America's Weapons of Mass Destruction Programs And The Legacy They Left Behind

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Introduction

This document collection has been compiled for the simple purpose of helping researchers students bypass the vast amount of secrecy surrounding the subject of how the U.S. built up the world's largest arsenal of nuclear, chemical and biological weapons during the Cold War.

It is worth remembering that at its peak in 1967, the U.S. nuclear arsenal consisted of 31,255 nuclear weapons with an aggregate destructive power of 12,786 megatons, which was more than sufficient to wipe out all of humanity several hundred times over. But that was not all. Also hidden away in earth-covered storage bunkers spread throughout the U.S. as well as Germany and Okinawa were over 40,000 tons of chemical weapons, as well as thousands of specially designed bombs that could be filled in short order with even deadlier biological warfare agents, such as weaponized versions of the anthrax virus and tularense (rabbit fever bacteria).

But amongst the worst of our human foibles is our capacity to quickly forget. The U.S. today still maintains a huge and massively destructive nuclear weapons stockpile, a fact which we have largely forgotten today because of the post-9/11 focus on terrorism. Since 9/11, reporting by the mainstream American news media about this country's still massive nuclear weapon's arsenal has been almost nonexistent, and scholarly historical works on America's Cold War Weapons of Mass Destruction (WMD) programs have declined dramatically in the U.S. Today, arguably the best research on America's Cold War era work on nuclear, chemical and biological weapons is being done by European and Canadian scholars, not Americans.

That is not to say that there is not already a rich body of work available for researchers and scholars to consult based on detailed research in various archives in the U.S. and Europe prior to 9/11, many of which are listed in this collection's bibliography section. Since the end of World War II, hundreds of books have been written about America's nuclear weapons, but very few of the authors who wrote these works availed themselves of the declassified documents that the U.S. government began declassifying in the late 1970s, preferring instead to depend on interviews or the use of secondary sources for their source materials.
Far fewer serious books have been written about America's chemical and biological warfare programs, for the simple reason that nuclear weapons were rightly deemed to be far more important in U.S. defense and foreign policy during the Cold War than chemical and biological weapons. But also because chemical and biological weapons were, to an important degree, treated as being far more secret than nuclear weapons, in large part because these weapons were widely viewed (even inside the Pentagon) as being more odious than nukes.

The U.S. Government’s Fixation with WMD Secrecy

But the real threat to the future of scholarly research on the American nuclear, chemical and biological weapons programs is the U.S. government’s continuing effort to remove from public circulation declassified documents about these programs from the shelves of the U.S. National Archives. For the past twenty years, a small team of security personnel from the Pentagon and the Department of Energy, masquerading as “declassification specialists,” have been quietly combing through the publicly-available files of the U.S. National Archives research facility in College Park, Maryland, pulling declassified documents from the shelves and reclassifying them as Secret because under the U.S. government's current tough classification standards they are deemed to be classified, whereas prior to 9/11 they were not.

Nearly twenty years after the nuclear reclassification effort began, the U.S. government’s reclassification program is still going on. Pursuant to the authority granted them by the Kyle-Lott Amendment of September 1998, every day of the week security personnel from the USAF and the Department of Energy are still quietly going through the stacks of the National Archives, box-by-box, looking for any documents relating directly or indirectly to nuclear weapons in order to withdraw them from public circulation, despite the fact that most of these materials have been in the public realm for decades.

I recently stumbled on these reclassification activities purely by accident. I made a request for some declassified USAF records held by the National Archives in early April 2017, only to discover that two of the boxes I had asked for were already charged out to “another U.S. government agency.” I later learned that this was the U.S. Air Force along with the Department of Energy. When I finally got these two boxes a few weeks later, some newly printed security classification withdrawal slips were found in both boxes. The USAF and DOE censors had collected their monthly quota of flesh and moved on to other pastures in their ceaseless effort to remove what they deemed to be sensitive material from the public files of the National Archives.

The problem is that this never-ending reclassification effort by the DOE and USAF is largely a pointless exercise and a huge waste of taxpayer money. Dozens of academics and researchers, such as myself, copied many of the now reclassified documents back in the 1980s and 1990s before the post-9/11 reclassification effort began. A number of commercial companies also had systematically microfilmed all of the high-level records relating to U.S. nuclear weapons history during the 1980s, and these records are still for sale on the open market. All of which means that thousands of the documents that the DOE and USAF have reclassified over the past twenty years are still available in the public realm, if one knows where to look.

The curious result is that over two hundred of the documents contained in this collection, which I either photocopied at the National Archives back in the 1980s and 1990s, or found in the Chuck Hansen collection at the National Security Archive in Washington, D.C., have been reclassified by the U.S. government since 9/11 and are no longer available to researchers. And there is no sign that this horrendous practice will cease any time soon.
Pretty much the same thing is happening with regard to chemical and biological weapons. In the aftermath of the 2001-2002 Iraqi WMD intelligence scandal, the U.S. military, especially the U.S. Army, has resumed its former posture of trying to keep all of the details of its former work on chemical and biological weapons a secret, refusing to declassify any further materials on development of these weapons during the Cold War or the related subject of experimentation on humans. So much for openness and transparency about our past work on these weapons.

So, in effect, this document collection is a rescue mission. It is meant to save from reclassification by the U.S. government those historical documents on WMD matters that were declassified prior to 9/11 but which are now under threat from overzealous government security officials. Concurrently, it is designed to provide ammunition to researchers and scholars seeking to get more documents declassified through the FOIA process in what is admittedly a very hostile declassification environment.

**Key Findings Contained in this Collection**

- Before the atomic bombs were dropped on Hiroshima and Nagasaki, Japan in August 1945, the U.S. military gave serious consideration to dropping thousands of tons of chemical weapons on civilian and military targets in Japan in order weaken the Japanese government's will to resist. But the documents reveal that the U.S. military was unprepared to execute this plan because too few chemical munitions were then forward deployed in the Pacific, with military commanders reporting that they would not have enough weaponry available to execute the plan until at least November 1945. By that time (fortunately) the war was over.
- The documents in this collection clearly indicate that Strategic Air Command (SAC), America's nuclear strike force, would have experienced great difficulty executing a large-scale nuclear strike on the Soviet Union if war had broken out between the U.S. and the USSR during the first decade of the Cold War (1945-1955).
- The first critical problem was that there were not nearly enough trained nuclear weapons assembly teams available to arm and load onto SAC's bombers all the nuclear weapons that were then in the U.S. nuclear arsenal. This serious deficiency was not fixed until well after the Korean War began in June 1950.
- The second critical problem was that all SAC bombers had to fly from their home bases around the U.S. to airfields next to a tiny number of national nuclear weapons storage sites in order to pick up their atomic bombs before flying off to attack their assigned targets inside the Soviet Union. At the time that the Korean War began in June 1950, there were only three national nuclear weapons storage sites (Manzano Base at Albuquerque, New Mexico; Killeen Base at Fort Hood, Texas, and Clarksville Base at Fort Campbell, Kentucky) that stored all of the 299 atomic bombs in the U.S. nuclear arsenal.[3] A fourth national nuclear weapons storage site – Bossier Base, located adjacent to Barksdale AFB, Louisiana – was activated in March 1952.
- This procedure was designed to give maximum protection to America's small nuclear weapons stockpile, but the documents show that in wartime it would have created massive delays in launching a nuclear strike on the USSR, as well as huge security problems, and a massive traffic jam on the ground and in the air as hundreds of SAC bombers would have had to jostle for space to land their planes at these three bases, load their nuclear weaponry, then take off in order to clear space on the ground for the next wave of SAC bombers. Exercises showed that it would have taken at least two full days (if all went according to plan) to arm SAC's entire force of near three hundred nuclear-capable B-29, B-50 and B-36 bombers before an atomic strike on the Soviet Union could be properly executed.
- Reliable intelligence information on SAC's strategic targets inside the USSR as well as details of the Soviet air defense system were so sparse that it is questionable if the bombers could reach their targets deep inside the Soviet Union, much less find them and destroy them. The strategic targets that SAC was assigned to destroy in the early 1950s consisted of 123 industrial and urban targets inside the Soviet Union (reduced to 72 major cities...
by 1952), most of which were located west of the Urals in the European portion of the USSR, 84 Soviet strategic bomber bases and dispersal fields, and four Soviet nuclear weapons facilities. The lack of target materials, especially the dearth of high-resolution photography needed to prepare SAC's bombing target folders, was to dog the U.S. nuclear war planning process right up until the first operational CORONA reconnaissance satellite was successfully launched into space on August 18, 1960.

* During the early 1950s, the U.S. military believed that there were not enough nuclear weapons in the U.S. arsenal to stop a Soviet military advance into Western Europe if war was to break out. It must be remembered that there were no high-yield thermonuclear weapons in the U.S. nuclear arsenal at the time, and the thinking was that the yields of the fission bombs then in the American stockpile were not sufficiently large enough to cause the kind of mass damage needed to stop a Soviet military offensive. So for most of the 1950s, one of the principal mission assigned to SAC's bombers was to hammer the Soviet military forces through the mass employment of hundreds of fission bombs, with the goal of killing as many Soviet soldiers and destroying as many Russian tanks as possible in order to try to slow the Soviet advance until the U.S. and its NATO allies could bring in reinforcements and mobilize their reserves. This highly classified mission was known within the U.S. military as the “retardation mission.”

* In 1952 officials at USAF headquarters in Washington proposed mass drops of chemical and biological weapons on Soviet forces if war ever occurred. In early 1952, the USAF secretly began drawing up plans to deploy 2,000 empty M33 biological warfare bombs to RAF Lakenheath in England and Wheelus Air Force Base in Libya. If war broke out, these bombs were to be filled with the Brucella suis (undulant fever) incapacitating agent, which would have to be flown in from a storage facility in the U.S. The plan, which was to be implemented in 1953, also called for training a USAF medium bomb group based in the UK that was equipped with B-29 and/or B-50 bombers to drop these weapons on targets inside Russia and/or Eastern Europe if war ever broke out. The name of this Top Secret operation was Operation STEELYARD. It would appear, however, that negotiations with the British government on allowing the USAF to bring the biological weapons into the UK failed by August 1952, forcing the USAF to go back to the drawing board and rethink its plan.

* The USAF and the Armed Forces Special Weapons Project (AFSWP) deployed two nuclear weapons detachments (or “cells”) and non-nuclear components for a small number of Mark 7 atomic bombs to Japan and Guam in November-December 1952. These bombs were tactical nuclear weapons meant for delivery by a wing of USAF F-84G nuclear-capable fighters then deployed at Komaki Air Base outside the Japanese city of Nagoya. The nuclear cores for these bombs were stored on Guam so that the U.S. could claim that it had not deployed complete nuclear weapons to Japan. The bombs and weapons personnel were secretly withdrawn from Japan in early 1953, presumably because the State Department objected to their presence.

* In April 1953, the JCS approved a U.S. Army proposal to deploy chemical weapons into Japan covertly in an effort not to create a diplomatic imbroglio and a public relations disaster for the U.S. government. The U.S. Army was hesitant to go forward with the plan because the Army staff said that there was no way they could keep the presence of these lethal weapons in Japan a secret forever. Interestingly, there is no evidence that the State Department ever objected in any way or form to the JCS decision to secretly deploy chemical weapons to Japan. The Secretary of Defense did not approve the top secret proposal until more than a year later on May 19, 1954, with CINCFE in Tokyo directing that these weapons be stored on the island of Okinawa, which was controlled by the U.S. at the time.
In April 1953, the British government asked the U.S. to sell it 2,500 tons of sarin nerve gas for over 20 million dollars, which was a substantial sum of money at the time. The U.S. had not yet begun to produce sarin nerve gas for its own stockpile, forcing Washington to tell the UK government that it would have to wait until America's nerve gas requirements were filled before they would be willing to contemplate selling or giving a portion of their stockpile to Great Britain. The British came back again in July 1953 asking for the supply of sarin nerve gas, but this time they wanted it for free under the U.S. foreign aid grant assistance program. As late as the spring of 1954, the British government was still adamantly pressing the Pentagon to provide them with the previously requested 2,500 tons of sarin munitions.

One of the documents contained in this collection is a 10-page February 1954 list of targets inside China that the Strategic Air Command intended to strike with nuclear weapons in case of war with China. The target list, which was compiled at the height of the 1954 Taiwan Strait Crisis, included virtually every major Chinese urban center and port, including Beijing and Shanghai, as well as virtually all military airfields in northern and eastern China. China was in the process of building up its military forces opposite Taiwan and threatening to invade the island.

The U.S. kept all information concerning its plans to use biological weapons against Soviet forces in time of war a secret from its NATO allies. According to a declassified U.S. Army Chemical Corps document, in the spring and summer of 1954, the U.S. Army Chemical Corps prepared plans to use massive numbers of biological weapons (BW) against Soviet forces if the Soviets ever invaded West Germany. According to a declassified U.S. Army history, “This information was not communicated to other North Atlantic Treaty Organization (NATO) nations, because severe political complications might result from premature disclosure of American plans.”

This collection contains numerous documents detailing the U.S. military preparations for using nuclear weapons against mainland China during the 1954, 1955 and 1958 Taiwan Strait crises, which centered on efforts by the Chinese to capture two offshore islands called Quemoy and Matsu, that were controlled by Taiwan. The documents show that at the height of all three of these crises, Strategic Air Command (SAC) alerted its bomber forces for a potential nuclear attack against all of the Chinese military airfields and major ports opposite Taiwan.

A June 6, 1955 letter by SAC commander General Curtis E. LeMay revealed that there were not enough thermonuclear weapons or nuclear capsules for these bombs in the U.S. nuclear weapons stockpile to arm one-third of SAC's 200 B-47 and B-52 strategic bombers. According to LeMay, the 70+ H-bombs that should have been allocated for use by SAC had instead been given to American theater commanders in Europe and the Far East, leaving SAC critically short of the weapons it needed to perform its primary nuclear strike mission.

In November 1955, the U.S. ambassador in Paris made the first request of the French government seeking permission to deploy and store American nuclear weapons in metropolitan France. This marked the beginning of more than five years of frustration and angst for the U.S. government as the French repeatedly refused increasingly urgent American requests to store nuclear weapons on their soil. Finally, the U.S. government simply gave up speaking to the French government about the subject once it became clear that Charles de Gaulle’s government was never going to accede to their requests, no matter what Washington said or did.
A declassified June 1956 U.S. Army memo revealed that there were two principal factions within the U.S. military, each advocating their own preferred weapon of mass destruction. The U.S. Army, especially the toxic weapons gurus in the U.S. Army Chemical Corps, advocated more spending on chemical and biological weapons. The U.S. Air Force, especially the leaders of the Strategic Air Command (SAC), dismissed the value of chemical and biological weapons, advocating instead building more nuclear weapons, which they argued were a battle-tested and proven commodity. In the 1956 memo, the commander of SAC, General Curtis E. LeMay, told Assistant Secretary of the Army, Frank H. Higgins, that “he thought that chemical warfare never had any value, did not now, and furthermore it had no potential in modern warfare.” To put it mildly, General LeMay’s position infuriated the U.S. Army, which was heavily invested in promoting further investment in chemical and biological weaponry.

In 1956 the Defense Department learned that USAF transport aircraft carrying non-nuclear components of nuclear weapons were routinely transiting through French airfields on their way to West Germany, violating a 1952 agreement with the French government that barred the presence of U.S. nuclear weapons in metropolitan France without the permission of the French government. The USAF hastily ordered that these transit flights cease immediately, but nobody informed the French of what had transpired in order to preserve the secrecy surrounding these incidents and thus avoid antagonizing the French government.

A 1957 U.S. Army document revealed that SAC’s top wartime nuclear target was, not surprisingly, the Soviet capital city of Moscow and all of the major military and industrial facilities located in and around the city, including three new SA-1 strategic surface-to-air missile launch sites and fourteen military and civilian airfields.

In early 1958, after years of behind-the-scenes effort, the Pentagon managed to convince the Eisenhower administration to alter the U.S. government’s longstanding national policy, which held that chemical and biological weapons would only be used in retaliation after the Soviets used their weapons first. The new national policy, which was contained in directive NSC 5810/1, dated May 6, 1958 and classified Top Secret, which kept it away from virtually everyone in the U.S. government, was “that the U.S. will be prepared and may use CW and BW in a general war under any circumstances where a military advantage can be foreseen subject to approval by the President. The United States may undertake the employment of chemical or biological weapons prior to their use by an aggressor.” In an instant, chemical and biological weapons had now become first strike weapons, unlike nuclear weapons, where the U.S. was publicly committed not to use them first.

Beginning in 1958, the U.S. military began secretly building a large base infrastructure throughout Western Europe meant to store and maintain several thousand American nuclear weapons for exclusive use by America’s NATO allies. According to one declassified February 1958 document, the U.S. military initially planned to build 63 nuclear weapons storage sites and six large command and support facilities in ten Western European countries in order to support the soon-to-arrive nuclear warheads meant for use by non-U.S. NATO countries. By mid-1961, the plan was to have constructed a total of 147 nuclear weapons storage sites in Europe servicing 175 NATO nuclear delivery units. Most of these nuclear storage facilities were to be located in West Germany. An estimated 2,750 American military personnel would be required to man and guard these extremely sensitive bases. At the time the U.S. already had forty nuclear weapons storage sites in Western Europe holding nuclear weapons and warheads meant exclusively for the use of U.S. forces in Europe. The first four NATO nuclear weapons storage sites began construction in the fall of 1958 at four British air bases in West Germany which were to house CANBERRA bomber squadrons equipped with U.S. nuclear weapons, plus a site outside Paderborn, Germany, which was to house a British Army nuclear-capable CORPORAL missile regiment. By the late 1970s/early 1980s there were over a hundred nuclear weapons storage sites in Europe operated by
the U.S. Army and fourteen nuclear weapons storage sites controlled by the USAF holding atomic weapons exclusively for the use of non-U.S. NATO forces spread over ten countries, although most of the sites were in West Germany.

* A September 1958 report to the JCS concluded that because of their very nature, biological weapons had little battlefield utility if nuclear war broke out between the U.S. and the USSR. Their only worth was if some form of a limited war broke out, which might make the use of biological warfare agents preferable to the use of nuclear weapons. In effect, the conclusion of this report doomed the U.S. biological warfare program since its main conclusion was that BW weapons, while being lethal in their killing power, just had no place on the battlefield.

* In early 1959 the U.S. Army secretly deployed what was described as a “token [chemical weapons] retaliatory capability” to West Germany without the formal consent of the German government, although German chancellor Konrad Adenauer was secretly briefed in August 1958 about the U.S. Army’s plans. Adenauer apparently did not object to the U.S. military’s plans to store chemical weapons on German soil. The 3,900 tons of mustard gas and sarin nerve gas weapons that were shipped to Germany were stored at the Seventh Army Chemical Depot, located on the grounds of the Rhine Ordnance Depot in Kircheimbolanden.

* As of January 1, 1959, the U.S. chemical weapons stockpile consisted of 11,400 tons of sarin nerve gas and almost 27,100 tons of mustard gas, for a total of 38,500 tons of toxic chemical agents in both filled munitions and kept in bulk storage tanks. As of the summer of 1959, the U.S. Army had stored in West Germany 75,000 artillery rounds filled with sarin nerve gas and mustard gas, 75,000 mortar rounds filled with mustard gas, and 100 tons of bulk-stored sarin and mustard gas. No chemical weapons had yet been deployed to the Far East. As for biological weapons, the U.S. BW stockpile consisted of 18,600 M33 500-lb. BW bombs and 4,700 M115 500-lb. BW bombs that could be filled with any number of anti-personnel or anti-crop biologic pathogens that were then in refrigerated storage at the Pine Bluff Arsenal in Arkansas. Approximately four hundred anti-personnel and an equal number of anti-crop BW bombs were stored in Great Britain and Libya, minus the lethal agents, which would have to be flown to these forward bases in time of war in order to fill these bombs

* By the early 1960s, huge portions of the U.S. chemical weapons stockpile were found to be obsolete and could not be used. For example, as of January 1962 there were 59,000 115 lb. M70 mustard gas bombs in the chemical weapons stockpile that could no longer be used because the latest generation U.S. Air Force and Navy fighter bombers could not carry them. The Pentagon decided to keep its huge stockpile of mustard gas weapons, including the M70 bombs, despite the fact that the sarin and the VX nerve gas weapons that were then entering the stockpile were more lethal and far easier to use. It was a typical case of the Pentagon, realizing that if it did away with these weapons would never get them back. So it decided to keep the mustard gas bombs, even if they could no longer be used.

* The shootdown of a CIA U-2 spy plane over the USSR in 1960 forced the Pentagon to immediately begin dismantling most of its huge “city killer” high yield thermonuclear weapons, which were designed to be dropped by Strategic Air Command (SAC) bombers flying at high altitude. The shootdown of the U-2 spy plane showed that Soviet air defenses could now easily shoot down American planes flying at high altitude, requiring that SAC reconfigure its tactics to focus on low-altitude delivery of its stockpile of nuclear weapons on Soviet targets. This meant that virtually all of the huge “city killer” thermonuclear bombs in SAC’s inventory had to go, to be replaced by smaller, lighter bombs with lower yields that were designed to be dropped at lower altitudes with greater precision. However, a small number of Mark 28, Mark 41 and Mark 53 high-yield thermonuclear bombs
were kept in the storage bunkers at SAC bases just in case they were needed, and were not retired from the nuclear stockpile until after the Cold War ended.

* At a May 5, 1962 NATO foreign and defense ministers' meeting held in Athens, Greece, Secretary of Defense Robert McNamara revealed that the U.S. had over five thousand tactical nuclear weapons deployed in Western Europe, and that this number was continuing to increase at a rapid rate as a new generation of tactical nuclear weaponry was shipped to Europe. McNamara also revealed that 1,800 American strategic nuclear warheads were then committed to attacking seven hundred targets on SACEUR's nuclear target list inside the USSR and Eastern Europe.

* In 1962, West German defense minister Franz Josef Strauss proposed that the U.S. agree to a quid pro quo information sharing arrangement, whereby German firms would conduct research and development on new chemical and biological weapons technologies on behalf of the U.S. government. The U.S. would then make these weapons available to the German government since Germany was barred by the Brussels Treaty from manufacturing chemical or biological weapons. Separately, Strauss also inquired whether the U.S. would be willing to sell to Germany chemical weapons so that it could establish its own chemical weapons stockpile under NATO command.

* In 1963, the Pentagon finally accepted the long-held belief held outside the Defense Department that in wartime, the mass use of nuclear weapons to attack Soviet targets deep behind the lines would have little, if any, effect on slowing down, or retarding, a Soviet military advance into Western Europe.

* A declassified 1966 document revealed that there were now almost 7,800 tactical nuclear weapons deployed in Western Europe, not including nuclear weapons deployed with the U.S. Sixth Fleet in the Mediterranean, British nuclear-capable combat aircraft, or POLARIS submarine-launched ballistic missiles (SLBM) that were assigned to hit targets in Eastern Europe.

* In 1967 the Pentagon launched a secret effort to dispose of over a hundred mustard gas bombs leftover from World War II, which were discovered buried on the grounds of Dacca airport in East Pakistan, now Bangladesh. After a few weeks on the ground, the American military weapons disposal team left the country, leaving the uncovering and disposal of the remaining chemical munitions to untrained Pakistani laborers wearing no protective clothing other than rubber gloves and boots.

* The Pentagon reported in a 1969 briefing to the National Security Council (NSC) that a U.S. nuclear strike on the USSR would kill approximately 40 percent of the Soviet populace, destroy 190 of the largest cities in the Soviet Union, and wipe out an estimated 60 percent of the USSR's industrial capacity. And this was just in the first retaliatory strike, with the Pentagon reporting that it could kill more people if it chose to destroy all five hundred of the Soviet Union's largest cities and towns.

* A series of documents in this collection describe the immense damage done at the AEC's Rocky Flats nuclear weapons plant, which manufactured plutonium triggers for nuclear weapons, as a result of a terrible fire in May 1969 which destroyed the production lines in two buildings but fortunately produced no casualties. The documents not only describe the damage done to the plant's facilities and the contamination caused by the fire, but also reveal that the loss of the nuclear trigger production lines in the two affected buildings set back the production of nuclear weapons in the U.S. by an entire year, including the suspension of production on nuclear
warheads for the MINUTEMAN ICBM, the POSEIDON SLBM, and the new B61 tactical nuclear bomb. None of this information was ever revealed to the American public.

* On July 8, 1969, during a routine cleaning of nerve gas-filled bombs stored at the Chibana Ammunition Depot on Okinawa, a GB (sarin) leak occurred in a 500-pound bomb which injured 24 U.S. personnel. The U.S. Army initially tried to cover up the incident, but this effort came to naught when the Wall Street Journal published the details of the incident. The ensuing press reports prompted a storm of public protests in Japan, leading the Japanese government to demand that the weapons be removed immediately from Okinawa. Within a week it was announced that the chemical weapons would be removed. The chemical weapons stockpile at Chibana at the time consisted of 13,000 tons: 2,865 tons of mustard gas (HD), 8,322 tons of sarin nerve gas (GB), and 2,057 tons of VX nerve gas weaponry. All these weapons were removed from Okinawa by the end of September 1971.

* The July 1969 Okinawa nerve gas incident prompted all sorts of uncomfortable questions from America’s allies in Europe and Asia about whether the U.S. was surreptitiously storing chemical weapons on their soil, as they had on Okinawa. When the West German government asked about the small U.S. nuclear weapons stockpile stored at a U.S. Army ordnance depot at Clausen near the French border, the State Department had the temerity to suggest that the German government refuse to disclose any information to the German public about the presence of American chemical munitions in their country. Fortunately, the German government rejected the State Department’s advice and went public, revealing for the first time the fact that American chemical weapons had been secretly stored on German soil for over a decade.

* A November 1970 CIA briefing disclosed that at that time the U.S. and Britain had 9,400 nuclear warheads “committed for use in Europe,” compared with an estimated 5,900 to 8,600 Soviet tactical nuclear weapons that were allocated for use against NATO forces in Western Europe in wartime.

* A January 1971 NSC report revealed that there were 6,500 targets, both military and civilian, inside the USSR and Eastern Europe that the U.S. intended to strike with nuclear weapons in wartime. But the report stated that a U.S. nuclear strike “cannot destroy a significant part of the Soviet nuclear delivery capability,” and could only destroy about half of the designated Soviet military targets.

* In July 1972, the Pentagon activated a top secret 33-person nuclear weapons security unit at Yokota Air Force Base, Japan, hiding the unit’s presence in Japan under the covername Management Control Detachment (MCD). The reason for the secrecy was that the U.S. government was terrified that the Japanese government would find out about the presence of the unit in their country, despite the fact that its mission was just to operate and maintain the permissive action link (PAL) security devices installed on American nuclear weapons deployed elsewhere in the Far East other than Japan.

* A declassified State Department report revealed that as of July 1972, the U.S. chemical weapons stockpile consisted of 22,000 tons of lethal chemical agents, including 14,000 tons of nerve gas (GB and VX) and 8,000 tons of mustard gas. Half of the stockpile was in the form of filled chemical munitions (mostly bombs and artillery shells), while the other half of the stockpile was stored in huge above-ground bulk containers.

* Declassified documentation about terrorist incidents involving American nuclear weapons are few and far between. One such incident actually occurred in December 1974 at a U.S. nuclear weapons storage site in West Germany after four men, two of whom were armed, were spotted trying to break through the perimeter
fence of the station. The U.S. guard force at the base opened fire on the intruders. In the ensuing firefight, two U.S. guards were wounded. No further details about the incident are currently available.

* The costs and manpower associated with guarding the nuclear weapons deployed in Europe and Asia was exorbitant. An August 25, 1975 document revealed that over six thousand U.S. Army and USAF personnel were engaged in guarding and maintaining the thousands of nuclear weapons supporting NATO countries at an annual cost of 83.8 million dollar. U.S. Army nuclear weapons support was provided by ten U.S. Army field artillery groups with about five thousand personnel assigned. USAF nuclear weapons support was provided by fourteen munitions support squadrons with 1,100 assigned personnel. In South Korea, one and one-half infantry battalions from the U.S. 7th Infantry Division were used to guard two U.S. Army nuclear weapons storage sites in Korea, four nuclear-capable artillery units belonging to the 4th Missile Command as well as six isolated nuclear-armed Nike-Hercules SAM sites spread throughout South Korea. The two MP companies guarding the two U.S. Army nuclear storage sites (SAD 200 and SAD 300) at Chon-Ni and Anyang-Ni were deemed to be not adequate to provide the required security.

* Despite intensive U.S. government lobbying efforts, a 1978 NSC memo revealed that America's NATO allies, particularly Great Britain and West Germany, were refusing to allow the U.S. military to deploy more chemical weapons on their territory.

* A recently published U.S. Army historical study revealed that as of the late 1970s and early 1980s, there were 107 U.S. Army-operated nuclear weapons storage sites located in five Western European countries (Germany, Italy, Greece, Turkey, and the Netherlands), as well as a single chemical weapons storage site in West Germany. These sites held nuclear weapons meant for use by U.S., West German, Italian, Belgian, Greek, Turkish, Dutch and British nuclear-capable units. The U.S. Army study also includes a series of maps showing the locations of all the nuclear weapons storage sites in these five NATO countries.

* This collection includes the now infamous October 21, 1985 White House directive (NSDD 193) which imposed severe sanctions on New Zealand, including downgrading New Zealand’s status from 'ally' to ‘friendly country’, which severely impacted on U.S. arms sales and commercial export licenses. These moves were prompted by an April 1985 decision by New Zealand prime minister David Lange to refuse to permit nuclear-armed U.S. Navy warships to dock in New Zealand ports.

* The U.S. intelligence community's knowledge, or lack thereof, concerning Soviet chemical and biological warfare capabilities during the Cold War was horrendously poor, so much so that it was only after the Cold War came to an end that the CIA and DIA realized just how badly they had botched their intelligence estimates as to the size of the Soviet chemical and biological weapons stockpiles. In the case of the Soviet chemical weapons stockpile, the U.S. intelligence community thought the Soviets had well over 100,000 tons of chemical munitions in its stockpile, when in fact the Soviets had just under 40,000 tons of chemical agents, most of it stored in bulk containers and not ready for use. As for the Soviet biological weapons stockpile, the CIA and DIA knew virtually nothing about the massive and super-secret Soviet BW research, development and production complex, and it came as a shock when a Soviet defector revealed that the Soviets had secretly developed and weaponized a massive array of BW agents.

* This collection includes a fascinating article about a little known U.S. Army unit known simply as the Technical Escort Unit (TEU), whose specially trained personnel were responsible for transporting and guarding chemical weapons shipments inside the U.S. and overseas. The TEU also guarded these weapons on ships before
they were dumped into the sea, which was the U.S. Army standard method of disposing of unwanted chemical weaponry during the Cold War. The TEU was also responsible for securing, guarding and transporting captured foreign chemical and biological weapon, as was the case after Operation Desert Storm in 1991, when the TEU took custody of Iraq’s stockpile of WMD that had been captured by U.S. forces.

* Some of the documents in this collection demonstrate the extreme measures taken to disguise the activities of the field units belonging to the USAF’s secretive nuclear test detection unit, the Air Force Technical Applications Center (AFTAC). AFTAC’s imagination, however, in the field of covert activities was not very well developed. For example, AFTAC’s two clandestine nuclear test detection units based outside Ankara, Turkey (one gathered seismic intelligence, while the other was an acoustic intelligence unit) were given notional cover stories that they were both engaged in ‘weather research’ despite the fact that there was not one single weather-related instrument at the site.

* During the boom years of the American nuclear, chemical and biological weapons programs in the 1950s and early 1960s, the U.S. built tens of thousands of nuclear, chemical and biological weapons without any clearly defined requirements for the bombs. Nor did the Pentagon have any clear idea how it would use the weapons on the battlefield if indeed war with the Soviet Union or China ever broke out. By the late 1950s, deciding which nuclear weapons to buy oftentimes resembled day-to-day activities at an automobile showroom. AEC officials repeatedly complained that the Pentagon was continually demanding that they build bigger and more destructive nuclear weapons, such as ultra-high yield thermonuclear weapons, not because there was a clearly defined military need for the weapons, but rather because that is exactly what the scientists at the weapons laboratories were developing and secretly advertising to their customers in the Pentagon. In other words, technology was determining what bombs to buy rather than real-world requirements.

* The assistance provided by British and Canadian weapons scientists to the U.S. chemical and biological weapons program during the early years of the Cold War was far greater than most scholars have previously recognized. For example, it was the British biological weapons lab at Porton Down which was largely responsible for developing a “weaponized” version of the lethal anthrax virus. But available evidence indicates that by the late 1950s the value and import of British and Canadian assistance to the U.S. chemical and biological warfare programs diminished as these small programs were quickly dwarfed by the much larger and better funded American effort.

* In internal reports and memos, the language used to justify building more of these weapons of mass destruction, especially during the Truman and Eisenhower administrations in the 1950s, was truly frightening. Not only did Pentagon planners talk about committing mass murder in the coldest and most antiseptic terms, but the declassified correspondence reveals a deeply held belief that these weapons could actually be used on the battlefield without resulting in the global obliteration that we now accept would inevitably result from their use by either side. Take for example this justification for building more biological weapons made in 1951: “BW is distinctive as a weapon in that it does not destroy structures or property. The use of such a weapon would greatly simplify postwar problems.” A 1956 U.S. Army report sought to justify building more chemical weapons on the grounds that these weapons killed more people for less money than nuclear weapons. The report contains some horrific “cost-per-casualty” figures, suggesting that the men and women who prepared this report really had little exposure to the horrors of war. Or this statement made by a U.S. Army officer in a 1956 top secret memo, “As you are no doubt aware, the objective in biological warfare is to produce casualties in man, with or without causing death, through the deliberate use of microorganisms (bacteria, viruses, fungi) or their toxic products. These agents can be launched directly against military forces or directly against the
industrial workers who are supporting these forces, or indirectly against both through antifood warfare. Even in antifood warfare the ultimate target is the enemy's entire population. By destroying a nation's capability to feed itself, let alone maintain an effective fighting force, controlled hunger can become an effective weapon of war."

* Perception is everything in the WMD world. One of the principal problems that the adherents of chemical and biological warfare faced throughout the Cold War was the truly awful reputation that these weapons enjoyed among the American and European public. Beginning in 1950, the Pentagon's public relations staff spent an inordinate amount of time and money trying to soften and clean up the awful reputation that chemical and biological weapons enjoyed amongst the American public, especially among those who remember the horrors associated with the use of poison gas on the Western Front during World War I. As late as the mid-1960s the U.S. military, especially the U.S. Army's Chemical Corps, was still trying to convince people that the use of chemical and biological weapons was no worse than the mass casualties that would be caused by dropping a nuclear weapon. This entire propaganda effort was classified Top Secret and paid for with millions of dollars of U.S. taxpayer money. In 1954, the U.S. Army commenced a small-scale propaganda campaign in Japan to try to convince the Japanese government and public that there was an urgent need for the U.S. to deploy chemical weapons to Japan. In 1957 the U.S. government launched a similar campaign to smooth the way for the deployment of nuclear air defense missiles in both the continental United States and Canada. The Pentagon feared that public opposition in the U.S. and Canada could arise over the potential use of these weapons in wartime over American or Canadian cities.

* The Pentagon and the Atomic Energy Commission (now the Department of Energy) went to extraordinary lengths to hide any information about accidents and other safety issues involving America's stockpiles of nuclear, chemical and biological weapons. This collection contains dozens of documents detailing the numerous nuclear weapons accidents that occurred during the Cold War era. The total number of these accidents, known within the U.S. military as BROKEN ARROW incidents, far exceeds the paltry number that the Pentagon was willing to admit prior to the end of the Cold War. Weapons were jettisoned into the sea, caught fire and burned, were accidentally dropped onto farms, rivers, and swamps across America, or were badly damaged in road accidents and train derailments. And in a few particularly serious incidents, the weapons came perilously close to detonating.

* In addition, the Pentagon hid from Congress, the White House and the public at large the fact that many of the nuclear weapons in its arsenal were unsafe because of a lack of security protection, or could not be used safely for a variety of technical reasons. For example:

  - A 1959 AEC report found that some American nuclear weapons, like the GENIE air-to-air missile, all variants of the Atomic Demolition Munition (ADM), and the Davy Crockett nuclear-capable recoilless rifle, were dangerous to have around. They had no safety features to prevent their unauthorized use, nor was there any clearly enunciated doctrine as to how to use these weapons in wartime. These weapons were also inherently dangerous to use.
  - It was not clear that fighter pilots firing the GENIE nuclear air-to-air missile had enough time to escape the blast of the nuclear explosion resulting from the missile's detonation. The GENIE missile also had no security locks or other safety mechanisms to prevent their unauthorized use by the pilots, so virtually all the missiles sat on the ground under guard rather than take the chance that some crazed pilot would launch the missile at an airliner or a flock of birds.
  - In 1960 the weapons designers at Los Alamos and Lawrence Livermore Labs discovered a series of serious design and reliability problems with the Mark 7 and Mark 12 nuclear bombs that were then widely deployed
with U.S. and NATO fighter-bomber units in Western Europe that made them inherently unsafe and insecure. The same problem was found to be true with the Mark 49 nuclear warhead carried by the JUPITER IRBM deployed in Italy and Turkey at the time. In 1961 the AEC and the Pentagon hastily began retrofitting all Mark 7 bombs on ground-alert in Europe and Asia with velocity sensing safety devices “to provide further insurance against accidental detonations.”

- A 1961 study found that a series of recent nuclear weapons accidents were far more serious than the Pentagon had reported. There had also been a number of accidental launches of nuclear-capable missiles caused by mechanical malfunctions, as well a larger number of incidents caused by human error. In one case, a weapons maintenance man at the U.S. Army nuclear weapons storage depot in Seneca, New York accidently screwed together two bomb components which would have detonated the weapon if it had been armed.

- A 1962 report found that the newly deployed DAVY CROCKETT battlefield bazooka that was armed with a small nuclear warhead could not be protected from unauthorized use because the Permissive Action Link (PAL) safety devices then available were too large for the tiny "mini-nuke" weapon. A series of 1963 Pentagon reports also found that because of its extremely short range, the DAVY CROCKETT could only be used at the very edge of the frontlines, where it was extremely vulnerable to capture or destruction by Soviet forces. In other words, its survival potential if war ever broke out was next to nil. And yet, despite the awful risks associated with the weapons, hundreds of DAVY CROCKETT nuclear weapons were deployed to West Germany in the fall of 1961, and were not withdrawn until the summer of 1967 when the Pentagon could no longer hide the security risks associated with the weapon.

* Despite years of pondering the matter, the Pentagon could never devise a way to effectively use biological weapons on the battlefield. The reason for this failure was simple: the weapons were, by their very nature, so uncontrollable that the generals in Washington could not figure out a way to prevent these weapons from killing tens of thousands of American and NATO soldiers at the same time as killing thousands of Soviet soldiers.

Tactical Nuclear Weapons in Europe and Asia

While much has been written over the years about the development of American strategic nuclear weapons (ICBMs, submarine-launched ballistic missiles, and manned strategic bombers), comparatively little has been written about the U.S. military’s much larger stockpile of tactical nuclear weapons, which were designed to be used on the battlefield against Soviet and Chinese conventional forces. Several hundred documents contained in this collection deal with the origins of tactical nuclear weapons, their design, production, and deployment in Europe and Asia.

Despite the transparency shown by the U.S. government over the number of weapons in the American nuclear arsenal, the same cannot be said about the U.S. tactical nuclear weapons deployed in Western Europe and Asia during the Cold War. These numbers remain secret, and will probably remain so for the foreseeable future.

But do not despair. A significant number of the declassified documents contained in this collection provide hard-to-come-by data on the numbers of U.S. tactical nuclear weapons deployed in Europe and Asia, as well as detailed information about which countries hosted these weapons during the Cold War era.

The documents reveal that the first American tactical nuclear weapons arrived in Europe in April 1952, when over one hundred of the new lightweight Mark 7 and Mark 8 tactical nuclear bombs were flown from the U.S. to RAF Sculthorpe airfield in England. By the fall of 1952, the USAF had built brand-new nuclear weapons storage facilities at
RAF Alconbury, RAF Sculthorpe, RAF Wethersfield and RAF Woodbridge to accommodate the 130 tactical atomic bombs that were now deployed in the UK.

Next came West Germany, where the U.S. Army and U.S. Air Force intended to deploy several thousand tactical nuclear weapons to counter the huge Soviet conventional military forces based in East Germany and Czechoslovakia. In May 1954, the U.S. ambassador in Bonn secretly told German Chancellor Konrad Adenauer that the U.S. military intended to deploy nuclear weapons to Germany beginning in 1955, but provided the German leader with few other details (such as the number of weapons involved or where they would be stored). After months of negotiations, the first of several hundred Mark 7 and Mark 12 tactical nuclear bombs began arriving by air from the U.S. at Bitburg Air Base in West Germany in March 1955. These bombs were followed in April 1955 by several hundred nuclear warheads for MATADOR surface-to-surface missiles and atomic artillery shells for the five battalions of massive 280mm atomic artillery guns then deployed in West Germany, then in May 1955 by several hundred more nuclear warheads for the U.S. Army's HONEST JOHN rockets. By the end of 1955, Germany had become the single largest overseas storage site for American nuclear weapons in the world. As of 1961, 60 percent of all the U.S. tactical nuclear weapons in Europe were deployed in West Germany.

By the end of the Eisenhower administration, over 2,500 nuclear weapons and warheads were deployed in Western Europe for the use of American forces in wartime. As of September 1957, the following nuclear delivery units and the associated nuclear warheads were assigned to U.S. military forces based in Western Europe: six CORPORAL missile battalions, six 280mm atomic cannon battalions, three HONEST JOHN rocket battalions, six NIKE HERCULES SAM battalions, three MATADOR missile squadrons, and forty nuclear-capable fighter bomber squadrons. By 1960, the planned strength of these forces was: five CORPORAL missile battalions, six 280mm artillery battalions, three HONEST JOHN battalions, three REDSTONE missile battalions, six LACROSSE rocket battalions, ten NIKE HERCULES SAM battalions, three MATADOR squadrons, and 37 nuclear-capable fighter bomber squadrons.

In the Far East, the first nuclear bombs were deployed to Kadena Air Base on the U.S.-controlled island of Okinawa in July 1954, a fact which the Japanese government was not informed of. By the end of the 1950s, several hundred fission and thermonuclear weapons were being stored at Kadena Air Base for use by both Strategic Air Command (SAC) bombers and by USAF tactical fighter bombers. In February 1956 and September 1954 respectively, a small number of nuclear bombs were deployed to two former Japanese islands: Iwo Jima and Chichi-Jima. Again, the Japanese government was not informed of this move. Nuclear bombs and nuclear ASW depth bombs were deployed to the Philippines in December 1957, MATADOR nuclear-capable missiles were sent to Taiwan in January 1958. But the biggest move came in January 1958, when the U.S. military secretly began deploying hundreds of nuclear weapons to South Korea. According to declassified documents, the U.S. Army sent nuclear warheads for HONEST JOHN ballistic missiles, the 280mm atomic cannon and 8-inch howitzer, and atomic demolition munitions (ADM) to South Korea in 1958, a move which the State Department opposed. In March 1958, the USAF deployed nuclear bombs to two South Korean airfields.

Most American tactical nuclear weapons were deployed to Europe between 1958 and 1964, with the surge of weapons being shipped to Europe taking place during the Kennedy administration from 1961 to 1963. For example, on May 5, 1962 Secretary of Defense Robert McNamara revealed at a NATO ministerial meeting in Athens, Greece that the U.S. had deployed in Western Europe more than five thousand tactical nuclear weapons.

In December 1963, Secretary of Defense Robert McNamara informed a NATO ministerial meeting that the number of strategic nuclear warheads in the U.S. alert force had increased by more than 100 percent over the past two years to almost 2,800 warheads. U.S. tactical nuclear weaponry was also being expanded and modernized. New tactical bombs for aircraft delivery are now on hand in large numbers, replacing older types. LACROSSE and the 280mm projectiles are on their way out. The SERGEANT missiles have come into operation in Europe; and the United States
alone will have approximately 200 on the continent next year. Deployment of the longer range PERSHING is scheduled to begin next March... Among the smaller weapons, the number of atomic demolition munition [ADM] warheads has gone up nine-fold in the last year, and 155mm howitzer nuclear projectiles will be introduced into the forces during 1964. The number of tactical nuclear weapons on this side of the Atlantic has increased by almost 60 percent since early 1961."

In November 1965, the New York Times revealed that more than five thousand tactical nuclear weapons were deployed in Europe, and that this number would be increased by about 20 percent over the next six months. This would represent a doubling of the number of nuclear weapons deployed in Europe over the past five years. In 1967 the number of tactical nuclear warheads deployed in Europe reached over seven thousand weapons, with Secretary of Defense Clark Clifford publicly revealing in October 1968 for the first time ever that the U.S. had 7,200 tactical nuclear weapons deployed in Western Europe.

**Security and Safety Threats to U.S. Nuclear Weapons**

This collection contains over one hundred declassified U.S. government and military documents pertaining to the safety and security of nuclear weapons. These documents cover a host of highly sensitive subjects, such as faulty weapons design, vulnerability of certain weapons to theft or unauthorized use, and an alarming general lack of interest in nuclear weapons safety and security issues inside the Pentagon during the 1950s and early 1960s. The documents show that the vital question of protecting the weapons in the U.S. nuclear arsenal from theft or unauthorized use did not begin to receive any high level attention until the Kennedy administration (1961-1963), when the White House ordered that special security devices called Permissive Action Link (PAL) devices be installed on every weapon, especially those deployed overseas in Europe and Asia.

* In October 1958, USAF Master Sergeant Leander V. Cunningham, 41, one of six senior nuclear weapons technicians, locked himself inside a nuclear weapons storage bunker at RAF Sculthorpe in England and threatened to detonate a nuclear weapon with his pistol. He later gave himself up.

* The safety and security of U.S. nuclear weapons in Turkey has been a perennial problem for the U.S. government because of the political instability of that country over the past fifty years, the unreliability of the Turkish military, as well as the presence of several armed left-wing and right-wing terrorist groups that operated freely inside Turkey. After two failed military coup d'état attempts in Turkey in 1960, in 1961 the newly elected Kennedy administration issued a directive entitled NSAM 143 which barred the deployment of Mark 28 thermonuclear bombs to Turkey because they were not protected from unauthorized use by Permissive Action Link (PAL) security devices. Two years later, in 1963, the Mk 28 bombs still had not been deployed to Turkey because of continuing concern within the U.S. State Department about the stability of the Turkish government and the security of American nuclear weapons in Turkey.

* A 1961 DOE document revealed that the Mk 7 and Mk 12 nuclear bombs, which at the time were widely deployed in Western Europe with U.S. and NATO nuclear-capable fighter bomber squadron standing QRA alert, had virtually no safety features to prevent these weapons from being used by unauthorized personnel. The same was true of the W49 warhead used on the USAF's JUPITER ballistic missile station in Italy and Turkey, which was manned by Italian and Turkish air force personnel but could not be used without the authorization of the small USAF nuclear custodial units stationed with the missile.
1967 Greek Military Coup: On April 21, 1967, in the midst of a coup d'état, Greek military units surrounded the U.S. Army nuclear weapons storage depot at Elevis outside Athens that was controlled by the 558th U.S. Army Artillery Group. The Greek troops were withdrawn after protests from the U.S. embassy.

1967 Cyprus Crisis: On November 22, 1967, the commander of TUSLOG Detachment 67 at Cakmakli, Turkey, reported to Special Ammunition Support Command (SASCOM) in Frankfurt, Germany, that “Extraordinary security precautions have been taken by this headquarters to safeguard [nuclear] weapons. Planning for various contingencies continues.”

September 1972 Munich Olympics Massacre: Nuclear terrorism only became a subject of high interest to the U.S. government and military after the September 1972 Munich Olympics terrorist attack, because the attack took place in West Germany, where some five thousand U.S. nuclear weapons were stored. In the aftermath of the Munich Olympics massacre of Israeli athletes, the U.S. Secretary of Defense ordered the JCS and the military services to conduct a worldwide survey of the security of U.S. nuclear weapons deployed overseas. As a result of these surveys a number of nuclear weapons storage sites in vulnerable locations were closed and the security at other sites was strengthened. The JCAE reported that the Defense Department had closed 97 nuclear weapons storage sites in 1974 and 1975. However, the documents in this collection show that it was not until the early 1980s, during the Reagan administration, that the U.S. government and military began spending large sums of money to secure the U.S. nuclear arsenal against terrorists.

March 1973: Because of pressure from the Joint Committee on Atomic Energy (JCAE) relating to security concerns, nuclear weapons were removed from QRA aircraft at an airbase in an unspecified European country.[164]

1974 Cyprus Crisis: On July 20, 1974, the U.S. Air Force nuclear weapons custodial units in Greece and Turkey pulled all weapons off Greek and Turkish fighter bombers standing Quick Reaction Alert (QRA) alert, and the 558th U.S. Army Artillery Group took all nuclear warheads off all the Greek Nike-Hercules SAM missiles deployed around Athens. Detachments from the U.S. Marine BLT on U.S. Navy Sixth Fleet warships in the eastern Mediterranean were prepared to fly into Turkey in helicopters to secure the nuclear weapons if the Turkish military threatened to seize the weapons' storage sites.

February 6, 1975: Senator John Pastore (D-Rhode Island), Senator Howard Baker (R-Tennessee) and Rep. George Murphy briefed President Gerald Ford in the Oval Office about the findings of their visit to Europe investigating nuclear weapons' security deficiencies. Senator Pastore urged Ford to fix the problems identified in the report as quickly as possible. Senator Pastore later publicly revealed that a two year-old secret report had detailed numerous deficiencies at U.S. Army nuclear weapons storage sites in Europe, including the fact that in 1972 more than two hundred soldiers involved in nuclear weapons' security had been relieved of duty for a variety of reasons, 83 of them for drug abuse.

June 30, 1976: The JCAE reported that the Defense Department had closed 97 nuclear weapons storage sites in 1974 and 1975.

March 16, 1981: U.S. Army Corps of Engineers report on the status of its nuclear weapons' security enhancement program, the Long Range Security Program (LRSP), in Europe revealed that ACE's European Division was supervising work in progress at 107 nuclear and chemical weapons storage sites in five countries:
West Germany, Italy, Greece, Turkey, and the Netherlands. The LRSP upgrades included security improvements at the sole U.S. chemical weapons storage site at Clausen, Germany. These sites provided nuclear weapons support to the military forces of eight NATO countries: the United States, West Germany, Italy, Belgium, Greece, Turkey, The Netherlands, and Great Britain. Site breakdown by country: West Germany: 81 sites; Italy: 12 sites; Greece: 7 sites; Turkey: 5 sites; Netherlands: 2 sites

Keeping U.S. Chemical and Biological Weapons Programs Secret

Virtually all Americans during the Cold War era knew that their country possessed nuclear weapons, and virtually everyone in America had some opinion as to whether they liked “The Bomb” or not. But very few Americans knew anything at all about the even more secretive U.S. programs to develop and build chemical and biological weapons. This should not come as a surprise, since the American mainstream press in those days rarely wrote anything substantive about chemical or biological weapons, and almost no one on Capitol Hill paid any attention to the subject, despite the fact that these weapons were, to some degree, far more lethal than nuclear weapons.

This is exactly the way the American presidents, Democrats and Republicans alike, who occupied the White House between 1945 and the end of the Cold War in 1991 liked it. The last thing Washington wanted was for a public debate over the need for these weapons, much less the morality of using them on the battlefield or against innocent civilians.

From a public relations standpoint, chemical and biological weapons were deemed to be so toxic politically that in 1946 the White House and the Pentagon ordered that everything concerning these weapons be treated as Top Secret, with only a few senior U.S. government and military officials given access to high-level policy information about these weapons. Not only was there no high-level oversight of the chemical and biological weapons programs, but the ban on the release of information about these two programs was so extreme that virtually nothing was disclosed to Congress about these activities until the 1960s. The U.S. Army, which was responsible for developing and building these weapons, did not submit a formal report to Congress about their work on these weapons until 1977, more than thirty years after the end of World War II!

The Security and Safety of the U.S. Chemical Weapons Stockpile

At least one terrible accident involving chemical weapons occurred during World War II. On the night of December 2, 1943, a force of a hundred German JU-88 bombers attacked the port of Bari in southern Italy, sinking sixteen American ships – among them the SS John Harvey, which was carrying two thousand M47A1 hundred-pound mustard gas bombs.

The presence of the chemical weapons on the ship was highly classified, and the port authorities ashore had no knowledge of it. The number of fatalities was higher than necessary as a result, since physicians, who had no idea that they were dealing with the effects of mustard gas, applied the wrong treatment.

According to the official U.S. military account of the incident, "Sixty-nine deaths were attributed in whole or in part to the mustard gas, most of them American merchant seamen," out of 628 mustard gas military casualties. Civilian casualties were not recorded but were estimated at over a thousand men and women. The whole affair was kept secret at the time and for many years after the war. According to another U.S. Army report, 83 people were killed in the Bari incident and another 534 people (most of whom were civilians) were badly injured in the harbor area from ingesting mustard gas.
In March 1968, over 6,300 sheep were killed just outside the Dugway Proving Ground when a test of VX nerve gas went horribly awry and winds blew the nerve gas onto neighboring sheep ranches in an area known as Skull Valley. This incident became known as the Skull Valley sheep kill, and generated enormous public outrage in Utah.

On July 8, 1969, during a routine cleaning of chemical artillery shells stored at the Chibana Ammunition Depot on Okinawa, a sarin leak occurred in a 500-pound bomb, injuring 24 U.S. personnel. This incident has been described in more detail above.

The U.S. Biological Warfare Program

The origins of the U.S. government’s biological weapons program can be traced back to America’s entry into World War II, when the U.S. Army began a secret program to develop and produce a range of biological weapons in the belief that Nazi Germany and Imperial Japan were developing their own arsenal of biological weapons.

In November 1942, the U.S. Army’s Chemical Warfare Service was asked to take control of all of the U.S. government’s secret biological warfare work, including the construction of research laboratories, test ranges, and pilot production plants to design, test and produce these weapons. In April 1943 a small U.S. Army National Guard airfield at Fort Detrick outside the town of Frederick, Maryland was chosen to be the home of the U.S. Army’s nascent biological warfare program. The Army rapidly built a series of state-of-the-art research laboratories and support facilities at Fort Detrick to develop America’s first biological warfare weapons. By the summer of 1944 the Army had opened a secret BW testing facility at Horn Island, Mississippi and a small BW pilot production plant six miles south of Terre Haute, Indiana, called the Vigo Ordnance Plant.

Despite all the time, money and effort the Army invested in biological weapons during World War II, it actually produced very little in the way of tangible results. In June 1945, production of the anthrax simulant Bacillus globigii, was started at the Vigo Plant. This operation was still in progress and a test batch of eight thousand pounds of the anthrax agent had just been produced in a single production run when the end of the war brought orders from Washington to immediately suspend further activities. By that time the first shipments of four-pound Mark I BW bombs were arriving from Electromaster, Inc. in Detroit. They were stored pending postwar operations.

No actual anthrax biological weapons were ever produced at the Vigo plant because of safety concerns, but the plant did produce eight thousand pounds of an anthrax simulant for training purposes. After the end of World War II the Vigo BW plant was closed down and the facility leased to the Pfizer pharmaceutical company for the manufacture of a new line of drugs.

The end of World War II almost led to the termination of the U.S. Army biological weapons program. At the time of Germany’s surrender in May 1945, the U.S. Army general staff wanted to close down all BW research, development and production activities. The Army’s Chemical Warfare Service (CWS) appealed the decision, begging the Secretary of War to allow them to continue some minimal peace-time research activities in order to keep the BW program alive. The Secretary of War relented and on September 13, 1945 allowed the CWS to keep open the Camp Detrick research facility. The BW weapons plant at Vigo, Indiana, was also kept open, but only in standby status. The CWS weapons testing facility at Horn Island was deactivated on November 18, 1945, and the Granite Peak, Utah BW test range was closed in October 1945; its mission was transferred to the neighboring Dugway Proving Ground.
For the next five years (1945-1950), the U.S. Army's biological weapons program remained in stasis, with very little work being done on developing or producing biologic agents or weapons. In January 1946, a short but informative unclassified report, the so-called Merck Report, was produced, detailing the U.S. Army's work on biological weapons during World War II. When the Pentagon realized what it revealed to the public, it reclassified the report as Top Secret. U.S. Army security agents were sent racing around Washington, D.C., ordering reporters and academics to return their copies of the report or face possible prosecution for being in possession of classified information.

The beginning of the Korean War in June 1950 prompted the U.S. Army to revive its dormant BW program. Following an intense lobbying campaign by the U.S. Army Chemical Corps and its supporters in the Pentagon, academia and private industry, in October 1950 Secretary of Defense George C. Marshall approved the immediate expansion and intensification of the U.S. Army's BW program, based largely on the military's perception of the Soviet threat, as well as the belief that the North Korean and Chinese would use biological weapons if and when they could.

The Korean War years (1950-1953) were heady times for the U.S. Army's biological warfare scientists and engineers at Fort Detrick, Maryland. With the war raging in Korea and the threat of all-out war with the USSR and China looming, the man who headed the Army's BW research efforts, Dr. Leroy D. Fothergill, pushed his staff to quickly come up with an array of new anti-personnel, anti-animal and anti-crop BW agents that could be used for strategic strikes. Money was no object. Dr. Fothergill's BW research facilities at Fort Detrick were dramatically expanded, and in 1951 construction began on a BW weapons production facility at the Pine Bluff Arsenal in the bucolic climes of rural southeastern Arkansas.

With the massive influx of money from the Pentagon, the two thousand microbiologists and technicians working at the Chemical Corps Biological Laboratories at Fort Detrick quickly developed a number of anti-personnel and anti-crop biologic agents plus the bombs specially designed for SAC bombers to deliver them to targets inside the USSR, the People's Republic of China or even North Korea.

In 1951, the first BW anti-crop bomb filled with a pathogen called TX was produced. The TX pathogen was designed specifically to destroy cereal crops. By the end of September 1951 a new BW bomb called the E73 was ready for production, as well as the M33 BW cluster bomb, which was filled with 86 M114 BW bomblets. Both bombs were hastily developed stop-gap weapons responsive to an urgent requirement levied by the USAF for a BW bomb that SAC B-29 or B-50 bombers could drop on enemy targets.

In 1952, the scientists at Fort Detrick produced a new anti-personnel weapon and a BW weapon designed to destroy plants and crops. In April 1952 the U.S. Army Chemical Corps opened a secret research facility at Fort Terry on Plum Island, located off the tip of Montauk Point on Long Island, New York, to develop an array of pathogens that would kill livestock. Its cover was as a Department of Agriculture research station.

By the end of June 1953 the construction work on the new BW weapons production plant at Pine Bluff, Arkansas (its covername was the "X-201 Plant") was nearly complete and the facility was ready to begin producing its first weaponry. Pilot production of the U.S. Army's first lethal anti-personnel BW agent started at Pine Bluff in late June 1953. Construction work on six more pilot plants designed to produce research and development batches of new biological weapons were almost complete at Fort Detrick, Maryland by the end of the summer of 1953.

The Pine Bluff Arsenal was established in 1941 on 14,454 acres of unoccupied land to manufacture incendiary grenades and bombs as well as manufacture, load, and store chemical weapons, such as mustard gas and
lewisite. PBA was one of four plants run by the U.S. Army Chemical Corps which manufactured chemical weapons during World War II. It became the only U.S. site for the full-scale production of biological munitions in 1953 and continued this mission until 1969. The arsenal was selected as the sole site for the Binary Chemical Munitions Production Facility in 1978; this program was active until 1990. In the 1980s, PBA served as the primary site for chemical defense equipment recertification. Approximately 12 percent of the nation’s chemical weapons stockpile was stored at the Arsenal. The chemical weapon inventory consisted of 3,848 tons of lethal nerve agents, blister agents, and associated munitions.

The highpoint of the U.S. biological weapons program came in 1954. The U.S. Army Chemical Corps had four facilities engaged in the fulltime development, testing and production of biological weapons: the Chemical Corps Biological Laboratories at Fort Detrick, Maryland; the X-201 BW production plant (renamed the Production Development Laboratories in 1954) at the Pine Bluff Arsenal in Arkansas; the anti-animal research and testing facility at Fort Terry on Plum Island, New York; and the massive Dugway Proving Ground in Utah, where all the BW weapons that were then being developed were tested.

In 1954 the Pine Bluff Arsenal began producing thousands of bombs designed to be filled in wartime with a variety of lethal or incapacitating BW agents. In June 1953, the Pine Bluff Arsenal began pilot plant production of a small half-pound bomb designated the E61; filled with the lethal anthrax virus (B. anthracis), it could kill humans and animals quickly. The anthrax bomb was placed into full-scale production at the Pine Bluff Arsenal in 1954. By the end of 1954 the Pine Bluff Arsenal was producing weaponized delivery systems using a dozen different BW agents, including small batches of the lethal anti-personnel agents Bacterium tularense, Venezuelan equine encephalomyelitis, Brucella melitensis, and Botulinum toxin.

The first Brucella suis BW anti-personnel bombs were produced in 1954 at the U.S. Army's BW pilot plant at Fort Detrick, Maryland. In August 1958, the Army's Pine Bluff Arsenal produced 47 batches (2,200 gallons per batch) of the lethal anti-personnel BW agent Bacterium tularense, the microorganism that caused tularemia (rabbit fever or deer-fly fever), leading the Army Chemical Corps to immediately begin building a plant at Pine Bluff to fill E120 bomblets with the agent. Tests at the Dugway Proving Ground proved that a single fighter bomber loaded with these tularense bombs would kill roughly 50 percent of all people in a sixteen square mile area (10,240 acres).

The second half of the 1950s was marked by a lack of activity on biological weapons after the Eisenhower administration slashed the budget for this program in 1955. Progress on developing new agents and BW weapon systems slowed to a crawl, as reflected in the dramatic drop in high-level correspondence within the Pentagon about the biological weapons program. Part of the reason for the slowdown on BW work was that the Defense Department just could not find a way to use biological weapons on the battlefield, no matter how hard they tried. The problem was that biological weapons, by their very nature, were impossible to control. An unanticipated change in wind direction could easily kill tens of thousands of U.S. and allied soldiers, a problem which one did not encounter with nuclear weapons. A critical September 1958 report to the JCS concluded that there simply was no practical way to use biological weapons in wartime against Soviet military forces.

But in the world of weapons development, hope springs eternal, especially in the U.S. political system, where a new president takes office every four years. Starting in the spring of 1962, President Kennedy's Secretary of Defense, Robert McNamara, ordered an expansion of the U.S. Army's biological weapons program, which had fallen into a rut during the second term of President Dwight D. Eisenhower. Upon taking office in January 1961, McNamara ordered an immediate increase in BW agent and munitions production, with production commencing on new BW munitions, including drone dispensers of BW agents, in the spring of 1962.
Judging the overall success or failure of the U.S. biological weapons program is difficult given the relative paucity of declassified documents on the subject. Declassified documents reveal that as of the summer of 1958, the U.S. Army Chemical Corps’ biological warfare production facility at the Pine Bluff Arsenal was capable of producing twenty thousand BW bombs per month, which the U.S. Army deemed sufficient to "permit an estimated 1,000 [bombing] sorties with an estimated capability of attacking 50 to 100 targets of 35 square miles each." What they left unsaid was that the Army Chemical Corps had only one lethal anti-personnel pathogen (Brucellosis) ready to be loaded into the 18,600 empty BW cluster bombs that were then stockpiled at the Pine Bluff Arsenal.

We do know that during the 26 years from 1954 to the time the U.S. BW program was cancelled by President Nixon in late 1969, the Army's biological weapons laboratory at Fort Detrick, Maryland and the Pine Bluff BW production plant in Arkansas produced seven different anti-personnel agents, three of which were lethal, and three anti-crop agents, all of which were stockpiled in heavily guarded refrigerated, humidity controlled storage vaults or weapons igloos at Pine Bluff and the Rocky Mountain Arsenal and were never used.

The problem appears to be that the size of the U.S. biological weapons stockpile was, on its face, not very impressive despite decades of work and hundreds of millions of dollars spent on the program. A declassified July 1970 DOD memorandum revealed the complete size and composition of the U.S. biological weapons stockpile shortly after President Nixon ordered the destruction of all biological weapons in the U.S. arsenal. At the time, the only lethal BW agents in the U.S. stockpile were 804 lbs. of tularemse (rabbit fever bacteria) and 220 lbs. of anthracis (anthrax bacteria), which if weather conditions were right and if the bombs were properly delivered to their targets, could potentially have killed tens of millions of people and animals.

[...]

Following President Nixon’s 1969 decision to terminate the biological weapons program, the end came quickly and unceremoniously. All lethal and incapacitating anti-personnel biological weapons stocks were destroyed between May 10, 1971 and May 1, 1972, and the laboratory at Fort Detrick was converted to a civilian-oriented toxicological research laboratory. Included in the BW weapons destroyed in this timeframe were all of the CIA's lethal and incapacitating agents that the Army had secretly made for the Agency's covert action programs. The Pentagon vigorously protested the decision, but was overruled by President Nixon and National Security Adviser Henry Kissinger. All BW anti-crop agents were destroyed by February 1973, effectively marking the end of the U.S. biological weapons program. The biological weapons production plant at the Pine Bluff Arsenal was razed to the ground, and the Army's BW research laboratories at Fort Detrick were converted into civilian research facilities.

The Toxic Legacy of America's WMD Programs

What we are left with are a series of deeply troubling questions relating to the legacy left by these weapons, which remain to be addressed by future generations of journalists, researchers and scholars.

For example, there is the sobering question of how much damage was done to the environment in the rush to test and build these bombs during the Cold War. Sadly, very little has been written about this subject. In the U.S., researchers are still trying to determine how much damage has been done to the environment by decades of nuclear, chemical and biological weapons testing in the U.S. and in the South Pacific.
The Nevada Test Site north of Las Vegas will remain uninhabitable for centuries to come because of the hundreds of nuclear weapons tests conducted there from 1954 to 1992. The same holds true for the Dugway Proving Ground in Utah, where hundreds of chemical and biological weapons were secretly tested during the Cold War. Then there is the question of how many Americans have died prematurely or contracted various forms of cancer because of their involvement in the manufacturing or testing of these weapons during the Cold War. Furthermore, tens of thousands of chemical weapons were dumped into the North Atlantic by the U.S. Army during the Cold War, and no research is currently being conducted to determine what, if any, effect this has had on local fisheries, coral growth or the maritime environment as a whole.

There is also the human dimension that needs to be considered. Beginning in the mid-1970s, the Pentagon was forced to admit that since the early 1950s it had used human guinea pigs, most of them enlisted military draftees, to test the effects of newly developed chemical and biological weapons on human beings. There has been no interest in this subject by Congress or the U.S. mainstream media since the mid-1990s, so the subject has been largely forgotten. Moreover, many of the key records relating to this secret work by the U.S. Army Chemical Corps remain classified and stored in vaults out in Nevada to keep them away from prying researchers. Sadly, the plight of the thousands of American soldiers and civilians who were exposed to high doses of radiation during nuclear weapons tests also remains untold.