



“Centennial Celebration!”
April 14-24, 2011

For Immediate Release – April 24, 2011

Contact: Launa Rabago, Marketing Manager
Phone: 520-762-9100 x 14
Email: Launa@PimaCountyFair.com
Website: www.PimaCountyFair.com

Broadcast Microwave Interference

The wireless ticketing system in use at the Pima County Fair operates at the frequency level of 2.4GHz. This is the same unlicensed 802.11 bandwidth, commonly in used in offices, airports, college campuses & homes throughout the world. Increasingly, outdoor events, and facilities use 802.11B/G or N (2.4GHz) and 802.16 networks for a variety of important functions, including, security, communications & electronic ticketing.

Many TV broadcast stations use mobile trucks with ultra-high frequency microwave transmission systems that are on or near 2.4GHz frequency. A microwave transmitter operating near 2.4GHz will often have a devastating effect on an 802.11 b/g or n WiFi network, essentially crushing the WiFi communication between computers and devices, within a radius of several hundred yards.

While the “outage” may not be too costly when it’s merely a “WiFi Hotspot”, where people are simply accessing the internet, it can be very costly to an event using a high capacity wireless ticketing servicing large crowds of people.

A TV microwave truck may, or may not, interfere; depending on the licensed frequency the station is assigned and operating on. If possible, to avoid shutting down WiFi networks in the immediate vicinity, broadcast engineers should look at using frequencies higher than 5.8GHz. If this is not possible, then a buffer of at least 200 yards should be maintained between the Microwave transmission source (truck) and the area covered by the 2.4GHz 802.11 wireless signals. Even if the microwave transmission dish is facing away, there could still be a 200-yard or more “kill zone” 360 degrees around the microwave dish & vehicle.

When changing frequencies isn’t an option, TV microwave trucks can avoid disrupting the events they are covering by minimizing idle transmission time and maintaining appropriate distance buffers. Armed with this knowledge, media departments and broadcast producers & coordinators can be aware of the potential Microwave/WiFi conflict and be, able to plan accordingly.

Bil Lowry

Director IT / Marketing Technologies

RAY CAMMACK SHOWS

4950 W Southern Ave
Phoenix, AZ 85339
602 237 3333
602 574 4422