Chemical Contamination In Fenceline Communities

San Antonio, Texas: Contamination from Kelly Air Force Base is Suspected of Causing Sickness and death Among Residents in Adjacent Latino Community

By Steve Lerner

Guadalupe and Robert Alvarado, Sr. have lived across the Union Pacific railroad tracks from Kelly Air Force Base, in San Antonio, Texas for the past 37 years. A purple wooden cross, erected outside their white clapboard home signifies that someone inside is either living with cancer or died from it.

Purple cross indicates cancer incidence
Photo: Steve Lerner

Guadalupe Alvarado suffers from thyroid cancer and diabetes that she thinks were caused by the huge toxic plume of chemical contamination that leaked from the base over several decades. The toxins, some of which cause cancer, leaked into a shallow aquifer and spread for miles under the homes of an estimated 22,000 to 30,000 residents in the surrounding working class, Latino communities.

"A lot of us witnessed loved ones dying. I hurt when good friends died especially when they were people you grew up with. It hurt when they started falling sick with cancer and had to pay for chemo [therapy]. Some were young and never had a chance to live a real life. It hurts now when we have young ones coming down with cancer and asthma. We didn't ask for any of this to come down on us. On my street 15 died of cancer. We put up purple crosses. Now we see more and more purple crosses for kids," she says. Her own daughter, Lisa, 37, has thyroid cancer.

Guadalupe and Robert Alvarado
Photo: Steve Lerner

Guadalupe's husband, Robert Alvarado, Sr., 65, has severe liver and kidney disease. Alvarado also had an aneurism that left him legally blind; and his thyroid malfunctioned, he adds. Confronted with this array of medical problems his doctors asked him if he had been exposed to high levels of radiation. Alvarado told them he lived near the military base.

"I'm angry. They shortened my life. I can't prove it, but I'm more than suspicious,"

says Alvarado whose feet are often so swollen that he cannot wear socks. His suspicions are reasonable given that a number of the chemicals in the contamination from the base are known to cause diseases from which his family suffers. For example, trichloroethene (TCE), a chemical used in large quantities on the base to clean metal parts, is a probable carcinogen linked to liver and kidney cancer, as well as birth defects.

State health officials found elevated levels of liver cancer and birth defects in the impacted area but they say they cannot prove the increased incidence of disease was caused by the polluted aquifer. The liver cancer rate is about double the expected rate and has remained so over the past ten years, reports Melanie Williams, a cancer epidemiologist at the Texas Department of State Health Services. One report suggests that 500 cases of liver cancer have been diagnosed among residents who live near Kelly AFB since 1995.[1] Another federal study found elevated kidney cancer rates in two zip codes -- 78221 and 78242 -- adjacent to the base.[2] Birth defect rates were also found to be two to three times higher than expected.[3]

One of the routes of exposure, through which residents came into contact with the contaminated water in the shallow aquifer, which lies 5 to 30 feet below their homes, came from the many shallow wells illegally dug in the neighborhoods adjacent to the base. Some 75 of these wells have been capped by the Air Force over the last decade. “We know the people used the wells for drinking water,” says George Rice, a hydrologist. They were also likely used for watering gardens, washing cars, “and the children used the hoses the way children use hoses,” he adds.[4] In other words they drank from the hose, sprayed each other, danced under the sprinklers, and bathed in plastic pools filled with the contaminated water.

“I have struggled long and hard to support my family,” says Alvarado who, over the years, worked selling insurance and transporting human remains for the University of Texas Medical Center before ending his career working for Delta Airlines. “I was 57 when I got sick. They cut my work-life short. Guadalupe had to go back to work at a dry cleaners even though she is sick also,” he says.

Robert Alvarado
Photo: Steve Lerner

Alvarado’s family has deep roots in the San Antonio area going back to the 1800s. His father, Joe Leyva, was killed on June 6, 1945 when a German artillery shell hit the landing craft that was ferrying him and other members of the 300th Engineer Combat Division to the beach in Normandy. Taking his stepfather’s name, Alvarado married Guadalupe in 1959 when he was 18 and she was 16. At the time he earned $25 a week. With limited income he was always on the lookout for cheap ways to fix up and expand his home. He built outbuildings in the back yard to accommodate his family, which grew to five children and 18 grandchildren.

One low-budget opportunity to improve his home arose one day while he was fixing a flat tire at a local garage, he recalls. A driver of a dump truck loaded with topsoil hauled out of Kelly AFB approached him and asked him if he wanted to buy it. Alvarado was interested because his yard flooded during heavy rains and the price was right: $15 a load. Building up the yard with some topsoil would end the flooding and give his children a level space on which to play. So he paid for two truckloads of the fill and spread it out over his lawn. The transaction seemed innocuous enough at the time but looking back on it Alvarado now sees buying the dirt as a tragic mistake because it exposed his family not just to contaminated water he used to irrigate his plants and grass but also from the topsoil that came from the military base, he says.

The health problems the Alvarado family reports are not unusual on the fenceline with Kelly Air Force Base, one of seven military bases located in San Antonio. A quick walk around a few blocks in East Kelly reveals dozens of knee-high purple crosses planted in the lawns and next to driveways. One of the Alvarado's immediate neighbors died of stomach cancer; Barbara, a young woman of 25 had stomach cancer; Paula, another neighbor, died of breast cancer; and Emma, who worked at the base, had a kidney transplant, Alvarado told Gilbert Garcia, a reporter for the *San Antonio Current*.[5]

Signs and crosses at the Alvarado home
Photo: Steve Lerner

Elevated levels of disease are occurring on other streets in the area. San Miguel, 60, a retired wrecker driver who lived near the base for 27 years, was diagnosed with thyroid cancer in 2003. His neighbors are also sick and dying. "'The woman in that house has cancer,' he says matter of factly. 'The one next to her has breast cancer, and another one over there has leukemia…. It's too many problems for one short block. It's not normal,'" he told Garcia.[6] In addition to the cancer cluster there are also reports in the neighborhood of high levels of miscarriages and birth defects; central nervous system disorders, anemia, elevated asthma rates and over 120 cases of ALS (Lou Gehrig's Disease).

Hardhats Keel Over

Officials first noticed that something was seriously wrong in the communities surrounding Kelly AFB when a group of construction workers fainted. Rescue workers called to the site found that the hardhats had keeled over from fumes wafting up from toxic wastes they had unearthed while excavating along Quintana Road just outside the base.

Prior to the incident, Alvarado's neighbors had complained about a foul odor coming from the huge jet-fuel tanks located on the base across the railroad tracks from where they lived. There were also complaints by residents who found their fingernails turning black and their hair falling out as a result of watering their lawn with water drawn from shallow wells. But no one listened to them until the hard-hats collapsed, he recalls.

Then, a resident of East Kelly dug a well and had the water tested. It was found to be polluted with trichloroethene (TCE), which causes liver and nervous system damage; and tertrochloroethene (PCE), which causes liver and kidney damage. These chemicals, which are used to strip metal parts of oil and paint, degrade into 1,2 dichloroethene, which is a possible human cancer-causing agent. The testing of the well water, in turn, led to the discovery of a huge toxic plume spread by a shallow aquifer below residential homes in the East Kelly Toxic Triangle.

Where the plume originated is no mystery. Air Force officials now concede that a wide variety of toxic chemicals used on base grounds made their way into the aquifer. For decades chemicals were disposed of in a primitive manner on the 4,600 acre Kelly AFB -- with its 600 warehouses, machine shops, metal stripping shops, paint shops, and jet-fuel storage tanks. The base, originally founded in 1916, became the first Air Force base in the country in 1940 and over the years became the longest continually operated Air Force Base until it closed on July 13, 2001. During the Korean and Vietnam wars it became a major hub for Air Force maintenance work and storage. It employed, at its peak, some 25,000 civilian workers while handling 50 percent of the Air Force's engine maintenance.

For decades, workers drained chemical wastes directly into the ground or dumped them in the creek at Kelly AFB, one of the largest sites contaminated with TCE in the nation. “One former worker admitted he was under orders annually to drain vats of chemicals into the ground during the Christmas holidays,” reports Anton Caputo and Jerry Needham in the *San Antonio Express News*. There was also an open acid pit at the base where heavy metals were dumped. According to local accounts, a refrigerator thrown into the acid pit would quickly dissolve. Heavy rains periodically washed the wastes into the sewers and creeks overflowing into East Kelly, a neighborhood that lacked storm drains.

Extent of Contamination

In 1998, studies found TCE levels as high as 49,000 ppb on Kelly AFB. Further surveys found TCE levels in the groundwater plume that runs under adjacent residential areas from 10 to 100 ppb. Under current rules TCE in drinking water is considered safe at 5 ppb but the standard may soon be raised so that only 1 ppb is considered safe.[7] In addition to TCE, dichloroethene (DCE), tetrachloroethene (PCE), polychlorinated biphenyls (PCBs), vinyl chloride, benzene and thalium were also used and dumped at Kelly AFB. Soils in the area are contaminated with jet-fuel, radioactive wastes, volatile organic compounds (VOCs), nitric and sulfuric acid, beryllium and heavy metals such as lead. Leon Creek, which flows for 3.5 miles through Kelly AFB, is heavily polluted and many chemicals exceed allowable limits in the sediment and fish.[8]

Residents needed help deciphering the highly technical reports about the contamination in their community to understand whether or not it constituted a threat to their health. Assistance with this came from Wilma Subra, a chemist based in Louisiana who helps grassroots groups of residents decipher complex technical reports and regulations. After trying, without success, to get documents about contamination at Kelly from the Air Force, Subra used contacts at the U.S. EPA to obtain the necessary documents and then wrote up a series of handouts for local residents that would make it clear to them what they faced.

What she found was that the groundwater beneath the base was heavily contaminated with numerous chemicals and heavy metals, which exceeded Ground Water Protection Criteria. Among those in excess of regulatory standards were arsenic, benzene, chlorobenzene, 1,2-DCE, nickel, tetrachloroethene (PCE), trichloroethene (TCE) and vinyl chloride.

The health problems being experienced by the Alvarado family and other residents in Kelly “are consistent with those expected from exposure to the chemicals of concern and chemicals present in excess of criteria levels in groundwater under the community, surface waters that flow through the community, and the sediment and fish in the water bodies that flow from Kelly Air Force Base through the community,” Subra states.

“The community should not be made to continue to live on top of this shallow, contaminated groundwater plume. The ongoing exposure is unacceptable,” she asserts. “People living above this shallow groundwater plume are chronically exposed to these chemicals,” she says.

Since the shallow wells have been capped and residents are no longer using groundwater, they are exposed to these chemicals through inhalation, ingestion and skin contact,” she adds. Over the years there were a large number of spills around the perimeter of the base, Subra notes. Periodic flooding and the previous pumping of contaminated waters also left a toxic residue on the land. Furthermore, residents are exposed to these chemicals through “inhalation from the off gassing from contaminated soil and groundwater,” Subra explains. In the summer you can smell this outgasing process, Subra reports. As a result, “there is a need for a comprehensive and cumulative study addressing all routes of exposure,” she concludes.

Many Civilian Workers Sick with ALS

Cancer isn't the only medical problem likely caused by the irresponsible use and disposal of toxic chemicals at Kelly AFB. There is also a concern among residents that too many of them have Amyotrophic Lateral Sclerosis (ALS), a progressive neurodegenerative ailment, commonly known as Lou Gehrig's disease. There are some 30,000 existing cases of ALS nation-wide at any one time. Symptoms associated with the disease include muscle weakness in the arms and legs, slurred speech, difficulty swallowing or breathing, memory loss, headaches, joint pain and chronic fatigue. Following diagnosis, those suffering from this disease live, on average, for two to five years.

A total of 127 former civilian employees of Kelly AFB completed questionnaires indicating that they had been diagnosed with Amyotrophic Lateral Sclerosis (ALS).[9] That seemed to local residents to be a large number of neighbors to be afflicted with this relatively rare disease in their small community. To determine what was going on the Air Force undertook a mortality study.

What they found was that between 1981 and 2000 there had been 13 deaths from ALS among the former civilian workers who lived near the base. This number was not found to be excessive. "There are not an increased number of deaths from ALS" among these civilian workers, the ALS Association reported.[10] The mortality study, however, excluded military service men and women who worked at Kelly Air Force base who subsequently died of ALS. Nor did it include the 127 Kelly residents who reported having been diagnosed with the disease because most of them are still alive. They will only be counted once they die. "We are aware of the limitations of a mortality study, when it is conducted at a time when the majority of the population in question is still alive. With regards to ALS – most [Kelly civilian workers] have not reached the ages where the risk of ALS is maximal," Dr. Carmel Armon noted. He recommended a follow-up mortality study in five years.[11]

The existence of this ALS cluster next to Kelly AFB, if confirmed, will not be altogether surprising given that a number of studies found elevated levels of ALS among military personnel. A Harvard Study reported in Neurology on January 11, 2005 found that male veterans had a 60 percent greater risk of developing ALS than men who had not served in the military. Two other studies report that Gulf War veterans are twice as likely to develop ALS as those not deployed to the Gulf. "Environmental factors may play a role, such as exposure to chemicals during military training," the ALS Association report speculates.[12]

Southwest Workers' Union

Residents began to organize around the toxics problem in the neighborhoods near Kelly AFB in 1993 when the North Kelly Gardens Committee became alarmed at the number of residents with similar illnesses. They invited the Southwest Workers' Union -- an 18 year-old union of public school janitors, maintenance workers, and gardeners -- to help organize their community. Since then, Genaro Lopez-Rendon, co-director of the SWU, devoted 12 years to organizing Kelly residents. As a result of these efforts, 350 Kelly residents are now members of SWU. One Kelly resident who joined SWU and lived near the base dug a well, had the water tested, and found that it was contaminated with volatile organic compounds (VOCs) as well as six other contaminants. A year later, in 1994, a number of Kelly residents, including Robert Alvarado, joined together to

Signs and crosses at the Alvarado home
Photo: Steve Lerner

found the Committee on Environmental Justice Action (CEJA) to fight for a cleanup at the adjacent base.

One of the early complaints of residents in East Kelly, who lived near the base, concerned the odors coming from three jet-fuel tanks, which held three million gallons of fuel, located across the fenceline. Despite assurances of Air Force officials that no contaminants were leaving the base, evidence of benzene pollution was detected and SWU and local residents pushed for the demolition of three giant jet-fuel tanks. In 1998 they won their battle and the tanks were demolished. “When the tanks came down it gave people confidence that they had the power to make change,” Rendon recalls.

Going from house to house, meeting residents sat around kitchen tables, Rendon, Jill Johnson and a number of other SWU workers continued to organize. One campaign they mounted involved preventing the military from expanding its presence next to the East Kelly neighborhood where there were plans to station the Red Horse Division of engineers who specialize in earth moving. Employing a series of evening candlelight vigils, timed to take place after their members came off work, residents convinced military officials to station the additional troops elsewhere.

While these demonstrations were underway, SWU and resident activists continued to inquire about the chemicals that had escaped the base in the aquifer that lay under their homes. At first, coming up with information about the contamination was difficult. Even after some sampling of the toxic plume had been done, residents were not given the results of the testing and a Freedom of Information Act request for the information was denied.

Then, SWU brought in Wilma Subra, to help educate residents about the toxic chemicals they were living atop. She had first heard about the problems Kelly residents were facing from a remedial project manager at the U.S. Environmental Protection Agency (EPA). Subra subsequently held workshops on the technical information for community residents and elected officials; consulted with community members as a technical adviser on the Restoration Advisory Board (RAB); and served on an Interagency Working Group (IWG) jointly sponsored by the U.S. EPA and Texas Commission on Environmental Quality (TCEQ). The IWG focused on environmental, human health, and economic development issues surrounding the cleanup of the contamination from Kelly AFB. At many of these meetings SWU activists and residents in the “Toxic Triangle” repeatedly criticized the slow pace of remediation on the base and the lack of medical help for affected residents.

Slow and Inadequate Cleanup

To date the Air Force has spent $320.4 million on environmental investigation and cleanup at Kelly AFB and that price tag could rise to $465 million by 2024, says Sonja Coderre, public affairs officer at the Air Force Real Property Agency (AFRPA).[13] Further tightening of TCE standards may increase the cost of the cleanup even further. The Air Force has also “funded studies looking for potential problems from the neighborhood plume and has committed $10 million over five years to fund health tests at the neighborhood’s Environmental Health and Wellness Center,” according to a local report.[14] Despite these substantial outlays for remediation, only 475 or 687 potentially contaminated sites on the base have been cleaned up, according to federal and state officials. Further underscoring the untreated extent of TCE contamination at the base was the recent discovery of several drums of TCE, which were removed from an area under the 15th tee at the old Kelly AFB golf course.[15]

For years residents have expressed their outrage about the slow pace of cleanup of contaminated sites on the former Kelly AFB and of the plume of contaminated groundwater under their homes. To date, the Air Force has installed Permanent Reactive Barriers that are buried underground and are designed to contain and filter out harmful chemicals. Contaminated groundwater is also pumped to the surface, treated and then released, in a system known as

pump-and-treat. Members of the SWU and resident activists, however, find this approach inadequate and are demanding a more aggressive cleanup on site that would dig up, haul away, and eliminate the contaminated soil that is the on-going source of off-site groundwater contamination. In one of the most heavily contaminated sites on the base, the old metal plating shop, military officials have erected a cement wall around it to contain the toxins instead of removing them. “We’re not for a containment plan. Those types of sites should be cleaned up immediately,” argues Rendon.[16] Subra agrees; “The waste has been surrounded by a slurry wall and covered by an asphalt parking lot. This is not acceptable. The waste should be dug up, treated and disposed of, not allowed to remain on site and continue to serve as a source of contamination for the groundwater resources,” she writes.

Problems with the pump-and-treat system of mitigating groundwater contamination became apparent on October 5, 2006, when 45,000 gallons of chlorinated solvents spilled at Kelly AFB contaminating areas outside and inside the water treatment plant. The accident began when an ultra-violet oxidation recovery machine, used to treat the water, shut down because of low water flow. Unfortunately, because of a computer error, groundwater from recovery wells continued to arrive at the Zone 4 treatment plant and overflowed its storage tank. Some 36,000 gallons of groundwater contaminated with PCE, DCE and TCE were released while the remaining 9,000 gallons remained within the treatment building. Long-term exposure to these chemicals can cause kidney and liver damage and cancer; persons exposed to high levels can faint; while short-term exposure can cause headaches, skin irritation, and drowsiness.

Widespread TCE Spills at Military Bases

The contamination from Kelly AFB, which spread out in a 12 square mile plume under adjacent residential areas,[17] is by no means unique in the country. According to Air Force documents, nationwide there are 1,400 known military sites with TCE contamination problems.[18] At one of these, the Camp Lejeune Marine Corps base in North Carolina, drinking water was found to contain 1,400 ppb of TCE, according to the Agency for Toxic Substance and Disease Registry (ATSDR). The current EPA standard is 5 ppb. “A still incomplete study of 12,598 children born on the base from 1968 to 1985 found 102 cases of cancer and birth defects, including 22 cases of leukemia, twice the national average. No studies have been conducted of the adult men or women who drank the base water,” Ralph Vartabedian reports in the *Los Angeles Times*. Senator Elizabeth Dole (R-NC) has asked the Government Accounting Office to investigate whether or not the Marine Corps covered up the TCE problem at the base.[19]

The type of massive toxic spills on bases such as Kelly and Lejeune are the direct result of a longstanding pattern of irresponsible disposal of chemicals on the military bases; and a lack of adequate military regulations about how toxics should be handled in a way that protects the health of military personnel, civilian workers, and residents of adjacent communities. Simply put, for too long the military has exempted itself from rules about the dumping of toxics that exist outside their jurisdiction. The result is that there are thousands of contaminated areas in and near military bases that continue to cause health problems.

Rather than simply admit past mistakes and upgrade their environmental regulations, the military is involved in a rear-guard action to minimize the toxics crisis on their grounds. Recognizing the scale of the TCE problem they face, the Department of Defense intervened in a regulatory debate with officials at the Environmental Protection Agency (EPA) over what level of TCE is safe in drinking water. After a review of the accumulating scientific and medical literature, EPA officials concluded that they should tighten regulations about exposure to TCE in drinking water from 5ppb to 1ppb. The Department of Defense (DoD) promptly questioned the reliability of the EPA finding and the National Research Council (NRC) was brought in to mediate the dispute. On July 27, 2007, the NRC issued a 379-page report siding with the EPA’s risk assessment and recommending the more stringent safety standard. The NRC found the research on the potential of TCE to cause kidney cancer as particularly persuasive. The report also confirmed the

existence of a 2001 EPA document linking TCE to kidney cancer, reproductive and developmental damage, impaired neurological function and autoimmune disease.

While this may sound like an arcane regulatory dispute between government agencies, on the ground the lack of enforcement of strict exposure standards can have devastating consequences for real people. For example, Mary Lou Ornelias, Robert Alvarado Sr.'s cousin, described to a reporter how during the 18 years she worked on the base she would dip cotton cloths into buckets of TCE with her bare hands and wiped grease from aircraft parts.[20] "I started working there young at Kelly," says Ornelias, who later had trouble breathing and was diagnosed with liver cancer at the age of 52. "I liked my job. I didn't know it was going to affect me this way."[21] Following her diagnosis she started throwing up blood in 2002, and died in September 2006. At her funeral, her son, Jacob Moran, noted that his mother had never joined lawsuits to seek compensation for damage to her health caused by exposure to TCE. "She just wanted it to be known that those chemicals were dangerous," he observed.[22]

The irony of the U.S. military inadvertently killing and maiming American citizens by exposing them to toxic wastes, all in the name of protecting them, has not been lost on some of the self-described victims of military toxics. In an article entitled "Military Wastes in Our Drinking Water," Sunaura and Astra Taylor write: "In 2003, when the Defense Department sought (and later received) exemptions from America's main environmental laws, the irony dawned on us. The military is given the license to pollute air and water, dispose of used munitions, and endanger wildlife with impunity. The Defense Department is willing to poison the very citizens it is supposed to protect in the cause of national security." The interest of the Taylor family in the quandary posed by irresponsible disposal of military wastes came about because their daughter was born with congenital birth defects, which they are convinced was caused by drinking water laced with TCE, dumped at the Tucson Airport by military contractors during and after the Korean War.

"Today the U.S. military generates over one-third of our nation's toxic wastes, which it disposes of very poorly. The military is one of the most widespread violators of environmental laws. People made ill by this toxic waste are, in effect, victims of war, But they are rarely acknowledged as such," the Taylors write. "It is an ugly truth that manufacturing weaponry to kill abroad also kills at home. The process involves toxic chemicals, metals and radioactive materials. As a consequence the U.S. military produces more hazardous waste annually than the five largest international chemical companies combined," they conclude.[23]

Military Contamination Conference

The contamination of the Latino communities surrounding Kelly AFB "is not an isolated incident…it is part of a larger pattern," asserts Genaro Lopez-Rendon, the SWU organizer. With 6,000 U.S. military bases in the United States and territories and 700 bases abroad, "the U.S. military is the largest source of contamination in the world," claims his colleague, Jill Johnson. To forge links among community groups dealing with these issues, in mid July, 2006, SWU hosted the Converging Community Struggles for Health and Justice: Movement Building Against Military Contamination.

Anti-military-toxics activist with sign
Photo: Steve Lerner

Anti-military-toxics activists came from all over the nation and the world. At the conference, representatives from Korean groups described

a survey that found contamination on 14 of 15 U.S. bases exceeded Korean environmental regulations. They also showed a film of massive but ultimately unsuccessful efforts of demonstrators to keep a U.S. base expansion at Camp Humphrey from annexing an area that local residents used for rice farming and for a school. There is now a coalition of 115 Korean groups that have banned together to stop another base expansion at Pyeongtaek from occurring. Residents have held candlelight vigils there for two years now.

In Ecuador, U.S. naval maneuvers at our newly expanded base in the coastal city of Manta are interfering with local fishing fleets. Forty fishing boats have been sunk, 30,000 fishermen are out of work, and 20,000 farm-workers have been relocated. Pushing southward from Panama, U.S. military officials decided to make Manta the forward positioning home for the U.S. Southern Command in South America.

On Guam, where the U.S. is expanding military facilities to accommodate 8,000 more Marines and their families, there are 17 superfund sites at U.S. Air Force dumpsites. Military planes and ships are washed at Guam exacerbating contamination problems. The U.S. Air Force located one of its bases on top of an aquifer that generates 70 million gallons a day of water. The aquifer is now contaminated with PCBs and heavy metals, explains Sabina Flores Perez from I Nasion Chamoru, a group protesting the contamination.

Closer to home, in Vieques, an island with the highest cancer rate in Puerto Rico, a large part of the land was used by the U.S. Navy for 60 years as a bomb site that has not been cleaned up. To this day munitions, both exploded and unexploded, remain on the ground. The military target range on Vieques is now on the U.S. EPA's Superfund list, but munitions continue to be blown up in place, further contaminating the area, rather than being removed for safe demolition, notes Elda Guadalupe of the Committee for the Rescue and Development of Vieques.

In this country, in Alaska, U.S. military officials closed a base on St. Lawrence Island in 1972 burying their chemical wastes – including PCBs -- on site, reports Jane Kava of the Alaskan Community Action on Toxics (ACAT). Since then some native Yu'pik residents have died of thyroid cancer, a disease that was previously unknown in the area. One possible route by which residents are exposed to military toxics is by eating game, she continues. "There are too many contaminants in the salmon to make it safe to fish," she says. Contaminants have been found in the blood of residents. Currently, a study is being conducted to sample traditional foods such as fish, seals and walrus. Indigenous people have also been involved in the mining or radioactive ores used to build nuclear weapons. "We are the most bombed nation on earth," says Tom Wasson of the Western Shoshone, Winnemucca Indian Colony. Waste dumps that contain hazardous military byproducts have also been opened on Native American lands. The Indigenous Environmental Network now coordinates a number of grassroots groups dealing with military toxics.

Anti-military-toxics activist
Photo: Steve Lerner

There were also representatives from African-American communities located on the fenceline with hazardous military facilities. Kenneth Bradshaw, from the Concerned Citizens Committee told of reproductive disorders including uterine, ovarian, and breast cancers among female residents living near the Defense Distribution Depot of Memphis, Tennessee (DDDMT). Residents there have been waging a ten-year struggle over the contamination of both soil and groundwater from the Army depot laced with TCE, carbon tertrachloride, and toxic metals. "We have been protesting a fake clean up and public relations campaign," Bradshaw says, which is designed to disguise health problems caused

by a secret chemical warfare depot there. Elizabeth Crowe, from the Chemical Weapons Working Group, looks at this problem at a national scale and described the hazards posed to residents who lived near military incinerators in Oregon, Kentucky and Alabama.

Activists march amidst honks of support
Photo: Steve Lerner

At the culmination of the four-day gathering, participants, SWU organizers, local activists and neighborhood residents marched through the 100-degree heat on the outskirts of southern San Antonio to the gates of the now-closed Kelly Air Force Base. The march was slow because a number of the participants, among them Robert Alvarado, Sr., are seriously ill. Carrying banners demanding “Clean Up Kelly Toxics,” the marchers were occasionally cheered on by cars and trucks that sounded their horns in sympathy with the demonstrators' cause. Once at the gates of the base, the demonstrators surrounded a jet fighter that remains behind as a relic of the base’s military history. Speeches were given by activists from communities around the world that face similar problems.

Nick Charles, a mail worker in the San Antonio public school system, who is now an official of the SWU, talked about what it was like living next to the base, working in one of its warehouses, and raising two boys who suffered from constant nose bleeds and headaches. Change comes from working together with other communities, say Reuben Solis, SWU. From this gathering we can see how big the problem is and it makes the heart heavy. We have no time to waste. We have the power to make change.

Steve Lerner is Research Director at Commonweal, a non-profit located in northern California that focuses on environmental health issues.

This story and others like it can be found on the Collaborative on Health and the Environment website at: www.HealthandEnvironment.org.

The Collaborative on Health and the Environment
PO Box 316, Bolinas, CA 94924
Info@HealthandEnvironment.org
www.HealthandEnvironment.org

Endnotes

[1] Tanji Patton, "Toxic Triangle? Is Contamination Connected to Liver Cancer Cases?" News 4 WOAI, November 15, 2006.
[2] Anton Caputo and Jerry Needham, "Kelly Cleanup may get a whole lot costlier," *San Antonio Express News*, July 31, 2006.
[3] Ralph Vartabedian, "Cancer Stalks a Toxic Triangle," *Los Angeles Times*, March 30, 2006, p.1.
[4] Ralph Vartabedian, ibid.
[5] Gilbert Garcia, "Containment Policy: For residents of Kelly's toxic triangle, answers are hard to come by," *San Antonio Current*, July 28 – July 4, 2006.
[6] Gilbert Garcia, "Containment Policy…", ibid.
[7] Anton Caputo and Jerry Needham, "Kelly Cleanup…" op. cit.
[8] SWWU, op. cit.
[9] The ALS Association, "Kelly Air Force Base Update, January 22, 2002.
[10] The ALS Association, "Kelly Air Force Base Study Results: Clarifications and Corrections."
[11] The ALS Association, "Kelly Air Force Base Study Results: Dr. Carmel Armon's Comments."
[12] The ALS Association, "ALS in the Military: Unexpected Consequence of Military Service," May 17, 2006, pp. 5, 9.
[13] Anton Caputo and Jerry Needham, "Kelly Cleanup….", op. cit.
[14] Jerry Needham, "Activists urge cleanup at U.S. bases worldwide," *San Antonio Express News*, July 14, 2006.
[15] Tanji Patto, "Toxic Triangle…", op. cit.
[16] Gilbert Garcia, "Containment Policy…", op. cit.
[17] Southwest Workers Union (SWU), Committee for Environmental Justice Action, "Fact Sheet: Kelly AFB Struggle, Ralph Vartabedian, op. cit.
[18] Ralph Vartabedian, op. cit.
[19] Ralph Vartabedian, op. cit.
[20] Ralph Vartabedian, op. cit.
[21] Tanji Patton, "Toxic Triangle…", op. cit.
[22] Kelli Dailey, "Work Related (Or: How many lives can a carcinogen touch?), *San Antonio Current*, September 13, 2006.
[23] Sunaura Taylor and Astra Taylor, "Military Waste in our Drinking Water," Alternet, EnviroHealth, August 4, 2006.