

Downwinders Deluded And Waiting to Die

by Daniel Miles

These are excerpts from Daniel Miles's book, The Phantom Fallout-Induced Cancer Epidemic in Southwestern Utah: Downwinders Deluded and Waiting to Die. The 130-page book is available through amazon.com or booksurge.com for \$15.00.

Dr. Miles is Professor Emeritus at Dixie State College in Utah. He taught physics there and at Westminster College in Salt Lake City, and he is the author or co-author of 42 scientific papers. In the interest of calming the radiophobia of his neighbors, he took out an ad for his book in a local magazine that was mailed to every home in southwestern Utah.

* * *

The testing of nuclear weapons at the Nevada Test Site began on Jan. 27, 1951. Almost three decades later, news articles about excess rates of cancer in atomic veterans triggered the arrival of a team of lawyers at St. George, Utah.

The residents, who became known as "downwinders" because they were subjected to fallout carried by the wind from atomic testing in Nevada, were told that their cancer rates were more than double nationwide rates and even Utah rates. Activists said that more and more of them would soon be falling victims to incurable cancers and other diseases; that they would die younger than the average American; and that their children would suffer from strange congenital diseases or be born deformed as a result of radioactive fallout exposure.

The tort lawyers, with the aid of activists, politicians, and the print and electronic media succeeded in creating an atmosphere of fear, of panic, of emotional hysteria, and of political expediency that still lives in southwestern Utah, over the dimly understood dangers of radioactive fallout.

Utah politicians quickly became involved. In the Oct. 27, 1978 issue of

the *Color Country Spectrum*, a southwestern Utah daily, we read: "U.S. Representative Dan Marriott, speaking at a press conference in St. George, said he wanted an explanation from the Federal Government on why southern Utah cancer rates were twice that of the rest of Utah."

No reporter challenged Marriott to document his statement about southern Utah cancer rates.

Unchallenged Lies

The alleged fallout-induced cancer epidemic in southwestern Utah has been called the Utah nuclear tragedy. The people of St. George, Utah, and surrounding areas in Washington County, Utah, and beyond came to believe that they may be doomed because a radiation-induced cancer epidemic was sweeping through the countryside, causing thousands of deaths.

One downwinder expressed the concerns of many: "When a Geiger counter is run across my body, it clicks. In the back of my mind is the unspoken dread. When will the bomb inside me go off?"

Beginning in the Fall of 1978, Downwinders, encouraged by trial lawyers, began to tell their heart-wrenching stories about schoolmates, neighbors, and family members afflicted with cancer, or any other nasty affliction, or birthing a defective child, or having a miscarriage, and so on. Their stories have been published in transcripts of court records and town meetings, in newspapers and magazines, and in books and told to nationwide TV audiences.

However, prior to at least 1977 no anecdote or testimonial about radiation sickness or about a cancer epidemic or about any other fallout related health problems in Utah appeared in any news-



National Nuclear Security Administration/Nevada Site Office

One of the bomb tests at the Nevada Test Site.

paper article or other media publications.

After 1978, many statements like the following have appeared in print: "Cancer had never been a noticeable problem before [in southwestern Utah]. But, as the 1950s wore on, and for decades afterward, the ravaging effects came like a pestilence in serial form: the leukemias, usually the quickest to result from radiation exposure, came first; numerous types of cancer ... tended to arrive later."

One magazine account has dozens of young folks in St. George, Utah, dying of leukemia by 1955, four years after testing began at the Nevada Test Site. (Not true, see page 51.)

Another account has young boys and girls dropping like flies in the 1950s from fallout-induced leukemia in Cedar City, Utah. The death rate was so high according to one account that they were holding three or four funerals a week. (Only one young Cedar City girl would die of leukemia during the 1950s.)

Heart-wrenching But False

Another anecdote that has appeared in two books and several magazine articles features the small town of Enterprise, Utah, in northern Washington, County.

This story is about the death of nearly all the boys in the Enterprise High School Class of 1970 from leukemia or other cancers by 1980. (Totally false, see page 50.)

A recent newspaper op-ed article by a Utah politician claimed that little Parowan, Utah, in Iron County with a 1960 population of 1,545 has suffered 85 to 90 fallout-induced cancer deaths a year since the fallout era. (Totally false, see page 45.)

The Utah media continues to give much weight to anecdotal accounts—three pages' worth a few years ago in the *Deseret News* and nearly seven pages' worth in *The Spectrum*, a southwestern Utah daily.

A recent editorial proudly stated that, "Over the past 10 years, downwinders have appeared 265 times in articles published in the *Deseret Morning News*." In all of these articles, downwinders' stories imply that radioactive fallout from bomb testing in Nevada had produced severe adverse health consequences in southwestern Utah.

For example, a *Deseret News* article quotes a St. George lady as follows:

"Every time I go out, I see someone else my age that's dying." The article states that her class reunions are now held at the local cemetery.

Another story that persists is that many young people in southwestern Utah had their thyroid glands surgically removed because of possible malignant neoplasm caused by fallout. The truth is that only surgical exploration of the gland—not surgical removal—was carried out on 24 of the 5,179 children surveyed—no malignant neoplasm had been found by 1975 in southwestern Utah people who were exposed to fallout as children.

Supporting the downwinders anecdotally based "evidence" of a cancer epidemic linked to fallout is a row of books taking up space on a shelf in the Washington County Library, located at the center of St. George. These books, discussed in later chapters, are about the "clouds of death" over southwestern



LLNL

An aboveground diagnostic setup for an underground experiment at the Nevada Test Site. The data signals from a test explosion moved from the device, 300 meters underground via cables, up to the surface and along the surface to the instruments for reading the signals, housed in trailers on the site.

Utah—clouds of death containing radioactive debris released by the detonation of over 100 nuclear weapons at the Nevada Test Site periodically dusting the downwinders with "deadly dust."

There are no books and few news stories about the series of expensive and time-consuming dose reconstruction studies that have found that the exposure in southern Utah may have been too small to produce a detectable increase in solid cancer rates. There are no books about a number of well-controlled studies that have failed to uncover any increase in overall cancer rates that might be attributable to fallout. There are no books on fallout effects making use of the broad knowledge which we now have of the relationship between radiation doses and their effects.

The Linear No-Threshold Model

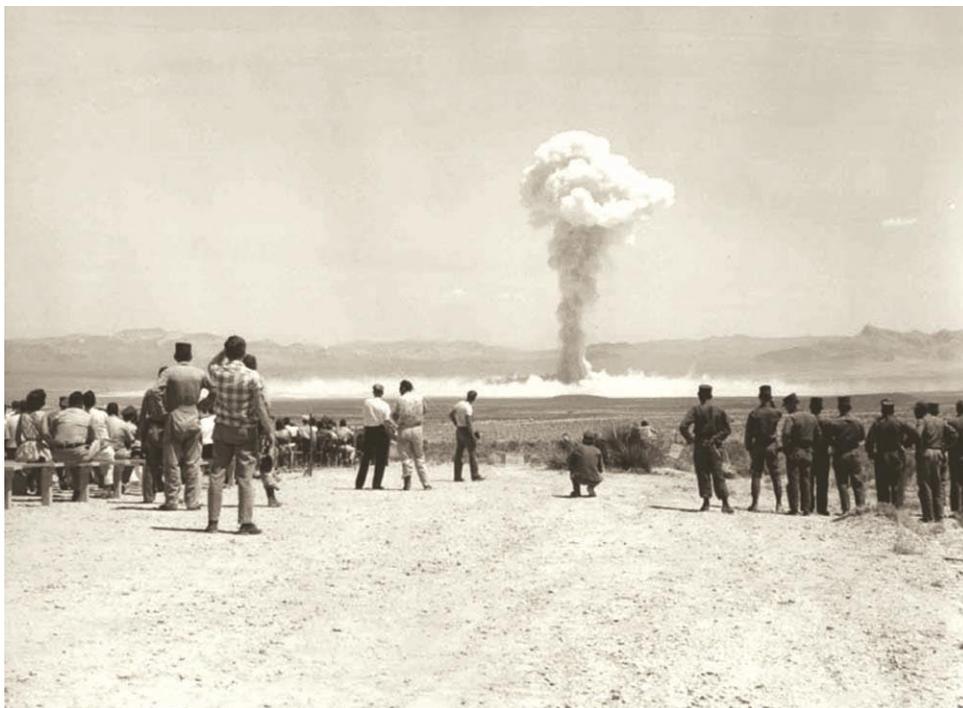
The antinuclear lobby has used the linear no-threshold model to predict that millions are yet to die from fallout cancers. One such set of frightening figures is found in the book *Radioactive Heaven and Earth*, sponsored by the interna-

tional arm of the Physicians for Social Responsibility. Completely trivial doses are assigned frighteningly high figures by this group, by a series of fraudulent multiplications.

Radioactive Heaven and Earth's predictions are based in part on a United Nations Scientific Committee on the Effects of Atmospheric Radiation (UNSCEAR) estimate that earthlings' annual exposure from fallout over the last 50 years amounts to about 0.002 rads. The book multiplied 5 billion earthlings by 0.002 rads to get 10 million person-rads, and then divided by 1,250 person-rads per cancer death to get 8,000 deaths annually from nuclear weapons testing, and then multiplied 8,000 by the number of years since onset of testing to predict that about 350,000 earthlings will have died from fallout-induced cancers by the year 2000.

The Carbon-14 Hoax

But this frightening number of deaths to global fallout does not include the effects of what the book states is the greatest killer of all—the deadly radioactive



The "Small Boy" nuclear test, July 14, 1962, part of Operation Sunbeam at the Nevada Test Site.

DOE

matter produced by detonation of nuclear weapons, radioactive carbon-14. So far, carbon-14 is accused of causing about 80,000 fatal cancers, but it's just getting a good start according to the Physicians for Social Responsibility. Carbon-14 is still killing humans, they say, and will continue to kill humans for the next 50,000 years.

Natural carbon-14 is produced in the upper atmosphere when neutrons from outer space collide with air nitrogen knocking out a proton in the process. Man-made carbon-14 is produced when neutrons from nuclear detonations collide with air nitrogen. Before the nuclear age, the upper atmosphere process was the only source of carbon-14, and it was present in the atmosphere (as carbon dioxide) at a constant, steady-state concentration determined by the relative values of the rate of production, and the total rate of removal by consumption of the carbon dioxide by plants, by dissolving in the oceans, and by radioactive decay.

Carbon-14 is the longest lived of the major radioactive products from nuclear detonations (half-life is 5,730 years). However, according to nuclear scientists Glasstone and Dolan:¹ The whole-body

dose from carbon-14 in nature before 1952 was somewhat less than 1 millirem per year. By 1964, this dose had been roughly doubled by the additional car-

bon-14 arising from nuclear tests in the atmosphere. If there are no further substantial additions, the dose will decrease gradually and approach pre-test levels in another 100 years or so.

Blatantly ignoring the fact that most of the man-made carbon-14 will decrease gradually and approach normal in another 100 years or so by natural processes, the Physicians for Social Responsibility has calculated that the man-made carbon-14 will eventually cause nearly 2 million fatal cancers worldwide. For this calculation, they assumed a world population of 10 billion and extended the effects of man-made carbon-14 to forever (infinity).

Human yearly exposure from man-made carbon-14 peaked at a measly 1 millirem in 1964, and the yearly dose has dwindled away every since. Yet no correction was

made for yearly removal of man-made carbon-14 by natural processes. In a few decades, our exposure to radioactive carbon-14 will be back to that of



Courtesy of www.dostgeorge.com

St. George, Utah, is uniquely positioned in an area where three major zones come together: the Great Basin Desert, the Mojave Desert, and the Colorado Plateau. Much of St. George is at an elevation of 2,800 feet, and mountains surround the city, some as high as 10,000 feet. The city is ringed by red sandstone (stained by oxidizing iron) and black lava from ancient volcanoes.

the pre-nuclear age.

The Radon Ruse

Antinuclear activists also draw attention to the fact that uranium ore processing exposes millions of Americans to some 0.001 millirem per year from radon emitted by the residues of the processed uranium ore, and that these processed ores will continue to release radon for thousands of years. Using the collective dose concept, they foresee some thousands of supplementary cancers from this extremely small dose (about one-thousandth of the dose you get annually from your TV set) added to the billions normally expected.

However, it can easily be shown that breathing out of the window 30 seconds longer once every year (to avoid breathing the higher radioactive radon levels inside the house), cancels out this effect.

Alternatively, moving to a house 1 inch lower in elevation to reduce your exposure from cosmic rays would also cancel out this effect.

Real Information

This book makes use of wealth of information that now exists about the health consequences of human expo-

sure to ionizing radiation. For example, the author has relied extensively on information found in the 2005 report from the National Research Council of the National Academies titled *Health Risks From Exposure to Low-Levels of Ionizing Radiation, BEIR VII Phase 2*.

The National Research Council Report is based on over 1,400 studies of the health effects of ionizing radiation. It is interesting to note that Table 9-2B of this Report, titled "Populations Exposed from Atmospheric Testing, Fallout, or Other Environmental Releases of Radiation," does not include any studies on Utah downwinders, implying a lack of a detectable increase in downwinders' cancer rates. Only the study of thyroid disease incidence in Utah schoolchildren exposed to fallout is cited, but Committee members found this study "not statistically significant."

No one questions the existence of human tragedies in Utah or anywhere else. A family that has a child with leukemia has suffered real tragedy, whatever caused it. The appearance of essentially any cancer in a person exposed to fallout might understandably

appear as causal sequences to the people concerned.

A balanced perception of the health risks of ionizing radiation is of great societal importance in relation to issues as varied as the future of nuclear power, nuclear waste storage, the cleanup of nuclear waste sites, occupational radiation exposure, medical X-rays, atmospheric and underground testing of nuclear weapons, manned space exploration, frequent-flyer risks, and radiological terrorism. It is also relevant to the current effort by activist groups and The Spectrum newspaper to extend the Radiation Exposure Compensation Act (RECA) nationwide.

It is the author's belief that it is time to revisit the so-called Utah nuclear tragedy and to re-examine the effects of the clouds of death over Utah. He also believes that exaggerating fallout effects is just as dishonest as to minimize them. Hopefully the author will not be guilty of either.

Footnote

1. S. Glasstone and P.J. Dolan, 1977. *The Effects of Nuclear Weapons*, Revised Edition, Department of the Army Pamphlet.

21st CENTURY SCIENCE & TECHNOLOGY

- Jerry M. Cuttler, "The Significant Health Benefits of Nuclear Radiation," Fall 2001
- James Muckerheide, "It's Time to Tell the Truth about the Health Benefits of Low-Dose Radiation," Summer 2000
- Dr. Theodore Rockwell, "Radiation Protection Policy: A Primer," Summer 1999
- Zbigniew Jaworowski, "A Realistic Assessment of Chernobyl's Health Effects," Spring 1998
- Jim Muckerheide and Ted Rockwell, "The Hazards of U.S. Policy on

Low-level Radiation," Fall 1997

Radiation experts argue that current U.S. policy of a "linear no-threshold" approach to radiation damage has no science behind it and is wasting billions of government dollars in clean-up that could be spent on real health benefits.

- Sadao Hattori (interview), "Using Low-dose Radiation for Cancer Suppression and Revitalization," Summer 1997

A discussion of Japan's wide-ranging program of research into the health effects of low-dose radiation.

- T.D. Luckey, "The Evidence for

ARTICLES ON RADIATION and HORMESIS

Radiation Hormesis," Fall 1996

A comprehensive review of the evidence of the beneficial effects on health of low-dose radiation.

- Zbigniew Jaworowski, "Hormesis: The Beneficial Effects of Radiation," Fall 1994

In 1994, the United Nations Scientific Committee on the Effects of Atomic Radiation, after 12 years of deliberation, published a report on radiation hormesis, dispelling the notion that even the smallest dose of radiation is harmful.

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