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Behind the biowarfare 'Eight Ball'

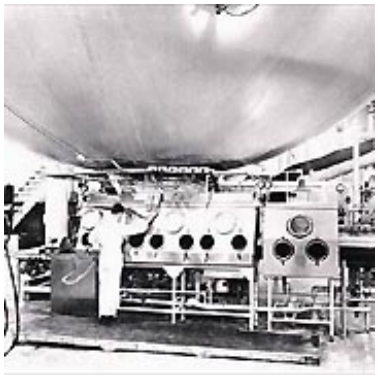
By Glenn O'Neal, USA TODAY

FREDERICK, Md. — Eager to serve his country, Army Pvt. Merrel Olesen takes a seat on a catwalk outside the middle of a 40-foot-high stainless steel sphere that everyone on base calls the "Eight Ball." He dons a rubber mask connected to a breathing tube that brings in air from inside the sphere.

Industrial fans kick in, and within a few minutes, the experiment is over.

A few days later, the fever, aches and coughing begin.

"But what I remember the most was the swelling inside my mouth," says Olesen, now 68. "My gums had swollen so much that I could no longer see my teeth."



Department of the Army
Operation Whitecoat technicians work at the stainless steel sphere used for biological warfare experiments at Fort Detrick, Md., in the 1950s and '60s.

Olesen would fully recover from his infection, as would all the other volunteers in Operation Whitecoat who willingly became guinea pigs in Cold War-era tests involving yellow fever, plague, the infectious disease tularemia and other deadly bugs.

"I'm very glad I did it. I suspect you would have a hard time finding someone who participated in the program who felt bad that they did," says Olesen, now a plastic surgeon in La Jolla, Calif.

Related story

- The risks of Operation Whitecoat

The deadly anthrax mailings after Sept. 11 have rekindled interest in the story behind this chapter in the U.S. biological weapons program, when hundreds of volunteers, most of them Seventh-day Adventists, served their country from 1954 to 1973 by enduring exposure to harmful germs or the testing of experimental vaccines.

Seventh-day Adventist role

In the waning days of World War II, U.S. intelligence officials learned about the biological warfare experiments carried out by the Axis powers, particularly the Japanese. Those revelations and fears of the work being taken up by Soviet scientists sowed the seeds for the U.S. biological weapons program.

Adherents to the Seventh-day Adventist faith refused to take combat roles in the military because of their religious views, but they were willing to serve. Consequently, they swelled the ranks of medics, cooks, dental units and chaplains' assistants in the Army.

By Bob Riha Jr., USA TODAY
Merrel Olesen, a former Operation Whitecoat volunteer, was a willing guinea pig for science.

In the early '50s, Col. W. D. Tigertt, commander of the U.S. Army Medical Unit, went to the head of the Seventh-day Adventist Church just outside Washington and proposed the idea of using Seventh-day Adventists in the Army for biological experiments.

Their meeting led to an ongoing relationship between the Army and the church that formed a foundation for Operation Whitecoat, first at Walter Reed Medical Center in Washington and later Fort Detrick in Frederick, Md.

Every two years, an Army officer and a church official would visit the Army medic recruits at Fort Sam Houston in San Antonio. They were told about an opportunity to volunteer for an important project that could save American lives while developing offensive weapons, former volunteers recall.

"We were not pushed to say yes or no, but most of us said yes," Olesen remembers. "I think they handled it well. It actually sounded

like a neat opportunity. Of course, I was young. Maybe I was stupid."

Experiments ranged from exposing volunteers to Q fever and tularemia to testing vaccines for Venezuelan equine encephalitis and yellow fever. The giant metal sphere, the "Eight Ball," was used to test aerosolized biological agents. This relic of the Cold War is on the National Register of Historic Places.

Frank Damazo, a semiretired surgeon in Frederick and a Seventh-day Adventist who serves as an unofficial historian of the Whitecoat volunteers, says volunteering for Army-sponsored biological experiments fit in with the church's beliefs in service and non-violence.

"These men volunteered because it's serving God, country and humanity," Damazo says. "That's part of their religion."

Throughout the Whitecoat program, about 80% of the 2,300 volunteers took part in a biological experiment, says Col. Arthur Anderson, chief of human use and ethics at the United States Army Medical Research Institute of Infectious Diseases (USAMRIID), the modern-day version of the U.S. Army Medical Unit.

Indeed, former Whitecoat volunteer Norman Powell says he spent his time doing clerical work at Walter Reed. Powell, now 66 and the dean of education at La Sierra University in Riverside, Calif., remembers going to the medical unit once to get his blood drawn, but he was not exposed to any germs.

The time spent on a medical experiment was just a few weeks, Olesen recalls. The rest of the time was devoted to light duty, such as painting the base barracks. Plenty of time was left over for playing tennis and baseball or other social functions on and off base.

"I had a relatively good time in the Army, much more so had I been given regular duty somewhere else," Olesen says.

'They were heroes'

In 1969, President Nixon signed an order ending offensive biological weapons programs, signaling the beginning of the end of Operation Whitecoat, which closed for good in 1973.

A memorial for those Cold War soldiers and the military program they served is at an unlikely place — a house of worship.

At the Frederick Seventh-day Adventist Church, a glass display case tucked into the corner of the foyer gives visitors a brief history of the group: medals, congressional commendations, an American flag, photos of reunions.

Outside, a brick and granite memorial with flagpoles can easily be seen by passing motorists on Interstate 70.

"A tremendous foundation of knowledge resulted from what they did," Damazo says. "Collectively, they were heroes. They performed a great service to the country."

Col. Anderson credits the group with:

- Testing safety equipment in use today, including biohazard protection masks and contamination suits.
- Participating in the first studies that proved that certain antibiotics cured Q fever and tularemia.
- Laying the groundwork for an effective vaccine against Rift Valley fever.
- Testing safety of plague vaccine that was used by soldiers in Korea and Vietnam.

"I do feel proud of what I did," echoes former Whitecoat volunteer Ken Jones, now 68. Jones took part in the early Q fever experiments, but did not come down with the illness.

"I feel if the Whitecoats did not participate in this, today we would be in the dark ages."