

# Cold War Experiences from the 'other' side, Part 1

(As published in The Oak Ridger's Historically Speaking column the week of March 23, 2020)

Recently I was fortunate to meet Bob Schultz. He was working as an American Museum of Science and Energy Volunteer at the welcome desk in the newly opened K-25 History Center. He opened the conversation, as many do, by mentioning the *Historically Speaking* column.

Readers, I am so pleased to notify you that I have recently been asked to syndicate the *Historically Speaking* column! Two newspapers are looking at it and one has already agreed to run it. The Morgan County Today newspaper started last week! So, Oak Ridge history is being shared with others!

Feedback from the first issue, featuring my good friend and hero, Ed Westcott, is strongly positive! I will continue the series on Ed for the next issue as well, there is so much to tell about the most amazing photographer, I was so privileged to know. As you also may realize, he passed away March 29, 2019, and we are coming up on the one-year anniversary of his death. Seem good to share his story with others!

Back to Bob Schultz. He introduced himself by saying he had Cold War experience that might interest me. Of course, that got my attention. When he said he was involved with the nuclear testing program, my interest, which had been a casual interest on my part, intensified drastically. I knew right away I had stumbled onto something. I asked Bob if he would consider writing about his experiences. Here is what Bob produced. Enjoy!

\*\*\*

I worked a different side of the nuclear weapons program from most of the "Cold War Warriors" that live and worked in the Secret City of Oak Ridge. The Oak Ridge locals performed various disciplines in the production of nuclear weapons and/or weapons materials. I was one of the scientists that were 'lucky' enough observe the fruits of the "Oak Ridge Cold War Warrior's" labor by observing and gathering data from the actual detonation of the devices/weapons during many weapons tests.

The United States conducted 1,054 tests – I was fortunate enough to participate in around 200 of these tests (from 1962 to 1967). Through the ROTC program at Colorado State University I was commissioned as an Officer in the US Army. I was assigned to the Nuclear Defense Laboratory at Edgewood Arsenal Maryland. Having graduated as a Chemist, my military job description was obviously not that of a Chemist but as a "Tactical Physicist" – whatever that meant.

My first weapons test experience was in the summer of 1962 at the Nevada Test Site near Las Vegas, NV where I was involved in radionuclide fall-out sampling from two of the last atmospheric tests (Sedan & Little Feller). The Sedan test was extremely interesting as it was a shallow underground nuclear. It was the "flagship" test of the *Operation Plowshare* (peaceful use of nuclear explosions) program.

This series of tests was designed to investigate the use of nuclear weapons for mining, cratering and other civilian purposes. The cratering aspects of the Sedan test were designed to see if nuclear explosives could be used to dig a new Panama Canal. The cratering attributes worked exceptionally well – the test left a crater 330 feet deep and 1,280 feet across, displacing more than 11 million tons of soil.

The device for Sedan had a yield of 104 kiloton which was comprised of 30% fission and 70% fusion. It lifted a dome of soil 300 feet above the desert floor before it vented and the fireball rose into the sky. All was good...except the Sedan shot resulted in two plumes, each carrying significant amounts of fission products. The plumes rose to 10,000 and 16,000 feet and headed northeast/east dropping radioactive fallout along the way.

Of all the nuclear tests conducted in the United States, Sedan ranks the highest in overall activity of radionuclides in fallout. This test contributed to about 7% of the total amount of radiation which fell on the US population during all of the nuclear tests at the Nevada Test site. As it would seem obvious, public and political concerns over the radioactive fallout led to the abandonment of using nuclear explosives for excavation and mining.

# Cold War Experiences from the 'other' side, Part 1

(As published in The Oak Ridger's Historically Speaking column the week of March 23, 2020)

The next notable shot I worked, about a week later, was Little Feller. It was one of four *Operation Sunbeam* tests which were staged for testing small scale tactical warheads, mainly for the 'Davy Crockett' rocket/gun mounted weapon. This small (18 ton) war head was detonated about one and one-half miles into the atmosphere testing the ability of military troops to deploy the weapon system. Side note – Robert Kennedy was present for this test. The main significance of this test was it was the LAST atmospheric test.

The Partial Nuclear Test Ban Treaty was finally signed in August of 1963 but was honored by Russia and the United States starting at the end of October of 1962 at the completion of the *Operation Dominic*. *Operation Dominic* was the largest nuclear test program conducted by the United States. This operation ran from August of 1961 to November, 1962. It was comprised of 31 nuclear test explosions with a total yield of 38 megatons. Tests were conducted at three different locations: Johnson Island, Christmas Island and the Pacific Ocean Test area off the coast of California.

\*\*\*

Now what did I tell you? Amazing experiences, AND Bob Schultz just happens to live right here among us! I tell you, in Oak Ridge, one just never knows what amazing life experiences the person in the checkout line ahead or you pass by on the sidewalk just might have to tell. Maybe we should ask others to tell us their stories? I MUST get Bob to use the K-25 History Center's Oral History Booth to record his experiences.

I should encourage you to do the same. The K-25 History Center, just opened February 27, 2020, is an exceptionally well-done museum with an experiment in Oral History capture that I hope will be heavily utilized. Even if you don't think you have a story to tell, you do!

Please take advantage of this easy to use method of capturing your oral history. Children, grandchildren, PLEASE encourage your elderly parents or grandparents to record their oral history. You will surely wish you had when they are no longer with you!

The K-25 History Center is located in the west end of Oak Ridge at the former K-25 Gaseous Diffusion Plant site now known as the East Tennessee Technology Park's Heritage Center. The museum is in the top floor of the Fire Station there at 652 Enrichment Street.

In the next *Historically Speaking* column, Bob Schultz will continue the saga of his experiences testing nuclear weapons.

## Cold War Experiences from the ‘other’ side, Part 1

(As published in The Oak Ridger’s Historically Speaking column the week of March 23, 2020)



Bob Schultz, American Museum of Science and Energy Volunteer, since 1999, with a tremendous story to share...ask him about it when you see him next

# Cold War Experiences from the ‘other’ side, Part 1

(As published in The Oak Ridger’s Historically Speaking column the week of March 23, 2020)

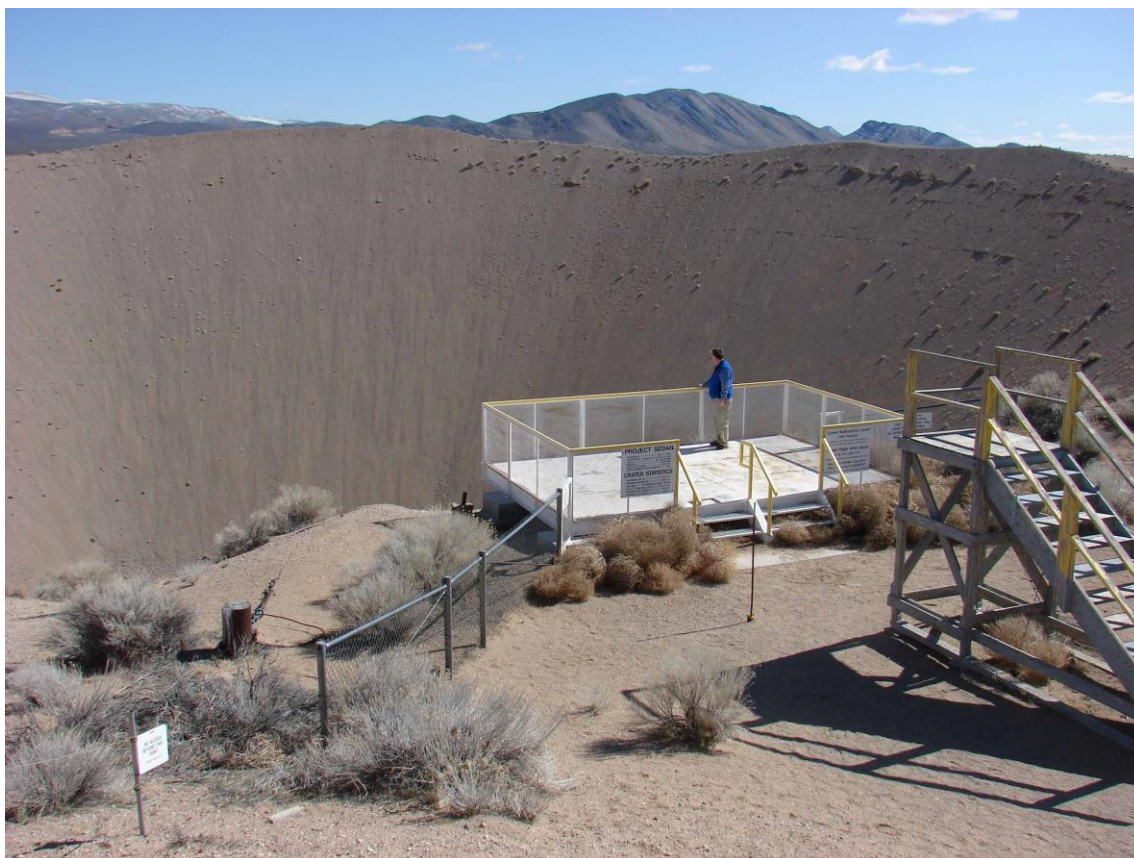


Photo of me standing at the edge of the huge Sedan Crater taken when I was on a tour of the Nevada Test Site

## Cold War Experiences from the 'other' side, Part 1

(As published in The Oak Ridger's Historically Speaking column the week of March 23, 2020)



Davy Crockett nuclear weapon model shown at the National Museum of Nuclear Science and History in Albuquerque, NM, taken when I was on a tour of the museum provided by Jim Walther, Director of the museum and a good friend of our American Museum of Science and Energy