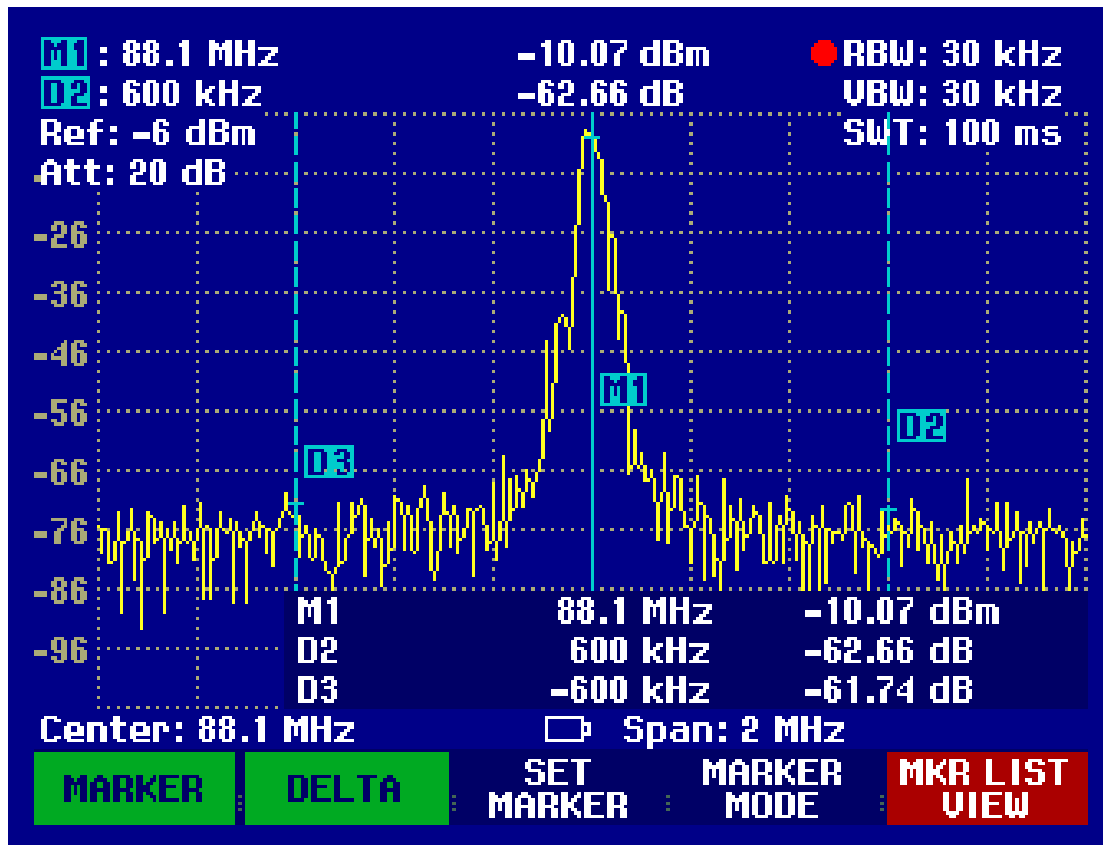


## **Spectrum Emission Compliance W201DJ / W260BU**

Tests were conducted to determine compliance with 47 C.F.R. 73.317(b) through 73.317(d) for W201DJ FAC 152243 and W260BU FAC 152253 to share a common transmit Antenna located ASRN 102561 using a transmit combiner.

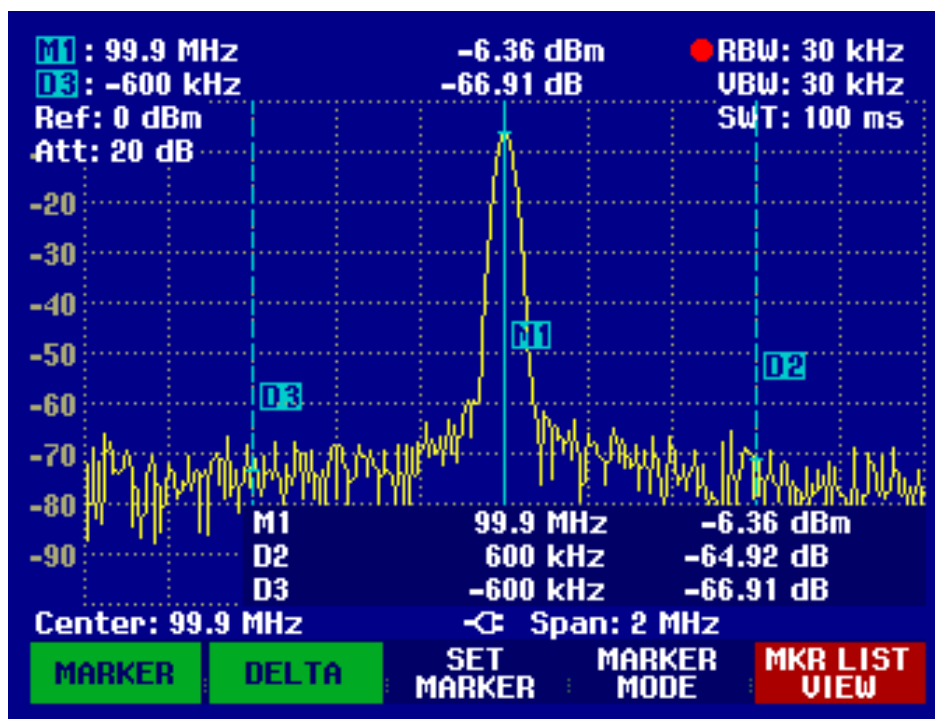
### **Method used for gathering data**

Signals were measured with a transmitter for each station connected to the proper port of a Telewave combiner designated for each proper operating frequency. A Bird Wattmeter model 43 serial number 219174 was connected directly between the antenna port of the combiner and the antenna feedline for the antenna system. A Bird 50 dB sample port element 50db 25mhz to 1000mhz was used for obtaining a test signal for making measurements. The measurement data was gathered using a Rohde & Swartz model FSH3 Spectrum Analyzer serial number 105325. I used software Program FSH View Utility to transfer the spectrum screen shots from the Rohde & Schwarz Spectrum analyzer via optical USB port to a HP DV6000 notebook computer.



*Fig1 88.1mhz W201DJ*

According to 47 C.F.R. 73.317(d) the limits for emissions more than 600 KHz from the assigned carrier frequency is equal to “43 + 10 Log10 (Power, in watts) dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.” Therefore the limit is 43 + 10 Log10(53 Watts) = 43 + 17.2 = 60.24 dB below the unmodulated reference carrier. Reference above in fig.1 for W201DJ.



***Fig2 99.9mhz W260BU***

According to 47 C.F.R. 73.317(d) the limits for emissions more than 600 KHz from the assigned carrier frequency is equal to “43 + 10 Log10 (Power, in watts) dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.” Therefore the limit is 43 + 10 Log10(79 Watts) = 43 + 18.97 = 61.97 dB below the unmodulated reference carrier. Reference above in fig. 2 .

Per rule 73.317, measurements were made for any spurious emissions at between 120 kHz and 240 kHz either side of the stations operating frequency.

Further measurements were made at between 240 kHz and 600 kHz either side of the carrier frequency. These measurements were conducted with no modulation present; and no spurious emissions were noted. Measurements were then made at the second and third harmonic frequencies of the described stations operating frequency. Again, no spurious signals were present. A close scan of Aviation spectrum between 108 mHz & 136 mHz also showed no signs of spurious emissions. A scan of the spectrum, up to and including 500 mHz, was made to look for any other spurious emissions from the W201DJ / W260BU combined transmission system; and none could be found.

According to all measurements observed, including but not limited to that presented herein, W201DJ / W260BU is in full compliance with all FCC Requirements of 47 C.F.R. 73.317(b) through 73.317(d).

## **Certification**

I certify that I personally conducted all measurements and prepared all statements within this document as represented herein and that all such work was done using good engineering practice.

Broadcast Engineer

A handwritten signature in dark ink, appearing to read "Victor M. Vickers", is written over a light gray rectangular background.

Victor M. Vickers