
The Margelli-Miller Behind-the-Scenes Story

By Gordon West, WB6NOA, and Joe Lynch, N6CL

It was a battle between modern technology (cell-phone text messaging) and old-fashioned CW to see which was faster in conveying a message. The object of the contest was to transmit the message over the air via the respective (cell phone and amateur radio) wireless spectrum. The two ham contestants were Chip Margelli, K7JA, and Ken Miller, K6CTW. The *Tonight Show* is shot before a live audience in near real time, so the challenge was to do the contest right the first time.

Chip reported that there were many technical challenges in pulling off their CW competition in one live take. In particular, the show is shot within a very tight block of time, with little or no time to spare for QRM problems on the ham bands from studio birdies, or vice versa. Chip commented, “Ken Miller, K6CTW, arrived before I did and RF swept the studio area using his portable spectrum analyzer.”

“Yikes, our planned RF band was full of birdies. In fact, 160 meters through 2 meters was filled with signals that might have QRMed our efforts to send and receive a usable CW signal. The birdies were ultra low level confined inside the studio, but nonetheless, too many HF birdies to dodge!” he added. Even so, Chip anticipated this problem well ahead of time, so his rigs of choice were a pair of Yaesu FT-817s, battery operated, with UHF capabilities hopefully beyond birdie land! One of the radios belonged to Chip and the other was supplied by Dan Dankert, N6PEQ, a weak-signal VHF operator in the Orange County, California area.

As it turned out, Chip’s choice of radio and frequency paid off. “We found quiet on 70 cm,” commented Ken, K6CTW, who prepared for a “one take only” performance on the show. Being the good weak-signal VHF enthusiast that Chip is, he made sure that their radios were tuned to 432.200 MHz.

“To further minimize any chance of QRM, Chip and Ken found good signals over the 15-foot path with the FT-817 antenna menu selector to open antenna,” noted Janet Margelli, KL7MF, adding that Chip and

Ken set the FT-817s to low power with no antenna connections. Even so, they still had good copy over the 15-foot path, and the radios easily tolerated the open antenna circuit with no problems. In spite of this provision, the close proximity of the two radios made it possible for Ken to easily hear Chip’s weak-signal CW transmission and thereby copy the message. Best of all, there was no chance of RF getting into sensitive circuits in the studio. It is important to note that the radios were props. While it appeared that Chip and Ken were in contact with each other, legally no QSO actually took place.

Commenting on the time constraint, Janet stated, “We had only the commercial break time to set up the two stations,” adding that the setup took place right after Jay Leno’s monologue. Janet handled the transmitting station’s setup with Bencher paddles at Chip’s location, and the receiving station, plus earphones, pen, and paper at Ken’s location – all within the three-minute station break! “A quick double check of signal quality and strength took place within seconds of coming back on camera,” added Janet, who was one cool cookie under pressure!

The message, a slight variant of GEICO Insurance Company’s advertising slogan “I just saved a bunch of money on my car insurance,” was secret until the sending started. The contest against the text messengers was an easy win, with Chip and Ken loafing along at around 28 wpm, with time to spare when they finished.

“The rigs worked perfectly, Morse Code wins again, and ham radio gets a great boost on national television,” added Chip, who was so pleased with the under-pressure contest that he gave his CW sending fingers a cool blow down and the camera his classic smile, while Ken beamed after perfect copy of the CW sent script.

For ham radio exposure, the *Tonight Show* with Jay Leno did us well, thanks to professional hams who took the assignment just days before air time and undertook the technical setup just seconds before the stage came alive with CW at its best!
