

## The Story Behind Yosemite Sam

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Here is the story of who is behind the mysterious Yosemite Sam HF intruder station that was active for a couple of months in 2004-2005. As a starting point, there is a Wikipedia entry about it:

[https://en.wikipedia.org/wiki/Yosemite\\_Sam\\_\(shortwave\)](https://en.wikipedia.org/wiki/Yosemite_Sam_(shortwave))

The fellow responsible is a friend of mine, one who I almost went to work for. In the late 1990s, I was trying to decide if I wanted to move to New Mexico. One thing I'm well known for is LabVIEW programming, having written the first book on the subject back in 1994. That means I have contacts all over, and one of them had a small LabVIEW consulting company in Albuquerque. We visited and talked about his job opening. It never worked out but we kept in touch.

In mid-2013, I was chatting with him about a project of mutual interest that was going on at Sandia National Lab. It was something I had been working on there, and he was looking at taking over the work. When I mentioned that I was active in ham radio, he said he sort of had a run-in with some hams that involved Yosemite Sam-something... When I asked what that was about, the story came out. I did jot some notes down but that was in a lab notebook that is long gone since I retired from LLNL. So here is what I remember.

National Instruments had come out with some new high-speed digital hardware for RF testing that had applications in SDR among other things. It's programmable via LabVIEW, so my friend was of course qualified to do development on the new platform. He landed a small contract from a three-letter agency that involved work on some complex modulation schemes.

Now this is the interesting part. While he had basically zero knowledge of FCC regulations, clearly his customer did. They set him up at a facility on an Indian reservation near Albuquerque. (According to Wikipedia, it was apparently the MATIC center, located on the Laguna Pueblo.) The reason they did so was to exempt themselves from FCC jurisdiction. There is indeed ambiguity on this subject to this day. Also, they're far enough from a large city that most emissions won't bother too many people.

It seems to me that it would be good enough to test this kind of thing off-line in a lab setting, or at most, apply low power to a small antenna, preferably in an unlicensed part of the spectrum. Instead, the sponsor supplied him with a 1 kW broadband amplifier and some kind of antenna for the HF bands. And away he went, fat, dumb, and happy, doing his software-hardware integration experiments.

Waveforms were synthesized in software, and I've read various reports about what it sounded like at various times. There is even a sound clip at <http://www.spynumbers.com/YosemiteSam.html> But why Yosemite Sam? "It was a sound clip I just happen to have," I recall him saying, "and I wanted something funny to end my transmissions with."

So there you have it. And no, I'm not publishing my friend's name, although maybe I'll email him and ask if he minds. If I was him, I'd stay anonymous.

73,  
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