Located adjacent to Anniston, Alabama, and contiguous with the Anniston Army Depot, Fort McClellan is a picturesque Army installation that was the home to the Women's Army Corps, the Military Police Corps, the Chemical Corps and an infantry battalion, plus a variety of service support personnel, such as medical, logistics, administration, transportation, engineers etc. I was stationed there for four and a half years, first as a trainee, and then as a trainer with both the Women’s Army Corps and the Military Police Corps. I am not a scientist, so the information in this article comes from open source documents on the web. I have made every effort to use official documents when possible.

Fort McClellan was an active installation from 1917 until 1999, except for a brief period of time after World War I, when it was placed on “caretaker status.” It resumed active status in 1929. During World War II, it was one of the largest U.S. Army installations, training an estimated half-million troops. After the war and until it was closed in 1999, Fort McClellan was home for an average population of about 10,000 military personnel, some half of whom were permanently assigned, many with families, and employed about 1,500 civilians (Wikipedia, The Free Encyclopedia) Many of the permanently assigned personnel lived in the surrounding communities, such as Anniston.


For those of us who have been plagued with a multitude of unexplained medical problems, there's finally an answer...exposure to nuclear, biological and chemical toxins. We were exposed to
dangerous elements that are known to cause serious health conditions, to include cancer, endocrine disorders, autoimmune diseases, neurological problems, diabetes and more.

When Fort McClellan was closed down in 1999 under the Base Realignment and Closure Act (BRAC), the Environmental Protection Agency (EPA) became actively involved. Fort McClellan was declared a toxic site and was federally mandated to be decontaminated. The EPA listed Fort McClellan on its Superfund Program. Superfund is the name given to the program established by the Environmental Protection Agency to address abandoned hazardous waste sites. It is also the name of the fund established by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended. This law was enacted in the wake of the discovery of toxic waste dumps. It allows the EPA to clean up such sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-lead cleanups (http://www.epa.gov/superfund/about.htm).

There were three main sources of toxic exposure to those of us who worked and lived on Fort McClellan and the surrounding cities. The first source of contamination was from Monsanto, now known as Solutia, a multinational agrochemical and agricultural biotechnology corporation that produced Agent Orange and other “Rainbow” herbicides, so called because of the band of color around their containers. Each was developed to focus on killing specific plant types. In Admiral Elmo R. Zumwalt’s 1990 “Report to the Secretary of the Department of Veterans Affairs on the Association Between Adverse Health Effects and Exposure to Agent Orange” he quotes Dr. James Clary, former government scientist with the Chemical Weapons Branch, BW/CW Division, Air Force Armament Development Laboratory, Eglin AFB, Florida, as saying:

“When we [military scientists] initiated the herbicide program in the 1960s, we were aware of the potential for damage due to dioxin contamination in the herbicide. We were even aware that the 'military' formulation had a higher dioxin concentration than the 'civilian' version due to the lower cost and speed of manufacture. However, because the material was to be used on the 'enemy,' none of us were overly concerned. We never considered a scenario in which our own personnel would become contaminated with the herbicide.”

(http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Zumwalt%20Report%20to%20the%20VA%20on%20Agent%20Orange.pdf)

Unfortunately, our personnel were affected, and it all started in Anniston, Alabama. The “cide” in the word “herbicide” comes from the Latin word “cidere” meaning “to kill.” Many types of vegetation were destroyed by the rainbow herbicides developed by Monsanto. The killing agent was dioxin, which is a polychlorinated byphenyl (PCB). Monsanto also developed DDT, an insecticide against malaria-transmitting mosquitoes. Due to DDT’s toxicity, its use in the United States was banned in 1972. Toxins from this insecticide were also PCBs. These PCBs, plus those from a multitude of other products, such as electrical insular materials, plastics, capacitors, transformer oils and heat transfer fluids in closed systems, were dumped by Monsanto into landfills and the water around this community. PCBs are one of the most pervasive and profitable industrial chemicals of 20th century America. They were invented in Anniston in 1929 and manufactured by Monsanto for almost 40 years - a source of wealth and jobs until the 1970s, when it became clear that PCBs were doing more harm to the environment than good for industry. CBS reported about the dangers of
The chemical formula for a PCB is $C_{12}H_{10-x}Cl_x$. One hundred and thirty of the different PCB arrangements and orientations are used commercially. Concerns about the toxicity of PCBs are largely based on compounds within this group that share a structural similarity and toxic mode of action with dioxin. Toxic effects such as endocrine disruption and neurotoxicity are also associated with other compounds within the group. PCBs are very stable compounds and do not decompose readily. This is due to their chemical inability to oxidize and reduce in the natural environment. Furthermore, PCBs have a long half life (8 to 15 years) and are insoluble in water, which contributes to their stability.

Over the past few decades, scientists have linked exposure to PCBs to a long list of health problems, such as immune suppression, thyroid gland damage, skin disorders, anemia, liver cancer and impaired reproduction. According to research conducted in Great Lakes and Arctic populations, children exposed in the womb to high levels of PCBs have reduced IQs, including problems with memory and motor skills, as well as weakened immune systems that make them more prone to illness. The Environmental Health News website (www.ehn.org) classifies them as probable human carcinogens in its Environmental Health News article Dirty Soil and Diabetes, written by Brett Israel, (http://www.environmentalhealthnews.org/ehs/news/2012/pollution-poverty-people-of-color-day-6-diabetes). (Copyright © Environmental Health News. Reprinted with permission)

The story of Monsanto’s contamination of the Anniston area can be found on multiple websites. The most comprehensive exposé on Monsanto and its history of systematically contaminating the Anniston area was done by the Environmental Working Group (EWG), a not-for-profit environmental research organization dedicated to improving public health and protecting the environment by reducing pollution in air, water and food. It has kindly granted permission to reproduce its information. Its exposé on Monsanto’s contamination can be found at http://chemicalindustryarchives.org/dirtysecrets/annistonindepth/intro.asp. This study uses both external and Monsanto internal documentation to show a history of cover-ups and denial, all the while killing wildlife and exposing residents to lethal toxins. There are five sections to the report as follows:

- **Introduction** - “The story of Anniston is a cautionary tale. Monsanto’s internal documents, many of which are being posted here for the first time for the world to finally see, uncover a shocking story of corporate deception and dangerous secrets.”

- **Monsanto knew about PCB toxicity for decades** – “Monsanto went to extraordinary efforts to keep the public in the dark about PCBs, and even manipulated scientific studies by urging scientists to change their conclusions to downplay the risks of PCB exposure.”

- **Pollution Problems in Anniston** – This section discusses both the dumping of PCBs in the water and in the waste dumps. “
  
  - “In August 1970, Monsanto learned that the Food and Drug Administration (FDA) had taken fish samples from Choccolocco Creek and found fish with more than 55 times the legal limit of PCBs set by the Alabama Department of Public Health. FDA
had provided the results to the Alabama Water Improvement Commission (AWIC), which alerted Monsanto to the situation...Even though the local waterways were heavily fished both commercially and recreationally, Monsanto and State regulators took active steps to keep the public in the dark about the PCB-laden fish.” As early as 1966, Monsanto managers discovered that fish submerged into the same creeks in which the company dumped waste water turned belly up within ten seconds, spurtng blood and shedding skin. Choccolocco Creek runs through Fort McClellan.”

- "All waste containing PCBs is at present hauled to the dumps the plants have been using for other plant waste. We recognize this is not the ultimate, since PCBs could eventually enter the environment, but we will continue this practice until better methods of disposal are available." [W.B. Papageorge to J.R. Durland-Tokyo; March 6, 1970]

- "A serious problem exists at the present time with the Monsanto dump. The two main areas of concern are: (1) water leakage from the P.C.B. dump, and (2) lack of security throughout the dump area. These two areas create hazards in the areas of water pollution and in liability problems." [Recommendations of Task Force on Plant Dump; March 31, 1970]

- “An internal ‘Progress Report’ on Aroclor Losses at the Anniston Plant dated July 21, 1970 revealed that Monsanto had taken a sample from the source of the drinking water supply for the City of Anniston and had tested it for the presence of PCBs. The sample did not contain PCBs. However, to quote the Progress Report’s description of the matter: ‘It might be interesting to note that this is the only sample collected to date which does not contain Aroclors’ [Progress Report; July 21, 1970].” (Fort McClellan purchases its drinking water for the main post from the city of Anniston (Fort McClellan “Final Baseline Survey”, dated January 1998 [http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Final%20Baselline%20Study.pdf]).

- **Monsanto responds to PCBs in wildlife** – “But top predators are not the only wildlife affected by PCBs in their bodies. Many other species of wildlife have been threatened. As the following documents show, Monsanto was aware of these issues, and even predicted the extinction of some wildlife species, yet the company did nothing to stop this from happening. Also, Monsanto conducted extensive surveys of PCB concentrations in fish, both near the Anniston plant and farther afield. The testing revealed dangerously high levels of PCBs, yet
the company failed to warn local residents who were eating the contaminated fish. It wasn’t until 1993, nearly thirty years after Monsanto knew definitively about the fish contamination in Anniston, that local residents were warned by Alabama officials not to eat the fish from waterways downstream from the Monsanto facility. Despite strong warnings in the 1960s from university scientists and others, including a warning that PCB levels in Anniston streams could endanger local children and pets, Monsanto continued to pollute the streams in Anniston, some of which showed no forms of life, and said nothing to the people of Anniston about the pollution.

- "Appropriate Research Efforts" – “Monsanto told the jury and the court in its opening statement during the Owens v. Monsanto trial that the company learned of the persistent nature of PCBs in 1966, when Swedish scientists announced that they had found PCBs in human hair, fish, birds, eggs, and pine needles and had concluded that PCBs had highly persistent and bioaccumulative abilities in the environment…Despite the fact that the company had actually known of the persistent nature of PCBs since the late 1930s (after all, PCBs were marketed as stable, highly resilient compounds), Monsanto set out to attack the Swedish study in an effort to prolong even further the public’s finding out about the PCBs already accumulating in the environment. At first there was some confusion on Monsanto’s part as to which chemical the Swedish scientist might have found, and the company doctor was convinced that another chemical, and likely another Monsanto product, had been detected instead of PCBs. But the Monsanto doctor was reluctant to point toward one of the company’s herbicides, which he suspected was a more likely culprit. There are many chlorinated polyphenyls that can be formed during the manufacture of 2,4,5-T [another Monsanto product and the prime ingredient in Agent Orange] and probably pentachlorophenol as well. Our only problem is whether or not we want to bring these facts up and have our herbicide program receive another black eye.”

- ‘Nobody knows the exact quantity of pollution Monsanto discharged from its Anniston plant into the local waterways. Certainly, the amount was not insignificant, and it likely exceeds the amount dumped by General Electric into the Hudson River (an estimated 1.3 million pounds). While the discharges to water aren’t clearly established, there are incomplete records that show Monsanto dumped at least 5.5 million pounds of PCBs in landfills located near the plant. [Monsanto Document http://chemicalindustryarchives.org/search/pdfs/anniston/NA_030.pdf] What is clear from the documents is that Monsanto was never able to control its discharges effectively throughout the entire 37 year period of PCB production, and even beyond”(http://chemicalindustryarchives.org/dirtysecrets/annistonindepth/pollution.asp).

- “In a November 2, 1966 memo from the Mississippi State College Professor of Zoology to Monsanto, the scientist explains the results of recent caging experiments in the local waterways. The tests involved placing cages filled with 25 live bluegill fish at thirteen different locations in the Choccolocco Creek Drainage (the system of
waterways that accepted wastes from the Monsanto plant). The results were troublesome, indicating that Snow Creek was ‘devoid of life’.

- "A branch of Snow Creek originating in the Monsanto plant and flowing east under Highway 202 and thence north. Water Temp. = 32.1 C. Result: All 25 fish lost equilibrium and turned on their sides in 10 seconds and all were dead in 3 minutes. The gill covers immediately assumed a flared position, and blood issued from the gills after 3-minutes exposure."

- "The outflow to Snow Creek from the east side of the Monsanto Plant (at Highway 202) contains some extremely toxic materials and kills fish in less than 24 hours when diluted 300 times. In a flowing system (as opposed to our static tests) and under conditions of constant exposure, this effluent would probably kill fish when diluted 1000 times or so. Since this is a surface stream that passes through residential areas, it may represent a potential source of danger to children, domestic animals, etc.”

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In 1977 Monsanto stopped producing PCBs, and the United States Congress banned domestic PCB production two years later. By this time, however, the damage had already been done. By its dumping of PCBs, Monsanto contaminated the air, soil and dirt in this community, and even today, parts of Anniston are so contaminated that residents have been told not to grow vegetables in the soil, kick up dirt, eat food, chew gum or smoke cigarettes while working in their yards. Children may not play in their yards, and residents must wear masks to cut their grass. The contamination was so severe that the Environmental Protection Agency included Anniston and the surrounding area to its Superfund and Resource Conservation and Recovery Act (RCRA) programs. EPA information on the “Anniston PBC Site” can be found at http://www.epa.gov/region4/superfund/sites/npl/alabama/anpcbsta1.html#location.

The second source of contamination was from the myriad of nuclear, biological and chemical (NBC) weapons, some dating back to the First World War, on Fort McClellan itself, as well as the herbicides used on Fort McClellan. The “Final U.S. Department of Defense Base Realignment and Closure, Ordinance, Ammunitions and Explosives, Chemical Warfare Materials, Conclusion and Recommendations (Revision 1) Fort McClellan”, September 2001 (http://www.mcclellan.army.mil/documents/Preliminary%20Assessments/BRAC_ArchivesSearchReport_Conclusions_and_Recommendations/Conclusions_and_Recommendations_Rev1_Sep_01.pdf) discusses the issue of NBC materials on Fort McClellan. This open source DoD document states that nuclear, biological and chemical materials were used, tested and stored at Fort McClellan and that the areas involved were contaminated. These areas were easily accessed by those working on Fort McClellan. The risk assessment (Appendix A) for the main post rates this installation as “Catastrophic”, Category “1,” with the statement “There is evidence that explosive ordinance has been used at this site since 1912. There is also evidence that CWM contamination may also exist.” In addition, a variety of herbicides, many of which contained PCBs, were used at Fort McClellan over the years. These will be discussed later in this article.
• Nuclear - According to “Safety Evaluation Report (SER) Supporting Termination of License NO. 01-20861-05, Docket NO. 03017584” (http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/DOA%20FMC%20Safety%20Evaluation%20Report-1.pdf), Fort McClellan was involved in the use, storage and burial of a variety of nuclear weapons, to include U-233, plutonium, radon, cobalt 60 and cesium 137, possibly since 1952.
  
  o The surrounding ground was contaminated from an associated underground holding tank. In addition, nuclear waste was allowed to be buried on the installation. Building 3182, which was a radiological laboratory, was turned into the Military Police Museum upon the deactivation of the Chemical School in 1972. Cleanup of the area was started in 1985 and the area deemed clear for unrestricted access in 2000.
  
  o Many of us who were assigned to Fort McClellan, either as students or permanent party, went to Pelham Range for weapons qualification for ourselves and, as training/platoon officers, for our trainees. The BRAC report states, “In 1952 the Army purchased ten cobalt 60 sources to be used at the CBR Familiarization Course at the Pelham Range (Areas 10A and B and Area 9D). The sources were placed in a pit for the students to monitor. In 1954 approval was granted for the purchase of up to 500 curies of unencapsulated cobalt 60 which was manufactured onsite into sources of 5 curies each. Sealed cobalt 60 and cesium 137 sources manufactured at other locations were also purchased. In 1956, the field location of the sources was designated Radiological Survey Area #3 (Area 24-C). The field consisted of 300 source wells to simulate a fallout pattern from a nuclear detonation. Cobalt 60 sources were used to simulate a uniform fallout pattern and cesium 137 sources were used to simulate ‘hot spots’. The sources were manually raised and lowered via a pulley system into storage positions 6 feet below the ground surface. Extensive leaking of the cobalt 60 sources led to the formation of a radioactive burial ground at the Pelham Range in 1957. At this time, waste from Rattlesnake Gulch was moved to the Pelham Range burial mound. In 1958 the sources and wells were removed from the Pelham Range”. A characterization of the Pelham Range burial mound was done in 1996 (Industrial Radiation Study No. 27-MH-0987-R2-97” dated February 5, 1998). The mound was found to have cobalt 60 and cesium 137 contamination. http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Industrial%20Radiation%20Study%201998.pdf). Remediation was not completed until 2002.

• Biological - Between 16 July and 28 September 1952, a total of twenty-one biological warfare tests were conducted at Fort McClellan. Twelve tests used Serratia Marcesens (SM), and nine used Bacillus Globigil (BG). The exact location for most of these tests was not determined. General locations such as the Choccolocco Corridor were cited. However, two tests that occurred on 22 July 1952 used an area along 10th Street. Both of these tests used SM, with the main test target being buildings on Fifth, Seventh, Eighth & Ninth Streets. Goats were
used in the GB nerve agent demonstrations (pigeons were also used in these demonstrations, and rabbits were employed in the VX exercises). According to the "Final U.S. Department of Defense Base Realignment and Closure, Ordinance, Ammunition and Explosives, Chemical Warfare Materials, Conclusion and Recommendations (Revision 1) Fort McClellan", September 2001, one standard operating procedure required the dead experimental animals be decontaminated, bagged in plastic and put in regular sanitary landfills (http://www.mcclellan.army.mil/documents/Preliminary%20Assessments/BRAC_ArchivesSearchReport_Conclusions_and_Recommendations/Conclusions_and_Recommendations_Rev1_Sep_01.pdf).

- Chemical – According to the Encyclopedia of Alabama (http://www.encyclopediaofalabama.org/face/Article.jsp?id=h-3525) chemical weapons training dominated Fort McClellan’s missions during the Vietnam War era of the 1960s and early 1970s. In 1962, chemical, biological, and radiological weapons training was consolidated at Fort McClellan. From 1966 to 1970, more than 30,000 soldiers were trained for service in Vietnam at Fort McClellan. Training during this era allegedly included the use of the incendiary agent Napalm B, the herbicide Agent Orange, and tear gas, as well as training with live nerve and blister agents. However, I could not find any reference to “Agent Orange”, per se, in any of the many DoD official documents I researched. I also discovered that the Air Force was the Executive Agent for the “Rainbow Agents,” so most of the storage facilities were located on Air Force bases. However, that does not mean that the chemical elements from which Agent Orange were composed were not on post, because they were. Agent White was definitely on Fort McClellan, based on an inventory I found online, which will be discussed later. Remember, these agents were not named by the color of the liquid, but rather by the color of the band around the container. Agent Orange is a compound. It is a mixture of equal parts of two herbicides, 2,4,5-T and 2,4-D. These herbicides will be addressed in the “Aroclor” section of this document.

  - According to the “Final U.S. Department of Defense Base Realignment and Closure, Ordinance, Ammunition and Explosives, Chemical Warfare Materials, Conclusion and Recommendations (Revision 1) Fort McClellan”, September 2001 (http://www.mcclellan.army.mil/documents/Preliminary%20Assessments/BRAC_ArchivesSearchReport_Conclusions_and_Recommendations/Conclusions_and_Recommendations_Rev1_Sep_01.pdf), in 1954, the Chemical Corps School requested that the 100th Chemical Company determine the capability of the Chemical Depot Company for filling 1-gallon chemical land mines with toxic chemical agent by means of the M2 land mine field filling apparatus. The school also requested that the 1,000 lb. CK gas bomb be made available for training. The bomb was to be used in an "Exercise Bunker," which was scheduled for the Senior Chemical Officer and Chemical Officer Advanced Courses. In the demonstration, CG, CK and GB (see chart below) were fired and the immediate effects noted against animals in the open and in field fortifications. This was followed by an autopsy of dead animals in which the veterinary officer pointed out the physiological effects.
The Chemical Demonstration Area during this time was located about a mile east of the Chemical School on Summerall Road, near the South Gate (at that time Summerall Gate was called the South Gate) entrance to Fort McClellan. The area included a toxic gas yard, a radiological survey area and a Biological Weapons survey area. BRAC officials interviewed a retired chemical school instructor also makes reference to this area. The interviewee states that the "Weapons Demonstration Area," could be found by taking your first right after entering Summerall Gate and going to the top of the hill (Chemical Corps School 1956, Environmental Science and Engineering 1998). This was where the Women’s Army Corps Center and School was subsequently located. However, no records are available to determine if live agents were used in this area.

Chemical and biological weapons used on Fort McClellan by the Chemical School included:

<table>
<thead>
<tr>
<th>Chemical &amp; Biological Weapons</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD - Mustard (Blisters)</td>
</tr>
<tr>
<td>VX (Nerve)</td>
</tr>
<tr>
<td>BG1 (Biological Simulants)</td>
</tr>
<tr>
<td>CG (Choking)</td>
</tr>
<tr>
<td>BZ (Incapacitating)</td>
</tr>
<tr>
<td>GB - Sarin (Blisters)</td>
</tr>
<tr>
<td>AC - Hydrogen Cyanide (Blood)</td>
</tr>
<tr>
<td>CK - Cyanogen Chloride (Blood)</td>
</tr>
</tbody>
</table>

Up until 1973 to 1976, the Women’s Army Corps Training Battalions were housed in World War II level barracks which were found in the 1990s to have medium-level asbestos inside those buildings. The buildings have since been remediated. The Fort McClellan “Final Environmental Baseline Survey”, dated January 1998, identifies the asbestos ratings for the buildings on post. It stated that all of the buildings constructed prior to 1980 are considered to have asbestos at various levels (http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Final%20Baseline%20Study.pdf).

In addition to the lead that was in the paint used in the buildings until lead paint was prohibited by the government, many of the ranges were noted as “Lead concentrations could present hazardous and toxic waste (HTW)” by the BRAC Conclusions and Recommendations report, Section 3, (http://www.mcclellan.army.mil/documents/Preliminary%20Assessments/BRAC_ArchivesSearchReport_Conclusions_and_Recommendations/Conclusions_and_Recommendations_Rev1_Sep_01.pdf). The “Final Environmental Baseline Survey” for Fort McClellan, dated January 1998, also shows high lead concentrations in and around some of the underground storage tanks (http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Final%20Baseline%20Study.pdf).

The most contentious issue about Fort McClellan was whether or not “Agent Orange” was used, tested or stored on post. The VA Agent Orange website states “Agent Orange” refers to a blend of tactical herbicides the U.S. military sprayed in the jungles of Vietnam and around the Korean demilitarized zone to remove trees and dense tropical foliage that provided enemy cover. Herbicides were also used by the U.S. military to defoliate military facilities in the U.S. and in other countries as far back as the 1950s (http://benefits.va.gov/compensation/claims-postservice-agent_orange.asp).” DoD is adamant that Agent Orange was not at Fort McClellan. The official listing of sites where Agent Orange was stored is available on this website. Fort McClellan is not on the list. However, I believe
that we have been asking the DoD the wrong question. It is not whether or not Agent Orange was stored, but rather “What Aroclor herbicides were used at Fort McClellan?” Here are some key bits of information to understand the difference.

According to the EPA website [http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/aroclor.htm](http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/aroclor.htm) “Aroclor” is a PCB mixture produced from approximately 1930 to 1979. It is one of the most commonly known trade names for PCB mixtures. There are many types of Aroclors, and each has a distinguishing suffix number that indicates the degree of chlorination. The numbering standard for the different Aroclors is as follows: The first two digits generally refer to the number of carbon atoms in the phenyl rings (for PCBs this is 12), the second two numbers indicate the percentage of chlorine by mass in the mixture. For example, the name Aroclor 1254 means that the mixture contains approximately 54% chlorine by weight. According to [Wikipedia, The Free Encyclopedia](http://en.wikipedia.org/wiki/PCB), “Until it stopped production in 1977, Monsanto was the source of 99% of the PCBs used by U.S. industry. The PCBs were sold under trade names such as Aroclor and Santotherm; the name Santotherm is still used for non-chlorinated products. PCBs are a persistent organic pollutant, and cause cancer in animals and likely in humans as well, among other health effects... They were known to be highly toxic from the beginning, but it was assumed that they would be contained... As toxicity problems arose near factories, their durability and toxicity became widely recognized as serious problems. PCB production was banned by the U.S. Congress in 1979 and by the Stockholm Convention on Persistent Organic Pollutants in 2001.”

So how do we know that these Aroclors were at Fort McClellan? According to a Directorate of Engineering and Housing (DEH) document “Pesticide/Herbicide Documentation, Fort McClellan, Alabama”, dated 16 August 1976 [http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Part15_Appendix_H_VOL2%20PEST%20CONYROL%20LIST.pdf](http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Part15_Appendix_H_VOL2%20PEST%20CONYROL%20LIST.pdf), the following insecticides/herbicides were used for grounds maintenance. The information on the chemicals is obtained from [Wikipedia, The Free Encyclopedia](http://en.wikipedia.org/wiki/PCB).

- Herbicides
  - Silvex, 2,4 D, 2,4,5 T
    - **Silvex Fenoprop**, or 2-(2,4,5-trichlorophenoxy) propionic acid, is an herbicide and a plant growth regulator. The name Silvex is used in the USA. The name 2,4,5-TP is used in France and was used in the former USSR (2,4,5-TP).
    - **2,4-Dichlorophenoxyacetic acid** (usually referred to by its abbreviation, **2,4-D**) is a common systemic herbicide used in the control of broadleaf weeds. It is one of the most widely used herbicides in the world, and is the third most commonly used herbicide in North America. 2,4-D was one of the ingredients in Agent Orange.
    - **2,4,5-Trichlorophenoxyacetic acid** (also known as **2,4,5-T**), a synthetic auxin, is a herbicide used to defoliate broad-leaved plants. It was developed in the late 1940s and was widely used in the agricultural industry until being
phased out, starting in the late 1970s due to toxicity concerns. According to the U.S. National Pesticide Information Center, “the controversy regarding health effects centered around the 2,4,5-T component of the herbicide and its contaminant, dioxin.” Agent Orange was equal parts 2,4,5-T and 2,4-D (2,4-dichlorophenoxyacetic acid). Additionally, the manufacturing process for 2,4,5-T contaminates this chemical with trace amounts of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). TCDD is a carcinogenic persistent organic pollutant with long-term effects on the environment. With proper temperature control during production of 2,4,5-T, TCDD levels can be held to about .005 ppm. Before the TCDD risk was well-understood, early production facilities lacked proper temperature controls, and individual batches tested later were found to have as much as 60 ppm of TCDD. In 1970 the United States Department of Agriculture halted the use of 2,4,5-T on all food crops except rice, and in 1985. The EPA terminated all remaining uses of this herbicide in the U.S.

- **Fenoprop - Fenoprop**, or 2-(2,4,5-trichlorophenoxy) propionic acid, is an herbicide and a plant growth regulator. The name Silvex is used in the USA. The name 2,4,5-TP is used in France and was used in the former USSR (2,4,5-TП). Fenoprop was once used as an herbicide for control of woody plants and broadleaf weeds. Fenoprop has been banned from use as an herbicide in the United States since 1985.

- **Pichloram (#160) - Pichloram** 160 is also known as “Agent White.” Agent White is the code name for an herbicide and defoliant used by the U.S. military in its herbicidal warfare program during the Vietnam War. The name comes from the white stripe painted on the barrels to identify the contents. It was one of the Rainbow herbicides. Agent White is a 4:1 mixture of 2,4-D and picloram. Unlike the more infamous Agent Orange, Agent White did not contain dioxin, which was a contaminant in the defoliants that included 2,4,5-trichlorophenoxyacetic acid (2,4,5-T). Agent White was a proprietary product of the Dow Chemical Company. Around 1985, Dow Chemical was forced to re-certify picloram after having greatly reduced the amounts of contaminants. Agent White was often used when Agent Orange was not available, including for several months after the use of Agent Orange was halted in April 1970. Approximately 5.4 million U.S. gallons of Agent White was used in Vietnam between 1966 and 1971. In addition the U.S. military tested Agent White, Tordon 101 and picloram in varying concentrations at test sites in the U.S. and Puerto Rico in the 1960s. Under the brand name **Tordon 101**, Dow AgroSciences has commercialized a similar product containing a mixture of 2,4-D and picloram. Tordon 101 was one of the herbicides on the list for Fort McClellan.

- **Insecticides**

  - **Mirex** is a chlorinated hydrocarbon that was commercialized as an insecticide and later banned because of its impact on the environment. This white crystalline odorless solid is a derivative of cyclopentadiene. It was popularized to control fire
ants, but by virtue of its chemical robustness and lipophilicity it was recognized as a bioaccumulative pollutant. Ironically, the spread of the red imported fire ant was actually encouraged by the use of Mirex, which also kills native ants that are highly competitive with the fire ants. The United States Environmental Protection Agency prohibited its use in 1976. Fire ants were pervasive during this time at Fort McClellan.

- Chlordane - Because of concern about damage to the environment and harm to human health, in 1983 the United States Environmental Protection Agency (EPA) banned all uses of chlordane, except for termite control. The EPA banned all uses of chlordane in 1988. The EPA recommends that children should not drink water with more than 60 parts of chlordane per billion parts of drinking water (60 ppb) for longer than 1 day. EPA has set a limit in drinking water of 2 ppb. Chlordane is very persistent in the environment because it does not break down easily. Recent tests of the air in the residence of U.S. government housing, 32 years after chlordane treatment, showed levels of chlordane and heptachlor 10-15 times the Minimal Risk Levels (20 nanograms/cubic meter of air) published by the Centers for Disease Control. It has an environmental half-life of 10 to 20 years.

One document, “Summary of Validated Subsurface Soil Data”, dated 20 July 2000, shows positive testing for PCBs at Fort McClellan with Aroclors 1232, 1242, 1248, 1254, and 1260 (http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Part08_Parcel_75_Appendix_E_Section02%20(1).pdf). Different Aroclors were used at different times and for different applications. In electrical equipment manufacturing in the USA, Aroclor 1260 and Aroclor 1254 were the main mixtures used before 1950; Aroclor 1242 was the main mixture used in the 1950s and 1960s until it was phased out in 1971 and replaced by Aroclor 1016. This report also shows the presence of Aroclors 1016, 1231, 1232, 1242, 1248, 1254, 1260 at another area, noted as “Pesticides/PCBs”. These documents show unequivocally that PCB Aroclors were present at Fort McClellan. Another report, “Summary of Validated Sediment Data”, dated 4 April 2002 shows the results of soil testing in 2002 still showing the presence of Alaclors 2,2-Dichloropropanoic Acid, 2,4,5-T; 2,4,5,-TP; 2,4-D; 2,4-DB; Dichamba; Dichloroprop; Dinoseb; MCPA; and MCPP (http://www.davmembersportal.org/chapters/az/14/News%20Documents/Fort%20McClellan/Part28_Appendix_F_10.pdf).

Remember, the VA, itself, acknowledges that Agent Orange was a blend of herbicides and these herbicides were used to defoliate military facilities in the U.S. and in other countries. It is clear that the toxic components of the Rainbow Agents Orange, and White itself, were used and stored at Fort McClellan. It is conceivable that DEH workers, not understanding the chemistry involved, could have used a combination of these herbicides on the ever-pervasive, fast-growing vegetation in Alabama, such as kudzu, in an attempt to keep them under control. But the mixture of these specific herbicides could easily result in unexpected toxicity to those of us who lived and worked on Fort McClellan. Those who spent a lot of time outdoors would have been especially susceptible to contamination. Therefore, it is essential that you include in your claim how much time you spent outside. Only a couple of claims have been approved as service-connected due to exposure at Fort McClellan.
McClellan. Both involved use of herbicides. Now we know what herbicides to reference on our claims. Since these herbicides have a long life, their effects could have contaminated the Fort McClellan community long after they were banned.

The third source was from the Anniston Army Depot. The depot is an active U.S. Army installation. The installation provides munitions storage and refurbishment, testing and decommissioning of combat vehicles and various types of ordnance. In the past, operations at the depot generated solid and liquid wastes that contaminated soil and groundwater. EPA placed a portion of the depot on the National Priorities List (NPL) in 1989. In 1990, EPA and the Army agreed to address the entire depot under the Superfund and Resource Conservation and Recovery Act (RCRA) programs. The Army, EPA and the Alabama Department of Environmental Management (ADEM) have investigated site conditions and taken steps to clean up the depot in order to protect people and the environment from contamination (http://www.epa.gov/region4/superfund/sites/fedfacs/anarmydptal.html). Site investigations found contamination in groundwater and soils that could potentially harm people in the area. Contaminants of concern include antimony, chromium, lead, thallium and trichloroethylene. The Anniston Arm Depot had also been routinely dumping detergents holding the chemical TCE into the public drinking water supply of the town of Anniston. Fort McClellan purchased its water from Anniston. TCE all by itself is not at all toxic, it is merely harmful if swallowed. The contamination ended in the year 1987. The remediation by the EPA began in 1983 so there was a 4-year declining period in TCE content as the cleanup continued.

People living and working on Fort McClellan were targets for the PCBs and other contaminations, as well as nuclear, biological and chemical toxins through the air, groundwater and soil. Soldiers were lying in them on the firing range and on bivouac, they filled their canteens from the polluted streams and they breathed them while marching and running. Children and spouses were also exposed. The multiple contamination sources caused by Monsanto, Fort McClellan and the Anniston Army Depot put us and our families at a severe health risk. Many of us are experiencing the results.

In 2003, the city of Anniston sued Monsanto, and the city was awarded $700 million to help care for exposed residents. Veterans stationed at Fort McClellan, however, were never advised of the suit. They were excluded from it, as the Department of Veterans Affairs presumably would be responsible for any medical care or disability for the chemical exposure. But the problem remains that care isn’t being given. According to the VA, there hasn’t been a “causal” connection to service at Fort McClellan. Like our predecessors of the Vietnam War, the marines from Camp Lejeune and the troops suffering from the burn pits in the Middle East, the veterans of Fort McClellan are fighting an uphill battle, not against an enemy foe, but rather against the U.S. government to gain medical and financial support for mysterious and unexplained illnesses, illnesses that can be traced to exposure to the myriad of toxins at Fort McClellan. Many had families who were also exposed. Luckily, not all have been affected by the exposure. But those who have tell a different story, one of illnesses, pain, frustration, anger, depression and sense of betrayal.

The medical effects of Agent Orange are well known due to the suffering of military personnel who served in Vietnam. A variety of medical conditions have been deemed as service-connected for those who served in and around Vietnam. But neither the Department of Defense nor the Department of Veterans Affairs seems very well informed on vast array of medical conditions.
associated with the multitude of toxins around Fort McClellan. The VA is aware of this issue, yet it has continued to deny claims due to toxic exposure and has failed to implement any program to recognize or register veterans who served at Fort McClellan as having a presumptive service connection or to recognize illnesses that could be associated with these toxins.

However, there is a ray of hope. Service organizations such as the Disabled American Veterans and AMVETS continue to push for recognition of the problem and resolution for Fort McClellan veterans experiencing medical problems associated with toxic exposure. There is a bill in Congress to require the VA to register and provide support to veterans of Fort McClellan. This bill is H.R. 411.

H.R.411, the Fort McClellan Health Registry Act of 2013-2014, directs the Secretary of Veterans Affairs to establish and maintain a special record to be known as the Fort McClellan Health Registry containing the name of each individual who, while serving in the Armed Forces, was stationed at Fort McClellan, Alabama, during the period beginning on January 1, 1935, and ending on May 20, 1999, and who: (1) applies for care or services from the VA; (2) files a claim for compensation on the basis of any disability which may be associated with such service; (3) dies and is survived by a spouse, child, or parent who files a claim for dependency and indemnity compensation on the basis of such service; (4) requests a health examination from the VA; or (5) receives such health examination and requests inclusion in the Registry. It requires the Secretary of the VA, upon request, to provide such health examination, as well as consultation and counseling with respect to examination results. It also directs the Secretary to: (1) notify individuals in the Registry of significant developments in research on the health consequences of potential exposure to a toxic substance or environmental hazard related to service at Fort McClellan; and (2) carry out appropriate outreach activities with respect to such health examinations, consultation, and counseling. However, this bill has been languishing in the House of Representatives for several years because of lack of enough support to get it passed. Let’s work together this year to get this bill passed. It’s the right thing to do. (https://beta.congress.gov/bill/113th-congress/house-bill/411)

Since the Department of Defense have declined to acknowledge the chemical contamination at Fort McClellan and the VA says it’s already studied the claims of these veterans and has found no conclusive link between the veterans’ illnesses and the toxins at Fort McClellan, it is imperative that we:

- Convince veteran organizations to become more proactive in support of this bill
- Work with veteran lobby groups such as MOAA and USAA to use their influence to better inform Congress and convince our representatives to sign H.R.411 into law.
- Until the bill is signed, help Fort McClellan veterans who have been affected by toxins to write their claims in a manner that will bring the claims adjuster to recognize the results of contamination to the applicant.
- Continue to maintain and be active in the Fort McClellan forums to provide information and an outlet for those veterans or family members who have been affected by the contamination. Rather than endorse a single forum, I suggest you type in “Fort McClellan forums” in your web browser and select the one that is most comfortable for you.
So how do we write our claims? In short, we must submit a “complete” disability claim. A complete disability claim requires two components. The first is you must provide competent medical evidence that you suffer from a disability resulting from personal injury suffered or illness contracted in the line of duty, or for aggravation of a preexisting injury suffered or disease contracted in the line of duty, during active military service and that the injury or illness is proven by competent medical authority. Title 38 defines competent medical evidence as “evidence is provided by a person who is qualified through education, training, or experience to offer medical diagnoses, statements, or opinions. Competent medical evidence may also include statements conveying sound medical principles found in medical treatises. It also includes statements contained in authoritative writings, such as medical and scientific articles and research reports or analyses. 38 C.F.R. § 3.159(a)(1). Competent lay evidence is any evidence not requiring that the proponent have specialized education, training, or experience. Lay evidence is competent if it is provided by a person who has knowledge of facts or circumstances and conveys matters that can be observed and described by a lay person. 38 C.F.R. § 3.159(a)(2). This may include some medical matters, such as describing symptoms or relating a contemporaneous medical diagnosis.

This proof is normally met with current medical records. I have copies of my entire military, civilian and VA medical records and attach the applicable entries to my claims. Although the VA has access to your medical records, they may not find all of the medical records associated with your illness. I have pulmonary issues, so logically the VA claims adjuster will review my pulmonology records. However, many of my physician visits were with my primary care providers, with documentation included with visits to other special doctors. Therefore, I will find those records and include them in my claim. That way I am sure that my claim is well documented and that the VA, in its effort to quickly process the backlog of claims, does not inadvertently miss the documentation. I also have become familiar with Title 38, Code of Federal Regulations, Subsection 4, which outlines the disabilities, criteria and ratings for veterans. Here is a hyperlink to help if you wish to review this critical document.

- **SUBPART A — General Policy in Rating (§§ 4.1 - 4.31)**
- **SUBPART B — Disability Ratings (§§ 4.40 - 4.150)**
- **Appendix A to Part 4 - Table of Amendments and Effective Dates Since 1946**
- **Appendix B to Part 4 - Numerical Index of Disabilities**
- **Appendix C to Part 4 - Alphabetical Index of Disabilities**

The second component is proof that the medical condition/illness is caused or made worse by your military service (Service Connection). This will normally require medical records from your tour(s) of duty verifying that you had the medical problems while in service. This is sometimes the most difficult part of the claim submission. Like those diseases related to Agent Orange, many of our diseases do not manifest themselves until years after our service, making it almost impossible to prove service connection. I strongly recommend that you include a statement such as the following in your claim.

"I strongly believe that most, if not all, of my medical problems (or those of my family member) are a direct result of exposure to toxins while stationed at Fort McClellan, Alabama from __________ to ____________. There were a multitude of toxins on this installation due
to the widespread contamination of PCBs by the Monsanto company located in Anniston, Alabama; the nuclear, biological, and chemical agents used by the U.S. Chemical Corps; and the herbicides and insecticides used by the Directorate of Engineering and Housing (DEH) on post. Fort McClellan was listed as a Superfund project by the Environmental Protection Agency due to the contamination of the air, soil and groundwater. The “U.S. Department of Defense, Base Realignment and Closure, Ordinance, Ammunitions and Explosives, Chemical Warfare Materials, Conclusion and Recommendations (Revision 1) Fort McClellan, September 2001” rates Fort McClellan post as “Catastrophic”, Category “1.” The tactical agents include mustard, VX and Serin gases. In addition, I was exposed to chemical herbicides, such as the PCBs Silvex, 2,4 D, 2,4,5 T, (which are the same components as Agent Orange) and Pichloram 160 (Agent White) in the air, groundwater and soil on Fort McClellan. They were in the inventory for the Directorate of Engineering and Housing, who was responsible for grounds maintenance. It is conceivable that DEH workers, not understanding the chemistry involved, would use a combination of these herbicides on the ever-pervasive, fast-growing vegetation in Alabama. But the mixture of these specific herbicides could easily result in unexpectant toxicity to those of us who lived and worked on Fort McClellan. Other contributing contaminants include ionized radiation, asbestos, and lead.”

Be sure to include your specific symptoms, how long you were at Fort McClellan and thus exposed to toxins, and what your job was. The level of exposure would be different between someone who was in an office all day versus someone who was outside training basic or advanced individual training troops, running around post, lying on the ground on Pelham range or on field training exercises, and filling canteens from the open streams. Provide your military orders if you have them. If you lived on post and did yard work, that would also increase your exposure to toxins. In other words, outline what activities you did that would increase your exposure and strengthen your disability claim.

While this an emotional issue to those of us who were stationed at Fort McClellan, keep the emotions out of your claim. Provide specific details on how your symptoms have affected your daily living. You can also have others who have known you for years write a letter to discuss your medical problems and how they have affected your life. If your symptoms are severe enough, you may be eligible for special compensation, such as homebound status or aid and attendance.

As mentioned earlier, the VA has a program for veterans who were exposed to Agent Orange outside of Vietnam or Korea. You can find the information at [http://benefits.va.gov/compensation/claims-postservice-agent_orange.asp](http://benefits.va.gov/compensation/claims-postservice-agent_orange.asp), but Fort McClellan is not on that list. Again the Department of Defense has certified that a "review of the DoD documentation does not show any use, testing or storage of tactical herbicides, such as Agent Orange, at any location in Alabama, to include Fort McClellan." The DoD also stated, however, that records would not reflect "small scale non-tactical herbicide applications" such as routine base maintenance activities like range management, brush clearing, or weed killing. The Directorate of Engineering and Housing herbicide and insecticide inventory mentioned earlier in this article include PCB herbicides of the same composition as Agents Orange and White.. This document may open the door for us. I will send it to my congressmen. You can do the same.
Veterans who were exposed to Agent Orange or other herbicides during military service may be eligible for a variety of VA benefits, including disability compensation for diseases associated with exposure. Your dependents and survivors also may be eligible for benefits. This program includes veterans who served where herbicides were tested and stored outside of Vietnam. You must prove that you were exposed to Agent Orange or other herbicides during your military service to be eligible for service-connection for diseases that the VA presumes are related to Agent Orange and herbicide exposure. Use the reports I have provided that document the use of Aroclors on Fort McClellan. There are no promises, but it may help.

The toxic contamination has affected not only the military members but also their family members. Unfortunately, it is a "gift" that keeps on giving. The toxins can cause chromosomal changes which it carries through to their offspring and continues through the future generations. There are VA benefits for these progeny. Unfortunately, the exposure can also cause multiple miscarriages and other procreative organ dysfunctions for women who were stationed at Fort McClellan. Women who have experienced miscarriages may be eligible for disability benefits. If your dependents were born with disabilities, they may also be eligible for special compensation and assistance. A reference note in Admiral Zumwalt’s Agent Orange Study stated “As early as 1977 information about Agent Orange’s potential for genetic damage was known to the VA. For example, a “NOT FOR RELEASE” VA document expressly noted Agent Orange’s “high toxicity” and “its effect on newborn, deformed children – similar to then thalidomide situation (Note 86).”

I recommend that you do not try to do your claim by yourself. The Disabled American Veterans and other agencies are trained to help you complete the disability forms. However, many of them are not familiar with the specific issues associated with being assigned to Fort McClellan. It would be a good idea to bring this article with you when we meet with your service officer to do your claim.

While nothing can take away the pain and suffering caused by contamination of Anniston, Fort McClellan and the Anniston Army Depot, it is time to take care of our veterans and their families who have suffered because of the cauldron of toxic stew called Fort McClellan. We have a tough battle ahead of us, but information is the key. I am disseminating this article through as many as I can. I recommend you do the same. I wish you all success in your claims, and I hope this article helps.

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