

APCO 2000

Simulcast Forum

The County of Santa Clara

- N. California, South Bay Area - Silicon Valley
- Geographically diverse
- Many Radio Sites

Simulcast

- 1989 First 800 MHz System
- 1991 - 3 800 MHz Systems
- 1998 - 3 VHF Analog Systems
- **2000 - 1 VHF Analog System (MTR2000)**
- **2000 - Upgrade 1 VHF System to IMBE (APCO CAI)**

MTR2000 System

- Based on the Motorola Design
 - Premisys Channel Bank w/DSM-II
 - Private & Leased T1
 - CSCI Card - QTN-6066b
 - Efratom Frequency Standard

MTR2000 as a Simulcast Transmitter

- Comparable to Quantar
 - Stability at .3 ppm
- Aux I/O for Fast PTT
- MTR2000 Settings

MTR2000 Setup

- RSS Programming
 - Freq. Ref. = External 5 MHz.
 - WireLine Board = TTN5067
 - Option Board CLN6698 Aux I/O
- Installation
- Level Setting
 - 1kHz = -10dBm = 3kHz deviation

What We Learned

- Efratom/GPS Issues
- Pay VERY close attention to detail
- Check and then Re-Check
- Motorola doesn't know everything
(actually, we already knew this)

Questions - MTR2000

Quantar IMBE Simulcast

- Firmware Upgrade
- Quantar Setup
- Digital Interface Unit (DIU)
- AstroTac

How Does it Sound

- New mobile microphones
- Very close to analog Quality
- Golly Wobbles
- Overlap Zones

Console Interface

- Upgraded firmware is a must
 - Console Interface Module (COIM)
 - Base Station Interface Module (BIM)
- CEB software issues
 - Embassy System
 - Digital Keying vs. Tone Keying

Questions

Thank You - Credits

- Mark Anderson and his Staff (picture)
- Klaus, Keith, Roger, Geno
- William Stinson 408/299-2713x146
- Mark Anderson 408/299-2713x150