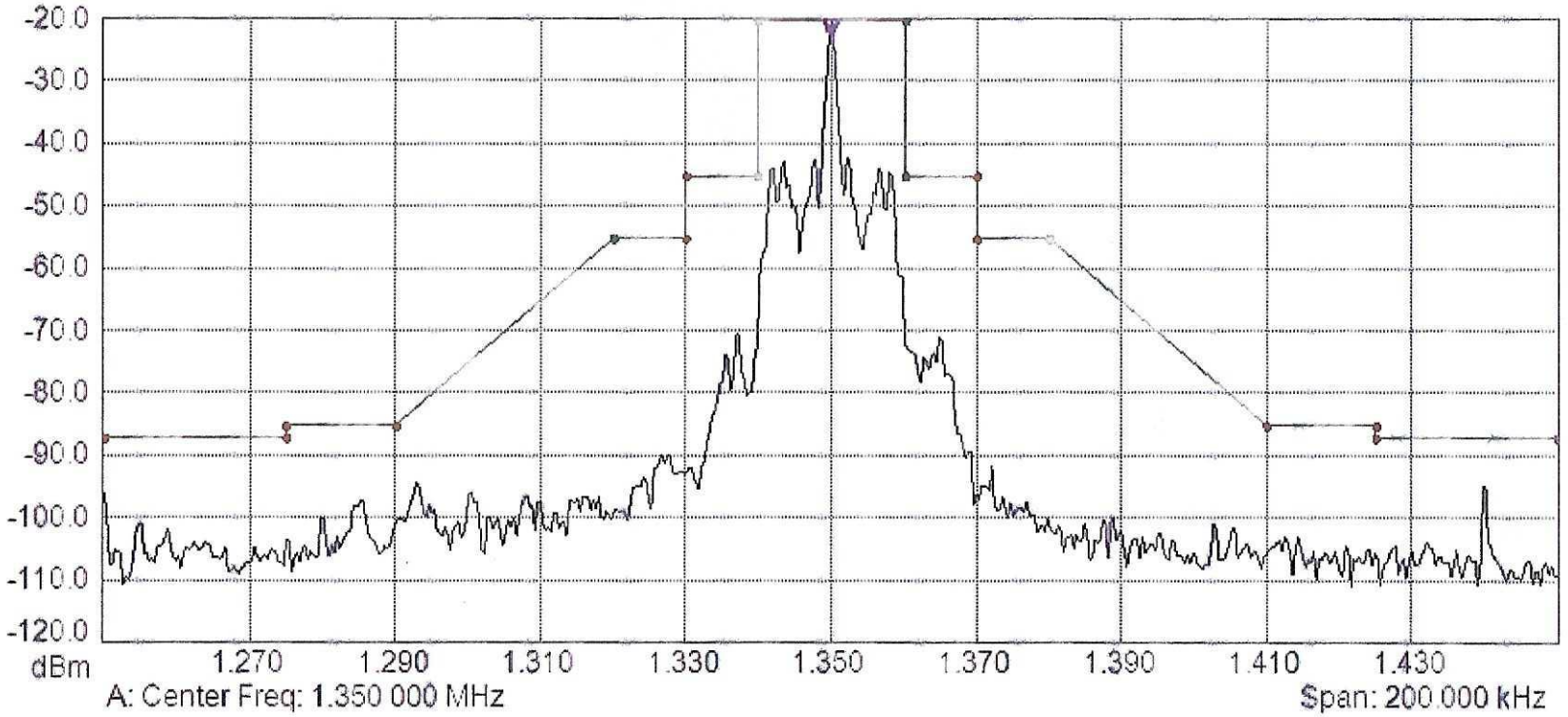
August 2016

MUNN–REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

Spectrum Analyzer Data

WGDN-B (8/27/2016 12:46:11 PM)

Spectrum Analyzer



Trace A data:	Detection = Peak	Base Ver. = V4.32
Trace Mode = Max Hold	Center Frequency = 1.350 000 MHz	App Ver. = V5.73
Preamp = OFF	Start Frequency = 1.250 000 MHz	Model = MS2721B
Min Sweep Time = 0.001 S	Stop Frequency = 1.450 000 MHz	Options = 9, 20, 31
Reference Level Offset = 0 dB	Frequency Span = 200.000 000 kHz	Date = 8/27/2016 12:46:11 PM
Input Attenuation = 0.0 dB	Reference Level = -20.000 dBm	Device Name =
RBW = 300.0 Hz	Scale = 10.0 dB/div	
VBW = 100.0 Hz	Serial Number = 1002033	

AM OCCUPIED SPECTRUM ANALYSIS

Station Data

Call: WGDN

City of License: Gladwin, MI

Frequency: 1350 kHz

Operating Mode: NDD

Schedule: Daytime

Day Power: 0.25 kW

Nighttime Power N/A

Facility ID: 2483

Measurement Date: 08/27/2016

Discussion

The measurement data obtained for this report indicates the operation of WGDN 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, Inc. 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: 05/04/2016. Technical specifications of the FIM-41 field intensity meter are available at .

EXHIBITS

Measured Carrier Frequency – 1,350,000.845 Hz.

Figure A - Plot of Occupied Spectrum – Span 50 kHz

Figure B - Plot of Occupied Spectrum – Span 200 kHz

Figure 3 - Tabulation of Harmonic Measurement Data

HARMONIC MEASUREMENT DATA

Operating Power:	0.25 kW	
Required Attenuation:	66.98 dB	
Fundamental Field:	3850 mV/M	
Second Harmonic:	0.024 mV/m	-104.10 dB below reference
Third Harmonic:	0.088 mV/m	-92.82 dB below 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, 2016

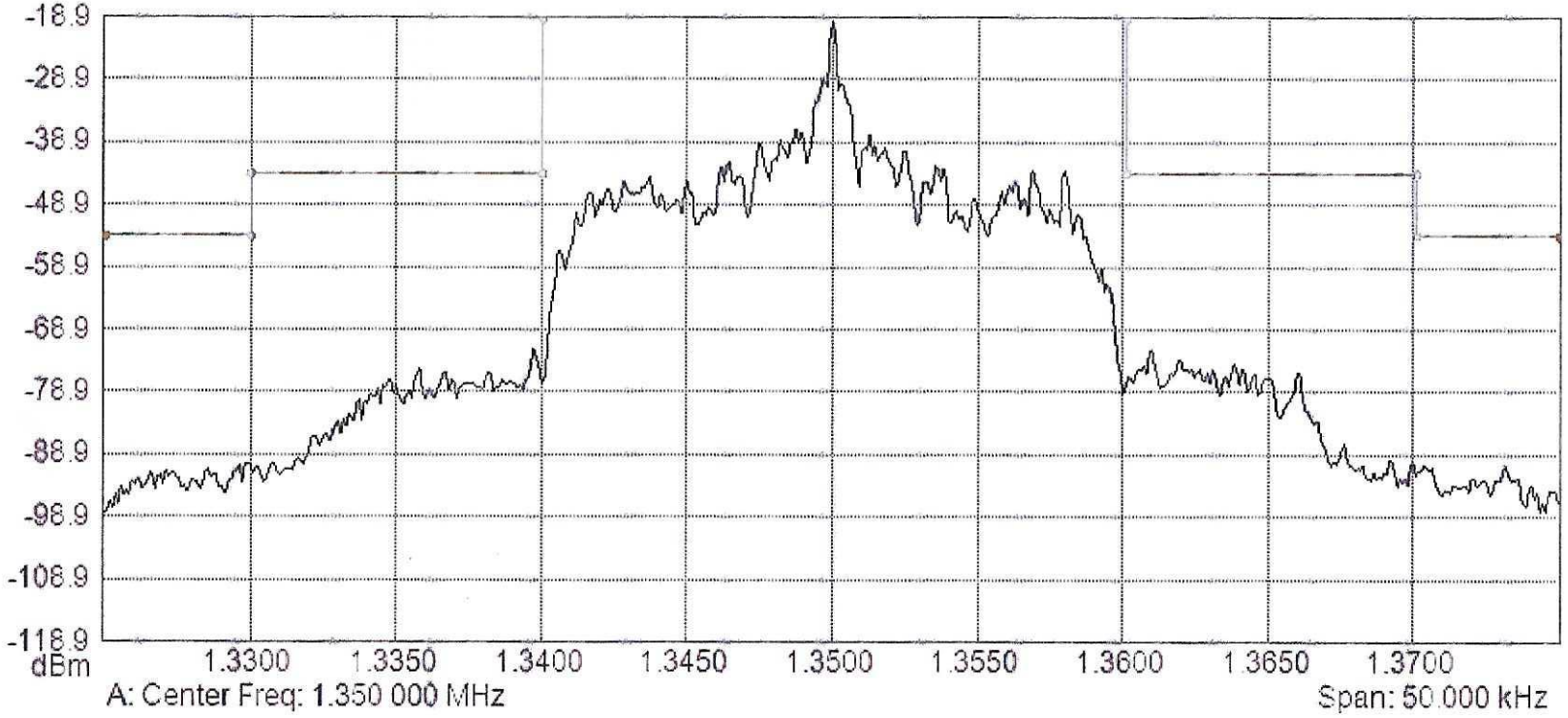
By _____
Wayne S. Reese, President

By _____
Edmond R. Trombley, Project Engineer

Spectrum Analyzer Data

WGDN-A (8/27/2016 1:01:59 PM)

Spectrum Analyzer



Trace A data:	Detection = Peak	Base Ver. = V4.32
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Min Sweep Time = 0.001 S	Stop Frequency = 1.375 000 MHz	Options = 9, 20, 31
Reference Level Offset = 0 dB	Frequency Span = 50.000 000 kHz	Date = 8/27/2016 1:01:59 PM
Input Attenuation = 5.0 dB	Reference Level = -18.900 dBm	Device Name =
RBW = 100.0 Hz	Scale = 10.0 dB/div	
VBW = 30.0 Hz	Serial Number = 1002033	