

Robert Ames (7/18/23)

As a COMSAT alumni I have many stories as I started there in 1975 timeframe when the technology was still growing and I was a young engineer.

I have put together a couple of significant (I think) events during my time there.

I agree we need to capture the magic that occurred at COMSAT and COMSAT Labs. Last year I was working with a group from Great Briton and we were capturing history related to Goonhilly who was a groundbreaking station along with Andover.

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In 1975, I was a young engineer working in the Boston area for CODEX corporation as a digital design engineer for modems and multiplexors when COMSAT recruited me to join the Earth Station Engineering department headed up by Neil Benedict in L'Enfant Plaza, WDC. My first assignment was to work at COMSAT Labs with Kim Kaiser to see if digital data streams could successfully be transmitted via a terrestrial modem through a satellite and fully recover the digital stream thus allowing digital communications via satellite. It took a little redesign of the CODEX terrestrial modem, but the conclusion was that yes you could send digital signals through an earth station to a satellite and back to an earth station and fully recover the initial digital stream. Now, in 2023, almost all communications via satellite are digital signals.

Another milestone for me and COMSAT was the design and building of the Roaring Creek Earth Station in Pennsylvania around 1983/4. By the time Roaring Creek went operational, the designs of gateway earth stations evolved such that full Standard A antennas (105-foot diameter dishes) were not required. I believe Roaring Creek was the last Standard A station built worldwide.

Roaring Creek consisted of a 35,000 square foot control building supporting 2 C-Band standard A antennas along with a 105-foot Ku band antenna. An interesting fact with the Ku band antenna was that the beam was so narrow it could not use step track because a minimum step would place the uplink beam off the satellite, so program track as required.

I was the Sr. Project manager reporting to Francois Giorgio, Director Projects, and oversaw the building, equipment integration, testing and final operation into the worldwide satellite communications network.