



**US Army Corps
of Engineers**

HUNTSVILLE ENGINEERING
SUPPORT CENTER

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Base Realignment and Closure

Ordnance, Ammunition and Explosives
Chemical Warfare Materials

ARCHIVES SEARCH REPORT
CONCLUSIONS & RECOMMENDATIONS
(REVISION 1)

FORT McCLELLAN
Anniston, Alabama

FINAL

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Prepared by
US ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT

ORDNANCE, AMMUNITION & EXPLOSIVES
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ALABAMA

BRAC

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1.0 INTRODUCTION

1.1 Authority

Since 1988, Congress has enacted legislation providing for the closure, in part or in whole, of military bases/facilities and the realignment of others. The principal mechanism for implementing the policy in both statutes has been an independent, bipartisan commission. Two of the most pressing issues are: (1) providing assistance to local communities economically impacted by base closures and (2) establishing a cost-effective program of environmental clean-up at bases prior to their disposition.

Congress introduced base closure procedures in Public Law 100-526, enacted 24 October 1988. The statute established a bipartisan commission to make recommendations to Congress and the Secretary of Defense on closures and realignments, commonly referred to as the Base Closure and Realignment Commission (BRAC).

On 5 January 1989, the Secretary of Defense approved the commission's report, BRAC 88, recommending closure of 86 installations, partial closure of 5, and realignment of 54 others. Since the commission approach adopted by Congress was successful, new base closure legislation was introduced (Public Law 101-510) which again relied upon the services of an independent commission. The Defense Base Closure and Realignment of 1990 (1990 Base Closure Act), Public Law 101-510 established the process by which Department of Defense (DoD) installations would be closed and/or realigned. This commission, in accordance with a statutory provision, met in 1991, 1993 and 1995. Fort McClellan, Alabama, was among the installations that were recommended to be closed in BRAC 95.

Since 1990, the U.S. Army Engineering and Support Center, Huntsville (CEHNC), has been the Center of Expertise (CX) and Design Center for Ordnance and Explosives (OE). As part of the Department of the Army OE remedial actions, an Archives Search Report (ASR) is prepared to detail a site's missions and features relating to ordnance, ammunition and explosives, suspected chemical warfare materials (CWM) and any other warfare materials (i.e., radiological, biological). In cooperation with the CEHNC, the Corps of Engineers, St. Louis District (CEMVS) has been assigned the task of preparing the ASR for Fort McClellan.

1.2 Subject

Fort McClellan abuts the city of Anniston, Alabama and lies within Calhoun County. During the Spanish American War (1898), units stationed at Camp Shipp in the Blue Mountain region, may have used the area for artillery training. Documented military use began in 1912 when the Alabama National Guard used part of the site as a Field Artillery Range. In 1917, Congress authorized the establishment of Camp McClellan. In 1929, the camp became

officially designated as Fort McClellan. Following World War II, the Fort was put into an inactive status in June of 1947. The fort was reactivated in January of 1950 and has remained an Active Army Installation.

This report covers the main post and the Choccolocco Corridor only. It does not cover Pelham Range.

1.3 Purpose

The Archives Search Report (ASR) compiles information obtained through historical research at various archives and records holding facilities, interviews with persons associated with Fort McClellan or its operations, and a team inspection of the site. The search directs efforts towards determining possible use or disposal of OE and CWM on the site. The research places particular emphasis on establishing the types, quantities, and area of disposal. This process obtains information for use in developing recommendations for further action at Fort McClellan.

1.4 Scope

This investigation focuses on the potential that Ordnance and Explosives (OE) and Chemical Warfare Material (CWM) contamination could remain on Fort McClellan. This report presents the following:

- A brief history of Fort McClellan
- Description and characteristics of the immediate surrounding area
- A review of related site investigations
- An aerial photography and map analysis of the site
- Real estate information, past and present
- Findings of the site inspection
- Description of the OE and/or CWM identified with the site

These factors represent the basis for the evaluation of potential Ordnance and Explosives contamination and associated risks at Fort McClellan.

2.0 SITE ORDNANCE HISTORY

2.1 General History of Ordnance and Activity

2.1.1 Pre-World War I (1898-1916)

2.1.1.1 History

During the Spanish American War (1898-1899), the Fourth Alabama Artillery used the Choccolocco Mountains as a background for firing shells. There is the possibility that units stationed at Camp Shipp in the Blue Mountain area also used the Choccolocco Mountains for artillery training (Lane 1955).

In 1912, the War Department brought 20,000 National Guardsmen of the Department of the Southeast to the area for maneuvers. Major Charles P. Summerall, head of the Artillery Bureau of the War College, was impressed with the adaptability of the terrain to artillery training. During the next four years, 1912-1916, high officials and Army Officers from Washington were sent to Anniston to study the possibilities of the location as a camp site (Lane 1955).

2.1.1.2 Ordnance and Explosives Activities

Starting in 1912 and ending in 1916, artillery units of the Alabama, Georgia and Louisiana National Guard conducted annual training, using the hills as backdrops (Bamberger 1930, Blackwell 1915, Henderson 1915).

On 6 December 1915, by Executive Order No. 2281, President Woodrow Wilson ordered that 1,160 acres of land be reserved for military purposes. This land was designated the Anniston Field Artillery Range (Wilson 1915).

The 1956 Real Estate Map of Fort McClellan, shows the three parcels which were dedicated under Executive Order # 2281, dated 6 December 1915 (Plate 2).

2.1.1.3 Chemical Warfare Activities

Documents did not indicate the use of any chemical warfare materials during this period.

2.1.2 World War I (1917-1918)

2.1.2.1 History

In early 1917, Congress appropriated \$247,400 to purchase the 18,952 acre site as an artillery range (Lane 1955).

On 18 July 1917, the War Department named Camp McClellan as one of sixteen cantonment

camps for the training of National Guard divisions and assigned the 29th Infantry Division to the Camp. This division was composed of troops from New Jersey, Virginia, Maryland and the District of Columbia. Construction of the Camp started on 20 July 1917 (Lane 1955).

The 29th Infantry Division trained at Camp McClellan from August 1917 to June 1918, when it received orders for France.

2.1.2.2 Ordnance and Explosives Activities

The training of the 29th Infantry Division would have included the following weapons:

- Grenade Dischargers, Rifle
- Guns, 3" or 75mm
- Guns, 1 pounder (37mm)
- Guns, Machine, Anti-aircraft
- Guns, Machine Heavy
- Howitzer, 6-inch or 155mm
- Mortars, Trench (3-inch Stokes and 6-inch Newton Stokes)

In May 1918, a Field Artillery Brigade Firing Center was established at Camp McClellan. The purpose of the Center was to train field artillery organizations, in brigade units, along lines followed in France. At this time, Camp McClellan was listed as having a target range of 16,000 acres (Order of Battle, World War I).

Information on the Brigade Field Artillery Training Centers, indicates that 75mm and 155mm guns were the authorized weapons for equipping field artillery units. This same document also indicates that due to shortages of field pieces, 3" guns, 4.7" and 6" howitzers were used as substitutes. Photographs taken of training during the war show various models of 75mm guns, 3.8" howitzers and 6" guns (Order of Battle, World War I).

A letter from Lieutenant Colonel Hammond, Commandant of the Field Artillery Brigade Firing Center, stated that the artillery ranges were from 1,500 to 5,000 yards in length and when the infantry drill grounds were vacated, there was room for 18 battery positions. The artillery ranges had the advantage of quick occupation in that they are near camp. The distance of the artillery ranges from Camp Headquarters was listed as one half to five miles (Hammond 1918).

Field Artillery, Mobile Guns on hand at Camp McClellan in December 1917 included 40 three-inch guns and 8 six-inch howitzers. A second report for 30 November 1918, showed the following on hand: 43 three-inch guns, 45 seventy-five millimeter guns and 24 three point eight-inch guns on hand (War Department 1918/1919).

Mortars were also authorized for both infantry units and field artillery brigades. The infantry units were equipped with 3" Stokes Mortars and the field artillery brigades had a trench mortar company equipped with 6" Newton Stokes Mortars (Order of Battle, World War I).

Artillery units trained at Camp McClellan during World War I included the following:

6th Division units:

6th Trench Mortar Battery
6th Ammunition Train

7th Field Artillery Brigade (7th Division)

8th Field Artillery
7th Trench Mortar Battery

9th Field Artillery Brigade (9th Division)

25th Field Artillery
26th Field Artillery
27th Field Artillery
9th Trench Mortar Battery
9th Ammunition Train

12th Field Artillery Brigade (12th Division)

34th Field Artillery
35th Field Artillery
36th Field Artillery
12th Trench Mortar Battery
12th Ammunition Train

54th Field Artillery Brigade (29th Division)

110th Field Artillery
111th Field Artillery
112th Field Artillery
104th Trench Mortar Battery
104th Ammunition Train

173rd Field Artillery Brigade (98th Division)

367th Field Artillery
368th Field Artillery
323rd Ammunition Train

Maps discovered during the archives search process, covering this time period, indicated the following ranges or training areas:

Machine Gun Range - South of Airfield (FN 134 337)
300 Yard Rifle Range - East of Airfield (FN 135 338)
600 Yard Rifle Range - East of Airfield (FN 135 338)
1000 Yard Rifle Range - East of Airfield (FN 135 338)
Trenches North of Trench Hill (FN 126 338)
Machine Gun Camp - Northeast of Summerall Gate (FN 103 295)

Ditches North of Trench Hill (FN 123 341)
Remount Station - Northeast of Summerall Gate (FN 113 313)
Ditch, East of Airfield (FN 123 343) (use unknown)

These ranges and training areas are shown on Plate 3.

2.1.2.3 Chemical Warfare Activities

A 1917 building list includes two wood gas instruction houses at Camp McClellan, building 4505 (16' x 30) and 4520 (20' x 42') (Camp McClellan 1917).

2.1.3 Inter-War Period (1919-1940)

2.1.3.1 History

After the Armistice, Camp McClellan was used as a demobilization center. This is the only known activity for 1919 (Lane 1955).

In the early 1920's, the Fourth Corps Training Area moved to Camp McClellan. Units receiving training included the Reserve Officer Training Corps (ROTC), the Corps of Engineers (CE) and Citizens Military Training Camps (CMTC). These camps occurred regularly from 1922 to 1927 and were sponsored by the 22nd Infantry Regiment at Fort McPherson, Georgia. As many as 2,000 to 3,000 young men gathered each summer during August for training (Headquarters, 4th Corps Area 1922, Lane 1955).

In 1929, Camp McClellan was made a permanent Army post and redesignated on 1 July 1929, as Fort McClellan. From 1929 to 1935, the 69th Coast Artillery (Anti-Aircraft) and the Fourth Tank Company were garrisoned at Fort McClellan. In 1935, the Third Battalion and Headquarters Company of the 22nd Infantry were brought to Fort McClellan as the post garrison. The 22nd Infantry left the Fort in February 1941, when it was ordered to join the rest of the Fourth Division assembling at Fort Benning (Lane 1955).

During the stay of the 22nd Infantry, other units trained at Fort McClellan. These included continued training of the ROTC and the Organized Reserve Corps (ORC), and the annual encampment of the 31st Infantry Division (Alabama National Guard) (Lane 1955).

In November 1939, the Fifth Division was brought to Fort McClellan for winter training. The Division undertook a period of intensive training which included a modified course with organic weapons fired by all units. In April 1940, the Fifth Division was ordered to Fort Benning, Georgia, to take part in corps maneuvers there (Lane 1955).

In October 1940, the 27th Infantry Division (National Guard) was activated and ordered to assemble at Fort McClellan. The Division was to be on active duty for one year of training. On 19 December 1941, the 27th was ordered to a Pacific area (Lane 1955).

2.1.3.2 Ordnance and Explosives Activity

The training of the CMTC was not limited to rifles. Instruction was given on the 3" Stokes Mortar and on the 37mm Infantry Gun (1 pounder). Demonstrations using tanks were also given. Other civilian elements of the National Guard and Reserve Corps came for their annual training to Camp McClellan. There is the possibility that artillery units continued to use firing points and artillery ranges established during World War I (Cimitracam 1923, Lane 1955).

Photographs from 1923 show soldiers training with the 37mm Infantry Gun and the 3" Stokes Mortar. These soldiers may have been part of CMTC training at Camp McClellan.

The training of the 5th Division from 1939 to 1940 and the 27th Division from 1940 through 1941 covered all organic weapons. This would include mortars, anti-tank guns and artillery pieces. Photographs of the 27th Division indicate 37mm anti-tank firing on Combat Range #1 and artillery firing of both 75mm and 155mm guns. Pictures of the 75mm guns, indicate that the firing line was at the northwest edge of Combat Range #1, firing to the southeast. One picture shows a 155mm on a parade ground in the 106th Field Artillery area. The picture states that the crew is firing the weapon. However, there are no spent shell casings or ammunition crates for shells in the picture. The orientation of the gun is to the south.

Maps discovered during the archives search process, covering this time period, indicated the following ranges or training areas:

Rifle Range - East of Bains Gap Road, Northeast of Rocky Hollow Road (FN 142 303)

Pistol Range - East of Rocky Hollow Road (FN 136 326)

Range 25 - East of Rocky Hollow Road, South of Bains Gap Road (FN 139 303)

Tank Combat Range - East of Airfield, North of Browning Hill (FN 146 344)

Old Rifle Range - East of Airfield, North of Browning Hill (FN 146 348)

Combat Range Number 1 - East of Rocky Hollow Road, Northwest of Borders Ridge (FN 140 293)

Combat Range Number 2 - South of 69th Artillery Coast Road, West of Sunset Hill (FN 106 295)

600 Yard Rifle Range - Southeast, Intersection of Bains Gap Road and Rocky Hollow Road (FN 145 295)

1000 Yard Rifle Range - East of Rocky Hollow Road (FN 143 295)

1000 Inch Range - East of Rocky Hollow Road (FN 149 296)

Pistol Range - West of Reservoir Ridge, East of Ordnance Road (FN 136 326)

These ranges and training areas are shown on Plate 4.

2.1.3.3 Chemical Warfare Activities

In 1922, a request was made that a company of the First Gas Regiment be assigned to Camp McClellan for the purpose of training and demonstration and that a CWS Officer be detailed as instructor assistant to the Corps Area Chemical Warfare Officer. In April of this year,

a Chemical Warfare Officer of the Corps went to McClellan to investigate storage facilities, the suitability of buildings for gas chambers and the selection of terrain for Chemical Warfare demonstrations and training. In July, the Fourth Corps Area Training Center (at Camp McClellan) received 50 each, BM smoke and CN tear gas candles and 200 each, WP hand and rifle and hand grenades. Also in July, the ROTC and the CMTC, each received 96 WP hand and 96 WP hand and rifle grenades (Headquarters, 4th Corps Area 1922, Staff Sergeant, CWS 1922, Camp McClellan 1922).

Chemical items on hand during September 1923 included: 800, HC candles; 400 CN candles and 100 WP grenades. On 19 September 1924, the Chemical Warfare Officer proceeded to Camp McClellan for the purpose of inspecting Chemical Warfare material held in storage (Headquarters, 4th Corps Area 1923, Headquarters, 4th Corps Area 1924).

In March of 1925, Edgewood Arsenal sent a shipment of chemical munitions to Camp McClellan. These shipments included: 205 smoke candles; 20 CN hand grenades; 10 CN rifle grenades; 30 WP smoke hand grenades; 20 smoke rifle grenades. Also during this year there existed a large surplus of CN and smoke candles. This surplus could be attributed in a large measure to the failure of National Guard units to expend the chemical munitions in training (Office of the Corps Area Commander 1925).

Chemical warfare training during this summer was severely hampered due to the scarcity of gas masks. Summer training also included the 8th Infantry Brigade using smoke in connection with some of their field problems (Headquarters, 4th Corps Area 1925).

Chemical ammunition expended by the Eighth and Twenty-Second Infantry in August of 1926 included: 596 CN candles; 170 MK I (1 lb) candles and 385 MK I (2 lb) smoke candles (Headquarters, Camp McClellan 1926).

On 11 June 1935, the 22nd Infantry Regiment at Fort McClellan received one gas identification set (detonation with detonators). The 22nd was only allowed one set per training season. This set constituted the entire allowance authorized for the troops stationed at Fort McClellan for the training year 1935. In December 1938, Fort McClellan sent a steel container for a detonation MI, gas identification set, to Edgewood Arsenal. In this same document, Fort McClellan was awaiting transportation funds in order to ship five 4" chemical mortars to Edgewood Arsenal (Fort McClellan 1935, Corps Area Chemical Officer 1938).

A 1940 requisition states that 1,075 smoke pots and 10 gas identification detonation sets be transferred to Fort McClellan from material brought to the training area by the 27th Division. Officials requested that this requisition be amended by deletion of 630 smoke pots and 9 gas identification detonation sets (Fort McClellan 1940).

2.1.4 World War II (1941-1945)

2.1.4.1 History

On 15 January 1942, Fort McClellan became the site of the Branch Immaterial Replacement Training Center (BIRTC). This Center was established to train recruits from reception centers all over the United States in basic Army doctrine. The course was eight weeks long, after which time men were transferred to combat units for combat training or to various branches of the Army depending on military necessity. The BIRTC was abandoned in favor of the Infantry Replacement Training Center (IRTC) (Lane 1955).

On 15 October 1942, the 92nd Infantry Division was activated with headquarters at Fort McClellan. Units of the Division were activated at Fort McClellan as well as at Camp Atterbury, Camp Breckenridge and Camp Robinson. All elements of the Division moved to Arizona in May 1943 (Lane 1955, Stanton 1984).

On 3 January 1943, the (IRTC) was established. The training period was 17 weeks long and included vigorous combat training in the last 8 weeks. Training features included infiltration courses, a typical enemy village for training in street fighting, overhead artillery fire and tanks which rumbled over foxholes dug by the trainees. In August 1945, following the Japanese surrender, the training was reduced to eight weeks, with major emphasis upon the preparation of soldiers for occupation duty. The IRTC was replaced in November 1946, by the Recruit Training Center (Lane 1955).

2.1.4.2 Ordnance and Explosives Activity

With the purchase of Pelham Range (12 January 1941-10 November 1942, in parcels), artillery firing shifted away from the main post. The firing of 60mm mortars remained on the main post as well as 37mm anti-tank guns and possibly 57mm anti-tank guns. Training with hand grenades and rifle grenades also took place.

A new rifle range (Washington) was built and the old Defendum Rifle Range was re-utilized. Rifle transition ranges were also established in the area east of Reilly Airfield.

A rocket range (bazooka), a hand grenade court and two rifle grenade courts were built on Combat Range #2. A second grenade court was located east of Reilly Airfield.

In correspondence dated 17 January 1944, the following ranges were approved for construction:

- 1 - Transition Range
- 1 - 60mm mortar range in Defendum Area
- 1 - 81mm mortar range in Bandholtz Area
- 1 - AA miniature range on Reservoir Hill
- 1 - moving target range (rifle units) in the Defendum Area
- 1 - moving target range (rifle units) in the Bandholtz Area
- 1 - live grenade court in the Defendum Area
- 1 - live grenade court in the Washington Area

This correspondence also approved the shifting direction of fire on the landscape range in the

Bandholtz Area.

Maps discovered during the archives search process, covering this time period, indicated the following ranges or training areas:

Pistol Range # 23 - East of Rocky Hollow Road, South of Bains Gap Road
(FN 143 296)
Infiltration Course Range 23 - East of Rocky Hollow Road (FN 145 300)
600 Yard Rifle Range - South of Bains Gap Road, East of Rocky Hollow Road
(FN 145 295)

These ranges and training areas are shown on Plate 5. Ranges which are shown on the 1946, Fort McClellan Reservation maps, are also believed to have been used during World War II. These ranges are also shown on the World War II, Plate 5.

2.1.4.3 Chemical Warfare Activities

Two schools for company gas officers and gas noncommissioned officers were conducted in 1942 (Chemical Warfare Service 1942).

A 1945 building schedule lists building T-5512 (25'5" x 33'2") as gas chamber #3 and building T-5519 (26'x33') as gas chamber #2 (Office of the Post Engineer 1945).

2.1.5 Post World War II (1946-Present)

2.1.5.1 History

On 16 November 1946, the Recruit Training Center (RTC) was established at Fort McClellan. The Center remained in operation until May 1947, when it was moved to Fort Jackson, South Carolina in preparation for placing Fort McClellan in an inactive status. Civilian personnel were given notice of separation from the government effective 6 June 1947. On 1 January 1947, Fort McClellan was transferred from jurisdiction of the Army Ground Forces and placed under the jurisdiction of the Seventh Army, Headquarters, Atlanta, Georgia. On 30 June 1947, Fort McClellan was placed on a custodial basis, with only a few persons assigned to maintain the buildings and grounds (Lane 1955, N.A. 1958).

In 1950, the Army took steps to rehabilitate Fort McClellan and plans were made to resume the annual training of National Guard divisions. The 44th Engineer Battalion was sent from Fort Bragg in January 1950 to rehabilitate facilities for the summer encampment of the 31st National Guard Division from Alabama and Mississippi. Following the outbreak of hostilities in Korea June 1950, the 44th left Fort McClellan in August 1950 (Lane 1955).

On 4 January 1951, it was announced that the Army had decided to reactivate Fort McClellan on an unlimited basis for operation of the Chemical Corps School and as a replacement center for the Chemical Corps. In July 1951, the Chemical Corps School moved from Edgewood Arsenal.

Reasons for the move included: lack of room for expansion, lack of adequate ranges, and the distance to a maneuver area of sufficient size to accomplish proper training (Headquarters, Army Chemical Center, Maryland 1950).

On 2 August 1951, General Order 17 created the Army Chemical Training Center which included the Chemical Corps School and other training elements. In October 1951 the Army Chemical Training Center became the Chemical Corps Training Command. It included the Chemical Replacement Training Center, the 100th Chemical Group and the Chemical Corps School (Lane 1955).

In November 1952, following favorable Congressional action, construction started on the Women's Army Corps Center. Between May and July of 1954, the Women's Army Corps Center and the Women's Army Corps School were transferred to Fort McClellan (Lane 1955).

Starting in 1950 and continuing, the fort was used for National Guard annual training. In 1954, four National Guard divisions came to the post for training: the 30th, 31st, 48th and 51st. By 1955, more than 50 non-divisional medical, ordnance and transport service units had trained at Fort McClellan. Effective 1 October 1958, the U.S. Army Chemical Corps CBR Weapons School was officially transferred to Dugway Proving Ground, Utah from Army Chemical Center, Fort McClellan (Lane 1955, U.S. Army Chemical Corps Historical Office 1960).

In 1962, the U.S. Army Combat Developments Command Chemical Biological-Radiological Agency moved to Fort McClellan. In April of the following year, the name of the U.S. Army Chemical Corps School was changed to the U.S. Army Chemical Center and School. During 1966, to meet the requirements of the Vietnam War, an Infantry Advance Individual Training (IAIT) unit was activated (Armed Forces Chemical Association 1963, St. Louis 1995).

In 1970, the Howitzer Hill Training Area and Training Area 31 received name designations. The Howitzer Hill Training Area became known as Naylor Field, while Training Area 31 became Denny Field (Office of the Commandant 1970).

In 1973, the Chemical Corps School closed, along with the U.S. Army Combat Developments Command Chemical Biological-Radiological Agency. Five years later, in 1978, the Woman's Army Corps was disestablished and the Women's Army Corps School closed (New South 1992).

In 1979, the Military Police School was moved to Fort McClellan. The same year saw the U.S. Army Chemical Corps School re-established along with a training Brigade for Basic Training. An Environmental Impact Statement dated this year, also considered leaving the school at Aberdeen Proving Ground or transferring it to Redstone Arsenal. Forces Command units such as D Company, 46th Engineers were also garrisoned at the post during the 70's and 80's (U.S. Army Training and Doctrine Command 1979, St. Louis 1995).

2.1.5.2 Ordnance and Explosives Activity

After World War II, a new 2.36" rocket range and an 81mm mortar range were added. The

orientation of the rifle grenade range was also changed. Additional rifle ranges and training ranges were added during the Vietnam era. Four training ranges were also constructed in the Choccolocco Corridor. An 81mm mortar range was established in the Defendum area and a 60mm mortar range was possibly used in the Bandholtz range area. A new rocket launcher range was established in the Washington range area. The Chemical Corps training included smoke generators and flamethrowers. Smoke training was conducted on post in the Washington range area.

Maps discovered during the archives search process, covering this time period, indicated the following ranges or training areas:

BANDHOLTZ RANGE, Consisting of:

Machine Gun Range - East of Rocky Hollow Road, South of Bains Gap Road
(FN 143 302)
Pistol Range - East of Rocky Hollow Road, South of Bains Gap Road
(FN 143 297)
Landscape Range - East of Rocky Hollow Road, South of Bains Gap Road
(FN 140 296)
Field-Firing Range #1 A & 1 B - East of Rocky Hollow Road, South of Bains Gap
Road (FN 140 294)
Field Firing Range # 2 - East of Rocky Hollow, South of Bains Gap Road
(FN 140 285)
Transition Range - East of Rocky Hollow Road, South of Bains Gap Road
(FN 143 288)
Machine Gun Qualification (Range 24) - East of Rocky Hollow Road, South of Bains
Gap Road (FN 147 275)
81mm Mortar Range - South of Bains Gap Road (FN 151 310)

DEFENDUM RANGE, Consisting of:

Known Distance Range - East of Airfield, North of Bains Gap Road (FN 135 346)
Machine Gun Range - East of Airfield, North of Bains Gap Road (FN 142 346)
Transition Range - Southeast of Airfield (FN 155 338)
Field-Firing Range # 2 - Southeast of Airfield (142 333)
Landscape Range - Southeast of Airfield (FN 138 331)
Chemical Munitions (Range 31) - Southeast of Airfield (FN 135 335)

WASHINGTON RANGE, Consisting of:

Known Distance Pistol Range - South of Aqueduct Road, East of Summerall
Gate (FN 114 295)
Landscape Range - South of Aqueduct Road, East of Summerall Gate (FN 103 294)
Field-Firing Range - South of Aqueduct Road, East of Summerall Gate (FN105285)
Competitive Pistol Range (Range 12) - East of Iron Mountain Road (FN 108 286)
Pistol Qualification Range (Range 13) - East of Iron Mountain Road (FN 108 288)
Rocket Launcher (Range 16) - Northeast of Iron Mountain Road (FN 124 294)

40 MM Grenade Range (Range 16) - Northeast of Iron Mountain Road(FN124294)
Demolition Area (Range 24) - East of Rocky Hollow Road, South of Bains Gap Road
(FN 160 309)
2.36" Rocket Range - West of Iron Mountain Road (FN 095 285)
AT Rifle Grenade Range - East of Iron Mountain Road (FN 110 297)

These ranges and training areas are shown on Plates 6 and 7. Plate 6 shows ranges from 1950 to 1973. Plate 7 shows ranges from 1974 to the present day.

The following ranges and training areas are listed in the *Commanders Annual Real Property Utilization Survey FY89* and the Natural Resource Management Plan, 1990:

Range 12	Competitive Pistol
Range 13	Qualification Pistol
Range 16	Grenade RG
Range 18	Field Fire & Night Fire
Range 19	Qualification Pistol
Range 20	Infiltration Course
Range 21	Trainfire (Field Fire)
Range 22	Trainfire (25)
Range 23	Trainfire (Record)
Range 24	Defensive Techniques
Range 24A	Multi-Purpose (Smoke, Demo & Flame Field)
Range 25	Known Distance
Range 26	Live Fire & Maneuver
Range 27	Stress Pistol & Shotgun
Range 28	Blank Fire & Maneuver
Range 29	Weapons Demo (ITT)
Range 31	Weapons Demonstration, M60 fire
Range 32	Hand Grenade
T-2	Combat Skills
T-6	Riot Control/Civil Disturbance
TA-7	Military Operations in Urban Terrain
TA-8	Traffic Investigations
TA-10	Compass Course, Land Navigation
TA-15	Driver's Training Course
TA-25	Mock Nuclear Security Test Site
T-32	Mask Confidence Course, Gas Chamber
TA-40	Mine Warfare Training Area
Reservoir Ridge	Identification of chemical agents
Leadership Reaction	Self Explanatory
Confidence Course	Physical Fitness and confidence building course
Mock Confinement Facility	Self Explanatory
Obstacle Course	Physical Fitness and confidence course

Repelling Tower	Repelling
Chemical Decontamination Facility	Basic decontamination area
Reilly Airfield	Radiation surveys conducted, PT testing
End of Cycle Testing	Individual testing of chemical knowledge

Bivouac Sites	Capacity
B32	Battalion
B23	Two companies
B25	Battalion
B30	Battalion
B40	Two companies
B41	Company
B44	Battalion
Trench Hill	Two companies

2.1.5.3 Chemical Warfare Activities

In September 1951, Fort McClellan personnel designated the Sunset Hill Area for field exercises and training. Training on Sunset Hill was to include: the building of a protective shelter, decontamination procedures, biological sampling, gas detection and the operation of various types of decontaminating apparatus. Toxins were permissible if the area was posted or fenced (Chief, Technical Branch 1951).

In 1952, the Chemical Corps Training Command at Fort McClellan acquired the responsibility for training in CBR warfare. Also during this year, Private Robert Buckner was admitted to the hospital for burns suffered from mustard gas training (Rowan 1952, Fort McClellan 1952).

Between 16 July and 28 September 1952, a total of 21 biological warfare tests were conducted at Fort McClellan. Twelve tests used *Serratia Marcesens* (SM) and nine used *Bacillus Globigil* (BG). The exact location for most of these tests was not determined. General locations such as the Choccolocco Corridor were cited. However, two tests that occurred on 22 July 1952, used an area along 10th Street (see Plate 9). Both of these tests used SM, with the main test target being buildings on Fifth, Seventh, Eighth & Ninth Streets (see Plate 8 for general location). (Anniston Star 1981).

By 1953, the Chemical Replacement Training Center at Fort McClellan served as the only Armed Forces center which supplied basic training and leadership training in chemical warfare defense and retaliation. Instructors split the training into two sections, the sixteen week basic training course given to recruits fresh from Army reception centers and the eight week course given to volunteers who have completed basic training. During this year, the 100th Chemical Group lived in tents in Area 16. The group later moved into permanent buildings in Area 32 (Anniston Star 1953, Chemical School c. 1953).

On 3 June 1953, personnel from Edgewood Arsenal escorted fifty 4.2" mortar rounds filled with Tabun (GA) to Fort McClellan. On 25 June 1953, personnel escorted mustard filled bombs from Desert Chemical Depot, Tooele, Utah to Fort McClellan. In September, a detail escorted BW

material from Anniston Air Force Base (Talladega Municipal Airport, Talladega Alabama) to McClellan (Tech Service Unit, 1953).

Training year 1953 witnessed troops undergoing the mustard confidence test, conducted by the Chemical Corps. The value of the mustard confidence test became apparent by demonstrating to the trainee the blistering action of mustard and the protection afforded by his protective ointment. The Demonstration Company, Training Support Groups also conducted tests this year. The testing of ground flame field expedients included: Husch Flare; Napalm Landmine; Napalm Fougasse; Napalm Booby Trap; Napalm Illumination Satchel Charge and Napalm Fougasse (using TNT, Tattle and Primercord) (Frost 1953, Chemical Corps Training Command 1953).

Ammunition requirements to support a 1954 Decontamination Equipment Operations Course included:

4 lb Incendiary Bomb (MG)	CN Pellets
Ignition Cylinder (PFT)	Chlorine Gas (CL)
Mustard Gas (HD)	Simulated Mustard Gas (MR)
Phosgene Gas (CG)	Incendiary Hand Grenade (TH)
Irritant Hand Grenade (CN-DM)	Green Smoke Hand Grenade
HC Smoke Hand Grenade	Red Smoke Hand Grenade
WP Smoke Hand Grenade	Yellow Smoke Hand Grenade
Cryptographic Equipment Incendiary Destroyer, M1A1, M1A2, and M2A1	File Destroyer, Incendiary, ABC-M4
Chemical Land Mine (1-Gal Empty)	HC Floating Smoke Pot
HC 10 lb, 30 lb and Floating Smoke Pots	Gas Set, Identification Detonation
Toxic Gas Set	Tear Gas Solution (CNC)
Squib, Elec Flash-Vent	Starter, Fire
Thickener	Adapter Gren-Prog Cml
Cap, Blasting Elec & Non-Elec Spec	Detonating Cord (PETN)
Rifle Grenade (30 Cal)	Aux Grenade (30 Cal)
Explosive Nitrostarch (1 lb)	Blasting, Time Fuze
Green Smoke Rifle Grenade	Red Smoke Rifle Grenade
Stream Red Smoke Rifle Grenade	WP Smoke Rifle Grenade
Yellow Smoke Rifle Grenade	Yellow Stream Smoke Rifle Grenade

Weatherproof Lighter Fuze	Ground Burst Shell Simulator
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(Chemical Corps School 1954)

Other items of ammunition used in support of chemical training throughout the 1950's included:

6 lb Incendiary Oil Bomb	Incendiary Instruction Bomb (MG, TH)
Lewisite Gas (L)	Riot Hand Grenade (CN)
Explosive TNT ½ lb Block	Black Powder
100 lb Incendiary Bomb (NP)	1000 lb Gas Bomb (CK)
Igniter NA for Fire Bomb	Igniter WP Ext for Fire Bomb
I.D. Sets	15 lb Shape-Charge
Practice and Fragmentation Hand Grenades	AT Rifle Grenade & AT Prac Rifle Grenade
3.5 Heat Rocket	3.5 WP Smoke Rocket
Red & White Parachute Star Signal	Simulator Booby Trap Flash
Bangalore Torpedo Kit	BW Sampling Kits
Flame Land Mine	

(Chemical Corps School 1952, Rowan 1953, Ware 1955).

In 1954, the Chemical Corps School requested that the 100th Chemical Company determine the capability of the Chemical Depot Company for filling 1-gallon chemical land mines with toxic chemical agent by means of the M2 land mine field filling apparatus. The capability should be stated in number of land mines filled either per 8-hour or 24-hour period (Ware 1954).

The Chemical Corps requested that the 1,000 lb., CK gas bomb be made available for training this year. The bomb was to be used in "Exercise Bunker", which was scheduled for the Senior Chemical Officer and Chemical Officer Advanced Courses. In the demonstration, CG, CK and GB are statically fired and the immediate effects noted against animals in the open and in field fortifications. This is followed by an autopsy of dead animals in which the veterinary officer points out the physiological effects (Ware 1954).

The Chemical Demonstration Area during this time was located about a mile east of the Chemical School on Summerall Road, near the South Gate entrance to Fort McClellan (then called South Gate Road). The area included a toxic gas yard, radiological survey area and a BW survey area. An interview with a retired chemical school instructor also makes reference to this area. The interviewee states that the "Weapons Demonstration Area", could be found by taking your first right after entering Summerall Gate and going to the top of the hill (Chemical Corps

School 1956, Environmental Science and Engineering 1998).

Munitions demonstrated in this area include: the mechanical flame thrower, portable flame thrower, various smoke grenades, rifle smoke grenades, thermite grenades, X-200 land mines (napalm-filled 5 gallon can), M5 and M4A2 (Navy floating) smoke pots, M2 and M3 smoke generators, primacord, M1 land mine filled with MR (innocuous simulant for HD), white phosphorus, and FFE. During this interviewee's tenure, no toxic chemical agents were used at this location. A second interviewee, who had conducted training at the site, stated that area was in use when he came to Fort McClellan in 1961 and was used through 1963. He also stated that the area was never used for live agent training during his tenure. Both interviews stated that the area was used for simulated detection of biological agent, however agent was not employed, the trainees simply went through the motions (Environmental Science and Engineering 1998).

By 1955 this Chemical Demonstration Area was deemed inadequate with regards to proper safety distances for parts of the chemical munitions demonstrations. Officials cited several reasons for their concern over the demonstration area.

- a) In the demonstration of chemical rifle grenades, it was found that grenades had landed occasionally on the shoulders of South Gate Road even though fired at the appropriate angle and as far back from the road as possible.
- b) During the demonstration of the 55 gallon drum of napalm, fragments of the drum had landed on the edge of South Gate Road.

In addition, the safety distance for the chemical manifold, and the wind conditions in the area for the mechanized flame thrower proved to be inadequate. A recommendation for a new demonstration area included Washington Rocket Launcher Range No. 16 and Washington Rifle Grenade Range No. 17. These areas would provide the necessary safety for classes of this type, and would reduce the amount of support and manpower necessary to set up and support these classes (Captain, CmlC Secretary 1955, Chief, Technical Branch 1955).

A class held on 30 June 1958 dealt with decontamination-operation, and auxiliary decontamination equipment at the Cane Creek area (U.S. Army Chemical Corps School 1959).

A 1959 Transfer of Toxic Agents class, was held at McBride Hall, a personal decontamination gas tent and the toxic gas yard. New construction completed during the year included a new two room gas chamber (building 3174). This building is located next to the old dog kennel. The gas chamber had a flushing system for cleaning and decontamination, and it also had windows for outside observation. The first room was for the tear gas check of the fit of the gas masks, the other served as the more serious test when the student learned to put on his mask in a lethal atmosphere of chlorine (U.S. Army Chemical Corps School 1959, Anniston Star 1960, Armed Forces Chemical Association 1960).

West Point Cadets visited the fort the following year and reviewed film clips of a live GB shoot conducted at the CBR School (U.S. Army Chemical Corps Training Command 1960).

On 14 April 1961, the Army Chemical Corps School Support Battalion detonated a simulated

nuclear explosion at Fort McClellan. The fireball, made by the use of gasoline mixed with napalm, was thrust upward by the use of several pounds of TNT (Anniston Star 1961).

A 1968 weekly class schedule lists the courses and their corresponding locations:

<u>COURSE</u>	<u>LOCATION</u>
Storage and Handling of Chemical Agents	TE Reaction Area, T31 and T38
Biological Field Exercise	T4
Field Decontamination Exercise	Howitzer Hill, T6
Portable Flamethrower Familiarization Firing	Sandell Field, T12
Planning and Conducting CBR Training	CBR Training Area, T15 and T16
Riot Control Agent Dispersers	Gullion Field (then Bullene Field)
Gas Chamber Exercise	T32

In late 1968, all GB and VX were moved from the Toxic Agent Yard (TAY) to a more secure location within igloo 13 in the Ammo dump. Reportedly, in this area, troops tapped rounds and transferred vials (primarily H and G). The primary reason to teach tapping and transfer was for the purpose of either using the agent to contaminate an area, to completely decontaminate a round or to get agent for other training exercises. A person interviewed stated that H and HD were transferred to Howitzer Hill, and the pit at the TAY received left over agent or operational material and decontamination solutions (Office of the Commandant 1968, Environmental Science and Engineering 1998).

The Army Chemical Center and School published a 1969 Standing Operating Procedure (SOP) for reaction exercises involving live agents. This SOP pertained to a reaction exercise conducted in the CB EOD Reaction Area (Washington Range) and the CBR Defense and Material Division Reaction Area. Agents authorized for use in reaction exercises included:

VX & VX simulant	GB
HD	BZ
BG1 & BG1 simulant	CS1
CS (M7A2 Grenade)	BZ (M6 Canister)
155 mm HD	105 mm GB
CG	CK
AC	CS
PWP	CG 4.2" Mortar

(U.S. Army Chemical Center and School 1969).

In 1969, the 100th Chemical Group, which had served continuously at McClellan since 1952, officially disbanded (U.S. Army Chemical Center and School 1969).

Technical Escort personnel in June of 1971, escorted a CW Filter from Birmingham to Fort McClellan (U.S. Army Tech Escort Center 1971).

One interviewee discussed Operation Green Dragon that began as the chemical school departed Fort McClellan in 1973. Decontamination was conducted at each chemical school training site (Environmental Science and Engineering 1998).

In January 1974, the 142nd Ordnance Detachment, Fort McClellan, located an ID Set which had been cut open by a worker in a junk yard (off post). The 142nd packed and moved the item back to Fort McClellan. The work area in which the set was discovered, was tested and showed negative results. The workers involved in the incident were not affected. In 1975, Technical Escort personnel retrieved the item and brought it to Edgewood Arsenal (Fort McClellan 1974).

In June 1975, Technical Escort personnel escorted and shipped 11 ID Sets from Fort McClellan to Fort Benning, and then to Edgewood Arsenal (U.S. Army Tech Escort Center 1975).

In January 1976, personnel escorted six M6A1 BZ (Oksilidin) grenades from Fort McClellan to Edgewood Arsenal. In December of this year, the Department of the Army granted authority to transport the total inventory of lethal chemical agents stored at Fort McClellan to Anniston Army Depot. This movement was a direct result of the phasing out of the mission of the U.S. Army Chemical Center and School. Shipped ammunition included: 8, 1-ton containers of HD; 43, 155mm Projectiles filled with HD; 86, 105mm Projectiles filled with GB and one vial containing 1cc GB. Prior to this shipment, the material (except for the HD) was stored in bunker #13 (building 4415) and bunker #14 (building 4416) (U.S. Army Tech Escort Center 1976, Department of the Army 1977, U.S. Army Tech Escort Center 1976).

After a six year hiatus, the chemical school (at Aberdeen since 1973) returned to Fort McClellan. Factors that lead to McClellan's selection included the fact that the school was formerly at the location and that most of the special training facilities and toxic material training areas used prior to 1973 remained in place and unused (U.S. Army Training and Doctrine Command 1979).

In 1979, the Director of Plans for Fort McClellan, proposed an EOD demolition area in training area 15A. Documentation states that the area will be utilized to conduct chemical munitions training (Gudger 1979).

In October 1983, a major construction project began at Fort McClellan. The 58,000 square foot, Chemical Decontamination Training Facility (CDTF), was built on thirteen acres of land in the northeast corner of Fort McClellan in the general vicinity of Reservoir Ridge. The facility enabled the school to train personnel in a realistic environment on the methods of detection, identification, and decontamination of chemical agents. Troops trained with GB and VX nerve agents. Nerve agents GB and VX were first used at the CDTF in late 1986 to train chemical cadre. The first official class was in March 1987. In 1988, a total of 3,975 students trained in this facility. According to interviews, all chemical training using live agent was conducted at Redstone Arsenal during the period between the return of the chemical school to FTMC and the

opening of the CDTF. No training using live agent was conducted at FTMC during this time period (Chemical Corps 1984, U.S. Army Chemical School 1988, Environmental Science and Engineering 1998).

Maps of Chemical Corps Training Areas, showed or described the following areas:

- Agent Identification Area (FN 118 292)
- Gas Chamber (Improvised) (FN 119 297)
- Personnel Decontamination Station (FN 119 299)
- Stock Control Buildings (FN 118 297)
- Decontamination Blacktop Area (FN 121 299)
- Flamethrower Buildings (FN 124 300)
- Depot Area (FN 121 297)
- Howitzer Hill Decon Area (FN 124 301)
- Cane Creek Area (FN 125 302)
- Chemical Area (Defendum Area) (FN 144 317)
- Building 3185, Decontamination Building (FN 118 300)
- Agent ID Area (FN 127 306)
- Gas Chamber (Building 3174) (FN 119 299)
- Sandell Field (Flame Training Area) (FN 123 301)
- Reaction Area (FN 118 296)
- Field Personnel Decontamination Area (FN 119 299)
- CBR Proficiency Area (FN 120 305)
- Chemical Toxic Storage Yard (south of Summerall Gate Rd.)
- Chemical Demonstration Area (south of Summerall Gate Rd.)
- BW Area (south of Summerall Gate Rd.)

2.2 Real Estate

On 6 December 1915, President Woodrow Wilson signed Executive Order No. 2281. This reserved 1,160 acres for military purposes. This acreage in three parcels, was named the Anniston Field Artillery Range. These parcels later became part of the main reservation in 1917 (Wilson 1915).

In early 1917, upon the advice of the War Department, the Federal Government decided to purchase the area as an artillery range. Congress appropriated a total of \$247,400 to purchase 18,952 acres. The actual land purchased was 17,837.18 acres. This brought the camp up to 18,997.18 acres (Lane 1955, Mobile District 1988).

On 18 July 1917, the War Department named Camp McClellan as one of sixteen cantonment camps for the training of National Guard divisions and assigned the 29th Infantry Division to the Camp (Lane 1955).

In 1941, just prior to World War II, the War Department was authorized to acquire additional lands for a training area, thus 26,912.17 acres were acquired. This area was originally called the Morrisville Maneuver Area and is now known as the Pelham Range Area. This area is separated

from the main post by approximately 6 miles and, as such, is not included in this report (Mobile District 1988).

Also in 1941, Fort McClellan leased an area of 4,160 acres, known as the Choccolocco Corridor. This area abuts the main post on the eastern edge and provided a corridor so that the national forest could be used for training during World War II. The Choccolocco Corridor is no longer under Army lease, but is included in this report. The area of the Talladega National Forest, which was available for training during World War II, was 485,612 acres (Lane 1955).

Eleven parcels, totaling 297.53 acres, lying along the periphery of the McClellan boundary, were conveyed by quitclaim deed to various interests. These parcels adjoined either the main post, Pelham Range Area or the Choccolocco Corridor. Ordnance contamination on these parcels was addressed in a previous Archives Search Report prepared by the St. Louis Engineer District (Mobile District 1988).

The Defense Base Closure and Realignment of 1990 (1990 Base Closure Act), Public Law 101-510 established the process by which Department of Defense (DoD) installations would be closed and/or realigned. This commission, in accordance with a statutory provision, met in 1991, 1993 and 1995. Fort McClellan, Alabama, was among the installations that were recommended to be closed in BRAC 95.

2.3 Site Inspection

During 11-13 May 1998, John Daly, Kirk James and Tom Murrell from the St. Louis Engineer District inspected many areas suspected of being used for chemical warfare training or Chemical Warfare Material (CWM) storage.

On 11 May 1998, the following three areas were walked:

- a. An area east of Reilly Airfield was inspected for a 200m long trench, which was dug during World War I. The trench was located, but no surface evidence of CWM or indications of any burial activities were found. Two end caps for artillery propellant cases were found at the south end of the trench area. These caps had been painted blue and looked like simulated training mines.
- b. The west end of Range 31 was walked. Time fuze was found and also firing wire. Remnants of 40mm grenades were also found.
- c. The area southeast of Reservoir Ridge was walked. The expended livens round located in previous investigations was again located. No other indications of surface contamination or burials were found.

On 12 May 1998, the following eleven areas were walked:

- a. The area due south of Reservoir Ridge was walked. One sign was located directing traffic to Area S and Area R for smoke training. No other indications of surface

contamination nor burials were found.

b. The area south of Summerall Gate Road east of the entrance gate was walked. The nose of a concrete bomb was found sticking out of the ground in a small open area. The bomb nose was sticking straight up and may have been used as some sort of marker. About 20' from the concrete bomb a small metal can was found. The can resembled the type used to ship fuzes and boosters for various types of ordnance. No other indications of surface contamination nor burials were found.

c. The area south of Summerall Gate Road known as Area T-4 was walked. This area was used for Biological Warfare (BW) training. No surface contamination nor indications of burials were found.

d. The area south of Summerall Road and west of Iron Mountain Road was walked to locate an old gas chamber. The gas chamber has been removed. A trench was found along with a rusted 55 gallon drum and a rusting wall locker. No surface contamination nor indications of burials were found.

e. The open field between the current PX and Range Control Building (old Tradewinds) was walked. This area was identified on one map as an Agent ID area. No surface contamination nor indications of burials were found.

f. The general area south of 23rd Street and around Sunset Hill was walked. Rusted metal cans and a burn pit with metal screening were discovered east of Sunset Hill. No other indications of surface contamination nor burials were found.

g. The large blacktop area near the Physical Security school was inspected. Part of the paved area is fenced and is used to store cars. No surface contamination nor indications of burials were found.

h. The general area around Area T-5 was walked. The gas chamber in this area has been removed. The dog kennel area has a high metal fence, a quonset hut and a sub section fenced off inside the area. The dog training area was enclosed with older type fencing. The concrete pad in this area is extremely deteriorated and parts of the concrete have bubbled up. No other indications of surface contamination nor burials were found.

i. The area around Building 3174 (former gas chamber) was walked. No surface contamination nor indications of burials were found.

j. The small Cane Creek area near Area T-6 was walked. No surface contamination nor indications of burials were found.

k. The area north of the current posted Area T-6 was walked. A fenced in area with a sign stating "Former Toxic Training Area" was found on the gate. The fence line had old signage stating do not enter and do not dig. Inside the gate was an old "Naylor Field"

dedication sign. Due to the signage, the inside area was not extensively walked.

On 13 May 1998, five areas were visited or walked.

- a. The area near the hot cell area was walked in an attempt to locate where VX demonstrations may have occurred. No obvious locations were found.
- b. The Reaction Area behind Area T-5 was walked. One small section of the dirt roadway contained a paved pad. No surface contamination nor indications of burials were found.
- c. The Detection and Identification Area was walked. An old single wire barb wire fence was discovered with posted signs stating do not enter and do not dig. An older sign stating toxic training area was found beside a tree. Due to the signage, the inside area was not walked.
- d. The high rise area was photographed. This area at one time was shown on a map as being a CBR Proficiency Area. The construction of the two high rise buildings has removed any surface evidence of the former training area.
- e. Range 24A was visited and general pictures were taken for the report. The site was being used at the time and was not walked. The area is evaluated in the EE/CA; thus, there is no need for further field work under the ASR.

3.0 CONCLUSIONS & RECOMMENDATIONS

3.1 DEFENDUM RANGE AREA

The Defendum Range Area is the area to the east of Alabama Highway 21 and north of Bains Gap Road.

DEFENDUM RIFLE RANGE (FN 135 338) (45 Acres) (OA-08) (Plates 3, 5, 6, 7, 10)

The Defendum Known Distance Range was built during World War I. The range was abandoned during the Inter-War period and re-opened during World War II. The 1950 range map lists the range as a Tank Sub-Caliber range with 14 firing points. Later by 1958, the range was made into a Carbine Transition Range (R-32). By 1967, the range was used for machine gun field firing (R-34). The 1974 map calls the area Range 30 and lists it as a training area. During the 1950's, Sub-Caliber devices for use in tank main guns, included 37mm ammunition with black powder charges.

Recommended Action: Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

WORLD WAR I MACHINE GUN RANGE (FN 134 337) (10 Acres) (OA-05) (Plates 3, 4, 10)

This machine gun range was built during World War I. The range was abandoned sometime prior to World War II. Documentation indicates that only machine gun fire was conducted on this range. There is no indication of explosive ordnance being used on the range.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

WORLD WAR II MACHINE GUN RANGE (FN 140 347) (40 Acres) (OA-10) (Plates 5, 6, 10)

This machine gun range was built during World War II and includes part of the World War I, 1000 yard rifle range. In 1967 it was still being used as a Squad/Platoon Attack Course and later it was abandoned. This range also lies in the area designated during the Inter-War period as a Tank Range.

Recommended Action: Conduct a statistical sweep to ensure explosive ordnance was not used within the range boundaries. Lead concentrations could present an HTW contamination

problem.

TANK COMBAT RANGE (FN 142 346) (320 Acres) (OA-11) (Plates 4, 10)

This range appears on several maps during the Inter-War period. The range boundaries and exactly how the range was utilized is unknown. Possibilities of use include: driver training, tactical maneuvers or main gun firing.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

TANK RANGE #1 (FN 147 347) (35 Acres) (OA-12) (Plates 6, 10)

This tank range appears on the 1949 aerial map used for the 1956 Fort McClellan map. It is abandoned by 1958.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

TANK RANGE #2 (FN 147 344) (20 Acres) (OA-13) (Plates 6, 10)

This tank range also appears on the 1949 aerial map used for the 1956 Fort McClellan map. It is also abandoned by 1958. Explosive ordnance use of this range is unknown.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

RIFLE TRANSITION RANGE (FN 155 342) (50 Acres) (OA-16) (Plates 5, 6, 10)

This rifle range is first used in late World War II. The 1956 Fort McClellan map shows it as a machine gun range. The 1958 range map lists the range as Rifle Transition Table VII. The range is abandoned by 1967. Part of this range may have been in the area used for artillery and mortar firing during World War I.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

RANGE (FN 153 340) (10 Acres) (OA-20) (Plates 5, 6, 10)

This range appears on the 1949 aerial map used for the 1956 Fort McClellan map. It is abandoned by 1958. Explosive ordnance use of this range is unknown.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

RANGE (FN 162 344) (40 Acres) (OA-19) (Plates 5, 10)

This range appears on the 1946 reservation map and includes a safety fan. It is abandoned by 1958. Explosive ordnance use of this range is unknown.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

81MM MORTAR RANGE (FN 168 347) (960 Acres) (OA-18) (Plates 6, 10)

This mortar range first appears on the 1958 range map. By 1967, the range has been abandoned. An expended 81mm HE Mortar round was found on this range during the site visit. The safety fan of this range extends into the Choccolocco Corridor Area (approximately 180 acres).

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

RANGE 31 (FN 135 334) (200 Acres) (OA-07) (AOC-18) (Plates 5, 6, 7, 8, 10)

This range first appears during World War II. The initial use of the range is unknown. Aerial photographs show target pits and an extremely long open area. By 1958, the range is being used as a Machine Gun Transition Range. The 1967 range map lists Chemical Munitions as the range use. Based on documentation, interviews and the site visit, this range was the replacement range for the South Gate Demonstration Area. A variety of explosive devices such as 40mm Grenades, Fougasse, smoke, flamethrower, LAW, and incendiary rockets and other explosive ordnance was used on the range. There is no indication that toxic chemicals were ever used on this range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of

explosive ordnance.

37MM ANTI-TANK RANGE (FN 135 330) (30 Acres) (OA-04) (Plates 5, 6, 8, 10)

This range was built during World War II and included a moving target on a track. By 1958, the track has been removed and a new firing line established for a M1 Rifle Transition Table. By 1967, the firing range is closed and the area is listed as T-31 with an unspecified use. It is doubtful that explosive ordnance was used on the moving target.

Recommended Action: Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

PISTOL RANGE (FN 135 322) (6 Acres) (OA-03) (Plates 4, 10)

This pistol range appears on maps during the Inter-War period. It is abandoned by World War II.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

WORLD WAR I ARTILLERY RANGE (North Half) (FN 160 315) (2,500 Acres) (OA-29) (Plates 3, 4, 10)

Maps from World War I and immediately after the Armistice do not show firing points, firing lines or artillery and mortar ranges. From photographs and correspondence, range distances were 1,500 to 5,000 yards and used the Choccolocco Mountains as a backdrop. Documented artillery and mortar use takes place from 1912 to the beginning of World War II and includes the area reserved by President Wilson. The cross hatched area on Plate 3 is the probable area used for artillery and mortar firing.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

GRENADE COURT (FN 135 345) (3 Acres) (OA-15) (Plates 5, 6, 10)

This Grenade Court was approved during World War II. The 1950 range map shows the range as a Hand Grenade Court with 12 bays. By 1958, the Grenade Court has been abandoned.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive

ordnance.

1958 DEFENDUM GRENADE RANGE (FN 150 347) (3 Acres) (OA-59) (Plates 6, 10)

This Grenade range shows on the 1958 range map. By 1967, this Grenade Range has been abandoned and a new range built to the east.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

1967 DEFENDUM GRENADE RANGE (FN 153 342) (3 Acres) (OA-61) (Plates 6, 10)

This Grenade Range appears on the 1967 range map. By 1974, the Range has been abandoned.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

TRENCH HILL (FN 126 335) (120 Acres) (OA-06) (Plates 3, 10)

One World War I map of Camp McClellan shows extensive trenching on Trench Hill and the area to the north of Trench Hill. The trenching does not show up on any of the Inter-War period maps. This area was probably used for Trench Warfare Training. The closeness to the cantonment area would eliminate the use of small arms or explosive ordnance. In 1990, Trench Hill is listed as a bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

EXCAVATED TRENCH (FN 148 346) (1 Acre) (OA-14) (Plates 3, 10)

One World War I map of Camp McClellan shows an excavated trench well east of Reilly Airfield. During the second site visit the trench was located. A wire obstacle metal picket was found as well as two artillery propellant charge container lids, which had been painted blue (possibly to simulate a training mine). The trench does not appear on any of the Inter-War period maps. The purpose of the trench is unknown.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and any other

training devices.

MOCK FIRE BASE (FN 162 347) (10 Acres) (OA-17) (Plates 6, 10)

The Mock Fire Base appears to have been built during the Vietnam War. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades were found during the site visit.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE B-30 (FN 138 347) (20 Acres) (OA-09) (Plates 7 and 10)

Battalion sized bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE B-40 (FN 139 312) (20 Acres) (OA-46) (Plates 7 and 10)

Company sized bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE B-41 (FN 155 314) (20 Acres) (OA-30) (Plates 7 and 10)

Company sized bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE 31 (FN 135 335) (20 Acres) (OA-63) (Plates 7, 10)

Bivouac Site 31 was listed as having a capacity for a battalion. It was being used as a bivouac site at the time of base closure. The facilities present while the site was active were latrines,

covered mess and bleachers. It was used primarily as a National Guard Training Site. This area was once used as a Small Arms and Rifle Range.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE 32 (FN 153 343) (20 Acres) (OA-64) (Plates 7, 10)

Bivouac Site 32 was listed as having a capacity for a battalion. It was being used as a bivouac site at the time of base closure. No facilities present while the site was active. No evidence was found to suggest that explosive ordnance were used to train with on this range.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE 43 (FN 140 295) (20 Acres) (OA-66) (Plates 7, 10)

Bivouac Site 43 was listed as having a capacity for a company. This area was being used as a bivouac site at the time of base closure. The facilities present while the site was active were latrines, cadre tentage and mess area. Its primary use was for a Training Brigade. Aerial photos from 1937, 1940, 1944, 1954, and 1961 show the area as an area of disturbed ground (Combat Range #1). Ordnance-related scrap, specifically pop-ups were found at this location.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

TRENCH HILL BIVOUAC SITE (FN 129 335) (20 Acres) (OA-62) (Plates 7, 10)

The Trench Hill Bivouac Site was listed as having a capacity of two companies. It was being used as a bivouac site at the time of base closure. The facilities present while the site was active were latrines, water point and electrical hook-up. This area was used as a training area in WWI.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

OFFENSIVE TACTICS AND COMBAT INDOCTRINATION COURSE (FN 158 313) (5 Acres) (OA-68) (Plates 7, 10)

The Offensive Tactics and Combat Indoctrination Course was known as Training Area 16G. It was used in the instruction of offensive tactics. The only building present during its use was a

range shack. This area is within the possible World War I artillery impact area. During fieldwork in this area ordnance-related scrap was identified, specifically pop-ups were discovered.

Recommended Action: Conduct a site survey to determine exact boundaries of the training area and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

POW COMPOUND (FN 142 348) (5 Acres) (OA-69) (Plates 7, 10)

The POW Compound was used to demonstrate the handling of enemy prisoners of war. The facilities present while the compound was in use were port-o-lets and telephone. During fieldwork 8' X 8' bunkers were discovered covered by fallen trees in this general area. The bunkers were intact and in good condition.

Recommended Action: Conduct a site survey to determine exact boundaries of the training area and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

3.2 BANDHOLTZ RANGE AREA

The Bandholtz Range Area is the area south of Bains Gap Road and east of Rocky Hollow Road.

BANDHOLTZ RIFLE RANGE (FN 139 302) (140 Acres) (OA-37) (Plates 4, 5, 6, 7, 10)

The Bandholtz Known Distance Range was built during the Inter-War period. This range has been in continuous use as a known distance range and is now known as Range 25. Maps indicate the range at one time was larger with a different orientation. Parts of this range may be included in the impact area of the World War I Artillery Range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 21 (FN 154 311) (10 Acres) (OA-32) (Plates 6, 7, 10)

Range 21 was built in 1951. This range has been in continuous use as a rifle range. The range is located within the impact area of the World War I Artillery Impact Area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 22 (FN 153 310) (10 Acres) (OA-33) (Plates 6, 7, 10)

Range 22 was built during the Vietnam War period. This range has been in continuous use as a rifle range. The range is located within the impact area of the World War I Artillery Impact Area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 23 (FN 142 295) (60 Acres) (OA-41) (Plates 4, 5, 6, 7, 10)

The Range 23 history starts in the Inter-War period as a pistol range and changes to rifle and machine gun use. Maps indicate the range layout has changed often with different orientations. The range is located within the impact area of the World War I Artillery Impact Area. Part of the range is included in Combat Range #1 used during the Inter-War period. An expended 81mm Mortar round was found during the site visit on the south side of Range 23.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 24 (FN 160 310) (10 Acres) (OA-31) (Plates 6, 7, 10)

Range 24 was built during the Vietnam War period after 1967. This range has been in continuous use as a rifle range. The range is located within the impact area of the World War I Artillery Impact Area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

OLD RANGE 21 (FN 142 288) (8 Acres) (OA-42) (Plates 5, 6, 10)

Old Range 21 was built after World War II. On the 1949 aerial map, it is identified as a rifle range. It appears on the 1958 range map as Rifle Field Firing Points 1, 2 & 3. The range is abandoned by 1967. The range is located within the impact area of the World War I Artillery

Impact Area. Part of the range is included in Combat Range #1 used during the Inter-War period.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 24A (FN 152 276) (60 Acres) (OA-40) (AOC-21) (Plates 5, 6, 7, 8, 10)

This range was originally called Range 24 and was built after World War II. On the 1949 aerial map, it is identified as a rifle range. It appears on the 1958 range map as Range 20, Sub-Machine Gun Range. On the 1967 range map, the use is listed as Demolition Area, Range 24. By 1974, the name has changed to Range 24A. In 1990, the range is listed as Multi-Purpose (Smoke, Demo & Flame Field). The range is located within the impact area of the World War I Artillery Impact Area.

The CWM research indicated that the range was used for EOD training in the destruction of chemical artillery shells. The 'Vent and burn' was done using shape charges to pierce the shell and some type of 'jellied gas' to burn out the mustard. Demonstrations showing the effects of mustard agent on skin may also have taken place at the range. One interviewee stated that in 1973, as the Chemical School closed, he and another EOD NCO had helped in the destruction of all remaining small vials of chemical agents at this range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

OLD RANGE 27 (FN 148 305) (10 Acres) (OA-35) (Plates 6, 10)

Old Range 27 was built after World War II. It appears on the 1958 range map as Close Combat 1 & 2. The range is shown with a safety fan similar to those associated with rifle and machine gun live fire. The range is abandoned by 1967. The range is located within the impact area of the World War I Artillery Impact Area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

OLD RANGE 28 (FN 159 310, FN 153 309) (960 Acres) (OA-34) (Plates 5, 6, 10)

This range first appears on the 1950 range map as an 81mm Mortar Range. By 1958, the range is designated as a 60mm Mortar Range with a new firing line. The 1949 aerial map indicates the range may have been used during that year. The range is abandoned by 1967. The range is

located within the impact area of the World War I Artillery Impact Area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

WORLD WAR I ARTILLERY RANGE (South Half) (FN 155 285) (4,500 Acres) (OA-39)
(Plates 3, 4, 10)

Maps from World War I and immediately after the Armistice do not show firing points, firing lines or artillery and mortar ranges. From photographs and correspondence, range distances were 1,500 to 5,000 yards and used the Choccolocco Mountains as a backdrop. Documented artillery and mortar use takes place from 1912 to the beginning of World War II and includes the area reserved by President Wilson. The cross hatched area on Plate 3 is the probable area used for artillery and mortar firing.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

COMBAT RANGE #1 (FN 138 294) (120 Acres) (OA-43) (Plates 4, 5, 10)

Combat Range #1 was built during the Inter-War period. Photographs of the 27th Infantry Division, indicate that in 1941, it contained a moving target for 37mm Anti-Tank Guns. Other photographs of the 27th, show 75mm artillery guns firing into the range area and over the range area into the hillsides. The 81mm mortar round found during the site visit was located within the old range boundaries. During World War II, the Combat Range #1 area is broken up into other uses including new ranges. Part of this range may have been in the area used for artillery and mortar firing during World War I.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

INFILTRATION COURSE (FN 143 301) (30 Acres) (OA-58) (Plates 5, 6, 7, 10)

First indications of the Infiltration Course appear on the 1949 aerial photograph map. The range appears as R-26, Infiltration Course on the 1958 Range Map and the 1967 Range Map. The course is in use until base closure. Parts of this range may be included in the impact area of the World War I Artillery Range.

Recommended Action: Conduct a site survey to determine exact boundaries of the course and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

INFILTRATION COURSE (Range 20) (FN 148 303) (35 Acres) (OA-70) (Plates 7, 10)

The Infiltration Course was known as Range 20. It was an active range post from the mid-1980s until base closure. The facilities that were present during its use were tower, two machine gun mounts, phone, PA and two test fire target frames. The weapons used on this course were M60 machine guns and demolitions.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

SPECIAL OPERATIONS RANGE (Range 27) (FN 149 309) (10 Acres) (OA-71) (Plates 7, 10)

The Special Operations Range or the Stress Pistol and Shotgun Range was known as Range 27. It was an active range from 1976 until base closure. The facilities that were present during its use were tower, bleacher, latrines, flagpole, support building, mess area, phone, rappelling tower, stress obstacle course, three firing lanes and a fire house. Historical data suggests that 9 mm pistols, machine guns, .38 caliber pistols, and .45 caliber pistols and machine guns were used to train on this range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

BLANK FIRE AND MANEUVER RANGE (Range 28) (FN 143 303) (4 Acres) (OA-72) (Plates 7, 10)

The Blank Fire and Maneuver Range was known as Range 28. It was an active range from 1976 until base closure. The facilities that were present during its use were bleachers, latrines, target house, tower and five firing lanes. Historical data suggests the M-16 (blanks) was the only weapon used on this range. The range is located within the World War I Artillery Impact Area. During fieldwork multiple 3" projectiles, multiple 3" stokes mortars, multiple M18 smoke grenades, and fighting positions were identified in this area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

WEAPONS DEMO (ITT) RANGE (Range 29) (FN 139 292) (47 Acres) (OA-73) (Plates 7, 10)

The Weapons Demo (ITT) Range was known as Range 29. It was an active range from 1976 until base closure. The facilities that were present during its use were tower, phone, bleachers, mess area, latrine, target house and PA. Historically the weapons used on this range were .38/.45 caliber pistol, M16A1, M60, MG, M72, LAW, and M203 for demonstration purposes only. Aerial photos from 1937, 1940, 1944, 1954, and 1961 indicate that this location is within an area of disturbed ground (Combat Range #1), no more specific information is available. During fieldwork ordnance-related scrap was identified in this area, specifically multiple 40 mm grenades, targets, AT-4, 75 mm fragments, and multiple 75 mm shrapnel projectiles.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

HAND GRENADE RANGE (Range 32) (FN 142 280) (18 Acres) (OA-74) (Plates 7, 10)

The Hand Grenade Range was known as Range 32. It was an active range from 1987 until base closure. The facilities that were present during its use were bleachers, mess area, testing site, practice throwing area, latrines, tower and four throwing bays. The weapons used on this range were hand grenades.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

BIVOUAC SITE B-23 (FN 138 301) (20 Acres) (OA-38) (Plates 7 and 10)

Bivouac site for two companies. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE B-25 (FN 135 305) (20 Acres) (OA-36) (Plates 7 and 10)

Battalion sized bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE 42 (FN 138 308) (20 Acres) (OA-65) (Plates 7, 10)

Bivouac Site 42 was listed as having a capacity for two companies. It was being used as a bivouac site at the time of base closure. The facilities present while the site was active were latrines. Its primary use was for a Training Brigade.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

3.3 WASHINGTON RANGE AREA

The Washington Range Area is west of Rocky Hollow Road and south of Summerall Gate Road.

WASHINGTON RIFLE RANGE (FN 127 299) (25 Acres) (OA-44) (Plates 5, 6, 7, 10)

The Washington Known Distance Range was built during World War II. This range has been in continuous use as a rifle range and is now known as Range 18. Documentation indicates that only rifle fire has been conducted on this range. There is no indication of explosive ordnance being used on the range.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 16 (FN 124 294) (350 Acres) (OA-45) (Plates 5, 6, 7, 10)

This range was developed during World War II, as a Grenade Court. By 1958, the area had been split into two side by side ranges. Range 16, Rocket Launcher (Bazooka) and Range 17, Rifle Grenade. By 1967, the range is again called Range 16 and being used for Rocket Launchers and 40mm Grenade launchers.

Recommended Action: Conduct a statistical sweep to determine the extent of explosive ordnance.

ROCKET RANGE (FN 106 295) (10 Acres) (OA-01) (Plates 5, 10)

This range was used during World War II and was part of Combat Range #2. The range was abandoned by 1958. During the site visit, 2.36" Rockets (Bazooka) were found on the Rocket Range near Area 17. Three point five inch rockets may also have been used on this range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

MACHINE GUN RANGE (FN 106 298) (8 Acres) (OA-02) (Plates 5, 10)

This machine gun range was used during World War II. On the 1958 range map, the range is listed as having been closed. The range area is part of Combat Range #2.

Recommended Action: Conduct a statistical sweep to determine the extent of explosive ordnance. Lead concentrations could present an HTW contamination problem.

**RIFLE GRENADE RANGES (2) (FN 110 296) (FN 110 297) (3 acres each) (OA-51)
(Plates 5, 10)**

These two rifle grenade ranges were used during World War II. The 1950 range map shows a single range with a new orientation. They were both abandoned by 1958. During the site visit, remnants of World War II vintage rifle grenades were found northeast of Range 19, on the south side of an old service road.

Recommended Action: Conduct a site survey to determine exact boundaries of both ranges and extent of any surface contamination.

COMBAT RANGE #2 (FN 110 298) (120 Acres) (OA-52) (Plates 4, 10)

Combat Range #2 was built during the Inter-War period. Initial use of the combat range is unknown. During World War II, the Combat Range #2 area is broken up into other uses including a rocket range, a machine gun range and two rifle grenade ranges. By 1958, all ranges in this area are closed or abandoned.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

60MM MORTAR RANGE (FN 097 280) (200 Acres) (OA-53) (Plates 5, 6, 10)

This 60mm mortar range appears to have been first used during World War II. This mortar range was abandoned sometime between 1958 and 1967. During the site visit, remnants of 60mm HE mortar rounds were found in Area 15.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

WASHINGTON TANK RANGE (FN 095 283) (320 Acres) (OA-54) (Plates 6, 10)

This tank range first appears on the 1958 range map and is listed as Tank, Table 1, 2 & 3. The range is abandoned by 1967. Use of the range is unknown. Its use may have been associated with the reserve units located on Highway 21.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

OLD RANGE 12 (FN 095 285) (8 Acres) (OA-55) (Plates 5, 6, 10)

Old Range 12 was built during World War II as a Landscape Range. It also included Field Firing Points 1 & 2. By 1958, it is listed as Range 12, Rifle Field Firing. The range is abandoned by 1967.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Lead concentrations could present an HTW contamination problem.

RANGE 12 (FN 109 287) (6 Acres) (OA-48) (Plates 6, 7, 10)

This range was built after World War II and is listed as Range 14, a 1,000 inch range. By 1967, it is Range 12, competitive pistol.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 13 (FN 109 288) (6 Acres) (OA-49) (Plates 6, 7, 10)

This range was built during the Vietnam War and is listed as Washington Pistol Qualification Range.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 15 (FN 114 278) (10 Acres) (OA-47) (Plates 6, 10)

This range was built after World War II and is listed on the 1958 range map as a Combat Village. The range is shown with a safety fan similar to those associated with rifle and machine gun live fire. The range is abandoned by 1967. The Yahoo Lake recreation area now occupies this old range area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Lead concentrations could present an HTW contamination problem.

RANGE 19 (FN 109 293) (8 Acres) (OA-50) (Plates 6, 7, 10)

This range was built during the Vietnam War as a 10m Machine Gun Range. Later, it becomes a Pistol Qualification Range.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

WORLD WAR I MACHINE GUN CAMP (FN 096 286) (55 Acres) (OA-56) (Plates 3, 10)

The Machine Gun Camp was operated during World War I. Exact location of the machine gun range within the camp is unknown.

Recommended Action: Conduct a site survey to determine exact location of range and extent of any surface contamination. Lead concentrations could present an HTW contamination problem.

1950 ROCKET LAUNCHER RANGE (FN 095 287) (30 Acres) (OA-57) (Plates 5, 6, 10)

The 1950 range map shows a 2.36" rocket launcher range north of the 60mm mortar range. The Range is abandoned sometime before 1958.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

SKEET RANGE (FN 109 299) (3 Acres) (OA-75) Plates (7, 10)

The Skeet Range was an active range from 1988 until base closure. The facilities that were

present during its use were two low houses and two high houses for skeet, one trap house and two latrines. Historical data indicates the weapons used on this range were .410, .12, .20 and .28 gauge shotguns.

Recommended Action: Conduct a site survey to determine exact boundaries of the range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

EOD AREA (FN 134 261) (3 Acres) (OA-60) (Plates 7, 10)

The EOD Area first appears on the 1974 Range Map. It is also shown on the current 1986 Range Map.

Recommended Action: Conduct a statistical sweep to determine the presence (if any) of explosive ordnance. Conduct surface and subsurface sampling for toxic agents and/or their breakdown products.

COMPASS COURSE (FN 095 296) (25 Acres) (OA-76) (Plates 5, 6, 7, 10)

The Compass Course was known as Training Area 10. It was in use post WWII until base closure. Known use of the area was for a Compass Course and Land Navigation. The facilities that were present during its use were a 12 lane compass course, bleachers and latrines. No evidence was found to suggest that explosive ordnance were used to train with on this range, however, practice ordnance (M2 practice grenades, 60 mm practice mortar rounds and 81 mm practice mortar rounds) and illumination rifle grenades were found in the area presumably from a different training use of the area prior to it becoming a compass course.

Recommended Action: Conduct a site survey to determine exact boundaries of the training area and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

3.4 CHOCOLOCCO CORRIDOR AREA

The Choccolocco Corridor Area abuts the eastern edge of the main post area.

81MM MORTAR RANGE (FN 168 347) (OA-18) (Plates 6, 10)

This mortar range first appears on the 1958 range map. By 1967, the range has been abandoned. An expended 81mm HE mortar round was found on this range during the site visit. The safety fan of this range extends from main post into the Choccolocco Corridor area (approximately 180 acres). The grid reference is for the firing point located on the main reservation.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

RANGE 40 (FN 198 323) (30 Acres) (OA-21) (Plates 6, 10)

This range was built during the Vietnam War and is listed as a Squad Attack Range. It was abandoned by 1974. Use was probably limited to blank ammunition and pyrotechnic devices.

Recommended Action: Conduct a surface survey to determine the extent of surface contamination (if any) from pyrotechnic devices.

RANGE 41 (FN 199 326) (6 Acres) (OA-22) (Plates 6, 10)

This range was built during the Vietnam War and is listed as a Battle Drill & Assault Range. This was a training range which probably did not include live fire. It was abandoned by 1974. During the site visit, expended M-16 rifle blanks, smoke grenades and 40mm TP Grenade cases were found on this range.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

RANGE 42 (FN 199 329) (25 Acres) (OA-23) (Plates 6, 10)

This range was built during the Vietnam War and is listed as a Squad Defense Range. It was abandoned by 1974.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

RANGE 43 (FN 198 332) (7 Acres) (OA-24) (Plates 6, 10)

This range was built during the Vietnam War and is listed as a Technique of Fire Range. It was abandoned by 1974.

Recommended Action: No further action be taken for explosive ordnance. Lead concentrations could present an HTW contamination problem.

MORGAN MOUNTAIN ATTACK (FN 225 318) (18 Acres) (OA-26) (Plates 6, 10)

Training site identified on the 1967 range map. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

T-46 GRENADE ASSAULT RANGE (FN 221 307) (10 Acres) (OA-27) (Plates 6, 10)

Grenade assault range identified on the 1967 range map. Training debris in the form of expended rifle blanks and pyrotechnic devices such as practice grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

T-47 TRAINING AREA (FN 198 301) (12 Acres) (OA-28) (Plates 6, 10)

Training site identified on the 1967 range map. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE B-44 (FN 203 316) (20 Acres) (OA-25) (Plates 7, 10)

Battalion sized bivouac site. Training debris in the form of expended rifle blanks and pyrotechnic devices such as smoke grenades probably remain on the site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

BIVOUAC SITE 44A (FN 195 309) (20 Acres) (OA-67) (Plates 7, 10)

Bivouac Site 44A was listed as having a capacity for a battalion. It was being used as a bivouac site at the time of base closure. There were no facilities available on-site.

Recommended Action: Conduct a surface sweep to remove pyrotechnic devices and other training devices.

3.5 CHEMICAL TRAINING AREAS

TRAINING AREA 31 (FN 139 329) (25 Acres) (AOC-1) (Plates 8, 10)

This area was originally part of Range 30. Later it became the Technical Escort Reaction Training Area. One interviewee indicated that 40cc samples of toxic agents were brought to the location just prior to the training. A range officer would then go out and contaminate an area or object with the agent. Students would then go through reaction and decontamination procedures.

The interviewee said that the area was large enough that two classes could be given at the same time. Possible agents used during training include, Mustard, Lewisite, GB & VX.

Recommended Action: Conduct a surface investigation to determine the exact limits of the range. Followed by both surface and subsurface sampling for toxic agents and/or their breakdown products. The area is evaluated in the EE/CA where the chemical agents that were used are addressed.

T-38 (RESERVOIR RIDGE) (FN 137 323) (6 Acres) (AOC-2) (Plates 8, 10)

This area was used as a toxic agent storage yard. Chemical Agents, HD, VX and GB were stored here. Later the nerve agents were removed from the yard and moved to Igloo 13 at the Ammunition Supply Point. When the Chemical School closed in 1973, remaining blister agents were transferred to a near-by motor pool in preparation to move the agents to Anniston Army Depot. Equipment on site that was to be de-contaminated and disposed of consisted of the following:

Flat Car, Railroad	1
Truck, 2 1/2T	1
Trailer, 1T	1
Shipping Containers, 1T	4
Bomb, 500 lb	3
Projectiles, 155mm, 105mm	10
Rockets, M55	19

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products. Due to the historical presence of explosive ordnance on site when the Chemical School was closed in 1973, also recommend subsurface sampling for UXO. Sampling for large buried anomalies should also be done in this area.

SMOKE RANGES, R and S (FN 143 317) (300 Acres) (AOC-3) (Plates 8, 10)

This area is identified as a Chemical Area on the 1958 range map. During the site visits, Impact Area signs were found, a sign identifying Smoke Ranges, R and S and to the east of the site an expended Livens Round. It is unknown if toxic agents were used in this area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Conduct surface and subsurface sampling for toxic agents and/or their breakdown products.

T-4 BIOLOGICAL WARFARE AREA (Area T-4) (FN 100 294) (4 Acres) (AOC-4)
(Plates 8, 10)

This area was used for Biological Warfare (BW) Training. This area may be shown as area B-1 on the 1967 Post & Choccolocco Corridor range map. It is referenced on the 1969 Orientation Map of the Chemical School Student Guide. It is believed closed by 1971. Interviews and previous reports indicate that only two simulants were used: BG (*Bacillus Globigii*) and SM (*Serratia Marcescens*).

Recommended Action: No further action from an ordnance or chemical warfare material contamination viewpoint.

OLD CHEMICAL WEAPONS DEMONSTRATION AREA (FN 096 291) (30 Acres)
(AOC-5) (Plates 8, 10)

This area shows up on the 1954 and 1961 aerial photographs and is south of Summerall Gate Road. It is also referenced on the 1956 map of Chemical Corps Training Areas. Other documentation indicates the following items were demonstrated in this area:

- Flamethrowers
- Smoke Grenades
- Rifle Smoke Grenades
- Thermite Grenades
- X-200 land mines filled with 5 gallons of napalm
- M5 and M4A2 Navy floating smoke pots
- M2 & M3 smoke generators
- Primacord
- White Phosphorus
- M1 land mine filled with MR (innocuous simulant for HD)
- FFE

There is no documented evidence of toxic agents being used in this area.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance.

AGENT ID AREA (FN 127 306) (2 acres) (AOC-6) (Plate 9)

This area shows up on the 1969 orientation map of the Chemical Corps Student Guide. Exact use is unknown. There is no visible surface evidence of any Chemical or Ordnance use.

Recommended Action: Conduct limited subsurface sampling for toxic agents and/or their breakdown products.

SANDELL FIELD (SANDELL FLAME RANGE) (FN 124 301) (15 Acres) (AOC-7) (Plate 9)

This training area and adjacent buildings were used to teach all aspects of flamethrowers (use, maintenance, repair and storage) (Buildings 3177, 3178, 3186, 3187, 3188 & 3189).

Recommended Action: Conduct subsurface sampling for residual petroleum products.

CANE CREEK TRAINING AREA (FN 125 302) (2 acres) (AOC-8) (Plate 9)

This area first appears on the 1956 map of Chemical Corps Training Areas. In 1958, it is used for classes in decontamination procedures and decontamination equipment. Cane Creek may have been used as a field water source. Use of toxic agents in this area is unknown.

Recommended Action: Conduct limited surface and subsurface sampling for toxic agents and/or their breakdown products. Conduct sampling of water sources.

NAYLOR FIELD (T-6) (FN 124 301) (10 Acres) (AOC-9) (Plate 9)

This area was used for training in the decontamination of equipment (artillery field pieces) contaminated with live agent (Mustard) and was originally known as the Howitzer Hill Decontamination Area. This area was closed in 1973. A 1973 document indicates that two 15' x 45' burning pits were to be dug at Naylor Field and that equipment from other toxic training sites was to be burned twice in the pits prior to final disposal. Equipment on site that was to be decontaminated and disposed of consisted of the following:

Truck 1/4T	4
Truck 3/4T	2
Truck 1 1/4T	1
Armored Personnel Carrier	3
Missile, Nike Ajax	1
Bomb, Practice, Concrete	35

Signage discovered during the site visit showed that signs had been placed in 1973 to warn of the

toxic area and that no digging was to be done in the area. Contaminated equipment and/or agent may be buried in this area.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products. Sampling for large buried anomalies should also be done in the area.

BLACKTOP TRAINING AREA (FN 121 299) (3 Acres) (AOC-10) (Plate 9)

This large blacktop area is identified on the 1956 Chemical Corps Training Areas map and the 1969 chemical school orientation map (between bleachers 3190 & 3197). Various demonstrations and training may have occurred in this area. There are permanent bleachers at the north and south ends of the area. Use of toxic agents in this area is unknown.

Recommended Action: Conduct limited surface and subsurface sampling for toxic agents and/or their breakdown products.

FENCED YARD IN BLACKTOP AREA (FN 121 299) (¼ Acre) (AOC-11) (Plate 9)

This area has an old high fence and may have been used to store agents or to conduct toxic agent training in conjunction with the decontamination training which took place on the adjacent blacktop area (between bleachers 3190 & 3197).

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

DOG TRAINING AREA (FN 119 297) (¼ Acre) (AOC-12) (Plate 9)

This area has an old high fence and a concrete pad that has been severely eroded. This yard may have been used to store agents or used for toxic agent training in the form of 'Transfer Operations'. The Depot Area is across the road from this area.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

DOG KENNEL AREA (FN 119 297) (1 Acre) (AOC-13) (Plate 9)

This area has an old high fence with an inner yard and is part of the Reaction Area shown on the 1969 chemical school orientation map. Stock control buildings were once across the street (1956). Mustard confidence training using drops of mustard may have taken place in the Quonset hut inside the perimeter fence (Building 3172). Toxic agents may also have been stored in the inner fenced yard.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

REACTION AREA T-5 (FN 118 296) (11.4 Acres) (AOC-14) (Plate 9)

This area includes the Dog Kennel Area (Building 3172) and the wooded area to the south. Previous investigations indicate that the area was established around 1965. The area is shown on the 1969 orientation map. Reaction training using live agents HD, VX and GB took place in this area. The service road in the wooded area has a short section of blacktop which may have been associated with some type of training. The area was closed in 1973. Equipment on site that was to be de-contaminated and disposed of consisted of the following:

Truck 3/4T	2
Truck 1/2T Panel	1
Howitzer, 155mm	3
Bomb, 1000 lb, M72	3
Bomb, 750 lb, MC1	2
Bomb, 500 lb, M78	2
Projectiles, 155mm, 105mm, 4.2"	37
Projectiles 8"	1
Warhead, Honest John	1
Cluster Bombs	2

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

DETECTION AND IDENTIFICATION AREA (FN 118 299) (3 Acres) (AOC-15) (Plate 9)

This area is on both the 1956 Chemical Corps Training Areas map and the 1969 orientation map. The site was used for agent Detection & Identification (D&I) training and included the use of toxic agents such as HD and GB, simulants and other chemical agents. Previous investigation indicates at least one burn pit of 484 square feet. This area was closed in 1973. Signage discovered during the site visit showed that signs had been placed in 1973 to warn of the toxic area and that no digging was to be done in the area. Contaminated equipment and/or agent may be buried in this area.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

OLD BURN PIT (FN 117 299) (50 square feet) (AOC-16) (Plate 9)

This pit was discovered during the site visit. The pit is located behind a motor pool area, north of

the dirt service road which runs along the north border of the D&I Area. It is unknown what items were burned and/or destroyed in the pit.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

**FIELD PERSONNEL DECONTAMINATION AREA (FN 119 299) (1 acre) (AOC-17)
(Plate 9)**

This area appears as the Field Decontamination Station and is shown as being southeast of Decontamination Building #3185. On the 1969 orientation map, it is shown as being on the north side of 24th street midway between 12th Avenue and 13th Avenue (near Building 3183). Research did not indicate the exact use of this area nor were we able to determine whether toxic agents were used.

Recommended Action: Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products.

RANGE 31 (FN 135 334) (200 Acres) (AOC-18) (OA-07) (Plates 5, 6, 7, 8, 10)

This range first appears during World War II. The initial use of the range is unknown. Aerial photographs show target pits and an extremely long open area. By 1958, the range is being used as a Machine Gun Transition Range.

The 1967 range map lists Chemical Munitions as the range use. Based on documentation, interviews and the site visit, this range was the replacement range for the South Gate Demonstration Area. A variety of explosive devices such as 40mm Grenades, Fougassé, smoke, flamethrower, LAW, and incendiary rockets and other explosive ordnance was used on the range. There is no indication that toxic chemicals were ever used on this range.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the presence (if any) of explosive ordnance.

CBR PROFICIENCY AREA (FN 120 305) (5 acres) (AOC-19) (Plate 9)

This area appears on the 1969 orientation map of the Chemical School Student Guide. How the site was used by the Chemical School is unknown. Use of toxic agents in this area is also unknown. Buildings 3136 & 3137 have been erected on this site.

Recommended Action: Conduct limited surface and subsurface sampling for toxic agents and/or their breakdown products.

SOUTH GATE TOXIC GAS YARD (FN 096 291) (AOC-20) (Plates 8, 10)

This area is referenced only by text on the 1956 map of Chemical Corps Training Areas. The area is cited as being 1-1/2 miles west of the school. The exact location of the Yard and what items the yard stored are unknown. However, this area was probably near or within the old chemical weapons demonstration area (AOC-5).

Recommended Action: Conduct a surface investigation to determine the exact location of the yard. Follow by both surface and subsurface sampling for toxic agents and/or their breakdown products.

RANGE 24A (FN 152 276) (60 Acres) (AOC-21) (OA-40) (Plates 5, 6, 7, 8, 10)

This range was originally called Range 24 and was built after World War II. On the 1949 aerial map, it is identified as a rifle range. It appears on the 1958 range map as Range 20, Sub-Machine Gun Range. On the 1967 range map, the use is listed as Demolition Area, Range 24. By 1974, the name has changed to Range 24A. In 1990, the range is listed as Multi-Purpose (Smoke, Demo & Flame Field). The range is located within the impact area of the World War I Artillery Impact Area.

The CWM research indicated that the range was used for EOD training in the destruction of chemical artillery shells. The 'Vent and burn' procedure was done using shape charges to pierce the shell and some type of 'jellied gas' to burn out the mustard. Demonstrations showing the effects of mustard agent on skin may also have taken place at the range. One interviewee stated that in 1973, as the Chemical School closed, he and another EOD NCO had helped in the destruction of all remaining small vials of chemical agents at this range. A 1973 document indicates that existing burning pits at Range 24A were to be used to twice burn equipment prior to final disposal. Equipment on site that was to be de-contaminated and disposed of consisted of the following:

Projectiles, 155mm, 105mm	183
Shipping and Storage Container 1T	13

Equipment from other chemical training sites may also have been moved to Range 24A for burning prior to final disposal.

Recommended Action: Conduct a site survey to determine exact boundaries of range and extent of any surface contamination. Conduct a statistical sweep to determine the extent of explosive ordnance. Conduct both surface and subsurface sampling for toxic agents and/or their breakdown products. Lead concentrations could present an HTW contamination problem.

SUNSET HILL AREA (General Area) (AOC-22) (Plate 9)

This area was requested in September 1951 to support the Chemical School with the following types of training or training facilities:

- Protective Shelter
- Decontamination Procedures
- Biological Sampling
- Gas Detection
- Operation of Decontamination Equipment

Toxins were permissible if the area was posted or fenced. This area may have seen use during the building of the permanent Chemical School facilities.

Recommended Action: Conduct a site survey to determine extent of (if any) use by the Chemical School.

Other CWM areas:

Old Toxic Training Area (from previous USATHAMA report) (AOC-23) (FN 118 303) (Plate 9)

This area was identified in the Installation Assessment by USATHAMA. The area is identified as being 10,000 square feet with unknown contents. Suspected agent use was HD. This area may have been one of the small goat demonstration areas.

Mustard spill areas (General Locations from previous reports): (Plate 9)

1. South of Building 141 (AOC-24) (FN 117 309)
2. North of TASC (Building 267) (AOC-25) (FN 127 315)
3. South of 23rd St. east of MP Museum (Building 3182) (AOC-26) (FN 119 303)
4. West side of 10th street either side of Summerall Gate Road (East of Building 1928) (AOC-27) (FN 124 308)
5. North side of Kaiser Circle west of MP School (Building 3181) (AOC-28) (FN 117 304)

Three Goat Yards (General Locations from previous reports):

1. On site of current MP School (AOC-29) (FN 119 304) (Plate 9)
2. Inside the ASP (AOC-30) (FN 134 326) (Plate 8)

3. North west of Range 18 (Howitzer hill fenced area) (AOC-31) (FN 124 296) (Plate 9)

Goats were used in the GB nerve agent demonstrations (pigeons were also used in these demonstrations, and rabbits were employed in the VX exercises). One standard operating procedure required the dead experimental animals be decontaminated, bagged in plastic and put in regular sanitary landfills (David B. Cary, Lieutenant Colonel, CmlC, SOP for Delivery and Disposal of Chemical Agents and Waste Material, U.S. Army Chemical School and Center, Fort McClellan, Alabama). The SOP for nerve agent Effects Demonstration, dated 8 April 1969, states that dead animals will be incinerated at the hospital after being decontaminated (Report of the Ad Hoc Advisory Committee for Review of Testing Safety at Edgewood Arsenal, Maryland and Fort McClellan, Alabama, September 1969).

Gas Chambers

World War I: Buildings 4505 & 4520.

World War II: Buildings T-5512 (25'5" x 33'2") and T-5519 (26' x 33')

Post World War II, (6)

Building 103 west of Building 3131 and south of Summerall Gate Road
(FN 107 302)

Removed Improvised Gas Chamber (FN 119 297)

Building 3174, tear gas and Chlorine gas (FN 119 299)

Current Gas Chambers near Reilly Field (TA-32, FN 131 337)

1952 BIOLOGICAL TESTING

Between 16 July and 28 September 1952, a total of 21 Biological Warfare Tests were conducted at Fort McClellan. Twelve tests used *Serratia Marcescens* (SM) and nine used *Bacillus Globigii* (BG). The exact location for most of these tests was not determined. However, two tests that occurred on 22 July 1952, used an area along 10th Street (see Plate 8). Both of these tests used SM, with the main test target being buildings on Fifth, Seventh, Eighth & Ninth Streets (Anniston Star 1981).

NOTE: Estimated acreage is provided for various ranges. In many cases this acreage overlaps with other ranges.

APPENDIX A

RISK ASSESSMENT CODE PROCEDURE FORM

RISK ASSESSMENT PROCEDURE FOR
 ORDNANCE AND EXPLOSIVE WASTE (OEW) SITE

Site Name Fort McClellan, Main Post Rater's Name Thomas Murrell
 Site Location Fort McClellan, Alabama Phone No. 314-331-8787
 DERP Project# BRAC Organization CELMS-PM-M
 Date Completed 23 June 1998 RAC Score 1

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential EXO hazards identified at the site. The risk assessment is composed of two factors, hazard severity and hazard probability. Personnel involved in visits to potential OEW sites should view the CEHND videotape entitled "A Life Threatening Encounter: OEW."

Part I. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPE OF ORDNANCE
 (Circle all values that apply)

	VALUE
A. Conventional Ordnance and Ammunition	
Medium/Large Caliber (20mm and larger)	(10)
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	(10)
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	(10)
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	(6)
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms, Completed Round (.22 cal - .50 cal)	1
Small Arms, Expended	0
 Conventional Ordnance and Ammunition (Select the largest single value)	 <u>10</u>

What evidence do you have regarding conventional EXO? Anti-Tank Ranges and Artillery Impact Areas, Mortar Ranges, Rifle Grenade Ranges and Hand Grenade Courts.

B. Pyrotechnics (For munitions not described above)

VALUE

Munitions (Container) containing
White Phosphorus (WP) or other
Pyrophoric Material (i.e.,
Spontaneously Flammable)

10

Munitions Containing A Flame
or Incendiary Material (i.e., Napalm,
Triethylaluminum Metal Incendiaries)

6

Flares, Signals, Simulators, Screening
Smokes (other than WP)

4

Pyrotechnics (Select the largest single value)

10

What evidence do you have regarding pyrotechnics? Smoke Grenades, Smoke
training conducted on post, use of White Phosphorus (WP)

C. Bulk High Explosives (Not an integral part of conventional ordnance; uncontainerized.)

VALUE

Primary or Initiating Explosives
(Lead Styphnate, Lead Azide,
Nitroglycerin, Mercury Azide,
Mercury Fulminate, Tetracene, etc.)

10

Demolition Charges

10

Secondary Explosives
(PETN, Compositions A, B, C
Tetryl, TNT, RDX, HMX, HBX,
Black Powder, etc.)

8

Military Dynamite

6

Less Sensitive Explosives
(Ammonium Nitrate, Explosive D, etc.)

3

High Explosives (Select the largest single value)

10

What evidence do you have regarding bulk explosives? Range 24A was used as a
demolition range by engineer troops assigned to the post.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

VALUE

Solid or Liquid Propellants

6

Propellants

0

What evidence do you have regarding bulk propellants? _____

E. Chemical Warfare Materiel and Radiological Weapons	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological <u>(Select the largest single value)</u>	<u>25</u>
What evidence do you have regarding chemical/radiological OEW? <u>Areas where live agent was stored and trained with.</u>	

TOTAL HAZARD SEVERITY VALUE

(Sum of the Largest Values for A through E--Maximum of 61) 55
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1
HAZARD SEVERITY*

<u>Description</u>	<u>Category</u>	<u>Hazard Severity Value</u>
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

* APPLY HAZARD SEVERITY CATEGORY TO TABLE 3.
 ** IF HAZARD SEVERITY IS 0, YOU DO NOT NEED TO COMPLETE PART II. PROCEED TO PART III AND USE A RAC SCORE OF 5 TO DETERMINE YOUR APPROPRIATE ACTION.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other rated factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD
(Circle all values that apply)

A. Location of OEW Hazards	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings and Structures	3
Subsurface	2
Location <u>(Select the single largest value)</u>	<u>5</u>
What evidence do you have regarding location of OEW? <u>Surface evidence of explosive ordnance was found in multiple locations.</u>	

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, playgrounds, and buildings).	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1
Distance <u>(Select the single largest value)</u>	<u>5</u>
What are the nearest inhabited structures? <u>Various buildings of the post cantonment area.</u>	

C. Numbers of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	5
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0
Number of Buildings <u>(Select the single largest value)</u>	<u>5</u>

Narrative. South and east edges of Fort McClellan cantonment area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	5
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0
Types of Buildings <u>(Select the largest single value)</u>	<u>5</u>

Describe the types of buildings in the area. Typical buildings associated with an Army cantonment area.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g. in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	(4)
A barrier, (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated site	1
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates, or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility).	0
<u>Accessibility (Select the single largest value)</u>	<u>4</u>

Describe the site accessibility. Access to Main Post can be controlled. Access to areas in the Choccolocco Corridor is not controlled.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Examples would be excessive soil erosion by beaches or streams, increasing land development that could reduce distances from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	(5)
None Anticipated	0
<u>Site Dynamics (Select largest value)</u>	<u>5</u>

Describe the site dynamics. Site is slated to be used by the Alabama National Guard and other users.

TOTAL HAZARD PROBABILITY VALUE

(Sum of Largest Values for A through F--Maximum of 30)
Apply this value to Hazard Probability Table 2 to determine
Hazard Probability Level.

29

TABLE 2
HAZARD PROBABILITY

<u>Description</u>	<u>Level</u>	<u>Hazard Probability Value</u>
FREQUENT	(A)	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

* Apply Hazard Probability Level to Table 3.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level	FREQUENT <u>A</u>	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:					
CATASTROPHIC I	1	1	2	3	4
CRITICAL II	1	2	3	4	5
MARGINAL III	2	3	4	4	5
NEGLIGIBLE IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-ES--commercial (205) 895-1582.
- RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.
- RAC 3 Complete INPR - Recommend further action by CEHNC.
- RAC 4 Complete INPR - Recommend further action by CEHNC.
- RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

=====

Part IV. Narrative. Summarize the documented evidence that supports this Risk assessment. If no documented evidence was available, explain all the assumptions that you made.

There is evidence that explosive ordnance has been used at this site since 1912. There is also evidence that CWM contamination may also exist.

APPENDIX B

GLOSSARY AND ACRONYMS

APPENDIX B
CHEMICAL GLOSSARY

Acronym	Name	Type of Agent
CG	Phosgene	Choking
DP	Diphosgene	Choking
GA	Tabun	Nerve
GB	Sarin	Nerve
GD	Soman	Nerve
VX	VX	Nerve
AC	Hydrogen Cyanide	Blood
CK	Cyanogen Chloride	Blood
SA	Arsine	Blood
HD	Distilled Mustard	Blister
HN-1	Nitrogen Mustard	Blister
HN-2	Nitrogen Mustard	Blister
HN-3	Nitrogen Mustard	Blister
CX	Phosgene Oxime	Blister
L	Lewisite	Blister
HL	Mustard-lewisite	Blister
PD	Phenyldichloro-arsine	Blister
ED	Ethyldichloro-arsine	Blister
MD	Methyldichloro-arsine	Blister
DA	Diphenylchloro-arsine	Vomiting
DM	Adamsite	Vomiting
DC	Diphenylcyano-arsine	Vomiting
CN	Chloroaceto-phenone	Tear
CNC	Chloroaceto-phenone in Chloroform	Tear
CNS	Chloroaceto-phenone and Chloropicrin in Chloroform	Tear
CNB	Chloroaceto-phenone in benzene and Carbon Tetrachloride	Tear
CA	Bromobenzylcyanide	Tear
CS	O-chlorobenzyl- malononitrile	Tear

BZ	BZ	Incapacitating
BG	Bacillus globigii	Biological Simulants
SM	Serratia marcescens	Biological Simulants

OTHER CHEMICAL CORP TERMS

BW	Biological Warfare
CBR	Chemical, Biological, Radiological
NBC	Nuclear, Biological, Chemical
Rad.	Radiological

GLOSSARY AND ACRONYMS

AAF	Army Airfield
AA	Anti-Aircraft
AOC	Area of Concern
AEC	Army Environmental Center
AGO	Adjutant General's Office
AIT	Advance Individual Training
AOC	Area of Concern
AP	Armor Piercing
APDS	Armor Piercing Discarding Sabot
APERS	Antipersonnel
APT	Armor Piercing with Tracer
ASP	Ammunition Supply Point
ASR	Archives Search Report
Aux	Auxiliary
BAR	Browning Automatic Rifle
BD	Base Detonating
BD/DR	Building Demolition/Debris Removal
BE	Base Ejection
BGR	Bombing and Gunnery Range
BIRTC	Branch Immaterial Replacement Training Center
BLM	Bureau of Land Management
BRAC	Base Realignment And Closure
CADD	Computer-Aided Design/Drafting
Cal	Caliber
CBDA	Chemical and Biological Defense Agency
CBDCOM	Chemical and Biological Defense Command
CBR	Chemical, Biological, Radiological
CDTF	Chemical Decontamination Training Facility
CMTC	Citizens Military Training Camps
CE	Corps of Engineers

APPENDIX B

GLOSSARY AND ACRONYMS (cont'd)

CEHNC	Corps of Engineers, Huntsville Engineering and Support Center
CEHND	Corps of Engineers, Huntsville Division (Old)
CEMVS	Corps of Engineers, St. Louis
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CFR	Code of Federal Regulations
cfs	Cubic Feet Per Second
COE	Chief of Engineers
COMP	Composition
CTG	Cartridge
CSM	Chemical Surety Material
CSM	Command Sergeant Major
CWM	Chemical Warfare Material
CWS	Chemical Warfare Service
CX	Center of Expertise
DA	Department of the Army
DARCOM	Development and Readiness Command
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DERP-FUDES	Defense Environmental Restoration Program- Formerly Used Defense Sites
D&I	Detection and Identification
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of Interior
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
EOD	Explosives Ordnance Disposal
EPA	Environmental Protection Agency
ERDA	Environmental Restoration Defense Account
FDE	Findings and Determination of Eligibility
FFE	Flame Field Expedient
FFMC	Federal Farm Mortgage Corporation
FLCH	Flechette
FORSCOM	Forces Command
FS	Feasibility Study
FTMC	Fort McClellan
FWS	U.S. Fish and Wildlife Service

APPENDIX B

GLOSSARY AND ACRONYMS (cont'd)

FUDS	Formerly Used Defense Sites
GIS	Graphic Information System
GSA	General Services Administration
HE	High Explosive
HEAT	High Explosive Anti-Tank
HEI	High Explosive Incendiary
HEP	Plastic
HE-S	Illuminating
HTRW	Hazardous Toxic and Radioactive Waste
HTW	Hazardous and Toxic Waste
IAS	Initial Assessment Study
IAIT	Infantry Advance Individual Training
INPR	Inventory Project Report
IRP	Installation Restoration Program
IRTC	Infantry Replacement Training Center
MG	Machine Gun
MG	Major General
mm	Millimeter
MT	Mechanical Time
MTSQ	Mechanical Time Super Quick
NARA	National Archives and Records Administration
NAS	Naval Air Station
NBC	Nuclear, Biological, Chemical
NCDC	National Climatic Data Center
NCP	National Contingency Plan
NFS	National Forest Service
NG	National Guard
NGVD	National Geodetic Vertical Datum
NOAA	National Oceanic and Atmospheric Administration
NOFA	No Further Action
NPRC	National Personnel Records Center
NRC	National Records Center
OE	Ordnance and Explosives
OEW	Ordnance and Explosive Waste
ORC	Organized Reserve Corps
OSHA	Occupational Safety and Health Act
PA	Preliminary Assessment
PD	Point Detonating

APPENDIX B

GLOSSARY AND ACRONYMS (cont'd)

PIBD	Point Initiating, Base Detonating
PL	Public Law
QASAS	Quality Assurance Specialist Ammunition Surveillance
RA	Removal Action
RAC	Risk Assessment Code
RD	Remedial Design
RG	Record Group
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROTC	Reserved Officers Training Corps
RTC	Recruit Training Center
SARA	Superfund Amendments and Reauthorization Act
SCS	Soil Conservation Service
SLD	St. Louis District, Corps of Engineers
SOP	Standard Operating Procedure
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SWMU	Solid Waste Management Units
TAY	Toxic Agent Yard
TECOM	Test Evaluation Command
TEU	Technical Escort Unit
TNT	Trinitrotoluene
TP	Target Practice
USA	United States of America
USACE	U.S. Army Corps of Engineers
USADACS	U.S. Army Defense Ammunition Center and School
USAED	U.S. Army Engineer District
USAEDH	U.S. Army Engineer Division, Huntsville, AL (Old)
USAESCH	U.S. Army Engineering and Support Center, Huntsville, Alabama
USATHMA	U.S. Army, Corps of Engineers, Toxic and Hazardous Materials Agency
USC	United States Code
USDA	U.S. Department of Army
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UXO	Unexploded Ordnance
WAA	War Assets Administration
WD	War Department
WNRC	Washington National Records Center

APPENDIX C

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