

## Spurious Emissions Measurement

Spectrum measurements to detect unwanted intermodulation products and other spurious emissions were conducted on Americom's combined FM antenna system located on Red Peak in Reno, Nevada.

These measurements were made using an Anritsu MS2721A Spectrum Analyzer on March 3, 2016. All four translators; K223AL, K241AK, K245BV, and K285EQ, were operating at full proposed power via the combined antenna system. The analyzer was in max hold mode for 10 minutes.

Sweeps of the entire FM band were performed both with and without the translators operating. As can be seen on the following spectrum analyzer plots, no spurious emissions were observed as a result of the antenna change and power increase.

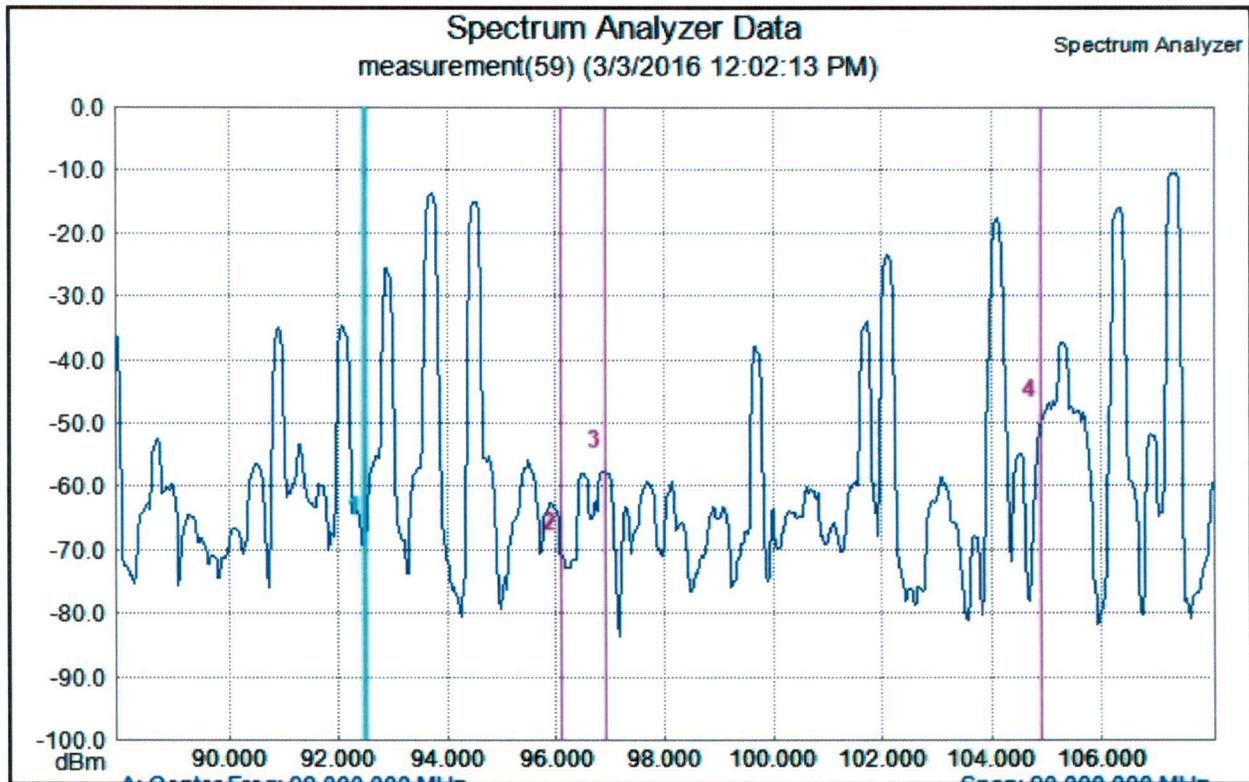
These measurements were taken inside the equipment room at the base of the tower.

It is thus believed that the change to a Shively 6832-2 antenna and TPO increase for the translators of the combined antenna system is compliant with 47CFR 73.317(b-d) in that there are no undesired spurious or mix products generated.



Dennis Christensen

3/3/2016



Measurement Parameters

Trace Mode	Max Hold	Start Frequency	88.000 000 MHz
Trace Mode	Max Hold	Stop Frequency	108.000 000 MHz
Preamp	OFF	Frequency Span	20.000 000 MHz
Min Sweep Time	5E-05 S	Reference Level	0.000 dBm
Reference Level Offset	-0.002 dB	Scale	10.0 dB/div
Input Attenuation	0.0 dB	Serial Number	647154
RBW	30.0 kHz	Base Ver.	V1.78
VBW	3.0 kHz	App Ver.	V1.79
Detection	Peak	Date	3/3/2016 12:02:13 PM
Center Frequency	98.000 000 MHz	Device Name	

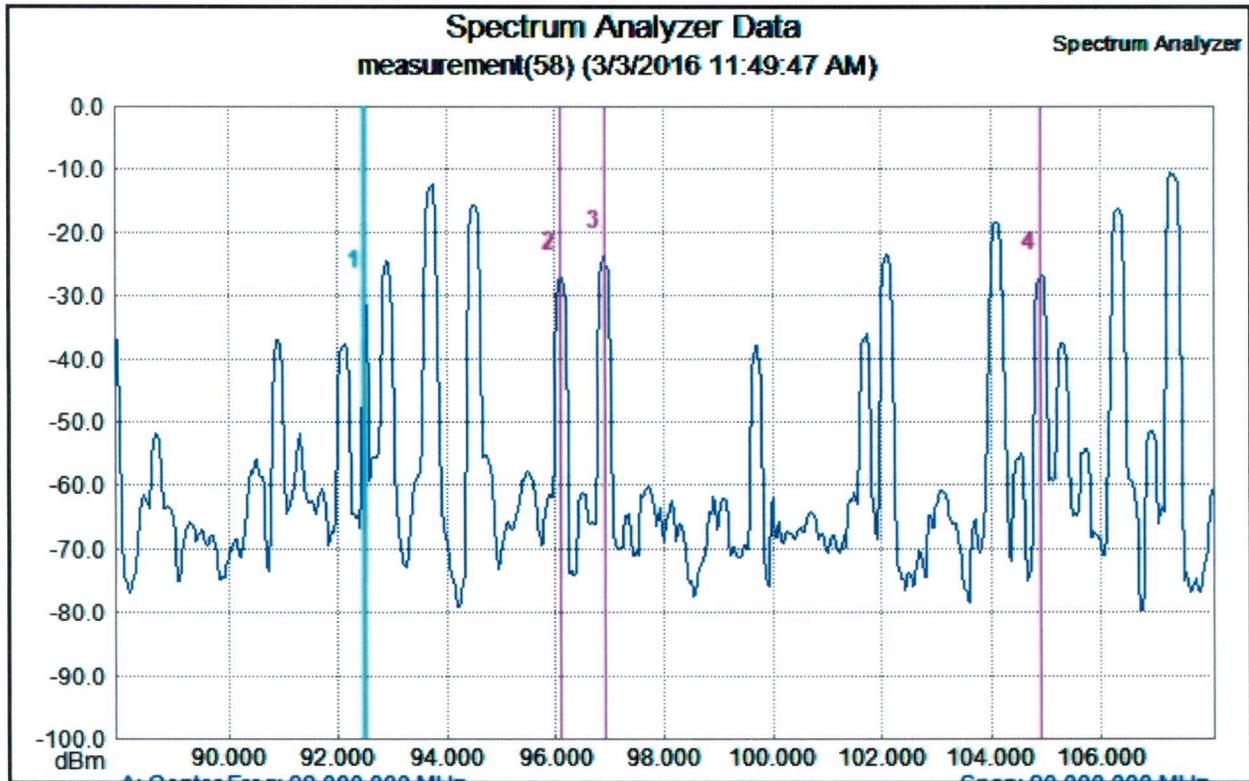
Spectrum Display without the translators operating

Marker (1) is K223AL

Marker (2) is K241AK

Marker (3) is K245BV

Marker (4) is K285EQ



Measurement Parameters			
Trace Mode	Max Hold	Start Frequency	88.000 000 MHz
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Reference Level Offset	-0.002 dB	Scale	10.0 dB/div
Input Attenuation	0.0 dB	Serial Number	647154
RBW	30.0 kHz	Base Ver.	V1.78
VBW	3.0 kHz	App Ver.	V1.79
Detection	Peak	Date	3/3/2016 11:49:47 AM
Center Frequency	98.000 000 MHz	Device Name	

Spectrum Display with the translators operating.

Marker (1) is K223AL

Marker (2) is K241AK

Marker (3) is K245BV

Marker (4) is K285EQ