How COMSAT Won its Second Emmy

by

Dave Reiser

In 1976, the NBC television network put in a request to COMSAT to provide a satellite link for the National Bicentennial Celebration, telecast on July 4. Kim Kaiser's Small Terminal Development Department designed and built a special terminal, and three of us set out for Yellowstone Park, having decided that the Old Faithful geyser was to be the symbol for the broadcast. Seventeen years later, Kim Kaiser, Fred Siedel, and I received an Emmy for "MERITORIOUS CONTRIBUTIONS TO THE DEVELOPMENT OF 'MINIATURE, LIGHTWEIGHT, RAPID DEPLOYMENT EARTH TERMINALS FOR SATELLITE NEWS GATHERING'"

The size of the terminal we used was large (6-foot diameter), not a small hand-held piece of equipment. We managed to capture Old Faithful in all its glory. A television crew from KIFI in Boise, Idaho was there to provide the video feed.

This was the first time that a small satellite terminal was used for electronic news gathering. The satellite that was used was called Hermes or CTS-1 (Communications Telecommunications Satellite - l).The satellite, which had just been launched in January 1976, was a joint effort of Canada's Depart- ment of Communications, which designed and managed it, NASA, which launched it and provided a traveling wave tube amplifier, and the European Space Agency which provided the solar panels and some other devices.

We knew that the satellite was a big deal, because it was using a new higher frequency band. This band is called the Ku band and was three times higher in frequency than we had used before. This meant that the components of not only the satellite, but also the earth station would be proportionately smaller. This was good. The bad part was that the electronics that worked at those higher frequencies may not be as reliable as components for the lower frequencies. Those were problems that we could solve on the ground. What we had very little experience in was what the propagation effects at these new higher frequencies were. The losses in our signals to and from the satellite were much greater than at the lower frequencies, and therefore, we had to transmit more power to overcome those losses. The new NASA traveling wave tube amplifier would help in the satellite, and Varian, the tube manufacturer on the ground, would help with that end.

At any rate, our experiments with CTS paved the way for the television station satellite trucks you now see all over the world, and the little satellite dishes you now see on houses all over the world. Did we know it was a big deal then? We knew the satellite was a big deal, but we had no idea that what we were doing on the ground was a big deal. You know the saying, ". . . if I knew then what I know now."

At the time we were just doing our job. I did not believe that our work was cutting-edge or that it would have a significant impact in the future. It was just fun. Working for COMSAT Labs, was a rewarding experience. It's too bad that business practices caused it to fold."

Seventeen years later, in 1993, a letter from the National Academy of Television Arts and Sciences was sent, inviting us to submit a nomination for the Emmy award. The award was to recognize the first use of a transportable satellite station for electronic news gathering. I turned the letter over to my former, retired, boss Kim Kaiser who wrote the nomination. Our own nomination won. The award will

be given in New York. When I went to our senior management to tell them the good news, I was told that this was a gimmick I cooked up for a trip to New York. After hearing this, I called the former director of the Labs Burt Edelson and asked for his help. Burt called the COMSAT chairman of the board, the former Defense Secretary Melvin Laird. Secretary Laird got on the phone and called his corporate presidents and some corporate vice presidents to congratulate them on the award. Soon after that the three of us and our wives were on our way to New York via the Amtrak train. My customer from Nigeria was also invited, since he was in town. COMSAT corporate had a table at the black-tie dinner with 8-10 unfamiliar attendees.

I was not quite sure what would be involved in accepting the Emmy. There were only 500 people in the audience, and our acting president spoke for the three of us as we gathered on the stage. This was an engineering Emmy, and the ceremony was different than the Emmy awards for best television show, best actor or best actress. It was still an Emmy, even though it took 17 years to be recognized for what we did.

I can say that this was a high point in my career, as I was beginning to travel all over the world designing and installing satellite earth stations.

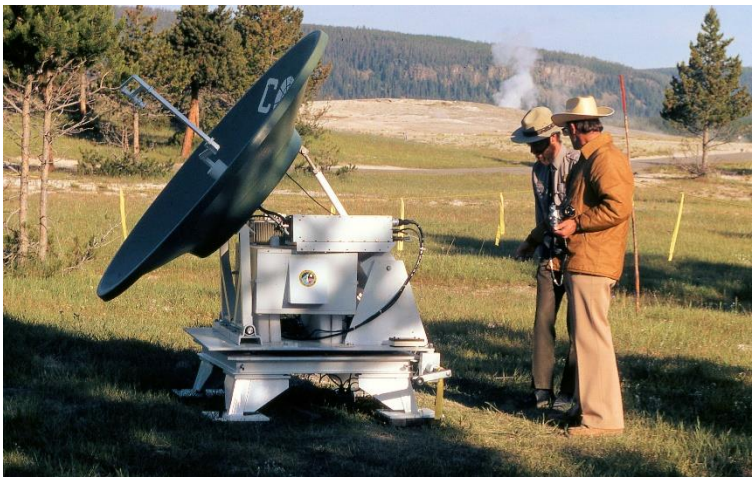

Figure 1 Fred Siedel showing our terminal to a park ranger. Old Faithful in the background.

Figure 2 The winners; Kim Kaiser, Dave Reiser and Fred Siedel. Our publicist Helen Peterson joins in.