



Warrior for Clean Skies: Anti-Geoengineering Activist Rosalind Peterson's Environmental Legacy

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ABSTRACT

US citizen scientist, researcher, and anti-geoengineering activist Rosalind Peterson of Mendocino, California, proved both pioneer and prophet. She helped catalyze a global grassroots anti-geoengineering movement through her decades-long work crusading for clearer skies, cleaner water, healthier trees and plants, and a more resilient planet free of geoengineering fallout. Peterson combined scientific data collection and research, publishing, public speaking, and political advocacy to educate the world about the many negative environmental consequences of clandestine geoengineering. In 2002 Peterson founded California Skywatch (CSW), and in 2006 the Agricultural Defense Coalition (ADC). The two organizations merged in January 2011 and remain vital online public repositories of scientific data, legislative documents, and visual evidence of covert geoengineering programs. Peterson's indefatigable efforts over three decades to call global public attention to the environmental consequences of geoengineering exemplify the potential power of the citizen scientist to shape scientific and political processes and outcomes. Peterson's decades-long effort to uncover the myriad toxic environmental impacts of clandestine geoengineering also provides a compelling, scientifically researched alternative to the widely accepted theory advanced by the United Nations' Intergovernmental Panel on Climate Change (IPCC) that global warming is primarily caused by anthropogenically released carbon dioxide.

Keywords: Solar radiation management; Geoengineering; Agricultural Defense Fund; California Skywatch; Water quality; Strategic aerosol injection; Weather modification.

INTRODUCTION

"Rosalind Peterson - warrior for clean skies, survival of trees and plants, and marine life - has passed into Spirit. We are grateful for her life and work" [1].

First appearing on California Skywatch's Facebook home page in 2018, Figure 1, this memorial commemorates the legacy of Rosalind Peterson, a U.S. scientist, researcher, humanitarian, and outspoken citizen activist who tenaciously pursued the truth about weather and climate modification programs (now collectively referred to as "geoengineering"), a subject still considered off limits for public discussion in global environmental discourse. A lifelong lover of the natural

world and a trained agriculturalist, Peterson first “*began researching atmospheric testing and weather modification programs*” [2] during the 1990s and had begun to explore the anomalous appearance of “persistent jet contrails” in the skies over northern California’s Mendocino County. In 2002 she founded California Skywatch (CSW).

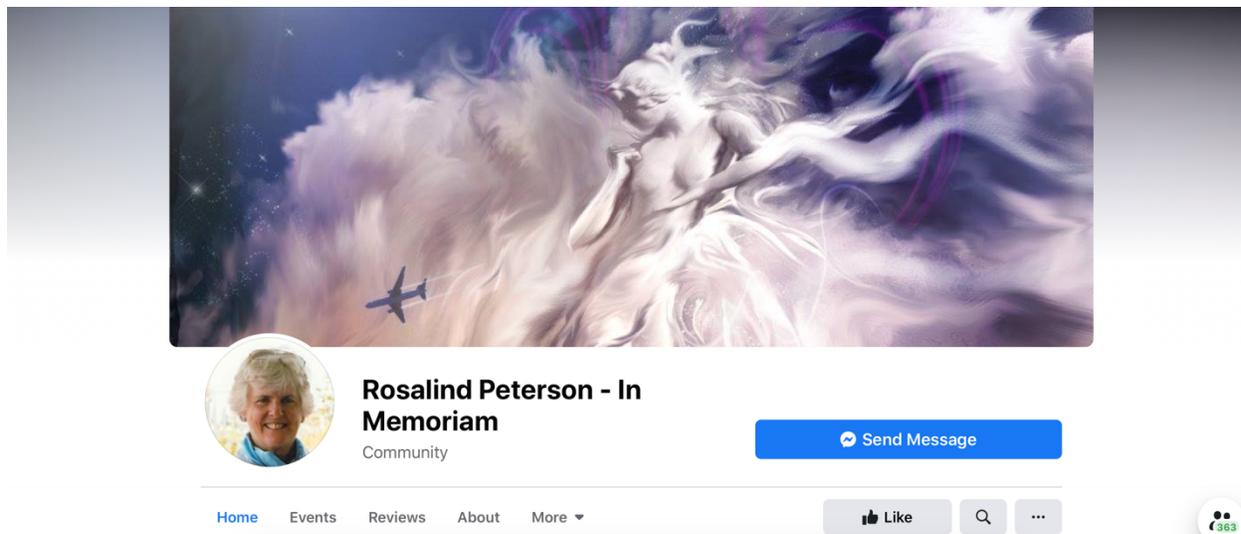


Figure 1. California Skywatch’s Facebook home page – November 2020.

SOURCE: Facebook.com.

CSW allowed Peterson to attract further collaborative research done by other concerned Californians, and withal the creation of an online scientific archive. It also permitted Peterson’s personal and professional transformation from a retired government employee to a pioneering citizen-scientist-activist for almost two decades [3]. Looking back on her scientific contributions, Peterson proved both pioneer and prophet. Her tenacious pursuit of uncomfortable scientific truths and her courage in speaking out on behalf of the Earth and all living creatures helped catalyze a grassroots global science-based movement of citizen activists who have taken up the cause of exposing clandestine weather and climate modification- “geoengineering.” By bringing more attention to the profoundly negative environmental consequences of geoengineering, and by providing research to catalyze local and worldwide citizen activism, Peterson was able to amplify her work [4].

Rosalind Peterson, Figure 2, died in 2018. “Ms. Peterson was a leader and warrior in the fight to protect our environment, nature and people from the harm of geoengineering, weather modification, and other environmentally destructive programs,” observes a memorial tribute at Agricultural Defense Coalition’s (ADC) web site, co-founded by Peterson in 2006 as a sister organization to California Skywatch [5]. ADC’s stated goal? “To protect agriculture from a wide variety of experimental weather and atmospheric testing programs” [6]. (Note: the two organizations – California Skywatch and Agricultural Defense Coalition merged in January 2011 under the ADC banner.) To this day, the ADC web site maintains Peterson’s “vast library of source materials, documents and scientific information for all who would like to research and learn more” about myriad scientific research projects – including secret military and unpublicized civilian weather modification and geoengineering activities-maintained by Ms. Peterson and her California-

based organizational allies for environmental edification, policy discussion, expert public testimony, and worldwide public debate [7].



Figure 2. California Skywatch's Facebook home page – November 2020.
SOURCE: Facebook.com.

PETERSON'S FORMATIVE BIOGRAPHY

Born and raised on a working farm located in northern California's Mendocino County, Rosalind Peterson identified her "early farm education" as vital, providing her with a "working knowledge of agriculture, crop production, weather and other difficulties faced by the agricultural community" [8]. World renowned for its majestic redwood forests, delicious local-terroir wines, and stunning Pacific coast scenery, Mendocino proved an early environmental proving ground for Peterson, instilling in her a love for the land, a lifelong interest in biology and the natural sciences, and a keen appreciation for observing the natural landscape, including the California waters, skies, and forests.

From an early age, Peterson was a regular sky watcher, documenting geoengineering activity in the skies as early as 1959 while on an outdoor adventure in Oregon, an image she later published and used in her outreach work. [9] The image is still available for use at Peterson's California Skywatch web site [10].



Figure 3. Polaroid photograph taken by Rosalind Peterson from Road 323 in Oregon on June 17, 1959. She notes on her CSW web site that this image is “the earliest photograph that I have showing a persistent jet contrail. In Mendocino County, California, the earliest known photographs of persistent jet trails date back to 1988.” SOURCE: CaliforniaSkywatch.com.

As a young woman, Peterson pursued an undergraduate degree (BA) at northern California's Sonoma State University, graduating in 1991 with a degree in Environmental Studies & Planning. Her undergraduate studies focused on fusing longtime and emerging environmental knowledge and skills, including “solar power, photosynthesis, agriculture, crop production, and the efficient use of energy in the future” [11]. Between 1989 and 1993, while pursuing her undergraduate degree, Peterson worked as an Agricultural Technologist for the Mendocino County Department of Agriculture. In 1995, she took a job in California as a federal government employee, working with the United States Department of Agriculture's (USDA) Farm Service Agency as a Crop Loss Adjustor, traveling across the state of California and working in close to a dozen counties. “Many crop losses throughout California can be attributed to weather related causes,” explained Peterson, whose interest in weather and climate modification was initially piqued by her work as an agricultural researcher accounting for crop loss figures and collecting and compiling forest and water quality environmental indices [12]. Beginning her water surveying work in 1994, Peterson would go on to research and compile drinking water data for the California State Department through 2008, before moving into geoenvironmental research and activism full-time.

Peterson's undergraduate education and early environmental work paralleled the founding of the United Nations' Intergovernmental Panel on Climate Change, (IPCC) founded in 1988 to "provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options" [13].

By the early 2000s, the global public's imagination had been captured by the IPCC's scientific thesis that anthropogenic emissions of greenhouse gases such as carbon dioxide and methane were the primary drivers of global warming. While contested in scientific circles, the IPCC's thesis received widespread public acceptance due to incessant uncritical global news media coverage, and a strategically waged public information campaign driven by books like environmentalist Bill McKibben's *The End Of Nature* (1988), films like former U.S. Vice President Al Gore's "An Inconvenient Truth" (2006), and the creation of grassroots environmentalist groups like 350.org, which took its name from NASA data suggesting that planet Earth would be uninhabitable for humans if the "parts per million" (ppm) of carbon in the atmosphere exceeded 350 ppm [14]. Peterson's research on geoengineering revealed unacknowledged data, another scientific explanation for global warming, caused by the increasing presence of strategically delivered nano-particulate metals in the skies. This led her to challenge the widely accepted IPCC explanation with a well-researched alternative-the impact of geoengineering-which Peterson would spend decades championing in her writing, speaking, and media advocacy work [15].

PETERSON FOUNDS CALIFORNIA SKY WATCH IN 2002

Peterson's research while collecting water quality data as a crop loss adjustor honed her emerging skills as a scientist/environmentalist, leading her by the late 1990s towards a second career as an independent scientific researcher, citizen activist, and public spokeswoman for the long-term health of the planet. Peterson noted that 1988 marked the first documented use of geoengineering in the skies over Mendocino, California, a regional atmospheric phenomenon that seemed to suddenly accelerate with the arrival of the new millennium [16]. The onset of *regular* sky-altering geoengineering activity in California prompted Peterson to found California Skywatch to research and publicize this peculiar new environmental phenomenon (Figure 4).



Figure 4. California Skywatch's Facebook Home Page – November 2020.

Peterson at her California Skywatch “mission” page explains [17]: “*Beginning on March 27, 2002, a number of individuals in California’s Lake, Mendocino, and Sonoma Counties began to keep a chronological log of jets leaving varying types of persistent jet contrails, white haze, man-made clouds, unusual types of weather patterns, tree health, mold and mildew problems, human health problems, and newspaper articles on unusual events. In our skies, we noticed that jets were leaving persistent jet contrails that turned into man-made clouds. The questions about the jet trails were numerous and there were no clear or concrete answers to why our deep blue, beautiful skies, were no longer normal as in our past.*”

A disturbing environmental mystery for the new millennium, an odd phenomenon prompting questions with no apparent answers, these strange tracks in the troposphere catalyzed a quest for truth pursued by Peterson and a growing number of North American sky watchers.

By 2002 Peterson already had spent years traveling across California collecting water quality data, observing and recording a strange sickness afflicting the beautiful region of the Pacific Coast: Highly contaminated water in regularly monitored aqueous bodies previously deemed relatively toxin free; forests exhibiting strange symptoms of an unknown blight; and overhead, a normally cerulean California sky turning silvery white on a weekly basis, a troubling and easily observable visual phenomenon unprecedented in Golden State history [18]. As Peterson explained [19]: “Our sun was no longer yellow; it had been turned into a whitish-yellow mix of haze, with the yellow color almost non-existent—the man-made clouds and haze covered everything preventing direct sunlight from reaching the Earth day after day as the jets circled above or left parallel lines above us, the crisscross patterns were everywhere along with the turns, circles and half-circles that filled our skies.”

Alarmed at the toxic transformation of California flora, fauna, and the skies overhead, Peterson and California Skywatch began contacting California news outlets, university researchers, and local and state representatives [20]. As Peterson explained [21]: “Our elected officials and the press were prepared for our questions and their responses were the same – the U.S. Air Force and several universities have investigated these jet trails and everything is normal, and anyone who objects to this answer must believe in ‘chemtrails’ which they called a ‘hoax’ or later an ‘Internet hoax’ driven by ‘conspiracy theories’. By 2002, we knew that use of the word ‘chemtrail’ would marginalize everyone that used this undefined term—thus, you will find within this website very few references to this term.”

Deborah Whitman, founder of Environmental Voices, a longtime collaborator, and herself an outspoken anti-geoengineering activist, recalls Peterson’s awakening with regard to the power of scientific language in US mainstream news and public policy discussions. Whitman recalls [22]: “Rosalind hated the term ‘chemtrails’ [and] strongly believed that if someone used that term that they would be deemed a ‘conspiracy theorist.’ Rosalind preferred to either use the phrases ‘Persistent Jet Contrails’ (a NASA term) or ‘Man-Made Clouds.’”

As California Skywatch’s founder, Peterson’s early education in the myriad ways that language (e.g., a singular word like “chemtrails”) would be weaponized by the powers-that-be to marginalize independent scientific data publicly presented in pursuit of larger as-yet-to-be-discovered scientific truths proved instructive. From that point forward, Peterson made strategic use of ever-evolving scientific terms to describe the geoengineering phenomenon—from weather and climate

modification, to “solar radiation management,” to the umbrella term “*geoengineering*” [23]. More importantly, the news media’s wall of silence spurred Peterson’s California Skywatch to step up its efforts to build its own online database containing “many newspaper articles, government documents and other information which has been collected over the years as part of a huge research project” [24].

Peterson’s CSW also turned to photography, launching a multi-year documentary project capturing geoengineering activities in the skies over California and beyond (for example Figure 5), helping to catalyze similar projects by grassroots organizations across North America and the world. As Peterson explains on the CSW web site [25]: “The photographs on this website are of events that happened in Northern California and other areas of the United States. Please note that the photographs are of events that happen all the time and are not rare occurrences that happen only in Northern California.”



Figure 5. California Skywatch image of skies over Las Vegas, Nevada on April 11, 2011.
SOURCE: Rosalind Peterson Archives.

During the next few years, dozens of other global grassroots geoengineering groups dedicated to sharing citizens’ concerns about clandestine weather and climate modification activities popped up on web sites and social media platforms across the Internet’s World Wide Web [26]. Peterson, meanwhile, would continue her tireless photojournalism work for years, storing her images first in

photo albums and on 35 mm photo rolls, then on digital DVDs, and ultimately, archiving her photos on the Internet and including them in her public presentations [27]

PETERSON FOUNDS AGRICULTURAL DEFENSE COALITION IN 2006

“How do you like your weather/skies-Natural or Manmade?” [28] After four years of California sky watching, Peterson created what may have been one of the first memes in US anti-geoengineering outreach, crafting this provocative rhetorical question (varying the “weather” versus “skies” phrasing) and then incorporating this meme into CSW’s public outreach to citizens, news outlets, and legislators in California and nationally [29]. In the 2008 California Skywatch poster, Figure 7, one can see how Peterson began designing educational materials that combined bright colors and vivid images with scientific data that highlighted the myriad toxic consequences of weather and climate modification programs via tropospheric geoengineering-programs she called “the wild cards of climate change” [30].

Peterson proved prophetic in pointing out that clandestine geoengineering programs (the visual effects of which were being regularly documented across the globe by 2010 were contributing to planetary warming, a scientific thesis the mainstream environmental movement ignored and the mainstream press and governmental legislative bodies marginalized. [31] Dismissing potential public policy discussions around geoengineering research took many forms, some quite personal, as explained by Peterson’s fellow anti-geoengineering colleague Deborah Whitman [32]: “I had gone with Rosalind to some large governmental event where she had signed up to speak. She explained to me that they knew who she was, and even though she was one of the first to sign up to speak, that she would be one of the last to be called. They didn't want her [Peterson] to speak until most of the people had already left. I didn't believe her, but that day, that was exactly what happened. It happened every time I was with her [Peterson]. When I became known, the same thing happened to me.”

Only years later, with the maturation of digital information sharing and independent news platforms, did Peterson manage to find a larger global audience for her pioneering scientific work exposing geoengineering activities to the world.

As public interest in geoengineering grew, in 2006 Peterson decided to create a CSW sister organization, the Agricultural Defense Coalition (ADC) for two purposes: (1) to move beyond a research-based exploration of the skies alone, broadening scientific inquiry into the myriad effects of weather and climate modification on the Earth’s biosphere and living systems, and (2) to collaboratively build an online research repository to archive the voluminous amounts of scientific data and public documents emerging as Western governments (including the United States) began to publicly acknowledge their collective interest in geoengineering as a “solution” to the “problem” of climate change (Figures 6 and 7) [33].



Figure 6. Agricultural Defense Coalition's Web Site Home Page – November 2020.



Figure 7. One of Peterson's first uses of the provocative "How Do You Like Your Weather – Natural or Man-Made" questions in a 2008 California Skywatch poster. SOURCE: ADC web site.

Fifteen years after ADC's founding, the web site still maintains an "extensive collection of documents, university studies, reference books, government documents, reports, research abstracts, drinking water and air quality data, chemicals, articles, news reports, and other data," more than 35,000 entries, according to the ADC web site, which are "now available for research by anyone wishing to use our search engine or select items from the 'categories' section." Peterson made clear that the ADC platform was intended to be a citizen-powered scientific site "*designed to facilitate research on various topics, to bring together various studies and how they interact with each other [and to] stimulate additional research from those interested,*" working in tandem with sister site CSW [34].

DYING OF THE TREES: GEOENGINEERING, WATER, AND THE FORESTS IN 2007

After founding the Agriculture Defense Coalition (ADC), Peterson leveraged her newly founded organization to address geoengineering's impacts on the deteriorating health of California's forests, waters, and plant life. She teamed up with Allan Buckman, a wildlife biologist. Buckman had recently retired after working in the California Department of Fish & Game's Central Coast Region for three decades. The two scientists collected extensive scientific data on California water and forest quality, publishing their findings at the ADC and in a series of newspaper articles in local newspapers and independent web sites like NewsWithViews.com [35]. In conducting their research, Peterson and Buckman (Figure 8) drew on pioneering work published in Charles Little's 1995 book *The Dying of The Trees*, which documented the elevated appearance of aluminum and other metals in forests and in the California water supply, delivered by what was then called "acid rain." "The presence of aluminum, arsenic, barium, lead, zinc, copper and other metals means that trees can no longer absorb and transport needed nutrients, such as phosphate, calcium, and magnesium-essential fertilizers that are themselves leached away from the soil by acid deposition," explained Little in his 1995 book. "The trees are weakened and can be invaded by insects or pathogens or succumb to extremes of weather – or all of the above, in which case they die." Peterson's archive contains a copy of *The Dying of The Trees*; Little's impassioned call in 1995 for improving forest health seems to have been a major stimulus for her work [36].



[Additional Titles](#)

OUR DEAD AND DYING TREES

By Rosalind Peterson
July 22, 2007
NewsWithViews.com

Many trees have died or are in the process of dying in large areas across the United States and in Alaska. What is triggering such a broad decline and die-off response to entire suites of plant and tree communities?

**Other
Rosalind
Articles:**

[Fluorescent Light
Bulb Warning](#)

[Experimental
Weather](#)

Whether in forestlands, in public parks, along rivers and streams, in watered areas, golf courses or on private property, our trees are showing signs of major health problems or dying in record numbers. In some areas the majority of trees have died and left entire watersheds in jeopardy.

Whether in forestlands, in public parks, along rivers and streams, in watered areas, golf courses or on private property, our trees are

Figure 8. Peterson's much-circulated "Our Dead and Dying Trees" feature of July 2007, penned in collaboration with Allan Buckman, and expanding on Charles Little's pioneering 1995 book *The Dying Of The Trees*. SOURCE: NewsWithViews.com.

Asked by Peterson in her July 2007 NewsWithViews.com feature article [37]: “*What is the common denominator for deteriorating tree health in so many areas of the United States? Air pollution, white haze, climate change, increasing UV radiation, higher humidity caused persistent jet contrails, jet fuel emissions, lack of sunlight from persistent aging contrails or climate change produced by persistent jet contrails? There are over 50+ weather modification programs ongoing, according to NOAA records, in the United States. What impact does this chemical manipulation of our weather have on the regional micro-climates that are needed for tree, plant, and agricultural crop health?*” Peterson went on to argue that weather and climate modification programs-geoengineering-proved environmentally detrimental to water quality, forest health, and the viability of a variety of living creatures, including pollinators like honeybees, a central conclusion which Peterson shared with a global audience over the next decade [38].

Peterson, quoting Buckman's conclusions, wrote [39]: “In the past, I have seen localized die-off of plant communities from a myriad of sources, and there tends to be a trend toward one to several problems at a time, and it varies year to year, but I have never seen the present condition of widespread impact to almost all species in all areas from a wide assortment of insects, fungus, molds, mildews, bacteria and viruses. I have seen areas where every tree and shrub in a drainage area has some form of health problem.” In her feature article, Peterson also noted the widespread decline in a variety of California's tree species, including the iconic redwoods, among the world's oldest and most resilient of trees. Referencing Buckman, Peterson predicted that “we are in for big changes, and I think we should be on this like a duck on a June bug – I think this is as serious as it gets, and we need to act quickly to document the facts and take corrective actions.”

Documenting the facts and promoting corrective actions-exactly what Peterson had been doing with California Skywatch and the Agricultural Defense Coalition for five years. Peterson noted in her NewsWithViews feature article [40]: “We elected our representatives to protect the public interest and our commons, whether air, water, soil, trees, plants, agriculture or atmosphere, from being used for personal gain and questionable private, university, and military experiments. Our elected officials must protect our natural resources and the public health first – right now our elected officials appear to be protecting political corporate interests, while accepting contributions from their paid lobbyists, over the rights of American citizens”.

And then, in an impassioned final paragraph, Peterson ended with this call to arms (CAPS are hers) [41]: “IT IS TIME TO FIND OUT WHY OUR TREES ARE STRESSED AND UNABLE TO RESIST PESTS AND PATHOGENS! CONTACT YOUR LOCAL, STATE AND FEDERAL REPRESENTATIVES. ASK THEM TO AUTHORIZE AIR, TREE, WATER, AND SOIL TESTING. We need answers to the questions – not just be told to wait, watch our trees die and then be cut or burned down by forest fires.”

Two years later, in 2009, Peterson brought public visibility to collaborative work on measuring the impact of geoengineering on California's water quality. Working together with teacher Rose Taylor, retired forest biologist Francis Mangels, solar energy expert Dane Wigington, and advertising specialist Dave Casebeer, the group conducted three dozen independent water quality tests across two California counties, Siskiyou and Shasta, “measuring snow pack, rain and pond water samples.” They published their surprising and disturbing research results of their findings in a variety of

places, most notably, MtShastaNews.com, and their work is featured in Michael Murphy's popular 2011 geoengineering documentary "What in the World are they Spraying?" [42]

Peterson's scientific article is worth quoting at length, as it provides clear evidence of geoengineering's impact on northern California's water supply. Of the three dozen tests submitted, all showed near or over the MCL (maximum contaminate level) for aluminum in drinking water for the State of California. The following are some of the highest samples documented: Snow pack sampled at Ski Bowl on Mt. Shasta tested for aluminum at 61,000 $\mu\text{g/L}$ or 61 times the MCL. After 1- $\frac{1}{2}$ years of exposure to the atmosphere, a Shasta County pond (*rubber lined*) tested for aluminum at 375,000 $\mu\text{g/l}$ or 375 times the MCL.

This came as a surprise to the property owner because the pond tested "0" for aluminum when it was first filled and is in a "filtered location" (forested hilltop away from highway or industry). When a hydrogeologist was shown the tests, he stated, "unless you live near an Alcoa Aluminum plant, there is no way these types of metals (barium has also been detected) should be showing up in your pond or rainwater samples, in any quantity." The Pit River sample tested at 4,610,000 $\mu\text{g/L}$, which is 4,610 times the MCL.

Aluminum and barium are considered highly toxic to humans, animals and plants. The accumulation factor of these metals should not be discounted. To ignore them, we do so at our own peril. Peterson ended her MyShastaNews.com article with three sets of troubling environmental questions, based on the seemingly inexplicable rapid rise in water toxicity levels, and a call to arms for all concerned U.S. citizens [43]:

1. Barium, Magnesium, Lead, Manganese, Aluminum, Iron, Sodium, and Specific Conductance (the ability of water to conduct a charge) were being found under unusual circumstances in our drinking water supplies. Unusual spikes were occurring in almost all drinking water sources in Mendocino County and in other counties throughout the State of California.
2. Prior to 1990, these spikes were not evident in many drinking water tests results (most tests results were -0-) ... test results do show that in non-spike years these contaminants were not found in most water sources. Why?
3. And why are almost every single public drinking water source showing some form of this spike pattern? The California Air Resources Board Statewide Summary for Aluminum, Iron, Zinc, Manganese and Barium, also show positive air test results between 1989 and 2001. Our water test spikes appear to correlate strongly with California Air Quality test results. Why?

We believe there is enough evidence to warrant an immediate investigation.

Our federal, state and county water and air quality officials have a legal and moral responsibility to locate the sources of these contaminants and protect the public welfare. Until more people start to care, begin to speak up and put the necessary pressure upon local and state officials, our children, our loved ones, our animals and eco-systems will continue to be exposed to dangerously high levels of aluminum and other toxic contaminants.

Peterson's call for citizens to apply political pressure on elected officials to investigate the environmental impacts of ongoing weather and climate modification programs was one she would repeat throughout the next decade.

PETERSON'S PUBLIC AND MEDIA APPEARANCES

While continuing to archive and publish geoengineering research at her two sister sites, California Skywatch and Agriculture Defense Coalition, Peterson spent the last decade of her life pursuing public speaking engagements, accompanied by her trademark colorful posters, co-produced by California Skywatch and the Agricultural Defense Coalition, that broadened public understanding about the many damaging but little understood environmental effects of geoengineering on the Earth and all living organisms [44]. Figures 9 and 10 illustrate Peterson's efforts to build on her original "How Do You Like Your Weather/Skies-Natural or Manmade?" approach, as well as her ability to synthesize detailed geopolitical and scientific data into eye-catching posters that conveyed copious amounts of information in a highly condensed format.

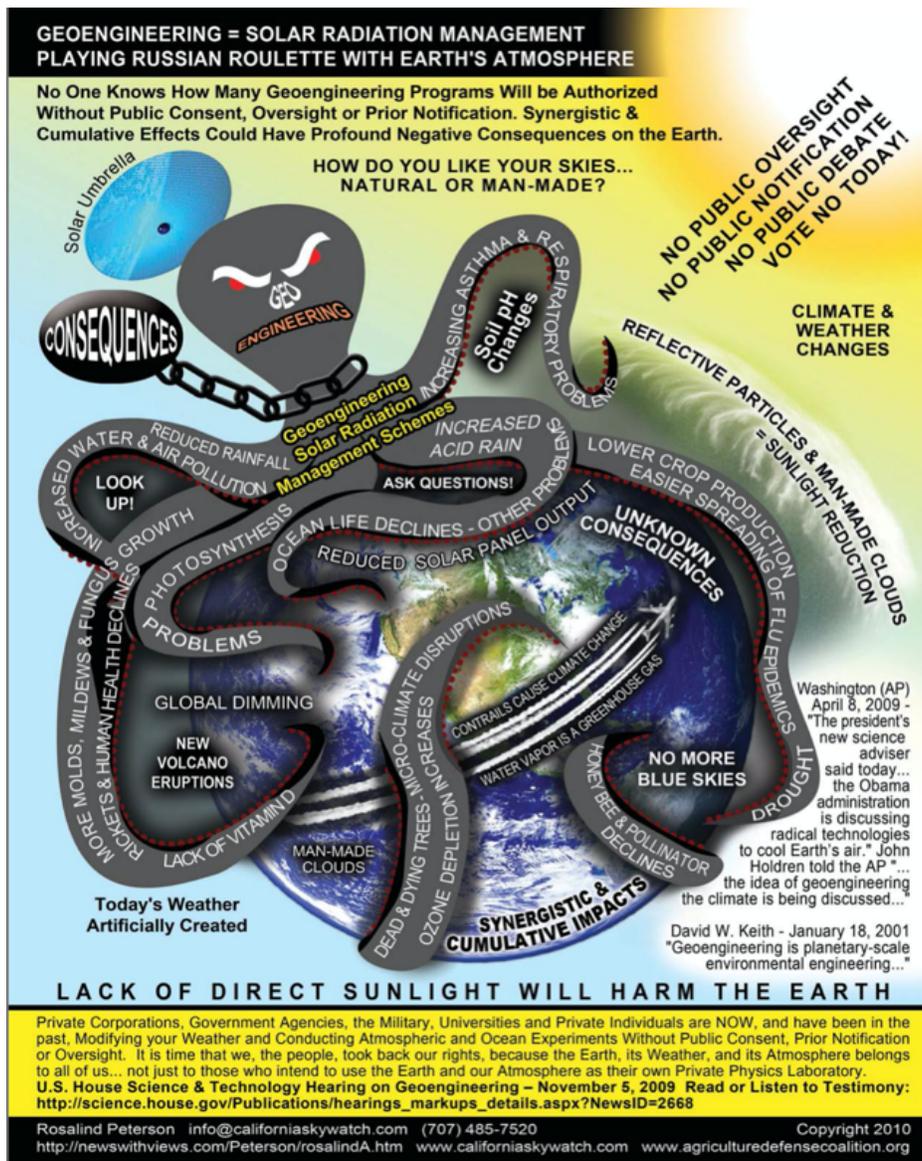


Figure 9. Peterson's 2010 ADC/CSW poster "Playing Russian Roulette with the Earth's Atmosphere" visually represents the many toxic impacts of geoengineering, references US Congressional documents, and adopts the scientific term "solar radiation management." SOURCE: Rosalind Peterson Archives.

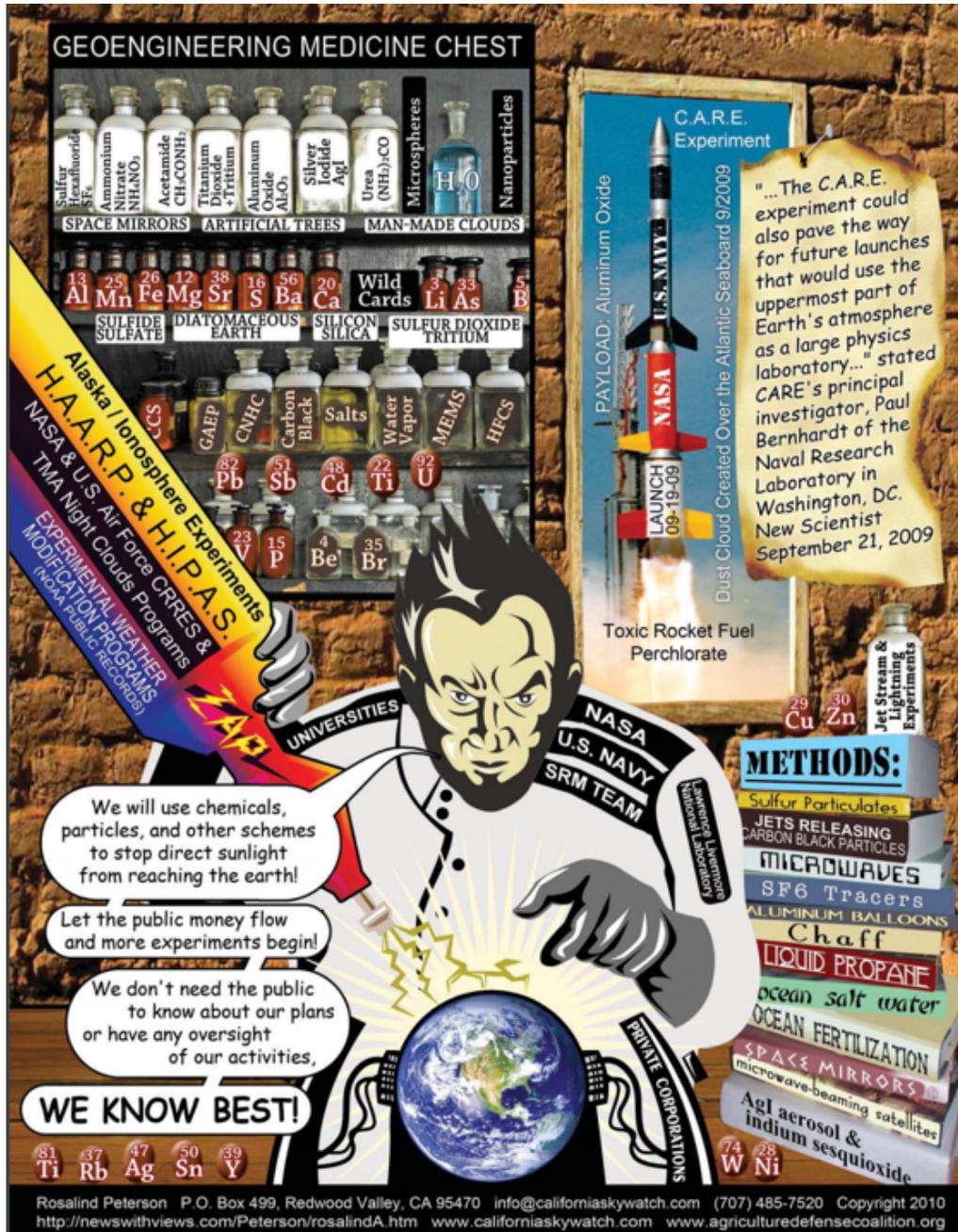


Figure 10. Peterson’s 2010 ADC/CSW poster “Geoengineering Medicine Chest” visually represents the clandestine collaboration among geoengineering’s key stake holding groups – universities, several branches of the US military , and a “captured” scientific community – in launching programs like the C.A.R.E. climate modification project, information about which has since been “scrubbed” from the Internet. SOURCE: Rosalind Peterson Archives.

Armed with a detailed Power Point presentation on geoengineering, Peterson took her California research to a global audience, making her first big appearance as a keynote speaker at the 60th Annual DPI/NGO Conference on Climate Change, held in New York City on September 5-7, 2007. There, Peterson spoke about agriculture and the negative impacts of experimental weather modification programs on tree and plant health, along with other important issues [45]. During the

following decade, Peterson took her Power Point presentation to colleges, universities and interested groups across the country, and began to be interviewed on numerous radio and television programs.

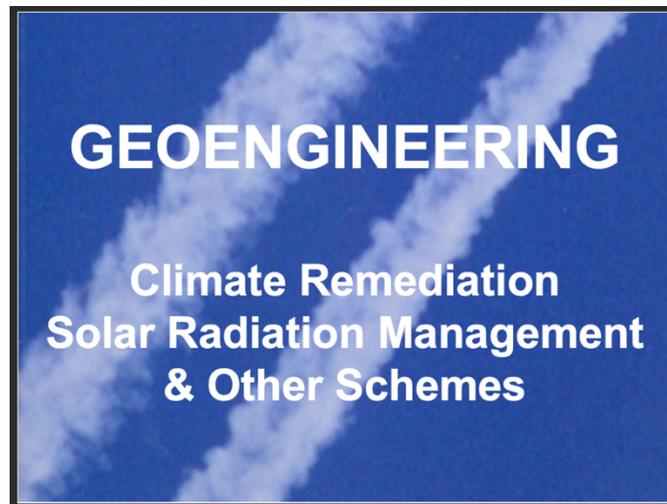


Figure 11. Peterson's TITLE slide for her much-presented Power Point. Note her use of both scientific language and word "schemes." SOURCE: Rosalind Peterson Archives.

A detailed review of Peterson's sixty slide geoengineering presentation highlights the remarkable depth and breadth of her scientific research over the past several decades and is still available for download at the ADC web site [46]. Peterson and her co-producer, Todd Blackman, began with her classic "Natural or Man Made?" question, followed by the arresting image of 2011 geoengineering activity over the skies of Las Vegas (see Figure 6 above), and several definitions of "geoengineering," including (1) "activities specifically and deliberately designed to effect a change in the global climate with the aim of minimizing or reversing anthropogenic climate change," and (2) "the deliberate large-scale modification of the earth's climate systems for the purposes of counteracting and mitigating climate change" [47].



Figure 12. Peterson's 60 slide PPT flagged myriad "risky geoengineering schemes."

Peterson's Power Point then moved on to consider several "types of risky geoengineering schemes-including Solar Radiation Management, Carbon Capture and Sequestration, Solar Umbrellas, Space Mirrors, Cloud Whitening Experiments, Ocean Iron and Lime Fertilization, and Weather Modification and Mitigation through airplane-created Man Made Clouds." (Note: capital letters are hers [48]. From there, Peterson unpacked her scientific research, highlighting the wide variety of toxic environmental effects produced by geoengineering, including GE's deleterious impacts on human health, water quality, forest growth, plant photosynthesis, species die off - "honey bees, birds, butterflies, lady birds, hummingbirds, bumblebees"-as well as challenging a newly promoted MIT and the 2007 "Discovery Channel" geoengineering program calling for the tropospheric discharge of "highly toxic carbon black dust contrails to create artificial weather systems to control or steer hurricanes."

After calling out the U.S. Air Force, the U.S. Navy, and touching on Gakona, Alaska's High Frequency Active Auroral Research Program (HAARP), Peterson's slide show ended with several images of geoengineered skies, juxtaposed with beautiful flowers from her native Californian region, and, prophetically and ominously, Senator Lyndon B Johnson's 1958 message to the Senate Democratic Caucus, in which he stated : "Control of space means control of the world...From space, the Masters of Infinity would have the power to control the earth's weather to cause drought and flood, to change the tides and raise the level of the sea, to divert the Gulf Stream and change the climate to frigid...This is the ultimate position of total control over the earth that lies somewhere in outer space."

A scientific tour de force as well as an environmental expose (in sixty slides) of the case against geoengineering, Peterson's slide show is perhaps the best single archival text illustrating the importance of her pioneering work as a researcher, citizen scientist, activist, and humanitarian [49]. During the next decade, Peterson would share her geoengineering research with a wide variety of live audiences, as well as on media channels.



Figure 14. Peterson as a smiling scientist challenging geoengineering in this YouTube thumb nail image from her 2011 interview on weather hedge funds. SOURCE: YouTube.com [50].

Her public appearances included a talk on “The Geoengineering Cover Up” on YouTube (2010), her interview about “Weather Hedge Funds” (Figure 13) on WVP Radio (2011), her “Man-Made Climate Change in the Skies” talk at the Commonwealth Club, California’s oldest public affairs forum (2011), and perhaps best known, her provocative 2013 address to the United Nations Climate Change forum on global warming, which she concluded by challenging UN-promoted “carbon-cap-and-trade” programs, arguing that these proposals would essentially license powerful polluters-corporations and governments-to continue to poison the planet with geoengineering and other harmful initiatives [50].

PETERSON AND ANTI-GEOENGINEERING LEGISLATION IN 2017

Peterson’s final act as a citizen scientist may perhaps be her greatest legacy. Working with Rhode Island legislator Justin Price, Peterson co-authored a March 2017 bill introduced into the RI state legislature’s House Environment and Natural Resources Committee (RIH6011) that called for providing public oversight and strong regulatory prohibition to include fines and penalties for geoengineering, weather modification, cloud seeding, and other forms of what she termed “*violence against the Earth*” [51]. One of the world’s first anti-geoengineering bills ever proposed, the Rhode Island legislation defined geoengineering as

“the intentional manipulation of the environment, involving nuclear, biological, chemical, electromagnetic and/or other physical-agent activities that effect changes to earth’s atmosphere and/or surface,” and indicated the RI legislature’s intent “to regulate all geoengineering activities as further set forth by the terms and provisions of this chapter” [52].

Peterson’s goal was to draft a document that could be suitably adapted for other states and nations to protect agriculture, health, and all life from the harmful environmental impacts of geoengineering. While the bill did not pass, Peterson succeeded in providing a legislative template for the world that continues to serve as a model for environmental activists everywhere who have the courage to challenge covert geoengineering schemes.

Peterson’s efforts to encourage geoengineering regulation are laudable, however, understanding human nature and the devastating human and environmental health consequences of geoengineering [53] clearly indicates that the only practical and safe regulation would be the total banning of geoengineering.

CONCLUSION

How does one measure the impact of a single scientific life and career? Peterson’s decades-long interdisciplinary commitment to scientific research, archival publishing, public speaking, and environmental activism touched the lives of countless people in California and around the world [54]. To this day, her groundbreaking work challenges conventional wisdom about the causes of climate change, and brings urgent attention to myriad clandestine geoengineering projects as the unacknowledged primary drivers of environmental despoliation. And her work demonstrates the vital importance of citizen science to bring about a healthier planet. In the final analysis, Peterson proved beyond worthy of her memorial tribute – a warrior for clean skies, the survival of healthy trees, plants, marine life, and humanity.

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