WEEB 990 kHz, Southern Pines NC

Occupied Bandwidth Measurement

December 31, 2016

Purpose.

To confirm compliance by WEEB (AM) with 47 FR 73.44, *AM transmission system emission limitations*. Measurements were made on December 28, 2015. The results are detailed in this report.

Equipment.

- Agilent N9340B spectrum analyzer, Serial CN03488216, calibrated July, 2012
- Chris Scott & Associates LP-3 standard H-field antenna

Location.

A site was chosen that was free of overhead electrical lines and was positioned to minimize interference from a station in Sanford NC on 1050 Khz. The loop antenna was able to produce a twenty decibel null on WEEB, which suggested minimal local re-radiation. The measurements were made on Pinefield Ct at a point 70 meters from Midland Rd which is 0.191 kilometers from the WEEB tower as established by Google Earth and confirmed via Garmin GPS-60.

Method.

The above referenced equipment was set up and confirmed to be operating correctly. In 'peak hold' mode, two ten-minute continuous recordings of emissions from WEEB were made during the period from 12:17 Noon to 12:49 PM on December 31, 2016. The data from those measurements were saved to memory for later reproduction.

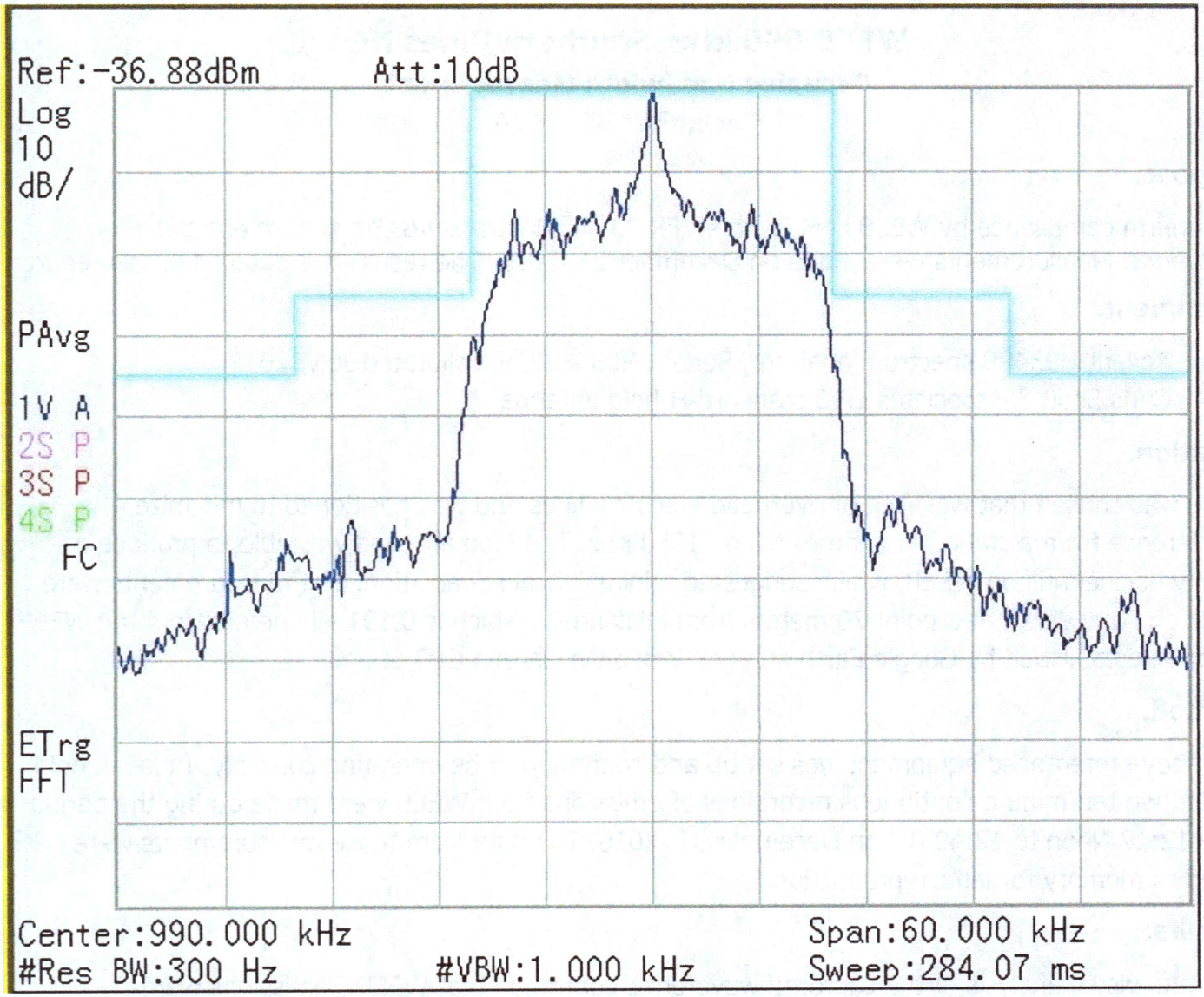
Results.

A careful visual analysis of the captured waveforms confirmed that WEEB's emissions were attenuated in compliance with 47 CFR 73.44. Figures 1 & 2 (below) are an accurate representation of the captured waveforms.

In addition, a third measurement (Figure 3) was made in the driveway of the station approximately 120 meters from the tower to confirm that out-of-band noise was unlikely to be radiating from the station's tower.

Qualifications.

The undersigned made all preparations and measurements for this report. He is an experienced broadcast engineer having been involved in radio and television engineering since 1968. He has served as chief and assistant chief engineer for AM, FM and television stations as well as working with manufacturers and vendors of broadcast equipment in a technical capacity. He currently serves as engineering consultant to WEEB.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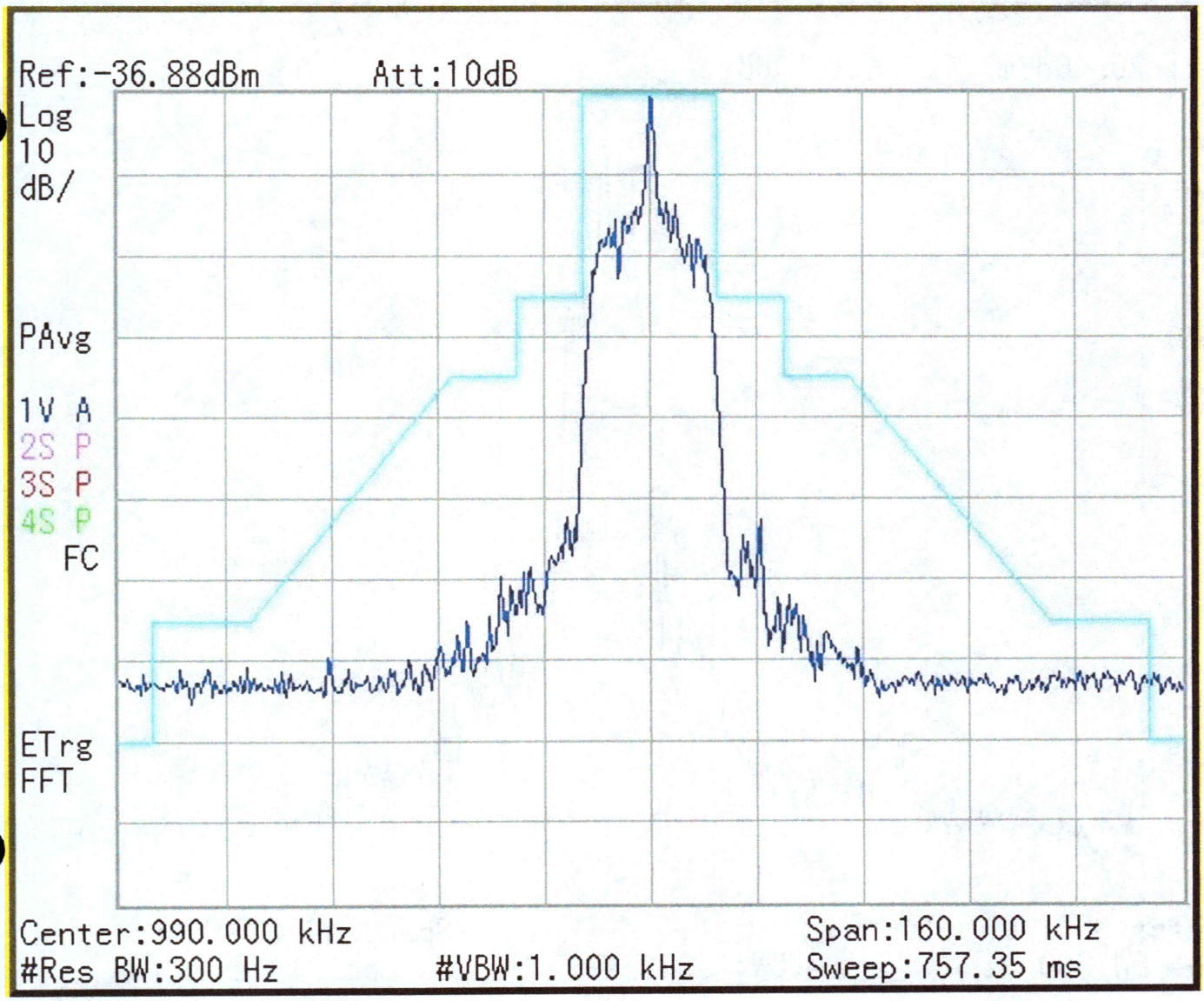
Att:10dB
Log
10
dB/
PAvg
1V A
2S P
3S P
4S P
FC
ETrg
FFT
Center:990.000 kHz
#Res BW:300 Hz
#VBW:1.000 kHz
Span:60.000 kHz
Sweep:284.07 ms

Figure 1


Ref:-36.88dBm
Att:10dB
Log
10
dB/
PAvg
1V A
2S P
3S P
4S P
FC
ETrg
FFT
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#VBW:1.000 kHz
Span:160.000 kHz
Sweep:757.35 ms

Figure 2.

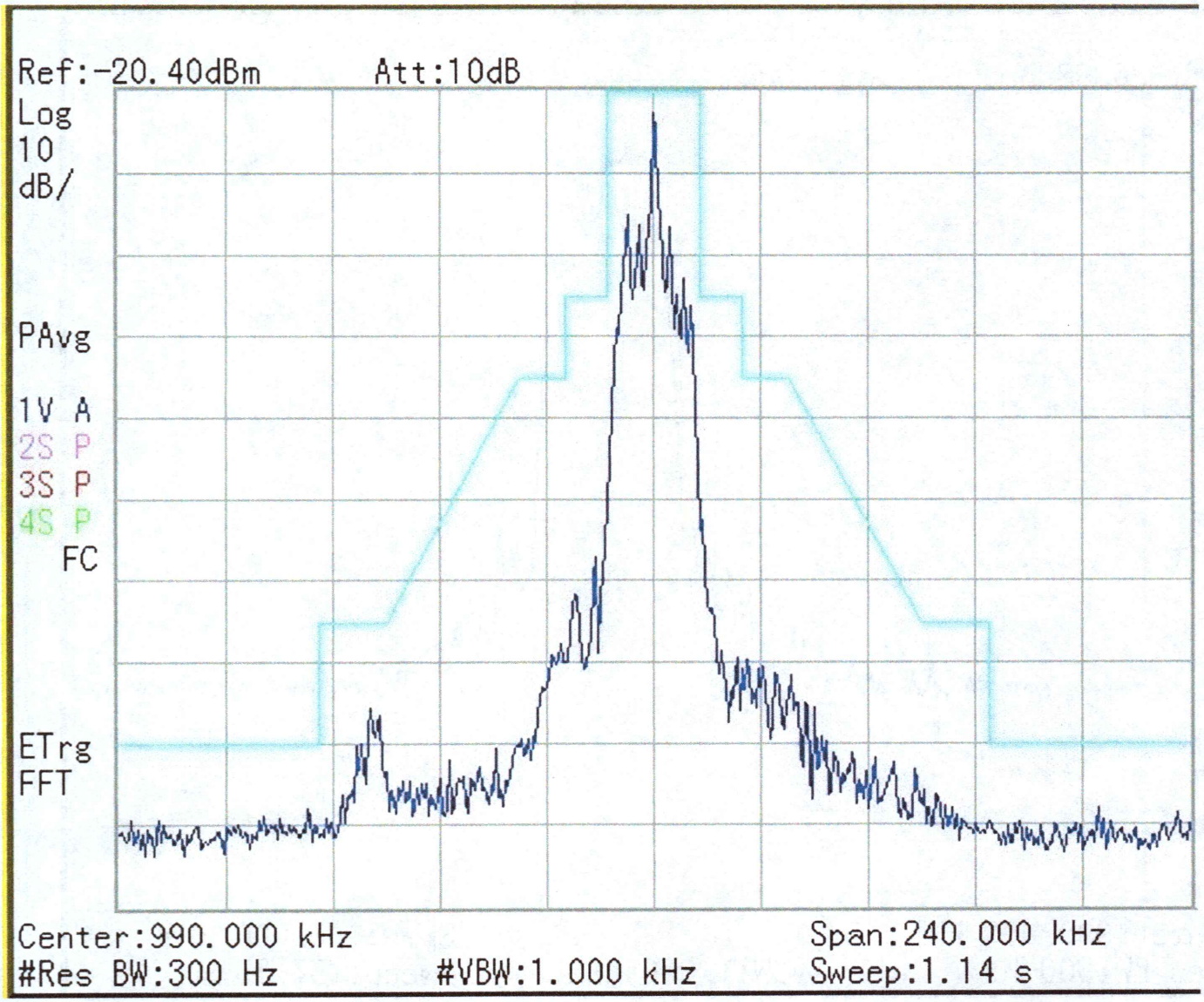

Figure 3.

The signature below certifies that all representations made in this report are true and correct to the best of the undersigned's knowledge.

December 31, 2016

James Heim
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