



US Army Corps
of Engineers
Rock Island District



Defense Environmental Restoration Program
for
Formerly Used Defense Sites
Ordnance and Explosives

Archives Search Report

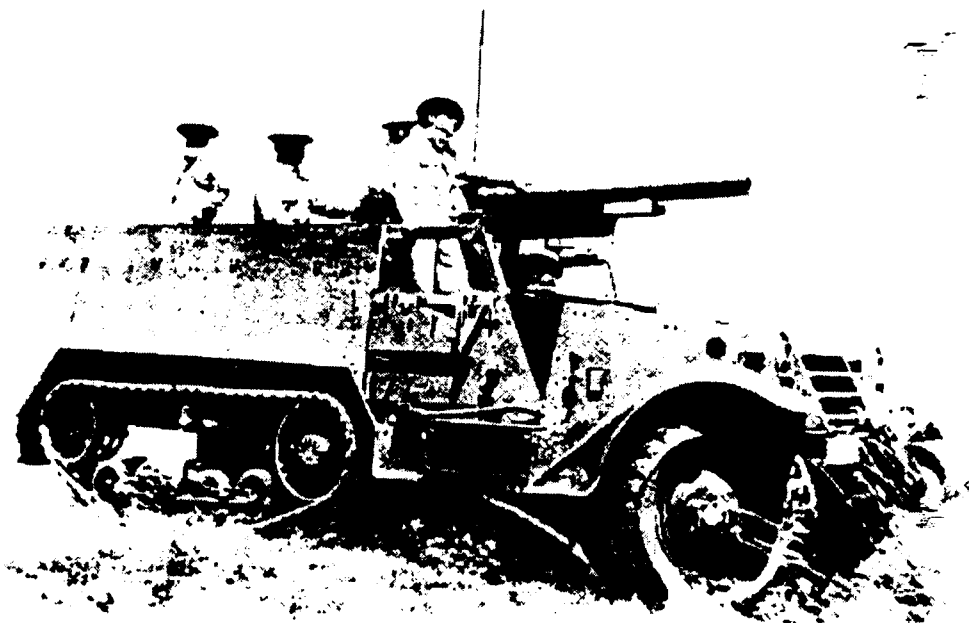
FINDINGS

for
the former

CAMP COXCOMB

FREDA, CA
PROJECT NUMBER J09CA027401

SEPTEMBER 1996



DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
for
FORMERLY USED DEFENSE SITE

FINDINGS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

SEPTEMBER 1996

Prepared For

U.S. Army Corps of Engineers
Engineering and Support Center, Huntsville
ATTN: CEHNC-OE
P.O. Box 1600
Huntsville, Alabama 35807-4301

Prepared by

U.S. Army Corps of Engineers
Rock Island District
ATTN: CENCR-ED-DO
P.O. Box 2004
Rock Island, Illinois 61244-2004

and

U.S. Army Defense Ammunition
Center and School
ATTN: SIOAC-ES
Savanna, Illinois 61074-9639

ORDNANCE AND EXPLOSIVES
 ARCHIVES SEARCH REPORT
 FOR
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 PROJECT NUMBER J09CA027401

ACKNOWLEDGMENT

The following personnel provided support as indicated:

Function	Name	Title	Organization	Telephone
On-Site Assessment	Nickolas Heleg- Greza*	UXO specialist	CENCR-ED-DO	(309) 794-6052
	David G. Lakeman	Quality Assurance Specialist Ammunition	CENCR-ED-DO	(309) 794-6127
	Kevin Marker	Technician	CENCR-ED-DO	(309) 794-6026
Engineerin g Support	Daniel J. Holmes	Civil Engr, P.E.	CENCR-ED-DO	(309) 794-6080
Technical Library Search	Larry Dauphin	Quality Assurance Specialist Ammunition	SIOAC-ESL	(815) 273-8867
Geographic District Support	Greg Boghossian	Technical Manager	CESPL-ED-MI	(213) 452-3722
Industrial Hygiene	Bob Platt	Industrial Hygienist	MCXP-RIA	(309) 782-0806
CADD	Kevin Marker	Technician	CENCR-ED-DO	(309) 794-6026
* Team Leader				

ORDNANCE AND EXPLOSIVES
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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
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PROJECT NUMBER J09CA027401

1. INTRODUCTION

a. **Subject and Purpose**

(1) This report represents the findings of a historical records search and site inspection for ordnance and explosive (OE) and chemical warfare material (CWM) presence located at the former Camp Coxcomb, Freda, Riverside County, California (see plate 1). The investigation was performed under the authority of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP FUDS).

(2) The investigation focused on the 11,520 acres of leased land, known as Camp Coxcomb and the immediate land to the west.

(3) The purpose of this investigation was to characterize the site for potential OE contamination, to include conventional ammunition and chemical warfare material (CWM). The investigation was conducted by experienced ordnance experts through thorough evaluation of historical records, interviews, and on-site visual inspection results.

b. **Scope**

(1) This report presents the site history, site description, real estate ownership information, and confirmed ordnance presence (prior to and after site closure), based on available records, interviews, site inspections, and analyses. The analyses provide a complete evaluation of all information to assess current day potential ordnance contamination, where actual ordnance presence has not been confirmed.

(2) For the purpose of this report, OE contamination consists of live ammunition, live ammunition components, CWM or explosives which have been lost, abandoned, discarded, buried, fired, or thrown from demolition pits or burning pads. These items were either manufactured, purchased, stored, used, and/or disposed of by the War Department/Department of Defense. Such ammunition/components are no longer under accountable record control of any DOD organization or activity.

(3) **Expended** small arms ammunition (.50 Cal or smaller) is **not** considered OE contamination. OE further includes "explosive soil" which refers to any mixture in soil, sands, clays, etc., such that the mixture itself is explosive. Generally, 10 percent or more by weight of secondary explosives in a soil mixture is considered explosive soil.

2. PREVIOUS INVESTIGATIONS

a. **DERP FUDS Preliminary Assessment, 11 February 1994**

A DERP FUDS Inventory Project Report (INPR) for the former Camp Coxcomb (Site Number J09CA027400) was conducted in February, 1994 (see Table 2-1) and recommended further investigation of the site due to its former uses. An OE potential existed and its presence could constitute a safety hazard. A Risk Assessment Code (RAC) value of 4 was assigned based on the area's former usage and the possibility of an OE presence.

TABLE 2-1				
DERP-FUDS PRELIMINARY ASSESSMENT PROJECTS				
Project Number	DERP Category	Present Phase	Comments	Location
J09CA027401	OE	SI	Potential Ordnance or Explosive Contamination	11,620 Acres
	HTRW		None Recommended	
	BD/DR	N/A	None Recommended	

b. **Other Investigations**

The ASR team did not uncover any other investigations or reports pertinent to this investigation.

3. SITE DESCRIPTION

a. **Existing Land Usage**

(1) The former Camp Coxcomb is generally located along the west side of present California highway 177, approximately 16 miles northeast of Desert Center and 24 miles southwest of Freda, California within T2S, R16E Sections 35,36 (San Bernardino Meridian) and T3S, R16E Sections 1,2,11-15, 21 (east ½), 22-27, 34,35,36 (south ½) (see plate 1). The FDE defines the site as being 11,520 acres. However, the site inspection team discovered an additional 100 acres contiguous with, but exterior to the FDE established boundaries. The additional acreage, a portion of Range 4, increases the total to 11,620 acres. Recommend the FDE be adjusted accordingly

(2) Today, the land is being utilized as a recreational and a wildlife conservation area. The California Desert Plan has designated the entire area as Multiple Use Class M and is in the process of upgrading the dirt roads to passable conditions. In addition, a monitoring program was implemented to ensure the stability of the site. Preservation of the site and protection from damage are the primary concerns of the Bureau of Land Management (BLM).

(3) The Colorado River Aqueduct passes through a narrow portion along the western boundary of the site. The property is owned by the U.S. Department of Interior (DOI) and is under the jurisdiction of the (BLM). There is a 50 foot easement on either side of the Colorado River Aqueduct centerline, which is owned by the Metropolitan Water District of Southern California (see plate 7).

(4) Official records show numerous mining claims have been established on the site however, it is not known how many are still valid. The current law requires a record maintenance fee be paid by claim-holders and many of these claims may have lapsed.

(5) Table 3-1 is a recapitulation of the current land usage for the former Camp Coxcomb.

TABLE 3-1 CURRENT LAND USAGE					
Area	Former Usage	Present Owner	Current Usage	Size Acres	Comments
A	Headquarters Area (Bomb Target)	Dept. of Interior	Wildlife Conservation	26	see plate 3
B	Garbage Dump Area	Dept. of Interior	Wildlife Conservation	20	see plate 3
C	Garbage/OE Dump Area	Dept. of Interior	Wildlife Conservation	16	see plate 3
D	Camp Site Area	Dept. of Interior	Wildlife Conservation	4,117	see plate 3
E	Surrounding Lands Area	Dept. of Interior	Wildlife Conservation	7,129	see plate 3
F	Range 2 Area . Small Arms Range	Dept. of Interior	Wildlife Conservation	42	see plate 3
G	Range 3 Area Submachine Gun Range	Dept. of Interior	Wildlife Conservation	42	see plate 3
H	Range 4 Area Rifle Range (Includes Additional Acreage)	Dept. of Interior	Wildlife Conservation	155	see plate 3
I	Hand Grenade Range	Dept. of Interior	Wildlife Conservation	21	see plate 3
J	Bomb Target Buffer Zone	Dept. of Interior	Wildlife Conservation	52	see plate 3
TOTAL FDE Acres				11,520	
TOTAL Additional Acres				100	
TOTAL Acreage				11,620	

b. Climatic Data

(1) The regional climate is influenced by two main sources of air movement. From fall through spring, the area is affected by a northern and middle latitude Pacific air movement which crosses the Sierra Nevada Mountains. As this moist air moves east from the Pacific, the mountains deplete the moisture creating a rain shadow effect over the Great Basin and Mojave deserts. During the summer and early fall months a tropical air mass from the southern Pacific

and the Gulf of Mexico dominates the region (Reference B-19).

(2) The eastern portion of Riverside County, CA, is characterized as an arid area with annual precipitation totaling less than 4 inches. An occasional thunderstorm can produce a sudden heavy rain shower with the resulting flash flood. These flash floods cascade swiftly and forcibly down the mountain sides, eroding the surface and are dangerous to anyone caught in their path.

(3) The relative humidity is moderate to low throughout the year. The yearly early morning average reading is 45 percent that drops to 20 percent in the afternoons.

(4) The normal desert wind speed is 8 miles per hour and flows from a southern or westerly direction.

(5) The average daily and seasonal temperatures for the Camp Coxcomb area is influenced by general air movement from the surrounding mountains and desert topography. June and September have the highest monthly temperatures averages with 91.4° degree Fahrenheit (°F). The summer daily temperatures can rise to above 110 °F in the shade and drop into the 70 °F range at night. The monthly winter average temperatures range is between 53 °F and 63 °F during the day. The winter evening temperatures can drop below freezing with strong winds that can result in an exposed flesh hazard.

c. **Topography**

(1) The topographic features of the Camp Coxcomb Mountain area are typical of the Basin and Range Physiographic Province. This consists of long, north-south lying mountain ranges that are separated by broad alluvium-filled valleys and dry lake beds. The primary mountain ranges of the area between Desert Center and Freda, California, are the Coxcomb, Granite, Iron, Little Maria, Old Woman, Palen and Turtle. The predominant dry lake beds of the area are Danby and Cadiz.

(2) The terrain features range from approximately 200 feet above sea level to over a 1,000 feet in the higher

elevations. The slope of the terrain increases from 5 percent or less on the valley floors to over 20 percent in the foothills. Near the mountain peaks the slope angles can exceed 45 percent. Most of the upland terrain is heavily dissected by gullies with steep sides and washes that carry the infrequent rain water to the desert floor.

d. **Geology and Soils**

(1) The soils around the subject site are of a dissected piedmont alluvial plain which formed over millions of years. These alluvial plains (valleys) were formed when great land masses were uplifted due to tectonic plate shifting and volcanic action forming the various mountain chains. The bed rock is made of granite produced by the extreme pressures of tectonic shifting and volcanic formations. The rocky layers near the surface are mainly basalt, which is porous rocks formed from volcanic activities. This has been slowly chipping away, forming an immature sandy soil. This immature sandy soil is the predominant soil feature of this site.

(2) In a representative profile the surface layer is covered by a close fitted pavement of gravel coated with dark brown to black desert varnish on top and tinted red or orange on the bottom. The next layer is about one and a half inch of bleached, pale brown, very gravelly silt loam. Underneath this layer lies an approximate fourteen inch layer of light brown silty clay loam and very gravelly clay loam. At a depth of about sixteen inches, the layers appear as light brown, very cobbly and gravelly fine sandy loam that may extends to a depth of more than sixty inches.

(3) The vegetation in this area is typical of that found in the Colorado Desert and is represented by creosote bush, grasses, and abundant low desert shrubs. The water runoff from localized storms exerts an important effect on the area ecology. Large iron wood and palo verde trees line the many shallow washes that support a wide variety of desert plant and animal life.

(5) Since the generally accepted disposal practice of that era was to burn or use land burial, the assessment team paid particular attention to any large anomalies on the magnetic locator. During the site visit, the SI Team hear rumors of ordnance burial sites at Camp Coxcomb. The team did not uncover any evidence of ordnance burial sites, but did uncover two dumping areas in areas C and D.

e. Confirmed Ordnance Areas

Two Camp Coxcomb FDE areas were determined to have **confirmed** OE. Areas **A** and **I** are confirmed with ordnance contamination. Area **A** is based on the presence of several practice bombs that were dropped on the area. There is no direct documented evidence that would verify the authorized use of ordnance in this area. There is an implied usage in a request memorandum from the Army Air Corps to use this area as a precision bombing range. That request was denied, but obviously several pilots chose to ignore the denial. Area **I** contained fragments of high explosive grenades.

f. Potential Ordnance Areas

Three areas, **B**, **C** and **J** were determined to have **potential** for OE. Potential ordnance contamination is based on evidence of ordnance packing material, shipping plugs and ordnance preservation material discovered in area **B** and the potential of the same in area **C**. Area **J** is a buffer zone established around the bomb target comprising the former headquarters area **A**. Inference from historical records would include unsound practices in production, storage, usage, or disposal, at that time, which would have allowed present day ordnance contamination. Potential ordnance contamination could also be based on indirect witness or from present day site features. Additional field data is needed to confirm potential ordnance sub-sites.

g. **Uncontaminated Ordnance Areas**

The rest of the site, Areas D, through H are considered as **uncontaminated**. Uncontaminated ordnance areas are based on a lack of confirmed or potential ordnance contamination. The Risk Assessment (RAC) and table 2-1 are based on this premise.

h. **Other Environmental Hazards**

Areas B and C (Dump Areas) may present an additional environmental hazard that could initiate a HTRW. No additional BD/DR hazards were observed during the site visit.

3. RECOMMENDATIONS

a. **Summary of Recommendations**

Table 3-1 provides a summary of recommended actions.

TABLE 3-1 SUMMARY OF RECOMMENDATIONS								
Area	Former Usage	Size/ Acres	PA Actions	OE Actions			HTRW Actions	BD/DR Actions
			Prepare INPR	No Further Action	Implement Interim Removal	Perform EE/CA	Perform SI	Perform SI
A	Headquarters Area *	26	-	-	-	Yes	-	-
B	Garbage Dump Area	20	-	-	-	Yes	**	-
C	Garbage/OE Dump Area	16	-	-	-	Yes	**	-
D	Camp Site Area	4,117	-	Yes	-	-	-	-
E	Surrounding Lands Area	7,129	-	Yes	-	-	-	-
F	Range 2, SMALL Arms Range	42	-	Yes	-	-	-	-
G	Range 3, Sub machine Gun Range	42	-	Yes	-	-	-	-
H	Range 4, Rifle Range	155	-	Yes	-	-	-	-
I	Hand Grenade Range	21	-	-	-	Yes	-	-
J	Bomb Target Buffer Zone	52	-	-	-	Yes	-	-
Total Acres		11,620						

* Later used as bomb target

** If EE/CA warrants an SI

TABLE 3-2 (Continued)
NATURAL, HISTORICAL & CULTURAL RESOURCES

Resource Classification	Type	Comments
Plants		
	Munz's Onion	PE
	Coachella Valley Milkvetch	PE
	Triple-Ribbed Milkvetch	PE
	San Jacinto Valley Crownscale	PE
	Nevin's Barberry	PE
	Parish's Meadowfoam	PE
	Thread-Leaved Brodiaea	PT
	Vail Lake Ceanothus	PT
	Prostrate Navarretia	PT
	Johnston's Rock Cress	C1
	Sticky-Leaved Dudleya	C1
	Little San Bernardino Mtn. Gilea	C1
	San Bernardino Blue Grass	C1
	Hidden Lake Bluecurls	C1
Historical	Nominated for National Historic Place	Coordinate With SHPO
Cultural	Archaeological Site	Coordinate With SHPO

4. HISTORICAL ORDNANCE PRESENCE

a. **Chronological Site Summary**

(1) In May 1942, the U.S. War Department, through Public Land Order #1 and an implied transfer, withdrew approximately 106,000 acres of public and non-public lands for use as a Desert Training Center. The records reveal that no formal permission was obtained from the U.S. Department of the Interior for the transfer (see document G-1, G-2, G-3).

(2) By simulating an overseas theater of operations the DTC conducted an intensive thirteen week training course for combat and survival under desert conditions. All basic, small unit and large unit training would be completed prior to arrival to this simulated theater. The combat service support unit's role constituted an advance training period prior to an overseas combat zone departure. During training at DTC, commanders and ground forces gained experience on the employment of aviation in

support of ground troops by intensive training conducted on aircraft recognition, air-ground communication, close air-support coordination, target designation, camouflage techniques, antiaircraft procedures, along with supply of ground forces by air (see document F-5). The DTC commanders desired realism in the training and maneuvers, so 'live' ammunition was used to give the troops a sense of what combat is like. An additional mission of the DTC was to evaluate new equipment and give recommendations for improvements (see document F-3).

(3) From the above transferred acreage, Camp Coxcomb was established using 10,560 acres of public lands and 960 acres from the State of California via Revocable Permit No. 12 for a total of 11,520 acres (see documents G-1, G-2, G-3 and L-1).

(4) The campsite was constructed with 22 numbered streets, 1st through 21st street and six named perpendicular to the numbered streets. (see plate 2, Documents F-1 and K-1). There were numerous temporary improvements to sustain a division sized unit. A list of the improvements are in Document F-2.

(5) In October 1943, the DTC's name was changed to the California-Arizona Maneuver Area (CAMA). This change reflected the alterations of size and purpose, plus the desert conflict in North Africa had ended. Even before the name change, the CAMA's mission was being scaled down. The major reason for the scale down was a critical shortage of transportation and communication specialists, who were rapidly being shipped overseas in 1943. Because this shortage in service personnel was severely interfering with the mission, the current commander recommended the closing of the CAMA.

(6) Camp Coxcomb was declared surplus on March 30, 1944 and the current occupants were directed to close down and clean up the facilities (see document F-12). Consideration was given to the locating and disposing of unexploded ordnance. It was recognized that practically the entire maneuver area had been used for 'live' firing during a period of approximately one and a half years. In the majority of cases no firing records or range cards were recorded or maintained (see document F-17).

(8) Within the capabilities of the available troops, work on locating and disposing of duds was carried out in the Coxcomb area. The ongoing training requirements and preparations for troop movements prevented any extensive troop use to search for duds. The units were tasked to restore these areas to their original condition. This mission exceeded the capabilities of the available units and many areas were left "as is" for the Los Angeles Corps of Engineers District to clean up (see document F-17).

(10) By the end of April 1945, Camp Coxcomb had been evacuated of personnel, supplies, and readily removable property. The site was policed in accordance with field sanitation standards. The camps were dismantled and operational equipment was readied for overseas shipment. Unserviceable or abandoned equipment, supplies, tentage, stoves, and similar movable items were shipped to the base depot at Freda. The reclaimed lumber was used for boxing and crating of equipment going overseas (see document F-17).

(11) Permit No. 12 granted by the State of California for the use of 960 acres was terminated on November 11, 1944. Permit No. 12 contained a restoration clause that required the removal of improvements and restoration of the property to as near the original condition as possible. However, the State of California, in a letter sent to the War Department on March 8, 1945, refused to sign a release from liability claims. A letter was sent to the State of California on September 5, 1946 certifying that the premises had been inspected and that there were no government improvements remaining on the property (see documents G-6 and G-7).

(12) On September 2, 1949 the remaining 10,560 acres were relinquished to the U.S. Department of the Interior. A September 2, 1949 letter, to the U.S. Bureau of Land Management (BLM) from the Army Corps of Engineers, stated that all improvements to the site were removed, but that sections 15, 21 (East ½), 22, 27 and 34 were to be restricted to surface use because high explosive munitions were used (see documents G-8 and G-9).

(13) Between 1947 and 1952, a second large scale ordnance disposal and clearance operation of CAMA was

conducted under the supervision of the U.S. Army Corps of Engineers. Camp Coxcomb was swept and a recommendation was made to restrict its use to surface use only (see document F-18).

(14) The Department of Defense conducted a military exercise in the former DTC/CAMA, from 17-30 May 1964. The U.S. Sixth Army conducted a joint military exercise code named, Desert Strike. Desert Strike was a simulated nuclear weapons exercise. The main purpose of this exercise was to train major combat and support organizations in joint operations employing tactical nuclear (simulated) as well as conventional weapons (see documents F-23, F-24 and plate 8)

b. Review of Ordnance Related Records

(1) Research efforts for the former Camp Coxcomb began with a thorough review of all reports, historical documents and reference material gathered during the archives search. During this review, an effort was made to focus on areas of confirmed and/or potential OE contamination.

(2) Records affiliated with ordnance related activities at the DTC were obtained from the National Archives. The National Archives provided report documents giving information on ammunition requested for training at DTC, a list of chemical ammunition authorized by Commanding General, Army Ground Forces for use used at the DTC and various maps.

(3) Paved roads were off limits to participating troops, and certain restrictions in crossing railroads and the aqueduct were obligatory, but in all other respects, maneuver was free and controlled only by the tactical situation (see document F-6, page 2).

(4) A selected type of Chemical Warfare Material (CWM) was used during training activities conducted at the DTC. No documents associated with DTC and Camp Coxcomb state the presence or use of casualty causing, toxic, CWM. During World War II, non-casualty causing munitions such as incendiaries, screening smokes and harassing gases were considered CWM. The Commanding General, Army Ground Forces

authorized the use of HC and CN smoke pots, empty chemical land mines, and CNB tear gas solution for training purposes. During maneuver training, the units used colored smoke grenades and smoke pots to marking their positions when coordinating close air-support. Training documents exists that discuss chemical attacks on troops during maneuvers. Aircraft would spray tear gas over maneuver units for additional training on the use of chemical protective gear (see documents F-4, F-5, and F-6).

(5) Table 4-1 lists the major combat equipment that was used by various divisional units when they were assigned to Camp Coxcomb.

TABLE 4-1	
Major Combat Equipment	
Camp Coxcomb, 1942-1944	
Nomenclature	Armament
Tank, Light, M3 Stuart	37mm, .30 caliber
Tank, Medium, M3 Grant	37mm, 75mm, .30 cal
Tank, Medium, M4 Sherman	75mm or 76mm, .30 cal, .50 cal
Tank, Destroyer, M10	3-inch, .50 cal
Mortar, Light	60mm
Mortar, Medium	81mm

(6) Several documents exist that confirm the presence and use of explosive ordnance in and around the Camp Coxcomb site (see documents F-2, F-5, F-6, F-15, F-17 through 22 and 26).

(7) A hand drawn map, that depicts the general camp layout with respect to the seven firing range locations, shows seven documented fixed firing ranges. The data indicates that .30 caliber automatic rifles, carbines, rifles and .45 caliber submachine guns and pistols were used (see document F-1).

(8) During field maneuvers, the units protected themselves from close in simulated hostile forces with their

individual assigned weapons such as .45 caliber pistols/submachine guns, .30 caliber bar/carbines/rifles, Mark II fragmentation grenades and bazookas (see document F-15).

(9) A document supporting the first dedudding activity could not be located, but is hinted in several correspondences between the COE, LA District and the state of California (see document F-17, F-18 and F-19).

(10) A large scale ordnance disposal and clearance operation of the former CAMA was conducted between 1947 and 1952 under the supervision of the U.S. Army Corps of Engineers (USACE). The Camp Coxcomb area received a surface sweep only, no attempted was made to do a subsurface sweep. A certificate of clearance and associated affidavits were provided by the USACE for the Coxcomb Divisional Camp with a "restricted to surface use only". The reason for this restriction was the possibility of practice land mines and energetic material existing below the surface (see documents F-18 and L-5).

(11) A dud clearance operation was discussed in a 1956 letter from the Los Angeles USACE District to the BLM, subject: CAMA Dedudding (see documents F-19 and L-5).

(12) The Bureau of Land Management has indicated that they have no reports or records of personal injury or death due to unexploded ordnance from the site in the past 10 years. The 259th Explosive Ordnance Disposal (EOD), Fort Irwing, California, has no record regarding ordnance found in the Camp Coxcomb area.

(13) The EOD Headquarters in Fort Gillem, Georgia has no records of injury or death associated with unexploded ordnance.

c. Interviews With Site-Related Personnel

(1) Efforts to locate individuals who had served or had first hand knowledge of Camp Coxcomb was successful. Personal interviews were conducted with local U.S. Fish and Wildlife Service employees, Bureau of Land Management employees, site-related personnel and local law enforcement officers in obtaining information about the Camp Coxcomb.

(2) Mr. William Wiley is a HAZMAT Specialist and has been employed with the Bureau of Land Management (BLM) for the past ten years with duties at the Needles, CA office. He provided site related information and maps from the BLM files that defined areas of possible contamination around Camp Coxcomb. Mr. Wiley stated that the site has been picked over by scavenger and souvenir hunters over the past fifty years. Mr. Wiley was concerned that dumps located within the Desert Training Center may contain unexploded ordnance similar to the dumpsite near Goeff, California (see document I-1).

(3) Mr. Robert Lyons is a deputy with 12 years experience in the San Bernardino County Sheriff's Office. A life long resident of the area, he is actively involved with their search and rescue missions. Mr. Lyons stated that ordnance has been found throughout the desert area (especially Ward Valley) over these past fifty years but could not relay any specific examples (see document I-2).

(4) Mr. Butch Gates has worked with the San Bernardino County Sheriff's office since 1972 and is described as the "local expert" when it comes to the California/Arizona Maneuver Area (CAMA). Many refer to Mr. Gates as the "map man" because he has documented the area extensively through his work with the search and rescue missions. These documents are in the form of maps, photos, and first hand knowledge of ordnance areas throughout the CAMA. Mr. Gates supplied the inspection team with some of the maps and photographs. He stated that throughout Ward Valley and Palen Pass area the Army conducted live fire training exercises and he has personally discovered practice items there. Mr. Gates is familiar with Operation Desert Strike that took place around the former CAMA in the early 60's because, evidence in the form of spent cartridge cases litter the desert where the exercise took place (see document I-3).

(5) Mr. John Lynch, a retired Air Force Officer and military historian from Phoenix, Arizona, accompanied the inspection team on an earlier site visit to the camps in and around Freda, CA. He provided maps and photographs showing the location of each camp and their firing ranges. Mr. Lynch explained the training procedures that were

utilized at Camp Coxcomb. In general the Army designated areas to be used as ranges, however, it appears that many of the units used targets of opportunity and fired into any available backstop. During his personal travels in and around the various camps, Mr. Lynch has had no direct contact with any ordnance or explosives (see document I-4).

(6) Mr. Stanley Ragsdale Sr, in his eighties, is a life long resident of Desert Center. He has personally located ordnance items throughout the former DTC/CAMA. The main areas of ordnance contamination are just west of Camp Coxcomb and the Palen Pass. He has a personal museum located next door to the Desert Center Cafe where items that were recovered are on display. These items include, landmines, expended illumination projectiles, 105MM through 155MM and other ordnance related items. He is an avid collector and does not miss any opportunity to collect any items of interest from the former DTC/CAMA (see document I-5).

(7) Mr. Jim Capp, a twenty-five year resident, owns a farm located between the former Camp Coxcomb and Desert Center. He has a mine adjacent to the southern boundary of Camp Coxcomb and has located much ordnance debris around this mine. He has observed ordnance and states that these items are still present in an area northwest of area 9 on plate 5 and section 33 on plate 6 (see document I-6).

(8) Local townspeople who are familiar with the training maneuvers, the BLM, and representatives from the Patton Museum stated that ordnance artifacts have been collected over the years by collectors and they believe that little, if any, remain on the site.

5. SITE ELIGIBILITY

a. **Confirmed Formerly Used Defense Site**

Former land usage by the United States War Department was confirmed for the former Camp Coxcomb. The Findings and Determination of Eligibility for this site defined 11,520 acres as eligible under the DERP FUDS Program (Table 2-1).

defined 11,520 acres as eligible under the DERP FUDS Program (Table 2-1).

b. Potential Formerly Used Defense Sites

(1) Several aerial photographs from the WWII era clearly depict activity beyond the FDE acreage. These were used as visual aids in locating the FDE documented Ranges 1, 5, 6 and 7.

(2) In the process of locating the above ranges, the Site Team uncovered an additional 3,076 acres that was utilized by the U.S. and was not addressed in the FDE. Although these areas were supposed to have been dedudded, much ordnance debris still exists. The mountains and draws are littered with pockets of ordnance related debris, i.e. pieces of fragments, fuzes, rifle grenade adapters, demolition material and cartridge cases.

(3) As noted in paragraph 4b, the Army had unlimited use of all lands within the Desert Training Center's maneuver area. Troops training at Camp Coxcomb engaged in practice firings at fixed firing ranges and during maneuvers located within the Desert Training Center's unlimited firing area boundary. Table 5-1 and Plate 4 provides general information on these areas of potential FUDS.

**TABLE 5-1
Additional Potential FUDS Sites**

Location	Apparent Area Usage	Approximate Acreage	Source of Evidence	OE Evidence	Remarks
1	Range 1 Infiltration Course	42	Document F-1	NONE	Tower debris and trenches
* 5	Range 5 Small Arms	42	Document F-1	NONE	Cartridge cases
6	Range 6 Infiltration Course	149	Document F-1	Mk II Grenade Demolition Material	End caps from TNT blocks, breaching charge debris, Electric firing wire and blasting cap debris, grenade fragments and small arms cartridge cases
7	Range 7 Coaxial tank table	330	Document F-1	NONE	Tank coaxial machine gun range, target stands, small arms cartridge cases

* Areas 2, 3 and 4 are ranges 2 - 4. They are FUDS approved by FDE dated 26 Sep 94, see Plate 3

TABLE 5-1 (continued)
Additional Potential FUDS Sites

Location	Apparent Area Usage	Approximate Acreage	Source of Evidence	OE Evidence	Remarks
8	Mounted and dismounted squad attack	214	Visual inspection	Grenade, hand & rifle, Demo material, 2.36 inch rocket	Foothills scarred w/small arms, remains of two rock bunkers, rocket fins, grenade frag & components, small arms cartridge cases everywhere
9	Live fire assault range	343	Visual inspection	Grenade, hand & rifle, Demo material, 2.36 inch rocket, 60MM & 81 MM mortar, artillery, possible bomb	Foothills scarred w/small arms, concertina wire barricades, target remains, rocket components, grenade frag & components, 60 & 81MM frag and components, frag from major caliber artillery, adapter booster from a bomb, small arms cartridge cases everywhere
10	Tank main gun table	569	Visual inspection	Grenade, .50 cal	Tank firing lanes, targets on hillside, unknown if OE is present on hillsides
11	Moving tank range	400	Visual inspection	Grenade, .50 cal	Tank tracks crisscrossing, UXO sign posted, rocks damaged by major caliber
12	Assault Ranges	947	Visual inspection	Grenade, .50 cal, Demo material	Anti-tank ditch, concertina wire, demo craters, grenade frag & small arms cartridges everywhere
13	Rifle grenade	40	Visual inspection	Rifle grenade components	Range within the levee berms, expended rifle grenade components
Total		3076			

6. VISUAL SITE INSPECTIONS

a. **General Procedures and Safety**

(1) On 17 through 23 April 1996, members of the SI team traveled to the former Camp Coxcomb located in Riverside County, California. The primary purpose of the team was to assess the OE presence or potential in the former Camp Coxcomb. The inspection was limited to non-intrusive methods, e.g., subsurface sampling was not authorized nor performed.

(2) A Site Safety and Health Plan (SSHP) was developed and utilized by the SI Team to assure safety from injury during the inspection of this site (Reference B-3). A safety briefing, which stressed that OE should only be handled by trained Explosive Ordnance Disposal (EOD) personnel, was conducted prior to the inspection for all personnel attending the on-site inspection. Site safety was

maintained at all times by the inspection team during the on-site inspection.

(3) Prior to the site visit, a thorough review of all available reports, historical documents, text, and technical ordnance reference material gathered during the historical records search portion of the ASR was made to ensure awareness of potential ordnance types and hazards.

(4) Real estate rights-of-entry were not obtained by the team due to the willingness of the current owner to allow the team to visit his property. As such, control and jurisdiction of the site remained with the owner during this inspection.

(5) Since a generally accepted disposal practice of that era was to burn or use land burial, the assessment team paid particular attention to any large anomalies on the magnetic locator. During the site visit, the Assessment Team heard rumors of ordnance burial sites at Camp Coxcomb. The team did not uncover any evidence of actual ordnance burial sites. However, the team did uncover two dumping areas described in areas C and D below.

b. **Area A: Headquarters Area** (Later used as bomb target)

(1) The former 26 acre headquarters area consisted of a one half circle with a smaller full circle that teed with the end of the main camp entrance road leading to California Highway 177. The smaller circle was the location of the camp flagpole with sidewalks radiating from the center in three directions (see photos J-3, J-4, J-5 and document K-1).

(2) The main landscape features in this area are the circles, defined by rock topped earth berms, and pebble sidewalks (see photos J-5 and J-16)

(3) The headquarters circle was used as a bomb target. The debris of three 100 pound M38 series and one 250 pound M57 series practice bombs lay in a straight line from southeast to northwest across the eastern edge of the circle.

(4) The 250 pound bomb was blown apart by someone countercharging it with demolition material. The results of the disposal operation resulted in a crater and large fragments of that bomb's heavy case strewn about the immediate area. There is concrete residue still adhering to some of the larger fragments (see photos J-16 and J-17).

(5) The three other practice bombs functioned as designed and are twisted pieces of scrap metal with no remaining explosive hazards (see photo J-15).

c. Area B: Garbage Dump

(1) This area of approximately 20 acres contains the remains of a landfill. This dump site contained general dump debris such as cans, oil drums, wood and wires. The area displays evidence of having been scavenged by souvenir hunters with the resulting uncovered trash strewn around the immediate area (see photo J-7).

(2) The area has been dug into by collectors who have littered the adjacent ground with dump debris. The magnetic detector indicated many buried anomalies in the area.

d. Area C: Garbage/OE Dump

(1) This area of approximately 16 acres contained the remains of a landfill. This dump site contained general dump debris such as cans, oil drums, wood, wires and destroyed ammunition packing material. The ammunition material consisted of mortar fiberboard tube remnants, metal end caps from these tubes, artillery shipping plugs and tins of Grease Artillery Automotive (GAA), a grease used to lubricate weapons.

(2) The area displays evidence of having been scavenged by souvenir hunters with the resulting uncovered trash strewn around the immediate area (see photo J-8). The magnetic detector indicated that many items are still buried.

e. **Area D: Camp Site Area**

(1) The 4,117 area main camp site landscape is generally flat, sandy soil, with a gentle slope to the east. The entire site is sparsely covered with waist high desert vegetation, which consists of sagebrush, thorn and scrub trees. A few yuccas tower over the lower lying vegetation and provide a reference point for navigating within the camp (see photos J-2 and J-6).

(2) Throughout the former campsite, many remnants from day-to-day life can be found. Approximately half of the streets and sidewalks are still visible with small rocks on top of sand curbs outlining the former pathways. These direct the visitor along the camp's interior roadways and provide a general north to south orientation. Other stone works such as rock designs of company symbols and insignias can be found near the headquarters circle area. Signs of hobby collecting activity and erosion are evident everywhere.

(3) Sawed off telephone poles dot the landscape in a single equally spaced line along the former Administration Road.

(4) A stone altar, which is in good condition, is one of two recognizable manmade structures on the former campsite. The other structure is a fenced in contour map of the DTC area. This map is in very poor condition (see photo J-2).

(5) Rusty nails, tin cans, small wire springs, empty 55 gallon oil drums, lumber framing and door hinges are scattered throughout the campsite grounds.

(6) Many vehicle tracks crisscross the area and meander around to no apparent destination.

(7) Due to the remote location of this site, the area has been abused by uncaring people who have turned the land into their personal trash dump. Litter, such as castoff refrigerators, stoves and the refuse from oil changes, is evident in many areas between the main campsite and the public highway.

(8) After a careful inspection of the site, the Site Inspection Team found no physical evidence of OE presence in this area.

f. **Area E: Coxcomb Surrounding Lands**

(1) The surrounding lands, which consists of approximately 7,129 acres, are comprised of mountains, barren rock and scrub-covered foothills. This area is generally located between the Colorado River Aqueduct and California Highway 177 at the base of Coxcomb Mountain. The vegetation is characteristic of creosote-bush scrub habitat of the lower Mojave desert. No significant historic resources are located within the area (see photo J-28).

(2) Treasure-hunting groups and individuals have visited and collected souvenirs from the camps and surrounding desert for years. These collectors have left the destructive handiwork signs of their collecting activities everywhere. The historical marker and main entrance monument as well as unexploded ordnance warning signs have been used as targets (see photo J-32).

(3) Miners' claims in the form of little rock piles dot the southern portion of the site near the mountain foothills. The foothills on this southern area of the site are heavily eroded with deep gullies and washouts. There is evidence that earth moving equipment was used in this area. In several spots the surface rocks have been graded and some of the gullies have been filled in forming a smooth surface (see photos J-11 and J-28).

(4) The area adjacent to the former Range 2, 1000 Inch Range, is a scene of destruction. Concrete bunker(s) and other earthworks have been torn down and graded into the earth with earth moving machinery. Some of the bunker reinforcement wires jut out of the soil like bones. There is no evidence that explosives were used in their destruction (see photo J-26).

(5) The area extending northward along the Colorado River Aqueduct (CRA) and wrapping around the north end of the site, appears to have had very little activity from collectors. Except for the roadway along the CRA,

there are relatively fewer vehicle tracks in the northern portion of the site.

(6) After a careful inspection of the site, the Site Inspection Team found no physical evidence of OE presence in this area.

g. Area F: Range 2, 1000 Inch Range

(1) This documented 25 meter range area comprised approximately 42 acres of flat barren shale and sand covered landscape. The terrain has a gradual rise to the mountain base south of the firing line. Except for the scarring caused by the bullets impacting into the soil, there is no other evidence of a range at this location. The firing line and a parking area depicted in aerial photographs was eradicated at the same time as the bunkers and other earthworks described in f(4) above (see document K-2 and photo J-11).

(2) After a careful inspection of the site, the Site Inspection Team found no physical evidence of an OE presence in this area.

h. Area G: Range 3, Cal .45 Submachine Gun

(1) Range 3 comprises approximately 42 acres. It lies on a scrub covered plain just west of the CRA. The WW II era entrance is in a low lying area between two levees. The surface is very soft sand which makes it impassable for anything except an all wheel drive vehicle. Once past the soft sand and onto higher elevations, approximately 50 meters, the ground is much firmer with a gradual rise to the mountain base.

(2) An aerial photograph clearly depicts the range as it was in May 1943 (see document K-2). There is very little surface evidence remaining of this range. Only the firing line and a few target stands define the range area.

(3) After a careful inspection of the site, the Site Inspection Team found no physical evidence of OE presence in this area.

i. **Area H: Range 4, 100-500 Yard Known Distant**

(1) Range 4 comprises approximately 220 acres. A major portion of Range 4, almost 75 percent, is located outside the FDE acreage. Target holders are present at the former 100, 200 and 300 yards distant from the firing line. The firing line and the remains of a tower are clearly visible in the sand (see photo J-18).

(2) This range lies on a scrub covered plain just west of the CRA, sharing the same the WW II era entrance with Range 3, is in a low lying area between two levees. The surface is very soft sand which makes it impassable for anything except an all wheel drive vehicle. Once past the soft sand and onto higher elevations, approximately 50 meters, the ground is much firmer with a gradual rise to the mountain base.

(3) After a careful inspection of the site, the Site Inspection Team found no physical evidence of OE presence in this area. Spent cartridges from the ranges former use as a rifle range were evident along the firing lines.

j. **Area I: Hand Grenade Range**

(1) This area is directly west of the CRA within a small 21 acre levee. The surface is soft sand and the remains of a semi permanent wooden structure, red clay tile underground waterlines and a fireplace are clearly visible. There is no apparent reason to have a range this close to the CRA and the main campsite.

(2) Hand grenade fragments and fuze components were uncovered in this area.

k. **Area J: Bomb Target Buffer Zone**

This 52 acre area was administratively added to provide a buffer zone for the bomb target on the former headquarters area. The landscape is the same as Area A. After a careful inspection of the area, the Site Inspection Team found no physical evidence of OE presence in this area.

7. EVALUATION OF ORDNANCE HAZARDS

a. **General Procedures**

(1) Each subsite was evaluated to determine confirmed, potential, or uncontaminated ordnance presence. Confirmed ordnance contamination is based on verifiable historical evidence or direct witness of ordnance items. Verifiable historical record evidence consists of ordnance items located on site since site closure and documented by local bomb squads, military Explosive Ordnance Disposal (EOD) Teams, newspaper articles, correspondence, and current findings. Direct witness of ordnance items consists of the site inspection team directly locating ordnance items by visual inspection. Additional field data is not needed to identify a confirmed site.

(2) Potential ordnance contamination is based on a lack of confirmed ordnance presence. Potential ordnance contamination is inferred from records or indirect witness. Inference from historical records would include common practice in production, storage, or disposal at that time which could have allowed present day ordnance contamination. Potential ordnance contamination could also be based on indirect witness or from present day site features. Additional field data is needed to confirm potential ordnance subsites.

(3) Uncontaminated ordnance subsites are based on a lack of confirmed or potential ordnance evidence. There is no reasonable evidence, either to direct or inferred, to suggest present day ordnance contamination. Additional field data is not needed to assess uncontaminated ordnance subsites.

b. **Area A: Headquarters Area:** (Later used as bomb target)

(1) Based on material collected during the ASR, the Coxcomb encampment headquarters area is considered a **confirmed OE** area due to its unintended former usage as a bomb target. There is reasonable evidence, either direct or inferred, to suggest that subsurface ordnance contamination may exist (see photos J15, J-16 and J-17).

c. **Area B: Garbage Dump**

(1) Based on material collected during the ASR, the Coxcomb encampment garbage dump area is considered as having an **OE potential**. There is reasonable evidence, either direct or inferred, to suggest that subsurface ordnance contamination may exist.

(2) Land burial was an accepted practice during the WW II era and the apparent indiscriminate use or the lack of control as to where ordnance was used is a good indicator. Table 5-1 reflects the uncontrolled use of OE in the general Camp Coxcomb area.

(3) The area where this dump is located was not dedudded whenever the dedudding was accomplished (see plate 5, document F-19 and photo J-8).

d. **Area C: Garbage/OE Dump**

(1) Based on material collected during the ASR, the Coxcomb encampment Garbage/OE dump area is considered as having an **OE potential**. There is reasonable evidence, either direct or inferred, to suggest that subsurface ordnance contamination may exist.

e. **Area D: Camp Site Area**

(1) Based on material collected during the ASR, the Coxcomb camp site area is considered **uncontaminated** with OE. There is no reasonable evidence, either direct or inferred, to suggest that ordnance contamination exists.

(2) OE related documents could not be located to indicate that OE was used in this area. There are no documents that reflect any incidents involving OE in this area.

f. **Area E: Coxcomb Surrounding Lands**

(1) Based on material collected during the ASR, the Coxcomb surrounding lands area is considered **uncontaminated** with OE. There is no reasonable evidence, either direct or inferred, to suggest that ordnance contamination exists.

(2) OE related documents could not be located to indicate that OE was used in this area. There are no documents that reflect any incidents involving OE in this area. The physical evidence indicates that the bunker(s) adjacent to the former Range 2 was destroyed with earth moving equipment (see photo J-26).

g. **Area F: Range 2, 1000 inch Range**

Based on material collected during the ASR, the Range 2 area is considered **uncontaminated** with OE.

h. **Area G: Range 3, Cal .45 Submachine Gun**

(1) Based on material collected during the ASR, this small arms range area is considered **uncontaminated** with OE.

(2) The Site Inspection Team discovered no OE on the actual range. However, the apparent uncontrolled use of OE on the lands west of the campsite, may indicate that OE could be present under the surface. The team's inspection of the foothills at the end of the range uncovered grenade and mortar fragments. The trend throughout the areas west of the campsite was to use any available rock wall as a target of opportunity.

i. **Area H: Range 4, 100-500 Yard Known Distant**

(1) Based on material collected during the ASR, this small arms range area is considered **uncontaminated** with OE.

(2) The Site Inspection Team discovered no OE on the actual range. There is reasonable evidence, either direct or inferred, to suggest that subsurface ordnance contamination may exist. The team's inspection of the foothills at the end of the range uncovered grenade and mortar fragments. The trend throughout the areas west of the campsite was to use any available rock wall as a target of opportunity.

j. **Area I: Hand Grenade Range**

Based on material collected during the ASR, this area is considered **confirmed** with OE. There is a possibility that subsurface OE ordnance items may still exist. The SI team believes someone was ordered to dispose of hand grenades in this area.

k. **Area J: Bomb Target Buffer Zone**

Due to its proximity of the target, this area is considered **potential** with OE. A subsurface OE hazard could exist.

8. SITE ORDNANCE TECHNICAL DATA

a. **End Item Technical Data**

Table 8-1, is a listing of ammunition and explosive fillers that may have been at or used at the former Camp Coxcomb. These tables are based on reviews of historical documentation and specifications stated at appendix D-1 through D-8. Exact models/types have been included as documentation has permitted. Table 8-1 and 8-2 do not indicate a current presence, but is only a listing of ordnance that was identified for use at the former Camp Coxcomb.

TABLE 8-1 AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER		
Item	Type/Model	Filler Weight
Cartridge, Ball .22 Cal, Long Rifle	None	40 gr lead bullet Brass or gilding metal cartridge case
Propellant powder		2.86 gr smokeless
Small Arms Ammo .30 Cal	M2 Ball M2 AP	Lead Antimony Tungsten Chrome Steel with gilding metal jacket
	M1 Tracer T10 Tracer M1 Incendiary	Tracer Composition Tracer Composition Incendiary
Composition Propellant		Single base or Double-base (DB) powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Small Arms Ammo .45 Cal M1911 Ball		230 gr lead core hardened with antimony covered by gilding metal jacket
Primer Composition Propellant	F.A. 70	0.37 gr 5 gr smokeless powder
Small Arms Ammo .50 Cal	M2 Ball M2 AP	Soft Steel Tungsten Chrome Steel with gilding metal jacket
	M1 Tracer	Tracer Composition
	M10 Tracer	Tracer Composition
	M17 Tracer	Tracer Composition
	M21 Tracer	Tracer Composition
	M1 Incendiary	Incendiary
	M23 Incendiary	Mixture
Propelling Charge		Single base or Double- base (DB) powder Lead Azide
Shell, Fixed, H.E. 37mm	M54	0.10# Tetryl
Fuze, PD Detonator	M56	Primer mixture Tetryl
Booster		Tetryl
Tracer, SD		Tracer mixture
Relay Pellet		Black powder
Propelling Charge		0.38# FNH powder, M1
Primer, percussion	M38A2	Primer mixture 55 gr black powder
Shell, Fixed, H.E. 37mm	M63	0.085# TNT
Fuze, BD Detonator	M58	Priming mixture Lead Azide Tetryl
Booster		Tetryl
Tracer, SD		Tracer mixture
Relay Pellet		Black powder
Propelling Charge		0.44# FNH powder, M1
Primer, percussion	M38A2	Primer mixture 55 gr black powder

TABLE 8-1(continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shot, Fixed, APC 37mm Tracer Propelling Charge Primer, percussion	M51 M38A2	Hard steel core Tracer composition 0.15# FNH powder, M1 or M5 see above
Shot, Fixed, A.P.C. 37mm Tracer Propelling Charge Primer, percussion	M59 or M59A1 M38A2	Hard steel core Tracer composition 0.31# FNH powder, M1 or M5 0.52# FNH powder see above
Shot, Fixed, AP 37mm Tracer Propelling Charge Primer, percussion	M74 M38A2	Solid steel slug Tracer composition 0.44# FNH powder, M1 see above
Shot, Fixed, AP 37mm Tracer Propelling Charge Primer, percussion	M80 M38A2	Solid steel slug Tracer composition 0.56# FNH powder see above
Cartridge, AP-T 57mm Tracer Propelling Charge Primer, percussion	M70 M1B1A2	Hardened steel solid shot 73 gr red tracer composition 20 gr igniter charge 2.25# FNH powder, M1 Primer composition 100 gr black powder
Cartridge, APC-T 57mm Tracer Propelling Charge Primer, percussion	M86 M1B1A2	Hardened steel solid shot 73 gr red tracer composition 20 gr igniter charge 2.25# FNH powder, M1 see above

TABLE 8-1(continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Cartridge, APC-T 57mm	M86	0.094# Explosive D
Bursting Charge		Tetryl pellet
Fuze, BD	M72	
Primer		Primer mixture No. 26
		Black powder delay pellet
Detonator Charge		Lead Azide
		Tetryl
Tracer		73 gr red tracer composition
		20 gr igniter charge
Propelling Charge		2.25# FNH powder, M1
Primer, percussion	M1B1A2	see above
Shell, H.E. 60mm	M49A2	0.34# TNT
Fuze, PD	M52	
Detonator		Priming Mixture (Mercury Fulminate)
		Lead Azide
Booster		Tetryl
Percussion Primer	M32	0.37 gr No. 70
primer mixture		1.65 gr black powder pellet
Ignition Cartridge	M5A1	40 gr DB powder
Propellant Increments	M3	140 gr DB powder
Shell, Practice 60mm	M50A2	0.05# Black Powder
Fuze, PD	M52	see above
Percussion Primer	M32	see above
Ignition Cartridge	M5A1	see above
Propellant Increments	M3	see above

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shell, Illuminating 60mm	M83	Illuminate Charge 52.1% Barium Nitrate 10.4% Sodium Nitrate 26.0% Aluminum 5.2% Sodium Oxalate 4.1% Sulfur 1.1% Castor Oil 1.1% Linseed Oil Quick Match First Fire Charge 0.74oz Pellet 25% black powder Priming Charge 0.055oz black powder
Ignition Cartridge	M5A1	see above
Percussion Primer	M32	see above
Propellant Increments	M4	112 gr DB powder
Shell, Smoke, WP 60mm	M302	White Phosphorus
Fuze, PD	M82	UNKNOWN
Ignition Cartridge	UNKNOWN	
Percussion Primer	UNKNOWN	
Propellant Increments	UNKNOWN	
Shell, Training 60mm	M69	INERT
Ignition Cartridge	M4	47 gr DB powder
Shell, Training 81mm	M68	INERT
Ignition Cartridge	M3	120 gr DB powder
Shell, H.E. 81mm	M43A1	1.22# TNT
Fuze, PD	M52	
Detonator		Priming Mixture (Mercury Fulminate) Lead Azide
Booster		Tetryl
Percussion Primer	M33	0.37 gr No. 70 primer mixture 1.65 gr black powder pellet
Ignition Cartridge	M6	120 gr DB powder
Propellant Increments	M1	700 gr DB powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shell, WP Smoke Phosphorus 81mm	M57	4.04# White
Fuze, PD	M52	see above
Ignition Cartridge	M3 (old)	see above
	M6 (new)	see above
Percussion Primer	M34	see above
Propellant Increments	M2	820 gr DB powder
Shell, H.E. 81mm	M56	4.31# TNT
Fuze, PD	M53	
Primer		UNKNOWN
Delay Pellet		Black Powder
Relay		Lead Azide
Detonator		Tetryl
		Lead Azide
Lead Charge		Tetryl
Booster		Tetryl
Fuze, TSQ	M77	
Primer		UNKNOWN
Time-train pellet		Black powder
Relay pellets		Black powder
Detonator		UNKNOWN
Booster		Tetryl
Percussion Primer	M34	0.37 gr No. 70 primer mixture 1.65 gr black powder pellet
Ignition Cartridge	M3 (old)	see above
	M6 (new)	see above
Propellant Increments	M2	820 gr DB powder
Shell, H.E., 75mm, semi-fixed	M48	1.49# TNT
Fuze, PD	M48A2	
Detonator		
Superquick		Lead Azide
Delay		Compressed black powder pellet
Relay		Lead Azide pellet
Booster	M20A1	
Detonator		Lead Azide over tetryl
Closing cup		Tetryl
Booster pellet		Tetryl
Propelling Charge		1.06# FNH powder, M1
Primer	M1B1A2	see above

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shell, H.E., AT 75mm, fixed	M66	1.00# Pentolite
Fuze, BD Detonator	M62	Priming mixture Lead Azide Tetryl
Slider charge		Tetryl
Booster		Tetryl
Booster		Tetryl
Propelling Charge		1.04# FNH powder, M2
Primer, percussion	M1B1A2	see above
Shell, Smoke, WP Phosphorus 75mm, semi-fixed	M64	1.35# White
Fuze, PD Detonator	M57	
Superquick		Lead Azide
Burster Detonator relay	M6	Lead Azide over tetryl
Burster charge	M8	1 oz. tetryl
Propelling Charge		1.04# FNH powder, M1
Primer, percussion	M1B1A2	see above
Shell, H.E., 76mm, fixed	M42A1	0.86# TNT
Fuze, PD Detonator	M48A2	
Superquick		Lead Azide
Delay		Compressed black powder pellet
Relay Booster Detonator	M20A1	Lead Azide pellet
Closing cup		Lead Azide over tetryl
Booster pellet		Tetryl
Propelling Charge		Tetryl
Primer	M28A2	3.75# FNH powder, M1 Primer composition 300 gr black powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shell, A.P.C. 76mm, fixed	M62A1	0.144# Explosive D
Fuze, BD	M66A1	
Detonator-booster assembly		Tetryl booster pellet
Intermediate detonating charge		Lead Azide and tetryl
Primer		Primer mixture No. 26
Delay pellet		Black powder
Tracer		Red tracer composition
Propelling Charge		3.75# FNH powder, M1
Primer	M28A2	Primer composition 300 gr black powder
Shell, H.E., 90mm, fixed	M71	2.04# TNT
Fuze, PD	M48A2	
Detonator		
Superquick		Lead Azide
Delay		Compressed black powder pellet
Relay		Lead Azide pellet
Booster	M20A1	
Detonator		Lead Azide over tetryl
Closing cup		Tetryl
Booster pellet		Tetryl 300 gr black powder
Shell, H.E., Propelling Charge	M71	(Continued) 7.31# FNH powder, M1
Primer	M28A2	Primer composition
Shell, A.P.C. 90mm, fixed	M82	0.44# Explosive D
Fuze, BD	M68	
Detonator-booster assembly		Tetryl booster pellet
Intermediate detonating charge		Lead Azide and tetryl
Primer		Primer mixture No. 26

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Delay pellet Tracer		Black powder Red tracer composition
Propelling Charge Primer	M28A2	7.31# FNH powder, M1 Primer composition 300 gr black powder
Shell, H.E., 105mm, semi-fixed Fuze, PD	M1 M48A2	4.8# TNT
Detonator Superquick Delay		Lead Azide Compressed black powder pellet
Relay Booster Detonator	M20A1	Lead Azide pellet Lead Azide over tetryl
Closing cup Booster pellet Propelling Charge Primer	M1B1A2	Tetryl Tetryl 3.04# FNH powder, M1 see above
Shell, H.E., 105mm, fixed Fuze, MT	M38A1 M43	3.63# TNT or 50-50 amatol
Primer, percussion Pellet		UNKNOWN Compressed black powder
Magazine charge Booster Detonator	M20A1	Black powder Lead Azide over tetryl
Closing cup Booster pellet Propelling Charge Primer, percussion	M28A1	Tetryl Tetryl 11# FNH powder, M1 Primer composition 300 gr black powder
Shell, Practice 105mm, fixed Fuze, MT	M38A1 M43	8 oz. black powder
Primer, percussion Pellet		UNKNOWN Compressed black powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Shell, Practice Magazine charge	M38A1	Continued Black powder
Booster Detonator	M20A1	Lead Azide over tetryl
Closing cup Booster pellet		Tetryl Tetryl
Propelling Charge Primer, percussion	M28A1	11# FNH powder, M1 Primer composition 300 gr black powder
Shell, H.E., AT Pentolite 105mm, semi-fixed Fuze, BD Detonator	M67 M62	2.93# 50/50 Priming mixture Lead Azide Tetryl
Slider charge Booster Booster Propelling Charge Primer, percussion	 M28A2	Tetryl Tetryl Tetryl 1.60# FNH powder, M1 Primer composition 300 gr black powder
Shell, H.E. 155mm Fuze, PD Detonator Superquick Delay	M107 M51A4	15.13# TNT Lead Azide Compressed black powder pellet Lead Azide pellet
Relay Booster Detonator tetryl Closing cup Booster pellet Propelling Charges Primer, percussion	 M21A4 M3 Mk. IIA4	 Lead Azide over Tetryl Tetryl 5.94# FNH powder, M1 Priming composition 17 gr black powder
Rocket, HEAT 2.36-inch Fuze Detonator	M6, M6A1, M6A3 None	0.5# 50/50 Pentolite Priming Mixture Lead Azide Tetryl
Booster Propellant Squib		Tetryl Tetryl Sticks of DB powder Black powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Rocket, HEAT 2.36-inch Fuze Propellant	M6A3D None	0.5# 50/50 Pentolite see above T1E1 salted powder
Rocket, HEAT 2.36-inch Fuze Propellant	M6A3F None	0.5# 50/50 Pentolite see above M7 (T4) powder
Rocket, HEAT 2.36-inch Fuze, BD Propellant	M6A4 M400	0.5# 50/50 Pentolite M7 (T4) powder
Rocket, HEAT 2.36-inch Fuze, BD Propellant	M6A5 M401	0.5# 50/50 Pentolite M7 (T4) powder
Rocket, Practice 2.36-inch Propellant Squib	M7, M7A1, M7A3, M7A4	INERT Sticks of DB powder Black powder
Rocket, Practice 2.36-inch Propellant	M7A5	INERT T1E1 salted powder
Rocket, Practice 2.36-inch Propellant	M7A6	INERT M7 (T4) powder
Rocket, WP Smoke Phosphorus 2.36-inch Fuze Detonator Detonator-Burster Propellant Squib	M10 None	0.9# White Priming Mixture Lead Azide Tetryl UNKNOWN Sticks of DB powder Black powder
Rocket, WP Smoke Phosphorus 2.36-inch Fuze, BD Propellant	M10A3 M401	0.9# White M7 powder

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Rocket, HC Smoke 2.36-inch Fuze Detonator	T27E1 None	1# HC Priming Mixture Lead Azide Tetryl UNKNOWN Sticks of DB powder Black powder
Rocket, Incendiary 2.36-inch Fuze Detonator	T31 None	1.1# Thermate Priming Mixture Lead Azide Tetryl UNKNOWN Sticks of DB powder Black powder
Grenade, Hand, Fragmentation Powder	MK II	Bursting Charge 0.74oz EC Blank
Fuze, detonating Primer	M10 MK V	0.4 gr Primer
Mixture Delay - Time Fuse Detonator		2" Black Powder train 7 gr loose Black Powder
Grenade, Hand, Offensive	MK IIIA2	Bursting Charge .5# Pressed TNT
Fuze, detonating Primer Delay Detonator	M6A2	UNKNOWN UNKNOWN UNKNOWN UNKNOWN
Grenade, Hand, CN Tear	M7	CN
Fuze, igniting	M200A1	see M10 above
Grenade, HC Smoke Fuze, igniting	M8 M200A1	HC see above
Grenade, Colored Smoke Fuze	M16 None	UNKNOWN see above

TABLE 8-1 (continued)
AMMUNITION USED/FOUND AND EXPLOSIVES/CHEMICAL FILLER

Item	Type/Model	Filler Weight
Grenade, Colored Smoke	M18	.72# Smoke Mixture
Fuze, igniting	M200A1	see above
Grenade, Red Smoke	AN-M3	Red Smoke Mixture
Fuze, igniting	M200A1	see above
Grenade, White Phosphorus	M15	0.9# White
Phosphorus, Smoke		
Fuze, detonating	M6A3	see above
Grenade, Rifle, Phosphorus	M19	8.5 oz. White
WP Smoke		
Detonator	None	UNKNOWN
Grenade, Rifle, colored	M22	6.5 oz. standard
Colored Smoke		
smoke fillings		
Detonator	None	UNKNOWN
Grenade, Rifle, Pentolite	M9A1	4 oz. 50/50
Antitank		
Fuze	None	Priming Mixture Lead Azide Tetryl
Booster		Tetryl
Grenade, Rifle, HC	None	10.75 oz. HC
Grenade, Rifle, Practice	M11A3	INERT

b. Data of Ordnance weight and fillers.

Table 8-2 has been developed to provide information on the explosive/chemical compounds used in the ordnance cited in table 8-1.

TABLE 8-2 CHEMICAL DATA OF ORDNANCE FILLERS		
Filler	Synonym(s)	Chemical Formula
Amatol (50-50) or (80-20)		
Ammonium Nitrate		NH_4NO_3
TNT	2,4,6-trinitrotoluene	$\text{CH}_3\text{C}_6\text{H}_2(\text{NO}_2)_3$
Ammonium Nitrate		NH_4NO_3
Antimony Sulfide		Sb_2S_3
Ballistite	(see DB powder)	
Barium Nitrate		$\text{Ba}(\text{NO}_3)_2$
Black Powder		
74% Potassium Nitrate	Saltpeter; Niter	KNO_3
11% Sulfur		S
16% Charcoal		C
Charcoal		C
CN	Chloroacetophenone	$\text{C}_6\text{H}_5\text{CO}-\text{CH}_2\text{Cl}$
Dibutylphthalate	gelling agent	$\text{C}_6\text{H}_4(\text{CO}_2\text{C}_4\text{H}_9)_2$
Dinitrotoluene	DNT	$\text{C}_6\text{H}_3\text{CH}_3(\text{NO}_2)_2$
Diphenylamine	stabilizer DPA	$(\text{C}_6\text{H}_5)_2\text{NH}$
Double-base Powder	Ballistite	
60% Nitrocellulose	Guncotton	$\text{C}_6\text{H}_8\text{O}_5$
	Pyroxylin	$\text{NO}_2)_3]_n$
39% Nitroglycerin		$\text{CH}_2\text{NO}_3\text{CHNO}_3 \text{ CH}_2\text{NO}_3$
0.75% Diphenylamine	Stabilizer DPA	$(\text{C}_6\text{H}_5)_2\text{NH}$

TABLE 8-2 (Continued)
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
E. C. Blank Powder	(single-based compound)	
80.4% Nitrocellulose	Guncotton; Pyroxylin	$[C_6H_8O_5(NO_2)_3]_n$
8% Potassium Nitrate	Saltpeter	KNO_3
8% Barium Nitrate		$Ba(NO_3)_2$
3% Starch		
0.6% Diphenylamine	Stabilizer DPA	$(C_6H_5)_2NH$
Explosive D	Ammonium Picrate; Ammonium Carbazotate; Ammonium Picronitrate	$C_6H_2(NO_2)_3ONH_4$
FNH Powder, Type II		
Nitrocellulose	Guncotton; Pyroxylin	$[C_6H_8O_5(NO_2)_3]_n$
Dibutylphthalate	Gelling agent	$C_6H_4(CO_2C_4H_9)_2$
Dinitrotoluene	DNT	$C_6H_3CH_3(NO_2)_2$
Diphenylamine	Stabilizer DPA	$(C_6H_5)_2NH$
Guncotton	(see nitrocellulose)	
13% nitrogen		N_2
Hexachlorethane-Zinc	HC	$Zn+C_2Cl_6$
Igniter Compositions *		
I-136 & I-136A		
10% Calcium Resinate		Ca
90% Strontium Peroxide		SrO_2
I-194		
94% Igniter Composition I-136		
6% Magnesium Powder		Mg
I-276		
84% Barium Peroxide		BaO_2
16% Magnesium Powder		Mg
I-280		
85% Igniter Composition I-136A		
15% Magnesium Powder		Mg

TABLE 8-2 (Continued)
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
Igniter Compositions (continued)		
I-508		
79% Barium Peroxide		BaO ₂
14% Magnesium Powder		Mg
Incendiary Compositions *		
IM-11		
50% Barium Nitrate		Ba(NO ₃) ₂
50% Magnesium Aluminum Alloy		Mg & Al
IM-23		
50% Potassium Perchlorate		KClO ₄
50% Magnesium Aluminum Alloy		Mg & Al
IM-28		
40% Barium Nitrate		Ba(NO ₃) ₂
50% Magnesium Aluminum Alloy		Mg & Al
10% Potassium Perchlorate		KClO ₄
IM-68		
24% Barium Nitrate		Ba(NO ₃) ₂
50% Magnesium Aluminum Alloy		Mg & Al
25% Ammonium Nitrat		NH ₄ NO ₃
IM-69		
40% Barium Nitrate		Ba(NO ₃) ₂
50% Magnesium Aluminum Alloy		Mg & Al
10% Iron Oxide, Ferric		Fe ₂ O ₃
IM-136		
49% Potassium Perchlorate		KClO ₄
49% Magnesium Aluminum Alloy		Mg & Al
IM-142		
48% Barium Nitrate		Ba(NO ₃) ₂
46% Magnesium Aluminum Alloy		Mg & Al
IM-144		
50% Barium Nitrate		Ba(NO ₃) ₂
50% Red Phosphorus		P
IM-162		
25% Incendiary Composition		IM-23
75% Zirconium		Zr

TABLE 8-2 (Continued)
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
Incendiary Compositions (continued)		
IM-163		
50% Incendiary Composition		IM-23
50% Zirconium		Zr
Incendiary Mixture	(see incendiary compositions)	
Lead Azide	Azide	$Pb(N_3)_2$
Mercury Fulminate	Mercuric Cyanate	$Hg(CNO)_2$
Nitrocellulose	Guncotton; Pyroxylin Nitrocotton; Cellulose Nitrate	$[C_6H_8O_5(NO_2)_3]_n$
Nitroglycerin		$CH_2NO_3CHNO_3CH_2NO_3$
Pentolite (50/50)		
TNT	2,4,6-trinitrotoluene	$CH_3C_6H_2(NO_2)_3$
PETN		$C(CH_2ONO_2)_4$
PETN	Pentaerythrite Tetranitrate; Pentaerythritol Tetranitrate	$C(CH_2ONO_2)_4$
Potassium Chlorate		$KClO_3$
Potassium Nitrate	Saltpeter; Niter	KNO_3
Primer Composition		
FA-90A (for percussion primers)		
25% Lead Thiocyanate		$Pb(SCN)_2$
12% Antimony Sulfide		Sb_2S_3
10% PETN		
53% Potassium Chlorate		$KClO_3$

TABLE 8-2 (Continued)
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
Primer Composition (continued)		
FA-70		
25% Lead Thiocyanate		Pb(SCN) ₂
17% Antimony Sulfide		Sb ₂ S ₃
5% TNT		
53% Potassium Chlorate		KClO ₃
Primer Mixture *		
Mercury Fulminate	Mercuric Cyanate	Hg(CNO) ₂
Potassium Chlorate		KClO ₃
Antimony Sulfide		Sb ₂ S ₃
Pyrotechnic Composition (for Aircraft Flare)		
75% Barium Nitrate		Ba(NO ₃) ₂
4.5% Sulfur		S
18.5% Aluminum		Al
1.5% Castor Oil		
RDX	Cyclonite, Hexagen	C ₃ H ₆ N ₆ O ₆
Red Phosphorus		P
Smokeless Powder	(see nitrocellulose)	
Flashless-nonhygroscopic		(FNH)
Nonhygroscopic (NH)		
Sodium Nitrate		NaNO ₃
Sodium Oxalate		Na ₂ C ₂ O ₄
Sulfur		S
Tetryl	Trinitrophenyl- methylnitramine	(NO ₂) ₃ C ₆ H ₂ N(NO ₂)CH ₃
Thermate		
Thermite		2Al-3FeO
Barium Nitrate		Ba(NO ₃) ₂

TABLE 8-2 (Continued)
CHEMICAL DATA OF ORDNANCE FILLERS

Filler	Synonym(s)	Chemical Formula
Thermite	TH, TH3, Iron Oxide & Aluminum	2Al-3FeO
TNT	2,4,6-trinitrotoluene; triton; trotyl; trilite; trinol; tritolo	CH ₃ C ₆ H ₂ (NO ₂) ₃
Tracer Compositions *		
R-256		
8.3% Calcium Resinate		
26.7% Strontium Peroxide		SrO ₂
26.7% Magnesium Powder		Mg
33.3% Strontium Nitrate		Sr(NO ₃) ₂
R-284		
17% Polyvinyl Chloride		
28% Magnesium Powder		Mg
55% Strontium Nitrate		Sr(NO ₃) ₂
R-321		
16% Polyvinyl Chloride		
26% Magnesium Powder		Mg
52% Strontium Nitrate		Sr(NO ₃) ₂
White Phosphorus		P
* Most frequently used chemical compositions and their major ingredients		

9. OTHER ENVIRONMENTAL HAZARDS

a. **Hazardous, Toxic, and Radiological Waste**

(1) The dump sites identified in the project areas could contain hazardous or toxic waste.

(2) No additional HTRW projects have been noted or identified on this site visit.

(3) The Regional Water Quality Control Board (RWQCB), Colorado River Basin Region, has no record of toxic or hazardous waste in the area. The County of Riverside Department of Health has no record of hazardous/toxic waste or underground storage tanks located within or nearby the project site.

b. **Building Demolition/Debris Removal (BD/DR)**

There were no BD/DR hazards discovered during this ASR.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX A

REFERENCE SOURCES

**ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT**

Organization	Name	Telephone	Nature of Support
GOVERNMENT SOURCES			
Department of Defense			
(DDESB) Historical Accident Data Base USATCES, SIOAC-ESM Savanna, IL 61074-9639	Computer Search	(815) 273-8730	No information found on this site.
(DLOD) Defense Library on Disk Pentagon Room 1A518 Washington, DC 20310-6080	Computer Search	(703) 697-4658	No information found on this site.
(DTIC) Defense Technical Information Center Cameron Station Alexandria, VA 22304-6145	Computer Search	(202) 274-7633	No information found on this site.
U.S. Army			
(ASMIS) Army Safety Management Information System Fort Rucker, AL 36322	Computer Search	(205) 255-6485	No information found on this site.
(DLSIE) Defense Logistics Studies Info Exchange US Army Logistics Management College Fort. Lee, VA 23801	Computer Search	(804) 734-4007	No information found on this site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
U.S. Army			
Commander 259th Ord Det (EOD) Fort Irwin Barstow, CA	SPC Knowles	(619) 380-4092 Fax (619) 380-4097	No information found on this site.
70th Ord. Det-EOD Navy Sub Base Post Office Box 6376 San Diego, CA 92166	MSG McFarlen	(619) 553-8500	Stated they had no calls from this area in the past two years. Many calls in the 60's, 70's and 80's, but no records back that far.
Aberdeen Proving Ground Ordnance Museum Aberdeen Proving Ground, MD 21005	Roger Godin	DSN 298-3602	Furnished old ordnance and Navy publications
Center of Military History ATTN: DSMH-RAS 1099 14 St. N.W. Washington, DC 20536	Contractor	(202) 504-5416	See App. B, Section II, Parts A and B.
DMACSC, Philadelphia Depot 5801 Tabor Avenue. Philadelphia, PA 19120-5095	Staff	(800) 826-0342 (301) 227-2495	Provided Aeronautical charts
IOC Historical Office AMSIO-EAH, Building 390 Rock Island Arsenal, Rock Island, IL	Tom Slattery	(309) 794-1450	No information found on this site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
U.S. Army			
Patton's Museum of Cavalry and Armor Post Office Box 208 4554 Fayette Avenue. Fort Knox, KY 40121-0208	Katie Talbot	(502) 624-3812 Fax (502) 624-6968	Many historical photographs depicting life in the DTC, text and maps.
Publications	FUDS Reference Library	(815) 273-8867	Information from USATCES FUDS sources forwarded.
Rock Island Arsenal Museum Rock Island Arsenal Rock Island, IL	Chris Leinicke	(309) 794-3518	Technical Manuals
U.S. Army Technical Center for Explosives Safety Library ATTN: SIOAC-ESM Savanna, IL 61074	Judy Skupien	(815) 273-8772	Reference sources.
U.S. Military History Institute Library Carlisle Barracks, Bldg. 22 Carlisle, PA 17013-5008	John Slonaker Dennis Vetock	(717) 245-3611 Fax DSN 242-4370	Provided historical background information on the camps.
U.S. Military History Institute Photo Archives Carlisle Barracks Carlisle, PA 17013	Mike Winey	(717) 245-3434	Had no information on this site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
U.S. Army			
U.S. Military History Institute Archives Branch Carlisle Barracks Carlisle, PA 17013	Richard Sommers	(717) 245-3601	Provided available information.
US Army Chemical & Biological Defense Command Aberdeen Proving Ground, MD 21010-5423	Kathleen Ciolfi	(410) 679-4430	Review of CBDCOM former site listing provided no evidence of chemical use on this site.
USACE, Los Angeles District 300 North Los Angeles Street Room 6003 Los Angeles, CA 90024	Debrah Castens	(213) 894-2865 /2866 Fax (714) 894-5312	Obtained copies of documents in FUDS project files during USATCES HRS visit.
USACE, Los Angeles District 300 North Los Angeles Street Los Angeles, CA 90024	Greg Boghossian	(213) 894-3760	Greg is the district program manager for FUDS and BRAC.
USACE, Los Angeles District 360 East 2nd Street, Room 501 Los Angeles CA 90012	Richard Nagle	(213) 894-2951 Fax (213) 894-2013	Cadastral Section. Real estate drawings of site were btained during USATCES HRS visit. ☺
USACE, Los Angeles District Real Estate Division 360 East 2nd Street, Room 508 Los Angeles, CA 90012	Delores Henderson	(213) 894-5583	Obtained copies of real estate documents in Corps files during USATCES HRS visit.
USACE, Office of History 7701 Telegraph Road Alexandria, VA 22310-3865	Contractor	(703) 355-3558	See App. B, Section II, Parts A and B.

X

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
U.S. Army			
USACE, Sacramento District 1325 J Street Sacramento, CA 95814-2922	Marvin Fisher	(916) 557-6800	Provided references for site.
USACE, Sacramento District 1325 J Street Sacramento, CA 95814-2922	Dan Fodrini	(916) 557-6857	Had no information on this site.
USACE, St. Louis District ATTN: CELMS-PD 1222 Spruce Street St. Louis, MO 63103	Jim Lubbert	(714) 331-8840	USATCES HRS team obtained historical documents for the DTC AND CAMA sites from Jim.
U.S. Air Force			
OL-A, USAF Environmental Technical Applications Center 151 Patton Avenue, Room 210 Ashville, NC 28801	Janet Wall	(704) 271-4404	Received local climatological data (LCD) annual summary for area.
U.S. Navy			
Explosive Ordnance Disposal Unit MCAGCC 29 Palms, CA	GySgt Wheeler	(619) 830-7215 Fax (619) 830-6052	Had no information on this site.

REFERENCE SOURCES (Continued)**The following organizations and personnel are acknowledged for their support**

Organization	Name	Telephone	Nature of Support
U.S. Navy			
Marine Corps Historical Center Building 58 Washington Naval Yard Washington, DC 20374	Contractor	(202) 433-3483	See App. B, Section II, Parts A and B.
Naval Construction Battalion NAVFAC Historian 621 Pleasant Valley Road Port Hueneme, CA 93043	Dr. Vincent Transano	(805) 982-5913	Provided The Desert Training Center and CAMA, Study No. 15.
Navy Historical Center Building 57 Washington Naval Yard Washington, DC 20374	Contractor	(202) 433-3171	See App. B, Section II, Parts A and B.
Other Federal Agencies			
National Archives			
NARA, Federal Records Center 1000 Commodore Drive San Bruno, CA 94066	USATCES Barbara Bepler	(415) 876-9001	See App. B, Section III, Parts A and B.
NARA, Federal Records Center 2400 Alvia Road Laguna Niguel, CA 92607-6719	USATCES Greg Pearman	(714) 643-4220 Fax (714) 643-4500	See App. B, Section III, Parts A and B.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
National Archives			
NARA, Pacific Sierra Region 1000 Commodore Drive San Bruno, CA 94066	USATCES Lisa Miller	(415) 876-9009	See App. B, Section III, Parts A and B.
NARA, Pacific Southwest Region 2400 Alvia Road Laguna Niguel, CA 92656	USATCES Suzanne Dewberry	(714) 643-4241	See App. B, Section III, Parts A and B.
National Archives Suitland Branch (Civil and Military) 4205 Suitland Road Suitland, MD 20409	Contractor	(301) 457-7190	See App. B, Section II, Parts A and B.
National Archives I (Modern Military) Pennsylvania Avenue & 7 th St. Washington, DC 20408	Contractor	(202) 501-5385	See App. B, Section II, Parts A and B.
National Archives I (Navy) Pennsylvania Ave. & 7 th St. Washington, DC 20408	Contractor	(202) 501-5671	See App. B, Section II, Parts A and B.
National Archives I (Old Military) Pennsylvania Ave. & 7 th St. Washington, DC 20408	Contractor	(202) 501-5390	See App. B, Section II, Parts A and B.

REFERENCE SOURCES (Continued)**The following organizations and personnel are acknowledged for their support**

Organization	Name	Telephone	Nature of Support
National Archives			
National Archives II (Cartographic/Architectural) 8601 Adelphi Road College Park, MD 20	Contractor	(301) 713-7040	See App. B, Section II, Parts A and B.
National Archives II (Civil Reference Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7250	See App. B, Section II, Parts A and B.
National Archives II (Motion Picture Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7060	See App. B, Section II, Parts A and B.
National Archives II (Still Picture Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-6660	See App. B, Section II, Parts A and B.
National Archives II (Textual Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7250	See App. B, Section II, Parts A and B.
National Personnel Records Center 9700 Page Avenue St Louis, MO	USATCES Bill Siebert	(314) 538-4085	See App. B, Section III, Parts A and B.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
General Services Administration			
Library of Congress Washington, DC 20408	Contractor	(202) 707-5522	See App. B, Section II, Parts A and B.
Smithsonian Institution			
Smithsonian Institution Historical Research Division Washington, DC 20560	Contractor	(202) 357-3133	See App. B, Section II, Parts A and B.
Department of the Agriculture			
Consolidated Farm Service Agency 45691 Monroe, Suite 4 Indio, CA 92201	Maria	(619) 347-3675	No aerial photos available between Indio and Blythe.
Natural Resources Conservation Service 1299 Columbia E5 Riverside, CA 92506	Stephanie Kruger	(909) 684-1552	Had no information on this site.
Natural Resources Conservation Service 200 East Murphy Street Blythe, CA 92226	Raul Alvarado	(619) 922-3446	Provided soil survey for the Blythe area and a recent survey done on the Desert Center area.

REFERENCE SOURCES (Continued)**The following organizations and personnel are acknowledged for their support**

Organization	Name	Telephone	Nature of Support
Department of the Agriculture			
Natural Resources Conservation Service 2121 C 2nd Street Davis, CA 95616	Donald Storm	(916) 757-8270	Had no information on this site.
Natural Resources Conservation Service 80975 Indio Boulevard Indio, CA 92201	Sam Aslan	(619) 347-7658	Had no information on this site.
Natural Resources Conservation Service Post Office Box 788115 Twenty-Nine Palms, CA 92278	John Rule	(619) 830-7011	Had no information on this site.
USDA, Aerial Photography Field Office Post Office Box 30010 Salt Lake City, UT	Sherrie Holyoak	(801) 975-3503	Source of aerial photos after 1956
Department of Commerce			
NOAA National Climatic Data Center Federal Building Ashville, NC 28801	Yolanda Goosch Sam Mccowan	(704) 271-4272	Local climatological data reports. Received information on obtaining climatic data.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Department of the Interior			
Bureau of Land Management 101 West Spikes Road Needles, CA 92363	Phil Damon	(619) 326-3896 Fax (619) 326-4079	Provided two BLM reports on area and lead information on land use and plat maps for the county.
Bureau of Land Management 101 West Spikes Road Needles, CA 92363	Lesly Smith	(619) 326-3896 Ext 3819	Provided files to SI team. The DTC camps and requests that SI team Provided contacts at the Palm Springs BLM and Riverside BLM District office
Bureau of Land Management 101 West Spikes Road Needles, CA 92363x	Dennis Darghy Bill Wiley	(619) 326-3896	Provided information on past OE incidents
Bureau of Land Management 620 North Sola Blythe, CA 92226	Fred Delkamp	Home (619) 922-7782 BLM (619) 922-4519	Ranger for Blythe area with extensive knowledge of the area.
Bureau of Land Management California Desert District 6221 Box Springs Boulevard Riverside, CA 92507-0714	Larry Foreman	(909) 697-5221 Fax (909) 697-5299	Wildlife biologist helped out on endangered species.
Bureau of Land Management California Desert District 6221 Box Springs Boulevard Riverside, CA 92507-0714	Manuela Johnson	(909) 697-5220 Fax (909) 697-5299	Provided current plat maps.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Department of the Interior Bureau of Land Management California Desert District 6221 Box Springs Blvd. Riverside, CA 92507-0714	Rolla Queen	(909) 697-5386 Fax (909) 697-5299	Rolla is an archeologist.
Bureau of Land Management California Desert District 6221 Box Springs Boulevard Riverside, CA 92507-0714 a	John Key	(909) 697-5383 Fax (909) 697-5299	Provided files with deduinding reports and other records of finds of UXO, including burial.
Bureau of Land Management Palm Springs Resource Center 63500 Garnet Avenue North Palm Springs, CA	David Eslinger	(619) 251-4836 Fax (619) 251-4899	They are currently doing a new desert study report.
Bureau of Land Management Palm Springs Resource Center 63500 Garnet Avenue North Palm Springs, CA	Joan Oxendine	(619) 251-4804 Fax (619) 251-4899	Provided the current environmental and cultural information
Bureau of Land Management Palm Springs Resource Center 63500 Garnet Avenue North Palm Springs, CA	Mike Mitchell	(619) 251-4800	No additional information on site
Department of Interior Geological Survey Reston, VA 22092	Dave Keys	(703) 648-5956	No additional information on site

REFERENCE SOURCES (Continued)**The following organizations and personnel are acknowledged for their support**

Organization	Name	Telephone	Nature of Support
Department of the Interior			
U.S. Fish and Wildlife Service 2730 Loker Avenue West Carlsbad, CA 92008	John Hanlon	(619) 431-9440	Provided memo on endangered plants and animals species list for the site..
U.S. Geological Survey, (ESIC) Building 810, Box 25046 Denver Federal Center Denver, CO 80225	Tim Hannon Vivian Tarver	(303) 202-4200 FAX (303) 202-4188	Provided aerials of site
USGS Branch of Distribution Bldg 810, Box 25286 Denver Federal Center Denver, CO 80225	Staff	(303) 203-4700 FAX (303) 203-4693	Topographical maps

STATE GOVERNMENT SOURCES**State**

California State Archives 1020 East O Street. Sacramento, CA 92415-0795	Melody	(916) 653-2246	No additional information on site.
California State Library 914 Capital Mall Library & Courts Building Sacramento, CA 94237-0001	Brent Murphy	(916) 654-0069	No additional information on site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
State			
California State University San Bernardino Library 5500 University Parkway. San Bernardino, CA	Reference Librarian	(909) 880-5084 Fax (909) 880-7048	No information on this site.
California State Library 914 Capital Mall Library & Courts Building Sacramento, CA 94237-0001	John Gonzales	(916) 654-0176 Fax (916) 654-8777	Provided historical site information.
SHPO, Eastern Information Center Department of Anthropology University of California Riverside, CA 92521	Kay White Dan (Information Specialist)	(909) 787-5745 Fax (909) 787-5409	Provided archeological and historical information that may be present on site.
State of California Ironwood State Prison Blythe, CA 92225	Bill Martindale	(619) 921-3000 (619) 922-2554	Very familiar with the area and has done lots of ammo destruction through the years for the government and BLM. Had old range maps.
University of California Riverside, Library 900 University Drive Riverside, CA 92521	Gladys Murphy	(909) 787-3221 Fax (909) 787-3285	Provided site information

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Needles Public Library 111 Bailey Needles, CA 92363	Barbara Guhin	(619) 326-9255 Fax (619) 326-9238	They have a local history section with old photos, drawings, and other information on the DTC camps..
Riverside City and County Public Library 3581 Mission Inn Avenue Riverside, Ca 92501	William Swafford	(909) 782-5736 /5202	Information found during USATCES HRS visit.
Riverside County Administrative Center 4080 Lemon Street Riverside. CA 92510	Receptionist	(909) 275-1000	No additional information on site.
Riverside County Assessor 4080 Lemon Street Riverside, CA 92510	Staff	(909) 275-6200	No additional information on site.
Riverside County Assessor 4100 County Center Blythe Branch Blythe, CA 92225	Kathy Beckel	(619) 921-7888	No additional information on site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Riverside County Historical Commission Library Post Office Box 3507 Riverside, CA 92519	Staff	(909) 275-4310	No information on the site.
Riverside County Planning Department 79733 Country Club Drive Bermuda Dunes, CA 92201	Rebecca	(619) 863-8277	No additional information on site.
Riverside County Recorder 4080 Lemon Street Riverside, CA 92510	Ms. Reagan	(909) 275-1900	Provided Plat maps and ownership information.
Riverside County Sheriff 260 North Spring Street Blythe, CA 92225	Det. Jim Dellis SGT Richard Dollarhide	(619) 921-7900	Very knowledgeable about the area and stated no UXO has been found recently. They notify 70th EOD for UXO incidents.
Riverside County Transportation and Land Management 4080 Lemon Street Riverside, CA 92510	Staff	(909) 358-5172	No additional information on site.
Riverside County, Coachella Imperial Irrigation District 160 North Broadway Blythe, CA 92225	Martin Sublett	(619) 921-7815	No additional information on site.

REFERENCE SOURCES (Continued)**The following organizations and personnel are acknowledged for their support**

Organization	Name	Telephone	Nature of Support
Local			
San Bernardino County Archives 777 East Rialto Avenue San Bernardino, CA 92415-0795	Jim Hoffer	(909) 387-2030 Fax (909) 387-2232 /(909) 387-8018	No additional information on site.
San Bernardino Public Library 555 West 6th Street San Bernardino, CA 92410	Chris Shovey	(909) 381-8208 Fax (909) 888-3171	No additional information on site.
San Bernardino Public Library 555 West 6th Street San Bernardino, CA 92410	Chris Shovey	(909) 381-8208 Fax (909) 888-3171	
NON-GOVERNMENT			
National			
(DIALOG) Knight-Ridder Information Inc. 2440 El Camino Real Mountain View, CA 94040	Computer Search	(800) 334-2564	No information found on this site.
(NILS) Northern Illinois Library System 4034 East State Street Rockford, IL 61108	Computer Search	(815) 229-0330	No information found on this site.
(OCLC) On-line Computer Library Center 6565 Frantz Road Dublin, OH 43017-3395	Computer Search	(800) 848-5878	No information found on this site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
National			
(STILAS) Siris Corporation 689 Discovery Drive Huntsville, AL 35806	Computer Search	(205) 922-9820	No information found on this site.
Council on America's Past 518 Why Worry Lane Phoenix, AZ 85021	Heliogram Publication	(800) 398-4693	Provided military history articles and personal contacts.
Local			
11th Armored Division Association 2328 Admiral Street Aliquippa, PA 15001			No additional information on site.
3rd Armored Division University Archives Room 19 1408 West Gregory Drive Urbana, IL 61081	Chris Pron	(217) 333-0798	Provided military history articles and personal contacts.
6th Armored Division Association Post Office Box 5011 Louisville, KY 40205			Sent memo and site information and lead request to this address found in the BLM Interpretive Plan. Requested information on personnel that may have trained at DTC for interviews, old photos, or drawings/maps.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Charlie Graham 155 North 8th St. P.O. Box 271 Blythe, CA 92226	Local Resident	(619) 922-3372	No additional information on site.
Coachella Valley Water District Corner Highway 111 and 52 Avenue Coachella, CA 92236	Joe Maddox Drafting	(619) 398-2651 Ext 348	No additional information on site.
Dennis G. Casebier Post Office Box #7 Essex, CA 92332-0007	Author and Historian	(619) 733-4482	No additional information on site.
Francis Blake 658 Lemon Hill Terrace Fullerton, CA 92632	Historian	(714) 871-7738	Stated he has seen practice mines and mortars while visiting the different camps. Stated there would not be much left around the camps proper. Stated there is ordnance found in the surrounding areas of the camps periodically. He stated that a yearly ceremony is held 11 Nov. at the Patton Museum. He stated that veterans of the camps attend. I sent a fax with an information wanted flyer to be posted at the museum during the ceremony and later to obtain contacts of personnel stationed at the camps.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Bill Clapper 77-777 Country Club Lane, Apartment 76 Palm Desert, CA 92211	Explorer	(619) 360-9343	Knows area well, has many picked up ordnance related items.
Fred Crozier 250 Paseo De Granda Redondo Beach, CA 90277	Historian	(310) 378-8875	No additional information on site.
Gary Holcomb 1450 Street. Yuba City, CA 95993	Father Stationed at DTC	(916) 673-5185	No additional information on site.
Herb Bender 1609 Washington Street Needles, CA 92363	Long Time Local Resident	(619) 326-3129	Has been in Needles since 1941 and worked for the railroad. Stated he had played cards with Patton many times. Seems very knowledgeable about the DTC camps and the area.
Joe Byers 1905 Luna Vista Needles, CA 92363	Long Time Local Resident	(619) 326-2726	Provided personal contacts.
John Lynch 518 Why Worry Lane Phoenix, AZ 85012	Historian and Author	(602) 249-3974	Co-author of "Patton's Desert Training Center" and is a contributing editor to the CAMP HELIOGRAM. Provided aerial photos and maps of site.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Justin Rughe Post Office Box 2216 Goleta, CA 93118	Author and Historian	(805) 737-9536	No additional information on site.
Leroy Hanneman Post Office Box 61743 Phoenix, AZ 85082	Editor	(602) 840-0398	No additional information on site.
Margit Rusche Chiriaco Summit, CA 92201	Local Historian	(619) 227-3227 (909) 877-5077	Is one of the founders of the Patton Museum. Provided daily life information on site.
Mark Wetmore Route 4, Box 318 Needles, CA 92363	Local Military Historian	(619) 326-2546	Has walked some of the camps and found shrapnel near Camp Ibis and is knowledgeable about the camps and the area.
Metropolitan Water District of Southern California 18520 La Sierra Street Riverside, CA 92503	Bob Readhimer	(909) 688-5672 Ext 5586	Provided personal referrals.
Metropolitan Water District of Southern California Post Office Box 38 Parker Dam, CA 92267	Allen Preston	(619) 663-3521	Had no additional information on UXO finds.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Mrs. Bertha George Blythe, CA 92225	Long Time Local Resident	(619) 922-2347	No additional information on site.
Needles Museum Post Office Box 22 Needles, CA 92363	Maggie McShan	(619) 326-2892	No additional information on site.
Palo Verde Historical Museum 150 North Broadway Blythe, CA 92225	Director	(619) 922-8770	No additional information on site.
Palo Verde Valley District Library 125 West Chanslor Way Blythe, CA 92225-1283	Phyllis Zamora	(619) 922-5371	Had no information on this site.
Patton Museum No. 2 Chiriaco Summit, CA 92201	John Hoffman	(619) 227-3483	Hosts an afternoon talk show on the local radio station and provided personal referrals.

REFERENCE SOURCES (Continued)

The following organizations and personnel are acknowledged for their support

Organization	Name	Telephone	Nature of Support
Local			
Riverside Press Enterprise Post Office Box 792 3512 14th Street Riverside, CA 92502	Tom Patterson	(909) 782-7556	No additional information on site.
Walter Scott 361 North Willow Blythe, CA 92225	Long Time Local Resident	(619) 922-4335	Stated there are remains of ammunition all over the desert. They call Yuma if they find anything.
Stanley E. Ragsdale High Way 60 Desert Center, CA 92239	Long Time Local Resident	(619) 227-0022	80 year resident of Desert Center. Provided civilian support to DTC/CAMA. Has collected many ordnance items from the desert.
Jim Capp Capp Rd Desert Center, CA 92239	25 year local resident	(619) 227-3432	Has mine adjacent to site; collector of military artifacts; knows locations of ordnance items near site.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX B

REFERENCES AND ABSTRACTS

BIBLIOGRAPHIES

Table of Contents

Section I:	Bibliography
Section II:	National Capitol Region Records Search
	Part A: Positive Findings
	Part B: Negative Findings
Section III:	Regional National Archive Findings
	Part A: Positive Findings
	Part B: Negative Findings

APPENDIX B

BIBLIOGRAPHIES

SECTION I

B-1 Army Regulation (AR) 200-1, Environmental Quality, Environmental Protection and Enhancement, Department of the Army, 23 April 1990. (Not included in this ASR)

B-2 CEHND 1105-3-9, U.S. Army Corps of Engineers, Huntsville Division, 10 August 1992, US Army Corps of Engineers, Management Plan for Ordnance and Explosive Waste (OE) Mandatory Center of Expertise (MCX and Design Center. (Not included in this ASR)

B-3 Site Safety Plan for OE Investigations, U.S. Army Corps of Engineers, Rock Island District, dated August 1992, w/Appendix A-95. (Not included in this ASR)

B-4 Site Survey Summary Sheet, DERPS FUDS OE Site Number JO9CA027401 (E-1).

B-5 Findings and Determination of Eligibility, DERP FUDS OE Site Number JO9CA027401 (E-2).

B-6 Project Summary Sheet, DERPS FUDS OE Project Site Number JO9CA027401 (E-3).

B-7 War Department, TM 9-855, Targets, Target Material and Training Course Lay-outs, 17 August 1944 (D-1).

B-8 Armoured Fighting Vehicles in Profile, Volume 4 American AFV's of World War II, Duncan Crow, Doubleday & Company, INC, Garden City, New York, 1972 (D-2).

B-9 Department of the Army, TM 43-0001-29, Army Ammunition Data Sheets for Grenades, 15 December 1992 (D-3).

B-10 Department of the Army, TM 43-0001-27, Army Ammunition Data Sheets for Small Caliber Ammunition, April 1994 (D-5).

B-11 War Department Technical Manual, Ammunition Inspection Guide, TM 9-1904, 2 March 1944 (D-4).

B-12 Department of the Army, TM 43-0001-28, Artillery Ammunition Guns, Howitzers, Mortars, Recoiless Rifles, Grenade Launchers and Artillery Fuzes, April 1977 (D-6).

B-13 Department of the Army, TM 43-0001-38, Army Ammunition Data Sheets for Demolition Material, July 1994 (D-7).

B-14 Navy Department, Bureau of Ordnance, OP1664 (Vol. 2) U.S. Explosive Ordnance, 28 May 1947 (D-8).

B-15 The United States Army Installations of World War I and World War II (with Army Air Corps Fields and Bases), Compiled by Mark A. Woolard, no date or publisher given.

B-16 Memorandum from the United States Department of the Interior, Fish and Wildlife Service, "Candidate, Proposed, Threatened, or Endangered Species for Riverside County, California (1-6-96-TA-050)", Ecological Services, Carlsbad Field Office, Carlsbad, CA 92008, November 27, 1995 (E-4).

B-17 Memorandum to Mr. Larry Dauphin, USADACS, Savanna, IL, from Information Officer, Department of Anthropology, University of California, Riverside, CA, Cultural Resources Records Search, January 18, 1996 (E-5).

B-18 Directory extract of "Properties in the Historic Property Data File for Riverside County", page 16, State of California Resources Agency, Department of Parks and Recreation, Riverside County, CA (E-6).

B-19 Climate of California, Climatology of the United States No. 60, National Oceanic and Atmospheric Administration, Asheville, NC, June 1982 (E-7).

B-20 Historical site maps of CAMA Maneuver areas, Campsite - Camp Coxcomb, Coxcomb range locations and camp building descriptions, Mr. John Lynch, and Ebasco Environmental, dates unknown (F-1).

B-21 U.S. Army Corps of Engineers, Los Angeles, District, Real Estate Department, "Improvements at Camp Coxcomb", date unknown, (F-2).

B-22 U.S. Army Corps of Engineers, Los Angeles District's local files, "List of Project Tested by Desert Warfare Board" (F-3).

B-23 Memorandum to Field Service Division, Office Chief of Chemical Warfare, from Headquarters Army Ground Forces, Ground Chemical Section, Army War College, "Chemical Ammunition for Desert Training Center" (Relative to Chemical Ammunition Requirements, Desert Training Center), 1 August 1942 (F-4).

B-24 Patton Museum, Desert Center, California, "Training Memorandum No. 27, 19 July 1943", Headquarters Desert Training Center, Camp Young, (F-5).

B-25 NARA, Archives I, Entry No. and Box No. not given, "Final Report DTC Maneuvers, March 20, 1943", (F-6).

B-26 NARA, Archives I, Entry No. and Box No. not given, "Camps Ibis, Coxcomb and Laguna, California and Arizona", War Department, Office of the Chief of Engineers, Washington, 30 August 1943 (F-7).

B-27 NARA, Archives I, Entry No. and Box No. not given, "Target Ranges (Relative to closure of Target Ranges, Camps Essex, Iron Mountain, Ibis, Granite and Coxcomb), 31 Jan 1944 (F-8).

B-28 NARA, Archives I, Entry No. and Box No. not given, "Status of California-Arizona Maneuver Area", (Relative to closure of CAMA), 22 January 1944 (F-9).

B-29 Two Memorandums to Commanding General, Ninth Service Command, from Headquarters, Army Service Forces, Office of the Adjutant General, "Evacuation of the California-Arizona Maneuver area", 17 February 1944 and 7 March 1944 (F-10).

B-30 Memorandum, "Request for Portion of California-Arizona Maneuver Area", 24 Feb 1944, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (F-11).

B-31 Warning Notice, and Memorandum, "CAMA in Surplus Status", Department of the Army, Office of the Chief of

Engineers, Washington, DC, to Pacific Division, Real Estate Officer, Los Angeles District, 1 April 1944 (F-12).

B-32 Memorandum, "Request for Portion of California-Arizona Maneuver Area", 20 May 1944, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (F-13).

B-33 7th Armored Division History, From Activation to end of 1943, date unknown, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (F-14).

B-34 Brief Historical Sketch of the 95th Infantry Division, date unknown, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (F-15).

B-35 The Desert Training Center and C-AMA, Study No. 15, Historical Section, Army Ground Forces, 1946, Chapter I, "The Beginning" (F-16).

B-36 The Desert Training Center and C-AMA, Study No. 15, Historical Section, Army Ground Forces, 1946, Chapter VII, "The Close" (F-17).

B-37 CERTIFICATE OF CLEARANCE, CAMP COXCOMB, CALIFORNIA, CALIFORNIA-ARIZONA MANEUVER AREA, Department of the Army, Department of the Army Corps of Engineers, Office of the District Engineer, Los Angeles District, 8 June 1949 (F-18).

B-38 Memorandum to Manager, Land Office, Bureau of Land Management, Los Angeles, CA, from Corps of Engineers, Office of the District Engineer, Los Angeles District, Los Angeles, CA, CAMA - Dedudding, 21 September 1956 (F-19).

B-39 Memorandum to Assistant to State Supervisor, California, from Manager, Land Office, Los Angeles, October 17, 1956, "Public Lands Contaminated by Explosives California-Arizona Maneuver Area" (F-20).

B-40 Memorandum to Director Bureau of Land Management, Land Office, Riverside, CA, "Contamination of Land by Defense Agencies", Apr 27 1962 (F-21).

B-41 Patton Museum, Desert Center, California, "Desert Training Center/California Arizona Maneuver Area, Part II Sites and Relics", by Francis G. Blake, 1988 (F-22).

B-42 A History of Large Scale Army Maneuver in the United States, 1935-1964 by Jean R. Noenk, December 1969, (F-23).

B-43 U.S. Military History Institute, Historical Reference Branch Carlisle Barracks, excerpts from a Desert Strike Report, July 29, 1964 (F-24).

B-44 Extract from Application for Registration of Historical Landmark for Riverside County, Office of Historic Preservation, Sacramento, CA (F-25).

B-45 Department of Interior Information Bulletin No. 95-30, "Unexploded Ordnance Report" October 20, 1994 (F-26).

B-46 Letter from the State Lands Commission, State of California to United States Engineer's Office, Los Angeles, granting the authorization to use the requested lands for armored division maneuvers, March 9, 1942 (G-1).

B-47 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, "Land Acquisitions, Desert Training Area, Needles, California", May 13, 1942, (G-2).

B-48 Revocable Permit No. 12, Public Resources Code, between the War Department and the State of California, March 24, 1942 (G-3).

B-49 Enclosure No. 2, Description of Camp Coxcomb from U.S. Army Corps of Engineers, Los Angeles District, 20 April 1944 (G-4).

B-50 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, "Land Releases", 1945 (G-5).

B-51 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, "CERTIFICATE, Request for release from Revocable Permit No. 12", 5 September 1946 (G-6).

B-52 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, "Military Acquisition Project Report and Tract Register for Camp Coxcomb", 1 June 1948 (G-7).

B-53 Letter to Director, Bureau of Land Management, Department of Interior, Washington, DC from US Army Corps of Engineers, recommending that portions of Camp Coxcomb be restricted to surface use only, 2 September 1949 (G-8).

B-54 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, "Real Property Management and Disposal Report", 15 October 1949 February 1942 (G-9).

B-55 Pictorial History, 95th Infantry Division in Training at CAMA Sites, 1943, NARA Suitland, RG407 Records of the Adjutant General's Office 1917-, Entry 427: WWII Operations Reports Box 13857 (H-1).

B-56 Historical aerial photo by 23rd Photo Squadron, Apr 1943, (compilation of two aerials), NARA Archives 1, Entry 55A: Project Decimal Files 1942-1947 (K-1).

B-57 Historical aerial photo with range locations, Council on America's Past, Mr. John Lynch, Historian, (K-2).

B-58 Historical DTC photographs off the internet, <http://wqww.ca.blm.gov/cdd/dtc.html> (K-3).

B-59 U.S. Army Corps of Engineers, Los Angeles District, Real Estate Files, COE Map, Main Areas of DTC-CAMA (L-1).

B-60 U.S. Army Corps of Engineers, Real Estate Files, Los Angeles District, Real estate map of Camp Coxcomb, Corps of Engineers, South Pacific Division, 16 Aug 45, (L-2).

B-61 Map of California-Arizona Area Firing and Bombing Ranges, 1942-1943, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (L-3).

B-62 Map of Camp Coxcomb's surrounding area and dates of camp evacuations, NARA Archives 1, RG337 Records of the Headquarters Army Ground Forces, Entry 55A: Project Decimal Files, 1942-1947, Box 1272 (L-4)

B-63 Drawing 241-M-4, California - Arizona Maneuver Area, Deduoding Program, U.S. Army Corps of Engineers, Los Angeles District, Los Angeles, CA, October 1951 (Poor Copy) (L-5).

B-64 California Desert Conservation Area, Land Use Development, 1940-1945, Bureau of Land Management, Palm Springs, CA, date unknown. (Not included in this ASR)

B-65 Desert Training Center, California-Arizona Maneuver Area Interpretive Plan, United States Department of the Interior, Bureau of Land Management, California Desert District, 1986. (Not included in this ASR)

SECTION II
NATIONAL CAPITOL REGION ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

CAMP COXCOMB, CA

***CENTER OF MILITARY HISTORY
WASHINGTON, DC***

Historical Research Branch

228.01 HRC 331, Posts - Desert Training Center
Background Data and Map, Desert Training Center, California - Arizona
Maneuver Area, 1942-1944

Posts, Camps, and Stations - WWII Vol. III (C)
Data Sheet, Camp Coxcomb, 1943

Historical Data Card - Post, Camp, Station, or Airfield
California - Arizona Maneuver Area, Desert Training Center

***NARA - ARCHIVES I
WASHINGTON, DC***

RG 337 (Records of the Headquarters, Army Ground Forces)

Entry 29C: General Staff, G-3 Section, Training Group, Troop Training Division,
Maneuvers, Special Projects & Ammo Branch, Desert Training Center, 1942-1947,
Box 112
Short History and Description, California - Arizona Maneuver Area, 1942-1943

Entry 29C: General Staff, G-3 Section, Training Group, Troop Training Division,
Maneuvers, Special Projects and Ammo Branch, Desert Training Center, 1942-1947,
Box 112
Rolled Map, Desert Training Center, 14 June 1943

Entry 55A: Project Decimal Files, 1942-1947
Box 1272
Description and Map, Camp Coxcomb Facilities, Including Firing Range

Entry 55A: Project Decimal Files, 1942-1947
Box 1272
Map, Camp Coxcomb, Desert Training Center

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Box 1272
Photographs, Camp Coxcomb Facilities

Entry 55A: Project Decimal Files, 1942-1947
Box 1272
Rolled Map, California - Arizona Maneuver Area Firing and Bombing Ranges,
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Entry 55A: Project Decimal Files, 1942-1947
Box 1275
Correspondence Relative to Training and Test Ammunition, Desert Training
Center, May 1944

Entry 55A: Project Decimal Files, 1942-1947
Box 1277
Memorandum Relative to Discontinuation of California - Arizona Maneuver
Area, 24 February 1944

***NARA - ARCHIVES II
COLLEGE PARK, MD***

RG 77 (Records of the Office of the Chief of Engineers)

Entry 1011: Security Classified Subject Files, 1940-1945
Box 218
Memorandum Relative to Establishment of Camp Coxcomb, 30 August 1943

Entry 1011: Security Classified Subject Files, 1940-1945
Box 218
Memorandum Relative to Status of Construction, California - Arizona Maneuver
Area, October 1943

Entry 1011: Security Classified Subject Files, 1940-1945
Box 218
Memorandum Relative to Evacuation of California - Arizona Maneuver Area,
17 February 1944

Entry 1011: Security Classified Subject Files, 1940-1945

Box 218

Memorandum Relative to Evacuation of California - Arizona Maneuver Area,
7 March 1944

Entry 1011: Security Classified Subject Files, 1940-1945

Box 218

Memorandum Relative to Surplus Installations, California - Arizona Maneuver
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Entry 1011: Security Classified Subject Files, 1940-1945

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Memorandum Relative to Use of Portion of California - Arizona Maneuver Area
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RG 112 (Records of the Office of the Surgeon General)

Entry: Historical Unit, Medical Detachment - Records Used for Preparing World War II
Era Medical Histories

Box 365

Plan for Chemical Warfare Service Evacuation, California - Arizona Maneuver
Area, 7 February 1944

Entry: Historical Unit, Medical Detachment - Records Used for Preparing World War II
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Box 365

Memorandum Relative to Closure of Target Ranges, Camp Coxcomb, 8 February
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Entry: Historical Unit, Medical Detachment - Records Used for Preparing World War II
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Box 365

Ordnance Material Evacuation Plan, California - Arizona Maneuver Area,
9 February 1944

RG 160 (Records of the Army Service Forces)

Entry 25: Director of Plans and Operations, Liaison and Control Branch, Subject File,
1942-1944

Box 4

Letter Relative to Land Acquisition, California - Arizona Maneuver Area,
9 March 1942

***NARA - CARTOGRAPHIC BRANCH
COLLEGE PARK, MD***

AMS

V-V95-M

Map - Desert Training Center Maneuver Area

***NARA - MOTION PICTURE BRANCH
COLLEGE PARK, MD***

RG 111

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Box 177, Desert

Catalog Cards, Films, "Desert Training Center, IX Corps Maneuvers"

File ADC/111LC

Box 259, Maneuvers

Catalog Cards, Films, "Desert Training Center, IX Corps Maneuvers"

***NARA - STILL PICTURES BRANCH
COLLEGE PARK, MD***

RG 111-SC

Box 22

Signal Corps (6) Photos, Desert Training Center, Including Training Facilities,
Roads, and Utilities, 1942

Box 43

Field PX, Coxcomb Camp Site, Desert Training Center, 1943

***NARA - SUTLAND REFERENCE BRANCH
SUTLAND, MD***

RG 175 (Records of the Chemical Warfare Service)

Entry 1: Central Correspondence, 1936-1942

Box 274

Memorandum Relative to Chemical Ammunition Requirements, Desert Training
Center, August 1, 1942

RG 407 (Records of the Adjutant General's Office, 1917-)

Entry 427: World War II Operations Reports
Box 13857

Pictorial History, 95th Infantry Division in Training at California - Arizona
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Entry 427: World War II Operations Reports
Box 13857

95th Infantry Division, Training Program, California - Arizona Maneuver Area,
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Entry 427: World War II Operations Reports
Box 15544

Training Operations, 7th Armored Division, Camp Coxcomb, California -
Arizona Maneuver Area, 1943

USACE Office of History

HQ Heliogram, Council on Abandoned Military Posts, No. 166, Nov-Dec 1984

Article

California - Arizona Maneuver Area, 1984

Military Files

I-10A-8

Newspaper Articles, Desert Training Center - California - Arizona Maneuver
Area, 1984-1985

I-10A-8

Bureau of Land Management Interpretive Plan, Including Site History, for the
former Desert Training Center - California - Arizona Maneuver Area, 1985

I-10A-8

Bureau of Land Management Interpretive Plan, Including Site History, for the
Former Desert Training Center - California - Arizona Maneuver Area, 1986

Real Estate Records

Realty Control File Summary
Camp Coxcomb

SECTION II
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PART B
NEGATIVE FINDINGS
CAMP COXCOMB, CA

***LIBRARY OF CONGRESS
WASHINGTON, DC***

Geography and Map Division

***NARA - ARCHIVES I
WASHINGTON, DC***

RG 49 (Records of the Bureau of Land Management)

Entry 1515: Central Files (Division of Technical Programs - Range Staff), 1937-1955

Entry 1519: Records Relating to District Grazing Boundaries, 1935-1961

RG 69 (Records of the Work Progress Administration)

Entry: Central Files, 1935-1944

Entry: Civil Works Administration Central Files, 1931-1954

Entry: General Subject Series, National Defense Program, 1940-1946

Entry: FERA, New General Subject Series

Entry: WPA General Series, National Defense, 1940-1942

RG 135 (Records of the Public Works Administration)

Entry: Project Files

RG 153 (Records of the Office of the Judge Advocate General)

Entry: Reservations File, 1800-1950

RG 162 (Records of the Federal Works Agency)

Entry 7: Central Decimal Files, 1941-1949

Entry 21: Records of the War Public Works Program, 1941-1949

RG 407 (Records of the Adjutant General's Office, 1917-)

Entry: Army - AG Decimal File, 1940-1945

***NARA - ARCHIVES II
COLLEGE PARK, MD***

RG 22 (Records of the Bureau of Fish and Wildlife)

Entry 243: Cooperative Agreements with the Corps of Engineers, 1943-1962

RG 30 (Records of the Bureau of Public Roads)

Entry 54: Correspondence, 1941-1945

RG 48 (Records of the Department of the Interior)

Entry 749B: Central Classified Files, 1937-1953

RG 57 (Records of US Geological Survey)

Entry 27: Correspondence and Related Records, 1906-1948

RG 70 (Records of the Bureau of Mines)

Entry 66: General Classified Files: General Correspondence, 1926-1952

RG 77 (Records of the Office of the Chief of Engineers)

Accession 51A-277: District Files, 1945

Accession 52A-40: Division Files, 1945

Accession 53A-132: Miscellaneous Files, 1945

Accession 58A-1076: Real Estate Files

Entry 18: Correspondence, 1789-1942

Entry 106B: General Correspondence, 1918-1945

Entry 1019: General Correspondence with Service Commands, 1918-1949

RG 92 (Records of the Office of the Quartermaster General)

Entry 1890: General Correspondence (Subject File), 1936-1961

Entry 1890AA: Formerly Classified General Correspondence (Subject Files), 1936-1954

Entry 1892: Classified Geographic File, 1936-1945

Entry 1892A: General Correspondence (Geographic File), 1936-1945

RG 107 (Records of the Office of the Secretary of War)

Entry 102: Office, Administrative Assistant to the Secretary of War, Project Decimal File, 1943-January 1947

Entry 158: Special Assistant for Construction - MJ Madigan, General Correspondence, 1940-1945

Entry 159: Special Assistant for Construction - MJ Madigan, Projects, 1940-1945

RG 111 (Records of the Office of the Chief Signal Officer)

Entry: Unclassified Central Decimal Files, 1941-1957

RG 112 (Records of the Office of the Surgeon General)

Entry 31: Geographic Series, 1938-1946

Entry 32: Geographic Series (Formerly Security Classified), 1938-1946

RG 160 (Records of the Army Service Forces)

Entry 27: Mobilization Division, Command Installation Branch, Correspondence File, 1942-1946

Entry 138: Readjustment Division, Central Decimal Files, 1943-1944

Entry 139: Readjustment Division, Central Decimal Files, 1943-1946

RG 165 (Records of War Department General and Special Staffs)

Entry 258: Installations Branch, Reports and Correspondence Relating to Construction, Utilization, and Disposal of Army Installations, 1944-1947

Entry 484D: Federal Works Agency Project Files, 1940-1946

RG 168 (Records of the Bureau of the National Guard)

Entry 344: State Decimal Files, 1941-1947

Entry 348: State Guard State Files, 1941-1949

RG 175 (Records of the Chemical Warfare Service)

Entry 2A: General Correspondence (Subject Series), 1942-1945

Entry 2B: Correspondence with the War Department and Other Government Agencies, Army Commands and Units, and Schools (Miscellaneous Series), 1942-1945

RG 207 (Records of the Housing and Home Finance Agency)

Entry 24: General National Housing Records, War Housing Program, 1942-1947

RG 218 (Records of the U.S. Joint Chiefs of Staff)

Entry: Series, 1942-1959, Geographic File

RG 269 (Records of the General Services Administration)

Entry 62: Real Property Disposal Case Files Transferred from the Farm Credit Administration, 1945-1953

RG 270 (Records of the War Assets Administration)

Entry 3: Office of Information, Subject Files, 1946-1959

RG 291 (Records of the Federal Property Resources Service)

Entry 5: Real Property Disposal Case Files, 1962

RG 319 (Records of the Army Staff)

Entry 47: Army Intelligence Project Decimal File, 1941-1945

***NARA - SUITLAND REFERENCE BRANCH
SUITLAND, MD***

RG 77 (Records of the Office of the Chief of Engineers)
Entry 391: Construction Completion Reports, 1917-1943
Entry 393: Historical Records of Buildings at Active Army Posts, 1905-1942

RG 156 (Records of the Office of the Chief of Ordnance)
Entry 36: General Correspondence, 1917-1941
Entry 39: Confidential Correspondence, 1917-1940

RG 175 (Records of the Chemical Warfare Service)
Entry 4: Secret & Confidential Central Correspondence, 1918-1942

RG 336 (Records of the Office of the Chief of Transportation)
Entry: Historical Program Files, 1940-1950

RG 338 (Records of U.S. Army Commands, 1942-)
Entry: Records of Posts, Camps and Stations
9th Service Command
Western Defense Command

RG 394 (Records of U.S. Army Continental Commands, 1920-1942)
Entry 296: General Correspondence of the Construction Division, 1916-1945
Entry 298: Historical Reports Relating to Post Planning, 1899-1945

***SMITHSONIAN NATIONAL AIR AND SPACE MUSEUM
WASHINGTON, DC***

Collections Specified in Project Work Plan

***WASHINGTON NATIONAL RECORDS CENTER
SUITLAND, MD***

RG 77 (Records of the Office of the Chief of Engineers)
Accession A52-117
Accession A52-259
Accession A52-434
Accession 68A-1932

SECTION III
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PART A
POSITIVE FINDINGS

CAMP COXCOMB

***NARA, PACIFIC SOUTHWEST REGION
LAGUNA NIGUEL, CA***

RG 49, Records of the Bureau of Land Management

Box #1029

Memo, Subj: Contamination of Land by the Defense Agencies,

Apr 27 1962

Plat Map Files by Township and Range

Plat Maps

SECTION III
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PART B
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CAMP COXCOMB

NARA, PACIFIC SOUTHWEST REGION
LAGUNA NIGUEL, CA

RG 30, Records of the Bureau of Public Roads
All Entries
Nothing Found

RG 49, Records of the Bureau of Land Management
General Correspondence 1933-1964
Box #1
Nothing of Value to this ASR Found

Records Relating to Misc. Withdrawals and Restorations
1885-1964
Box #1
Nothing of Value to this ASR Found

RG 77, Records of the Office of the Chief of Engineers
All Entries
Nothing Found

RG 92, Records of the Quartermaster General
All Entries
Nothing Found

RG 111, Records of the Office of the Chief Signal Officer
Box #1
Nothing of Value to this ASR Found

RG 121, Records of the Public Building Service
All Entries
Nothing Found

RG 156, Records of the Chief of Ordnance
All Entries
Nothing Found

RG 219, Records of the Office of Defense Transportation
All Entries
Nothing Found

RG 270, Records of the War Assets Administration
All Entries
Nothing Found

RG 338, Records of U.S. Army Commands
All Entries
Nothing Found

**NARA, FEDERAL RECORDS CENTER
LAGUNA NIGUEL, CA**

RG 77, Records of the Office of the Chief of Engineers
Accession #077-85-006
Boxes #1,9,10
Nothing of Value to this ASR Found

**NARA, NATIONAL PERSONNEL RECORDS CENTER
ST LOUIS, MO**

All Accessions
Nothing Found

**NARA, FEDERAL RECORDS CENTER
SAN BRUNO, CA**

RG 77, Records of the Office of The Chief of Engineers
Accession #077-76L1483
Boxes #115-121,123-125,127-130,137-145
Nothing of Value to this ASR Found

RG 121, Records of the Public Building Service
Accession #121-77-0003
Boxes #1,3-8,10-17,1A-5A
Nothing of Value to this ASR Found

RG 269, General Records of the General Services Administration
All Entries
Nothing Found

RG 291, Records of the Federal Property Resources Service
All Entries
Nothing Found

***NARA, PACIFIC SIERRA REGION
SAN BRUNO, CA***

RG 30, Records of the Bureau of Public Roads
All Entries
Nothing Found

RG 49, Records of the Bureau of Land Management
Series #98
Box #1015
Nothing of Value to this ASR Found

Series #98A
Boxes #1098G-1098J (5 Boxes)
Nothing of Value to this ASR Found

RG 77, Records of the Office of the Chief of Engineers
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RG 92, Records of the Office of the Quartermaster General
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RG 121, Records of the Public Buildings Service
Accession #9NSS-121-85-009
Box #13
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Nothing Found

RG 219, Records of the Office of Defense Transportation
All Entries
Nothing Found

RG 269, General Records of the General Services Administration
All Entries
Nothing Found

RG 270, Records of the War Assets Administration
All Entries
Nothing Found

RG 291, Records of the Federal Property Resources Service
All Entries
Nothing Found

RG 338, Records of U.S. Army Commands
All Entries
Nothing Found

RG 406, Records of the Federal Highway Administration
Accession #72A1388
Box #9
Nothing of Value to this ASR Found

California FAP Route Reports 1920-1969
Boxes #3-6
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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX C

GLOSSARY

APPENDIX C

Glossary

A/C	Aircraft
ACOE	Army Corps of Engineers
AR	Army Regulation
BLM	Bureau of Land Management
BD/DR	Building Demolition/Debris Removal
CAMA	California-Arizona Maneuver Area
CEHNC	U.S. Army Engineer, Huntsville Center
CESAL	U.S. Army Engineer, Los Angeles District
CENCR	U.S. Army Engineer, Rock Island District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CES	Civil Engineering Section
CWM	Chemical Warfare Material
DA	Department of the Army
DEAR	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DOI	Department of Interior
DTC	Desert Training Center
EE/CA	Engineering Evaluation Cost Analyst
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
ESI	Extended Site Inspection
FDE	Findings and Determination of Eligibility
FS	Feasibility Study
FUDS	Formerly Used Defense Site(s)
GP	General Purpose
GSA	General Services Administration
HE	High Explosive
HTRW	Hazardous, Toxic and Radiological Waste
HTW	Hazardous and Toxic Waste
IAW	In Accordance With
INPR	Inventory Project Report
IRP	Installation Project Report
M	Model Number
MK/MOD	Mark/Model (Used by Navy as model number)
Mk	Mark (Used by Navy as model number)
NARA	National Archives Records Administration
NC	Nitrocellulose
NOAA	National Oceanic and Atmospheric Administration
OE	Ordnance and Explosive

ORD	Ordnance
PA	Preliminary Assessment
PAO	Public Affairs Officer
PN	Project Number
RAC	Risk Assessment Code
RD/RA	Remedial Design/Remedial Action
RI	Remedial Investigation
RG	Record Group
RI/FS	Remedial Investigation/Feasibility Study
SARA	Superfund Amendments and Reauthorization Study
SI	Site Investigation or Site Inspection
SSP	Site Safety Plan
TM	Technical Manual
TP	Target Practice
USA	U.S. Army
USACE	U.S. Army Corps of Engineers
USACERL	U.S. Army Construction Engineering Center and Research Laboratory School
USATCES	U.S. Army Technical Center for Explosives Safety
USN	U.S. Navy
UXO	Unexploded Ordnance
WD	War Department

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
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APPENDIX D

TEXT/MANUALS

APPENDIX D

TEXT/MANUALS

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- D-1 Targets, Target Material and Training Course Lay-outs (B-7).
- D-2 Pictures of combat equipment listed in table 5-1 (B-8).
- D-3 Grenades (B-9).
- D-4 Rockets, 2.36 inch (B-11).
- D-5 Small Arms Ammunition (B-10, B-11, B-13).
- D-6 Mortars, 60MM/81MM (B-11, B-12, B-13, B-15).
- D-7 Demolition Materials (B-14).
- D-8 Bombs, Practice (B-16).

TARGETS, TARGET MATERIAL, AND TRAINING COURSE LAY-OUTS

post (Mobilization or Theater-of-Operations Type—five years' occupancy and use). The use of critical materials will be governed by current instructions of the Office of the Chief of Engineers. Clearing and grading will be limited to that necessary to provide serviceable training aids with essential protection from ricochets. Grading quantities will be held to a minimum through care in the selection and location of training aid areas. Requirements for compaction of embankment, for drainage, and for general clean-up, will conform to minimum standards. Seeding, sodding, or other erosion control measures will be undertaken only where essential. Seeding or spot sodding of firing points on known-distance ranges will be permitted as needed.

9. CONSTRUCTION DETAILS FOR RANGES.

a. Standard drawings cover typical, approved construction details. Comparable construction, established as satisfactory through prior usage, requiring no greater use of critical materials than shown on the typical plans, and requiring no increase in cost, may be substituted by contracting officers. All construction must provide required training facilities, utilizing standard targets and materials supplied by the Ordnance Department. In preparing construction details for ranges and estimates, the following points are to be noted:

(1) **KNOWN-DISTANCE RANGE** (figs. 3 to 8 incl.). The known-distance range receives greater usage and entails larger expenditure for construction than any of the other training aids. Survey of available areas and careful design offer opportunities for marked economies. The crib-type parapet (fig. 6) may be used, where logs are available for clearing, in areas reasonably free of termites and where rainfall is not excessive. Alternate No. 1 parapet (fig. 6) is suitable for construction under substantially all conditions; the type and extent of treatment (i.e., creosote, various salts, or pentochlorophenol applied as pressure treatment, dip treatment, or paint coat) should be predicated on local experience. Concrete parapets on temporary-type projects will be provided only under very adverse conditions. The following points should be noted in the design of known-distance ranges:

(a) Height of parapet is predicated on the present standard target frames as furnished by the Ordnance Department. Height of parapet necessary for protection of personnel is 7.5 to 8.0 feet. Accordingly, where definite information is available on the type of target frames to be furnished the individual project, an inspection of these frames in cooperation with the camp Ordnance officer is recommended in order to establish whether they are susceptible to ready modification to reduce frame height which will permit reduction in parapet height.

(b) Thickness of embankment shown at top of parapet is minimum and will be increased as required, based on type of soil and

TARGETS, TARGET MATERIAL, AND TRAINING COURSE LAY-OUTS

probable erosion. Appendix II in FM 5-15 includes table on page 17.

(c) The type and spacing of pedestals for target frames will be revised as required for target frames furnished.

(d) Where butts are to be located along a transverse slope, attention is directed to savings which may be accomplished by stepping elevation of parapet at intervals of not less than 5 targets. Study should be made to establish comparative cost of constructing groups of 25 targets with a 200-yard interval (300-yd adjacent to 500-yd range) between adjacent groups with cost of providing a protective embankment between adjacent groups for the portion not clear of the danger zone. Height of protective embankment must be sufficient to protect adjacent firing points from all firing positions. A wood bench may be provided to assist marking and posting of targets.

(e) Where local conditions will require excessive expenditure to place combined storage house and latrine facilities (figs. 9, 10, 11, and 12) adjacent to parapet extended, target storage house may be placed back of target frames. Latrines must be placed adjacent to parapets extended for protection of personnel, and target storage house *will not be entered or occupied while firing is in progress.*

(2) PISTOL RANGE (figs. 13, 14, and 15). Requirements for this range are such as to permit of extremely economical construction. Salvage embankment, designed to permit salvage of material in bullets as well as to reduce ricochets, may be provided along the rear of the targets when terrain conditions are particularly favorable; otherwise, value of material that can be recovered will not justify expenditure.

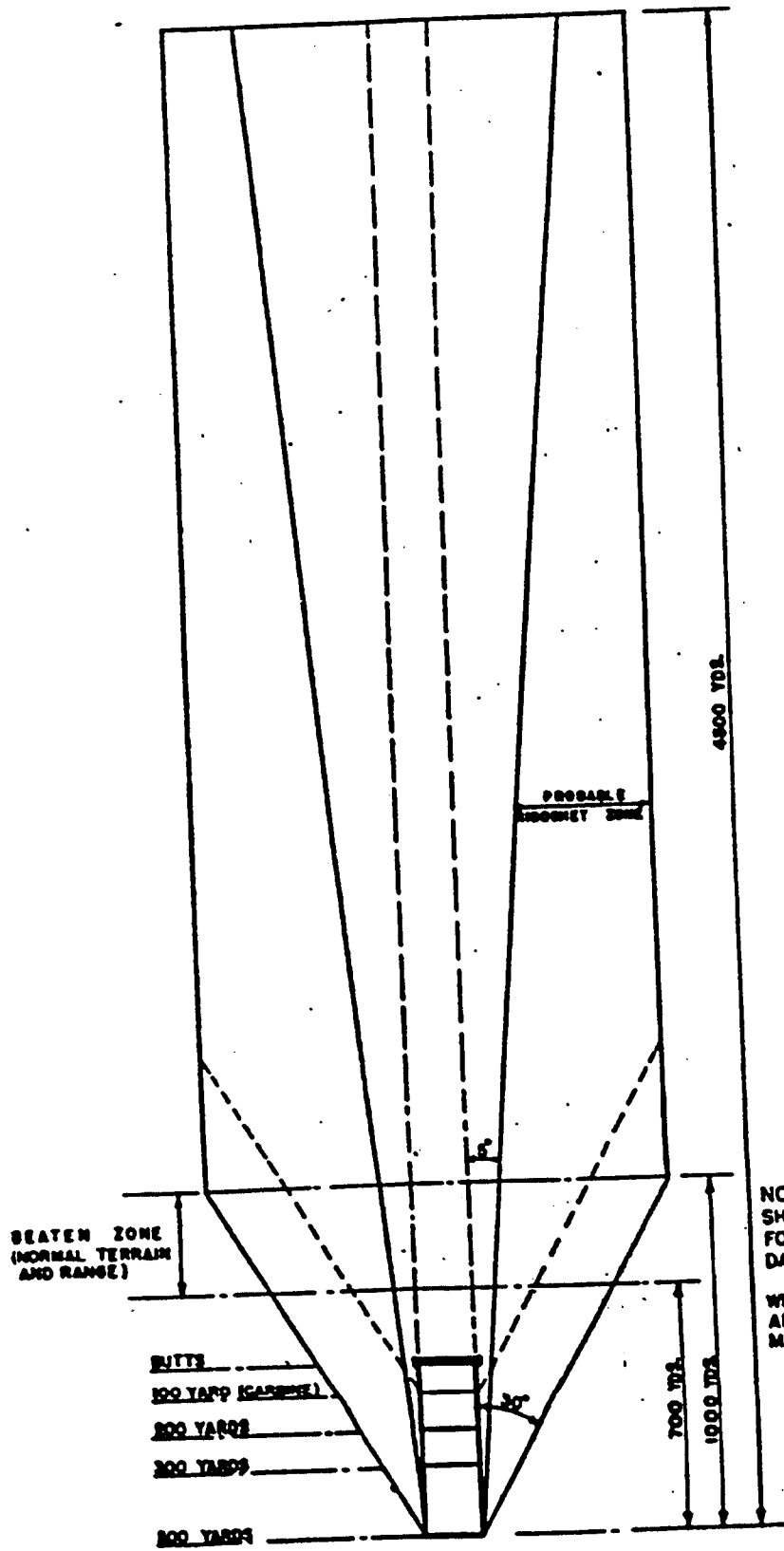
(3) LANDSCAPE TARGET RANGE (figs. 16 and 20). The necessity of providing safety space between adjacent targets to permit independent operation of each target will extend this range over a considerable lateral distance. Adjustment in distance between adjacent targets to take full advantage of topography will be reflected by savings in construction costs.

(4) MACHINE GUN 1,000-INCH RANGE (fig. 21). Total usage of this range is second only to the known-distance range. A location along cut slope or hillside will simplify construction of salvage wall (fig. 17).

(5) SUBMACHINE GUN RANGE (figs. 18, 19, and 22). Alternate methods shown for actuating targets fired upon from point "B" may be predicated upon local terrain or the desires of Range Officer. Effective use of this range is predicated on proper instructions and proper policing to control time and direction of fire.

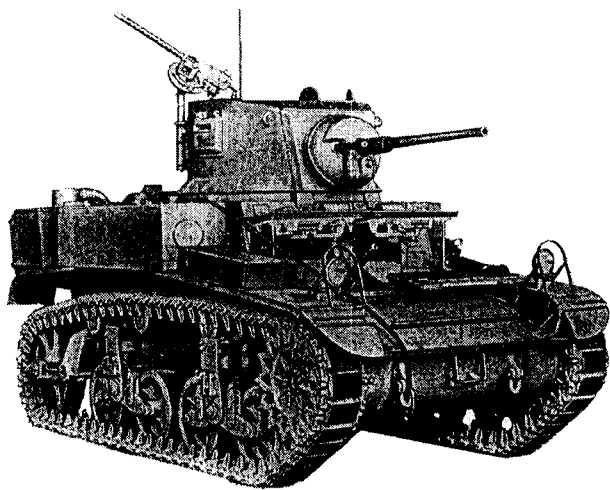
(6) ANTI-AIRCRAFT RANGE, MINIATURE (figs. 23 to 29 incl.). The wide angle of fire and limited range of cal. .22 weapons justify

CONSTRUCTION OF TARGET RANGES AND LAY-OUT OF VARIOUS OTHER RANGES AND COURSES

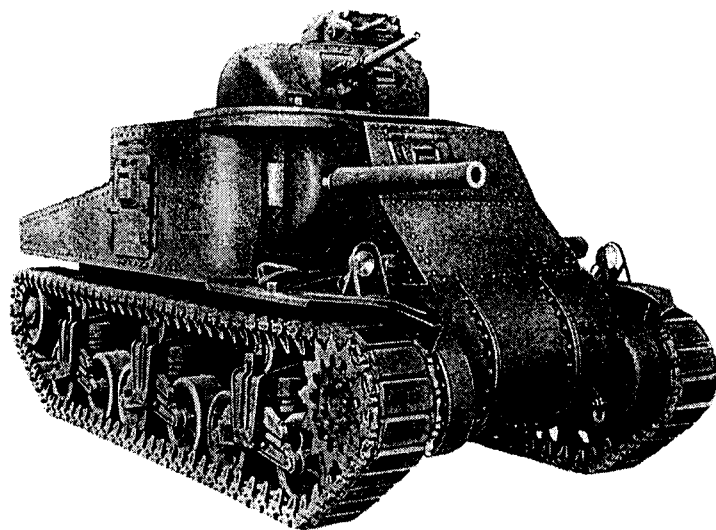


NOTE: SMOCKET ZONE AS SHOWN IS CONSIDERED ADEQUATE FOR SUBSTANTIALLY LEVEL OPEN DANGER AREAS. FAVORABLE TERRAIN WILL PERMIT REDUCTION. WOODED AREAS OR UNFAVORABLE TERRAIN MAY REQUIRE GREATER AREA.

MAJOR COMBAT VEHICLES AT CAMP COXCOMB



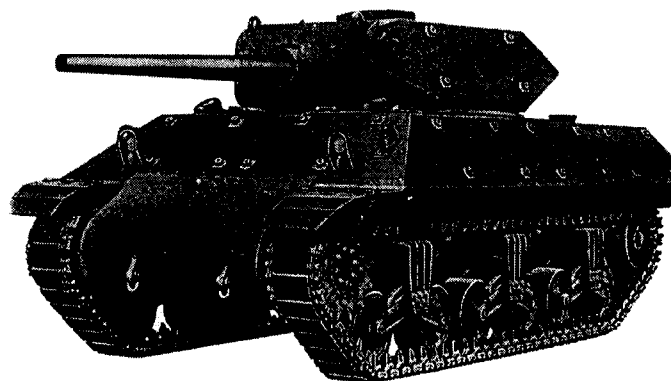
M3 Steward. 37MM, 30 cal



M3 Grant. 75MM, 37MM, 30 &
50 cal

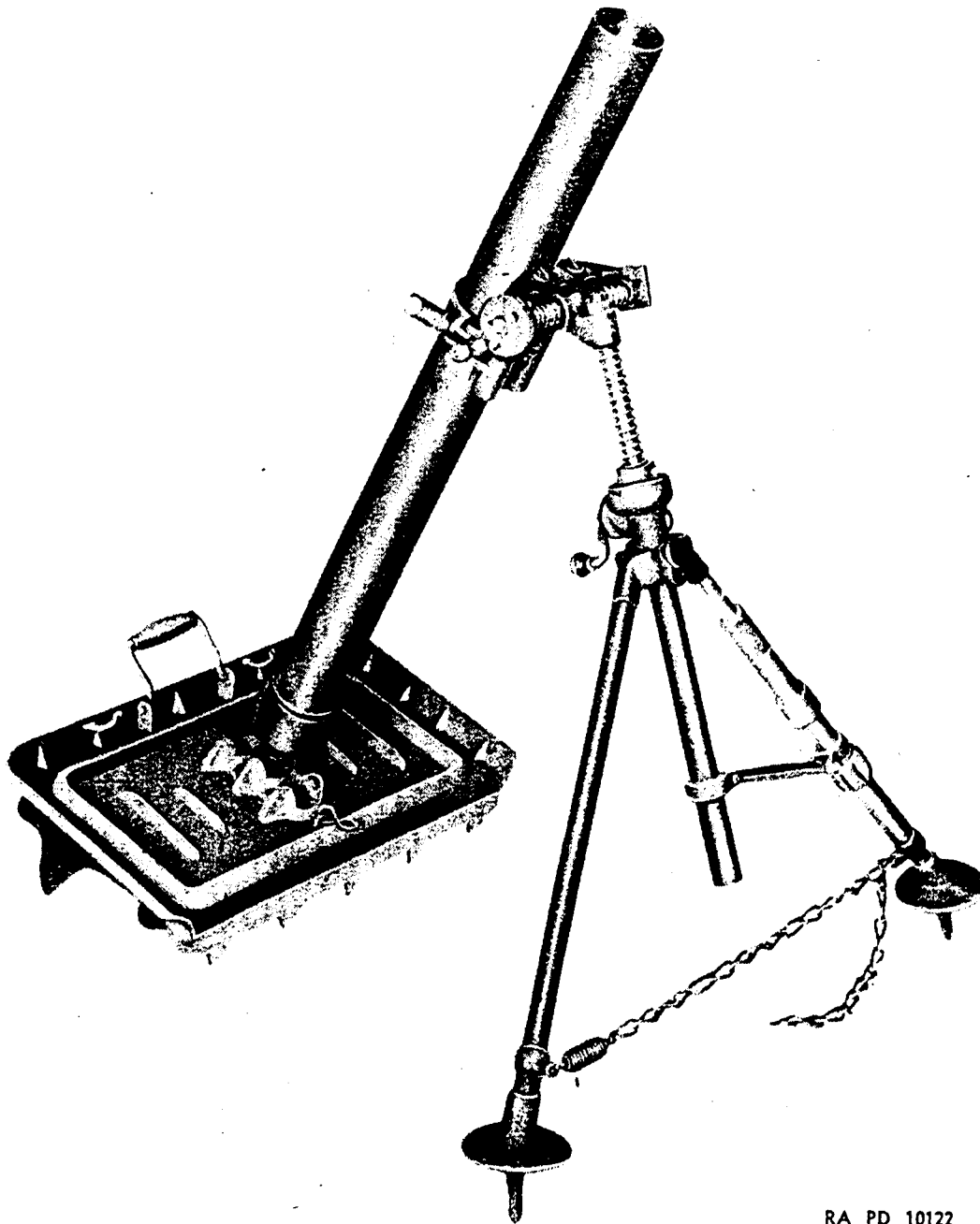


M4 Sherman. 75MM, 30 & 50 cal



M10 Wildcat. 76MM, 30 & 50 cal

SMALL ARMS AND TRENCH WARFARE



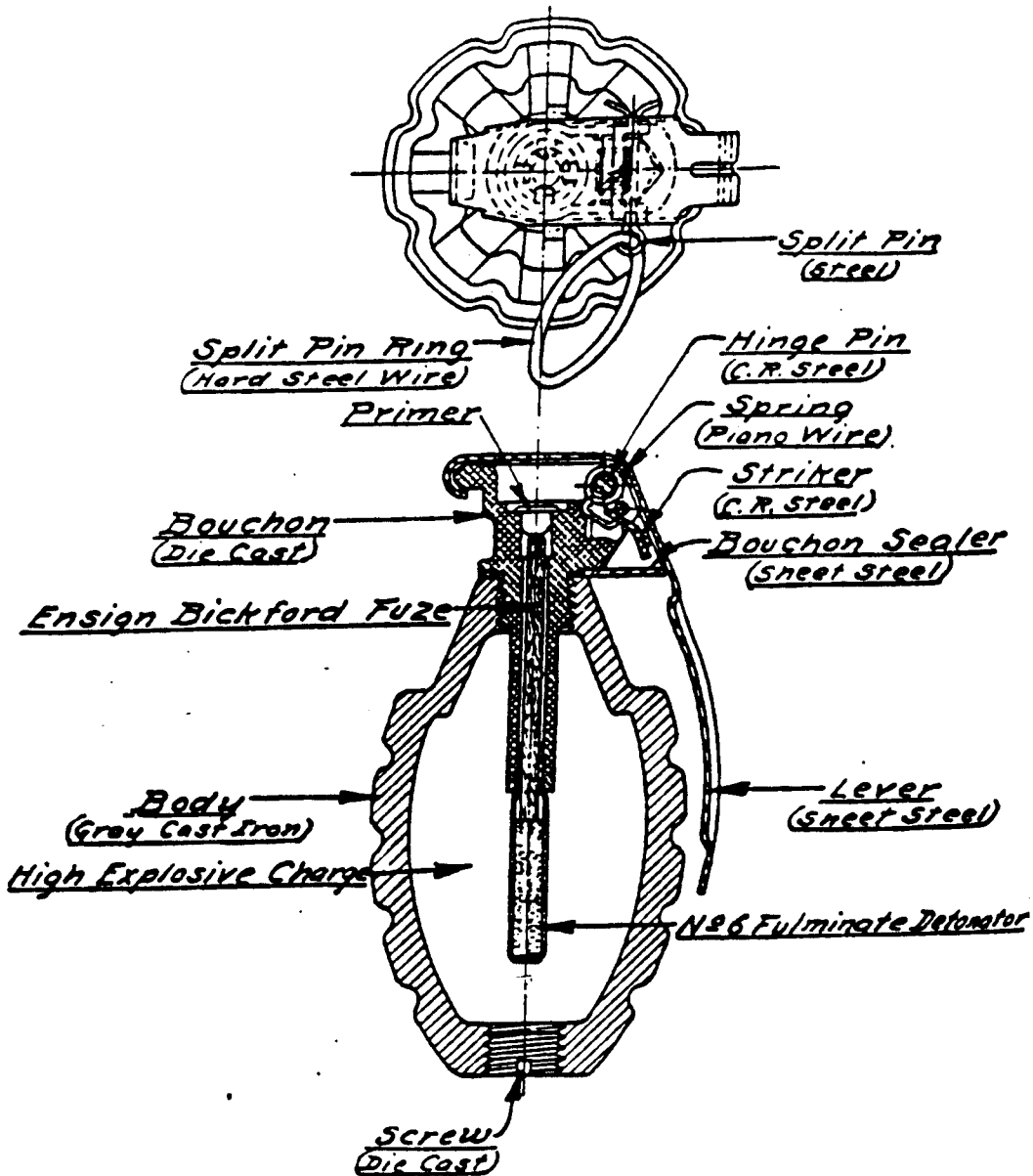
RA PD 10122

Figure 108 — 81-mm Mortar

function regardless of what position the shell may land, on nose, tail, or side. "Percussion," because this fuze has no detonating element in it and functions on impact action. This fuze must be used on 3-inch trench mortar shell because the shell is unstable in flight and may land in any position.

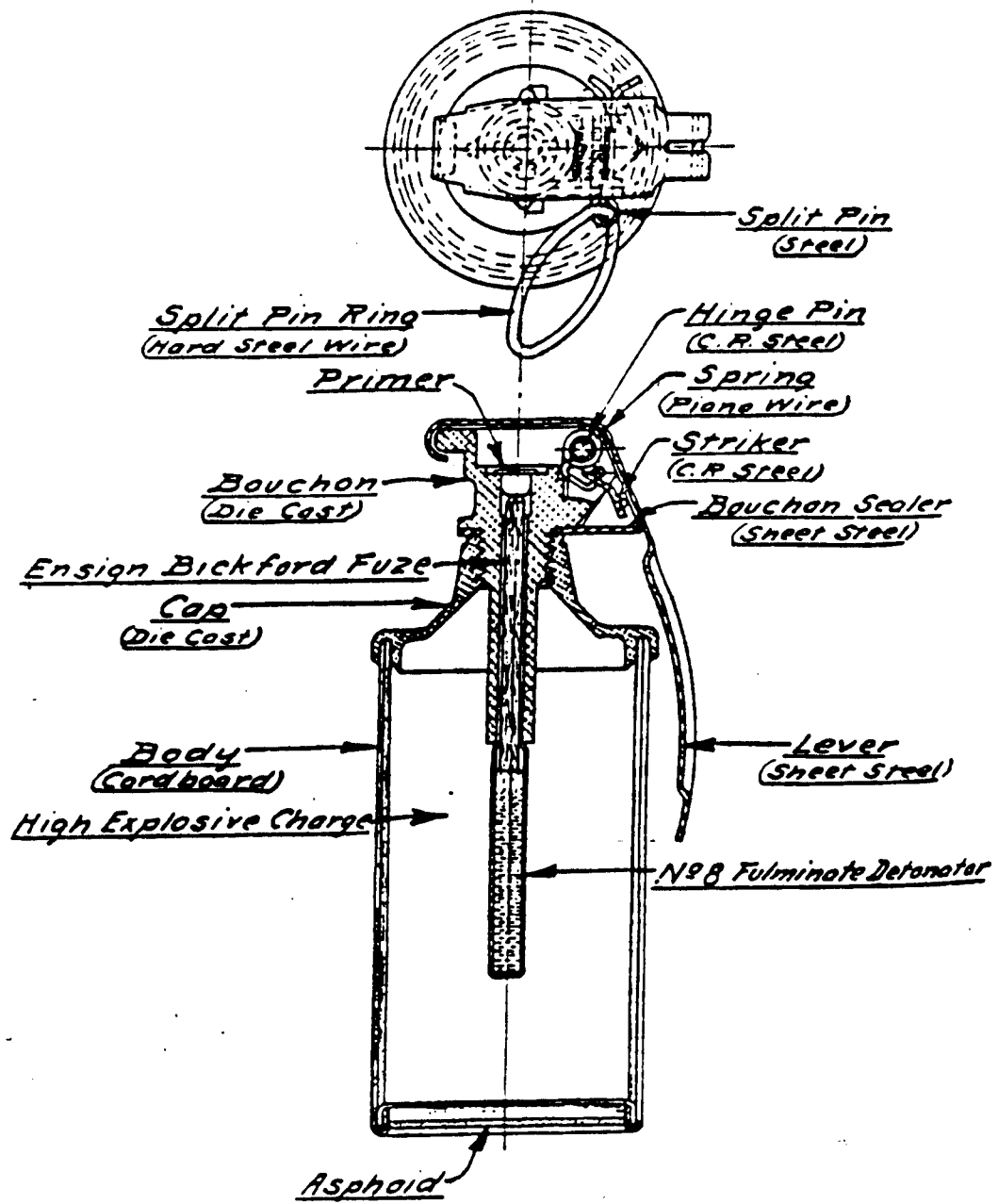
The cartridge container consists of a short, steel tube threaded at one end so as to screw on the steel base. The interior of the cartridge container is hollow, and into this cartridge container fits an

Defensive Hand Grenade Mark II.



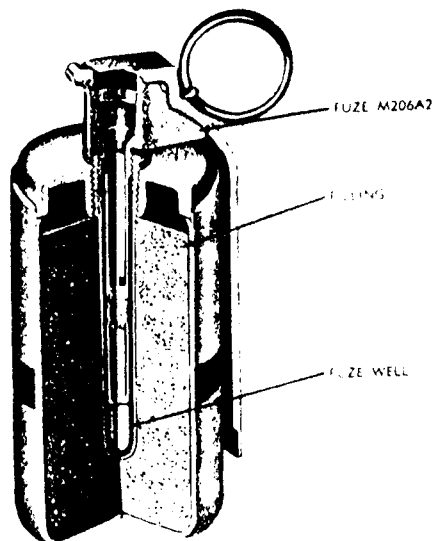
DEFENSIVE HAND GRENADE, MK II

Offensive Hand Grenade Mark III.



OFFENSIVE HAND GRENADE, MK III

GRENADE, HAND, SMOKE, WP, M15

Type Classification:

Obs. MSR 11756003

Use:

WP smoke hand grenade M15 is a bursting type grenade used for signaling, screening and incendiary purposes.

Description:

The grenade body is of sheet steel and is cylindrical in shape. The body has a fuze well liner and is filled with WP.

The screening effect of the smoke is limited because WP burns with such intense heat, the smoke tends to rise rapidly. Pieces of WP will burn for about 60 seconds, igniting any flammable substance contacted.

The hand grenade M206A1 and M206A2 are pyrotechnic delay-detonating fuzes. They differ only in body construction. The body contains a primer and a pyrotechnic delay column. Assembled to the body are a striker, striker spring, safety lever, safety pin with pull ring, and a detonator assembly. The split end of the safety pin has an angular spread or a diamond crimp.

Safety clips are not required with these grenades.

Tabulated Data:Grenade (with fuze):

Model(s)	M15
Body	Sheet metal
Weight	31 oz
Length (max)	4.5 in.
Diameter	2-3/8 in.
Color	Grey w/1 yellow band and yellow markings

Filler:

Type	WP
Weight	15 oz

Fuze:

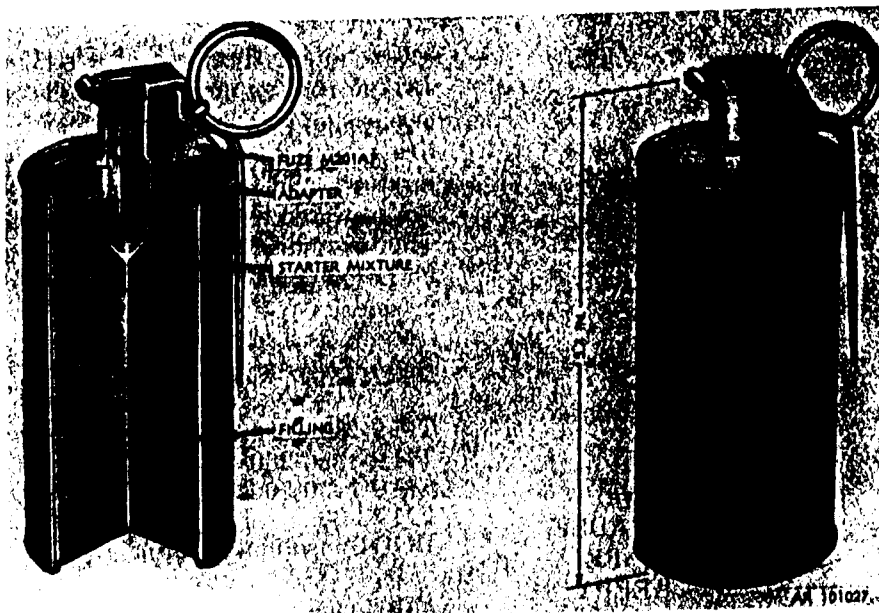
Model(s)	M206A1, M206A2
Type	Pyrotechnic delay-detonating
Primer	M42
Detonator	Lead azide, lead styphnate, RDX
Delay time	4 - 5 sec
Weight	2.6 oz
Length	4.3 in.
Color	Olive drab w/black markings
Packing	N/A
Safety device	Pull ring and safety pin

Federal Supply Code:

NSN	1330-00-219-8510
DODAC	1330-G935

Change 8 2-25

GRENADE, HAND, SMOKE, HC, AN-M8



Type Classification:

Std. LCC-A, AMCTC 3408

Use:

The HC Smoke Hand Grenade AN-M8 is a burning type grenade used to generate white smoke for screening activities of small units. It is also used for ground-to-air signaling.

Description:

The grenade body is a cylinder of thin sheet metal. It is filled with HC smoke mixture topped with a starter mixture directly under the fuze opening. The duration of smoke screen or signal is 105 to 150 seconds.

Hand grenade fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mixture, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever and safety pin with pull ring. The split end of the safety pin has an angular spread.

Safety clips are not required with these grenades.

Tabulated Data:

<u>Grenade (with fuze):</u>	
Model(s) -----	AN-M8
Body -----	Sheet metal
Weight -----	24 oz
Length -----	5.7 in.
Diameter -----	2.5 in.
Color -----	Light green w/black markings

Packing ----- 1 per container; 16 per packing box

Filler:

Type ----- HC (type C)
 Weight ----- 19 oz

Fuze:

Model(s) ----- M201A1
 Type ----- Pyrotechnic delay-igniting
 Primer ----- M39A1
 Ignition mixture ----- Iron oxide, titanium, zirconium
 Delay time ----- 0.7-2 sec
 Weight ----- 1.5 oz
 Length ----- 3.9 in.
 Color (safety lever) -- Gray or olive drab w/ black markings
 Packing ----- Not separately issued
 Safety device ----- Pull ring and safety pin

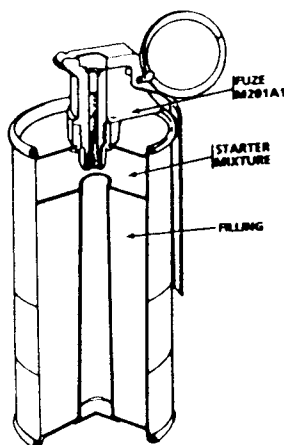
Federal Supply Code:

NSN ----- 1330-00-219-8511
 DODAC ----- 1330-G930
 See DOD Consolidated Ammunition Catalog for additional information.

Unit of Issue:

Each Grenade Packed ----- 1 per container; 16 per packing box

GRENADE, HAND: SMOKE, M18



Type Classification:

Std. LCC-A, AMCTC 3450

Use:

Colored Smoke Hand Grenade M18 is used for ground-to-air or ground-to-ground signaling.

Description:

The grenades may be filled with any one of four smoke colors: red, green, yellow or violet. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is of thin sheet metal and is filled with red, green, yellow or violet smoke composition. The filler is topped with a starter mixture.

The hand grenade fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mixture, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. The split end of the safety pin has an angular spread.

Safety clips are not required with these grenades.

Tabulated Data:

Grenade (with fuze):	
Model(s)	M18
Body	Sheet metal
Weight	19 oz
Length	5.75 in.
Diameter	2.5 in.

Color	Light green w/black markings
Packing	1 per container; 16 per packing box.

<u>Filler:</u>	
Type	Smoke composition
Weight	11-1/2 oz

<u>Fuze:</u>	
Model(s)	M201A1
Type	Pyrotechnic delay-igniting
Primer	M39A1
Ignition mixture	Iron oxide, titanium, zirconium
Delay time	0.7 - 2 sec
Weight	1.5 oz
Length	3.9 in.
Color	Gray or olive drab w/black markings
Packing	Not separately issued
Safety device	Pull ring and safety pin

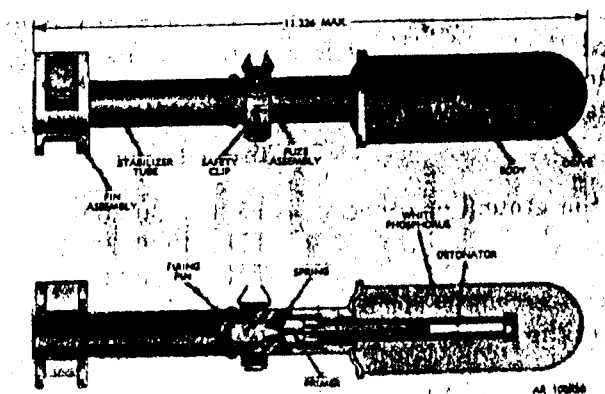
Federal Supply Code:

<u>NSN's:</u>	
Red	1330-00-289-6852
Green	1330-00-289-6851
Yellow	1330-00-289-6854
Violet	1330-00-289-6853

<u>DODAC's:</u>	
Red	1330-G950
Green	1330-G940
Yellow	1330-G945
Violet	1330-G955

Change 8 2-27

GRENADE, RIFLE: SMOKE, WP, M19A1



Type Classification:

Obs. MSR 11756003

Use:

For screening, signaling, or for incendiary effect against flammable targets.

Description:

WP smoke rifle grenade M19A1 is filled with WP. This chemical agent ignites spontaneously when exposed to air, producing a yellow-white flame and giving off a dense cloud of white smoke. When used as an anti-personnel weapon, grenade M19A1 has an effective casualty radius of 10 meters. Grenade M19A1 has a maximum range of approximately 195 meters.

WP smoke rifle grenade M19A1 consists of three basic parts: a steel stabilizer tube assembly, an integral fuze and a body.

Tabulated Data:

Model	M19A1
Type	Smoke (WP)
Weight	1.5 lb
Dimensions:	
Diameter	2.0 in.
Height	11.31 in.
Charge (WP)	8.5 oz
Body	Sheet steel

Fuze:

Type

 Mechanical impact
 detonating

Color Light green w/yellow
band; red marking

Packing 1 per container; 10
containers per pack-
ing box

Federal Supply Code:

NSN 1330-00-542-0715

DODAC 1330-H030

See DOD Consolidated Ammunition Catalog for
additional information.

Unit of Issue:

Each Grenade

Packed: 1 per container; 10
containers per
packing box

Packing Data:

Loaded packing box:

Weight 40.9 lb

Dimensions 19.75 in. x 7.875 in. x
16.75 in.

Cube 1.51 cu ft

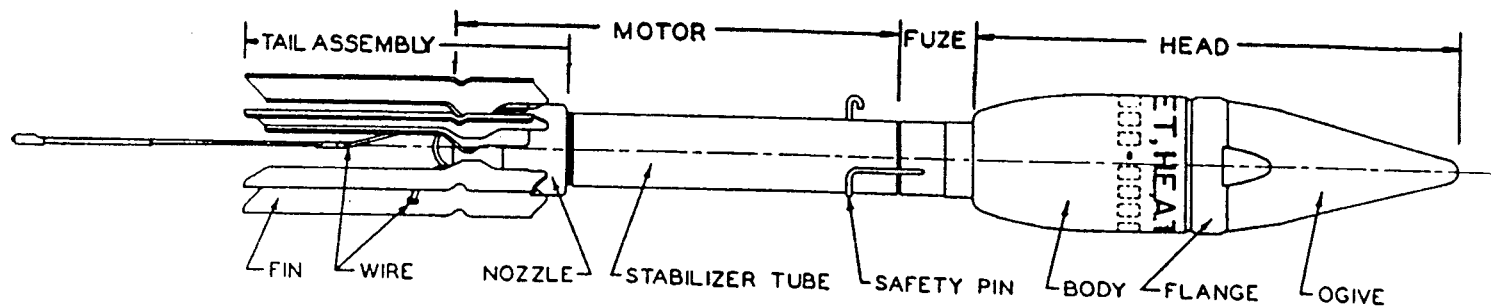
Shipping and Storage Data:

Hazard class/division
and storage com-
patibility group (04) 1.2H

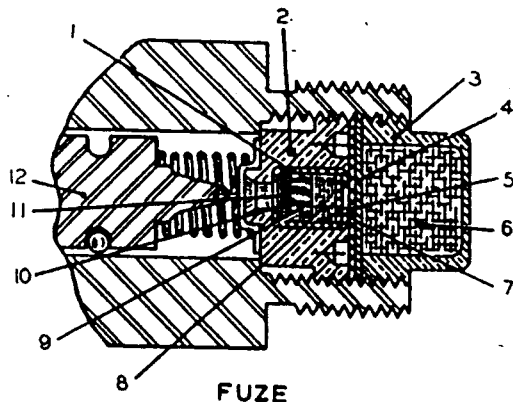
UNO serial number 0245

DOT class Class A explosive

DOT marking RIFLE GRENADE



- 1-DETONATOR CUP
- 2-DETONATOR HOLDER
- 3-BOOSTER CUP
- 4-DISK
- 5-DETONATOR-HOLDER RETAINING DISK
- 6-BOOSTER CHARGE



- 7-COLORED DETONATOR CLOSING DISK
- 8-DETONATOR PELLET
- 9-INTERMEDIATE DETONATOR CHARGE
- 10-UPPER DETONATOR CHARGE
- 11-DETONATOR DISK
- 12-FIRING PIN

ROCKET, H.E., AT, M6A1
LOT 0000-0000.0-00

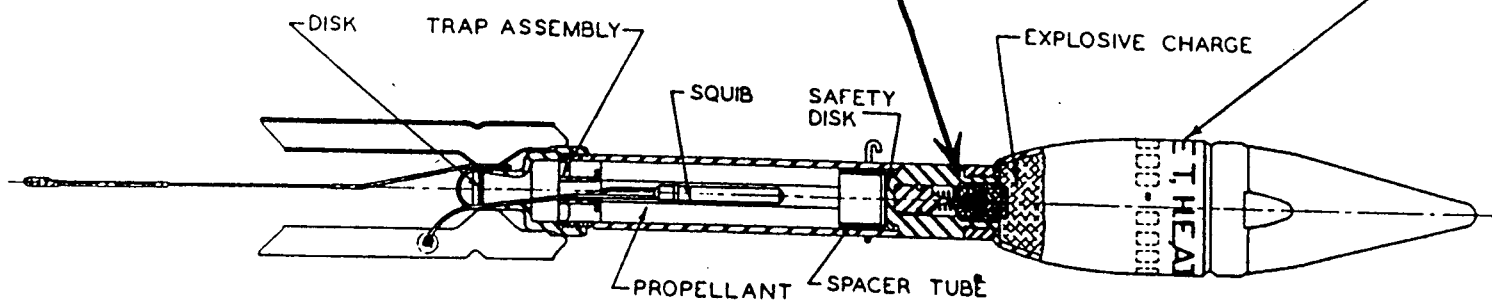


FIGURE 6. - ROCKET, H.E., AT, 2.36", M6A1

RESTRICTED

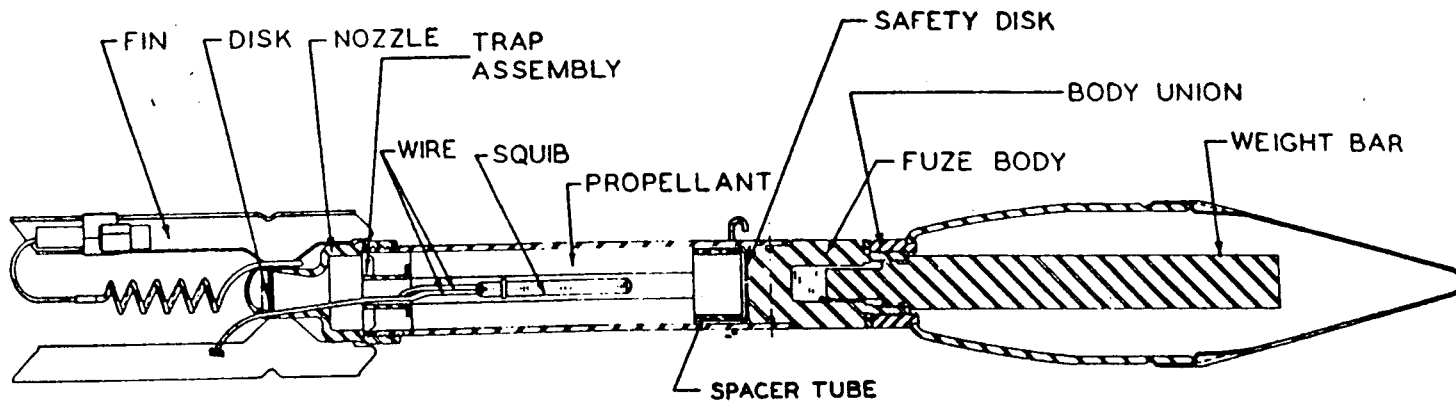
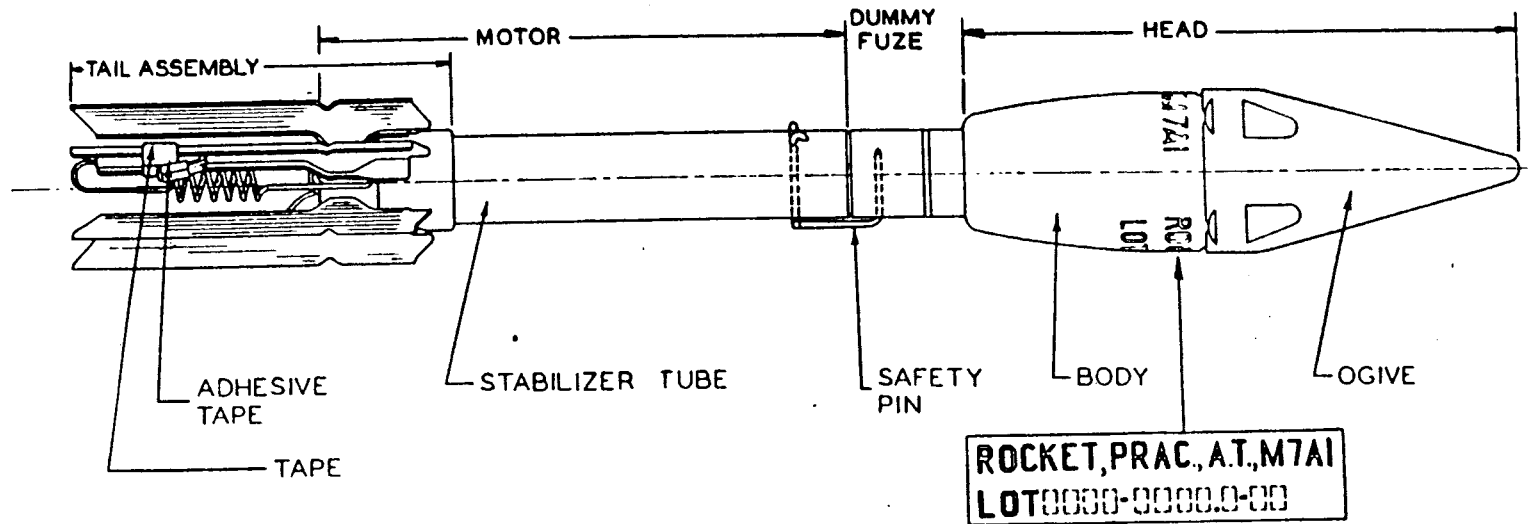
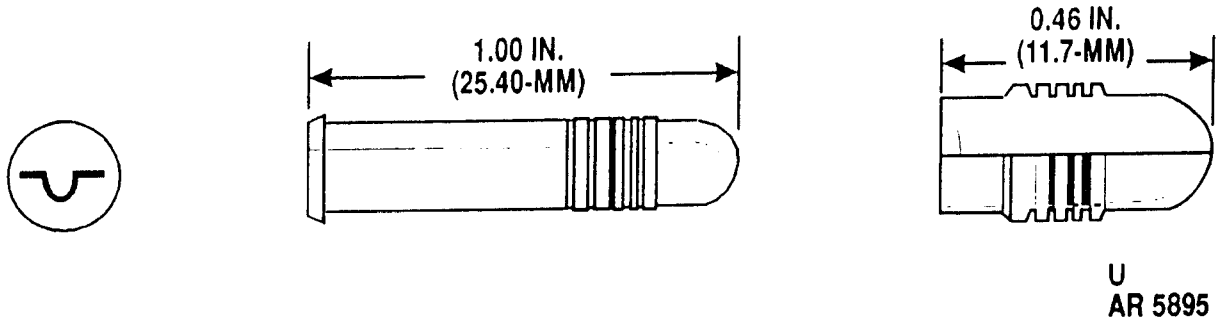


FIGURE 16. - ROCKET, PRACTICE, 2.36", M7A1

RESTRICTED

M7A1
ROCKET

CARTRIDGE, CALIBER .22, BALL, LONG RIFLE



Type Classification:

STD - OTCM 36841.

Use:

Subcaliber Rifle M2A1; Winchester Models 52 and 75; Remington Models M40X and 513T; Machine Gun Trainers M3 and M4. The cartridge is intended for marksmanship practice and match use.

Description:

BALL Cartridge. The cartridge is grade match.

Tabulated Data:

DODAC.....	1305-A086
UNO serial number	0012
UNO proper shipping name.....	Cartridges for weapons, inert projectile
Weight	52 gr
Length.....	1 in. (25.4 mm)
Tracer.....	NA
Primer.....	Percussion (Rimfire)
Fuze	NA

Explosive:

Type NA
Weight..... NA

Incendiary:

Type NA
Weight..... NA

Propellant:

Type Smokeless powder
Weight..... MBR

Performance:

Chamber pressure 24,000 psi
Velocity..... 1100 fps, 15 ft from muzzle

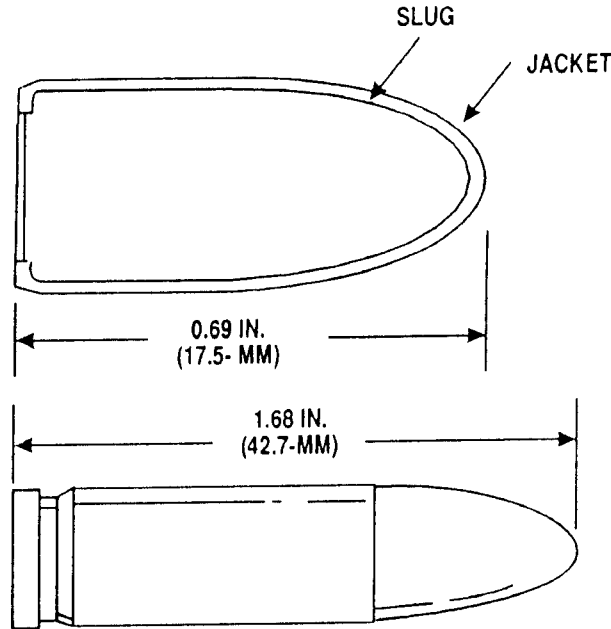
Shipping and Storage Data:

Quantity-distance class/
SCG 1.4S
Storage code Class V
DOT shipping class..... C
DOT designation SMALL ARMS AMMUNITION
Drawing number 7553931

References:

SB 700-20
TM 9-1005-206-14P/4
TM 9-1005-226-14
TM 9-1300-206

CARTRIDGE, CALIBER .30, CARBINE, BALL, M1



U
AR 5897

Type Classification:

OBS - MSR 11756003.

Use:

Caliber .30, Carbine, M1, M2 or M3. The cartridge is intended for use against personnel and unarmored targets.

Description:

BALL Cartridge. The cartridge is identified by the lack of bullet tip color code painting.

Tabulated Data:

DODAC.....	1305-A181
UNO serial number	0012
UNO proper shipping name.....	Cartridges for weapons, inert projectile
Weight	196 gr
Length.....	1.68 in. (42.7 mm)
Tracer.....	NA
Primer.....	Percussion
Fuze	NA
Explosive: Type	NA

Weight.....	NA
Incendiary:	
Type	NA
Weight.....	NA
Propellant:	
Type	WC 820
Weight.....	13 gr
Projectile:	
Weight.....	111 gr

Performance:

Chamber pressure	40,000 psi
Velocity	1900 fps, 53 ft from muzzle

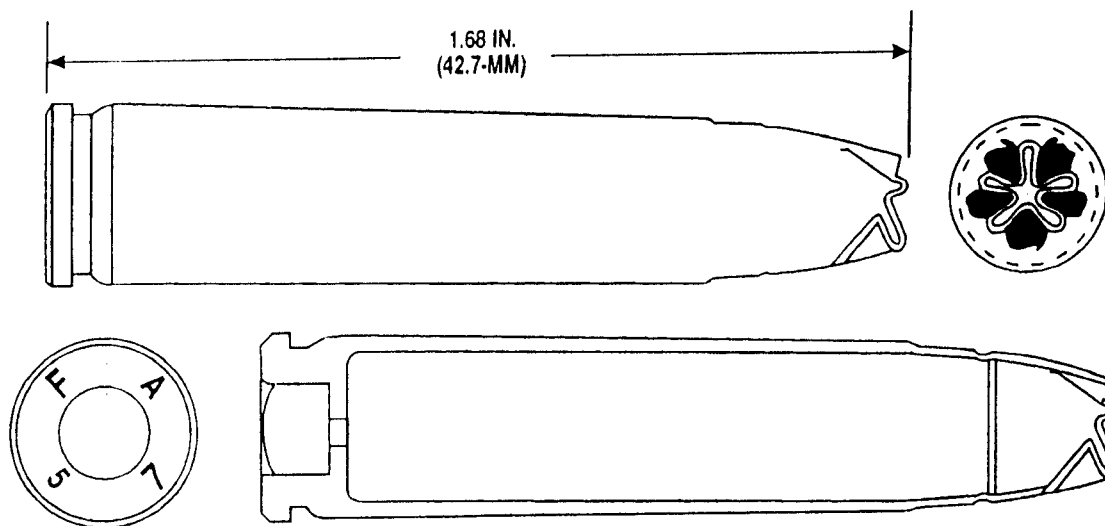
Shipping and Storage Data:

Quantity-distance class/SCG	1.4S
Storage code	Class V
DOT shipping class	C
DOT designation	SMALL ARMS AMMUNITION
Drawing number	6200954

References:

SB 700-20
TM 9-1300-206

CARTRIDGE, CALIBER .30, CARBINE, GRENADE, M6



U
AR 5898

Type Classification:

OBS - MSR 11756003.

Use:

Caliber .30, Carbine, M1 or M2. The cartridge is currently used as a blank cartridge. The cartridge provides pressure to project grenades by using a grenade projection adapter.

Description:

GRENADE Cartridge. The cartridge identified by the rose-petal (rosette-crimp) closure of the cartridge case mouth.

Tabulated Data:

DODAC.....	1330-G837
UNO serial number	0014
UNO proper shipping name.....	Cartridges for weapons, blank
Weight	103 gr
Length.....	1.68 in. (42.7 mm)
Tracer.....	NA
Primer.....	Percussion
Fuze	NA

Explosive:

Type NA
Weight..... NA

Incendiary:

Type NA
Weight..... NA

Propellant:

Type IMR 4809 and black powder
Weight..... 21 gr

Performance:

Chamber pressure NA
Velocity..... 145 fps, 5 ft from muzzle of projectile grenade

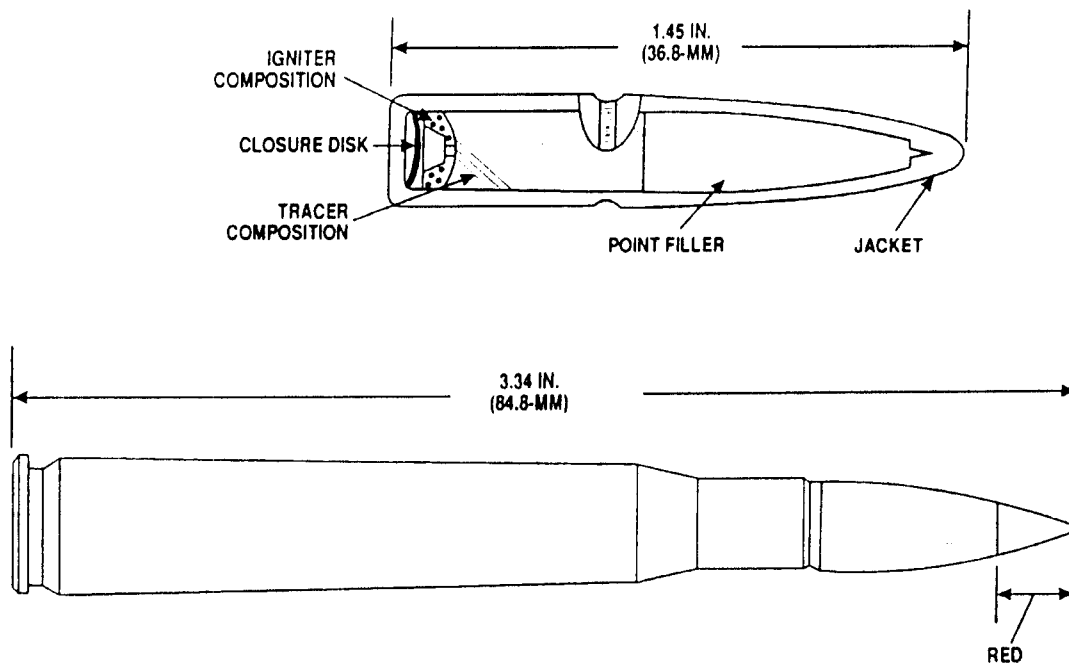
Shipping and Storage Data:

Quantity-distance class/
SCG..... 1.4S
Storage code Class V
DOT shipping class..... C
DOT designation SMALL ARMS AMMUNITION
Drawing number 6181079

References:

SB 700-20
TM 9-1300-206

CARTRIDGE, CALIBER .30, TRACER, M1



U
AR 5902

Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .30, M37, M1919A4 and M1919A6; and Rifle, Caliber .30, M1. The tracer element is intended to permit visible observation of the bullet's in-flight path, or trajectory, to the target.

Description:

TRACER Cartridge. The cartridge is identified by a red bullet tip.

Tabulated Data:

DODAC----- 1305-A231
 UNO serial number ----- 0012
 UNO proper shipping
 name----- Cartridges for
 weapons, inert pro-
 jectile

Weight ----- 399 gr
 Length ----- 3.34 in. (84.8 mm)
 Tracer ----- R256
 Primer ----- Percussion
 Fuze ----- NA
 Explosive:
 Type ----- NA
 Weight ----- NA
 Incendiary:
 Type ----- NA
 Weight ----- NA
 Propellant:
 Type ----- IMR 4895
 Weight ----- 50 gr

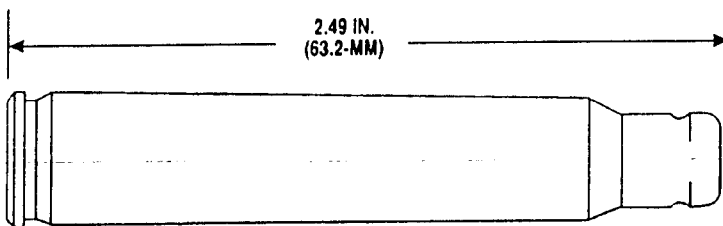
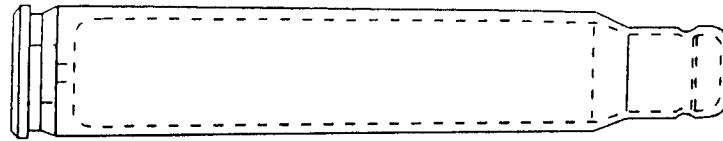
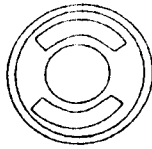
Performance:

Chamber pressure ----- 52,000 psi
 Velocity ----- 2665 fps, 78 ft from
 muzzle

Shipping and Storage Data:

Quantity-distance class/
 SCG ----- 1.4S
 Storage code ----- Class V

CARTRIDGE, CALIBER .30, BLANK, M1909



U
AR 5912

Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .30, M1919A4 and M1919A6; and Rifle, Caliber .30, M1. The cartridge is used for simulated firing in training or for saluting purposes.

Description:

BLANK Cartridge. The cartridge is identified by the absence of a bullet and has a crimped cartridge case mouth.

Tabulated Data:

DODAC-----	1305-A222
UNO serial number -----	0014
UNO proper shipping name-----	Cartridges for weapons, blank
Weight -----	218 gr
Length-----	2.49 in. (63.2 mm)
Tracer-----	NA
Primer-----	Percussion
Fuze-----	NA

Explosive:

Type ----- NA
Weight----- NA

Incendiary:

Type ----- NA
Weight----- NA

Propellant:

Type ----- SR 4990
Weight----- 12 gr

Performance:

Chamber pressure ----- NA
Velocity----- NA

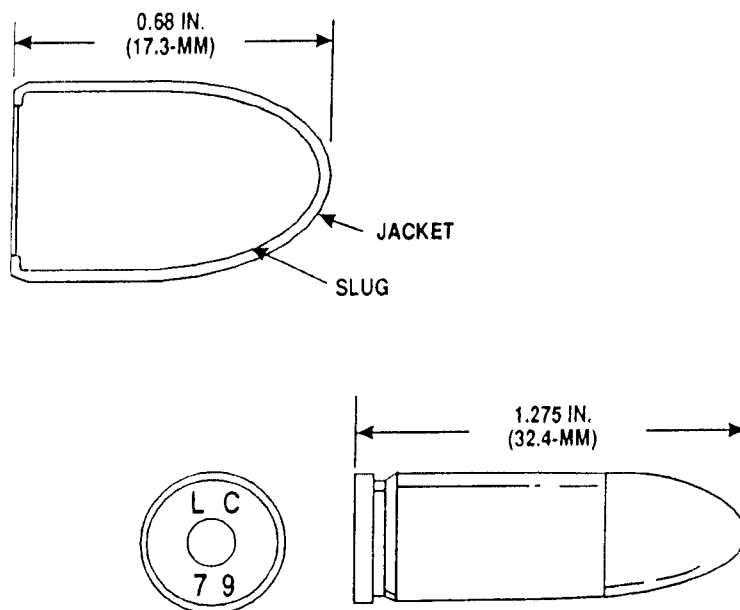
Shipping and Storage Data:

Quantity-distance class/	
SCG -----	1.4S
Storage code -----	Class V
DOT shipping class -----	C
DOT designation -----	SMALL ARMS AMMUNITION
Drawing number -----	6006152

References:

SB 700-20
TM 9-1005-222-12P/1
TM 9-1300-206

CARTRIDGE, CALIBER .45, BALL, M1911



U
AR 5921

Type Classification:

STD - OTCM 36841.

Use:

Submachine Gun, Caliber .45, M3A1; and Pistol, Caliber .45, M1911A1. The cartridge is intended for use against personnel.

Description:

BALL Cartridge. The cartridge is identified by the plain bullet tip.

Tabulated Data:

DODAC-----	1305-A475
UNO serial number -----	0012
UNO proper shipping name -----	Cartridges for weapons, inert projectile
Weight -----	331 gr
Length -----	1.275 in. (32.4 mm)
Tracer -----	NA
Primer -----	Percussion
Fuze -----	NA

Explosive:

Type ----- NA
Weight ----- NA

Incendiary:

Type ----- NA
Weight ----- NA

Propellant:

Type ----- SR 7970
Weight ----- 5 gr

Performance:

Chamber pressure ----- 19,000 psi
Velocity ----- 885 ± 25 fps,
25.5 ft from muzzle

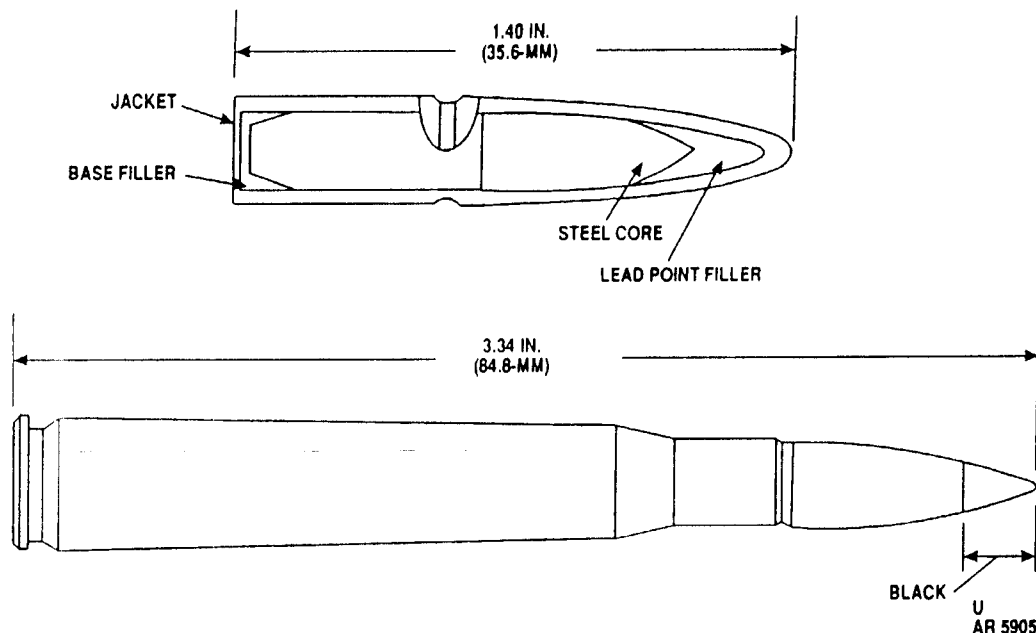
Shipping and Storage Data:

Quantity-distance class/SCG -----	1.4S
Storage code -----	Class V
DOT shipping class -----	C
DOT designation -----	SMALL ARMS AMMUNITION
Drawing number -----	6000503

References:

SB 700-20
TM 9-1005-211-12
TM 9-1005-229-12
TM 9-1300-206

CARTRIDGE, CALIBER .30, ARMOR PIERCING, M2



Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .30, M37, M1919A4 and M1919A6; and Rifle, Caliber .30, M1.

Description:

ARMOR PIERCING Cartridge. The cartridge is identified by a black bullet tip.

Function:

Penetration, fired at 7/8-inch thick homogeneous armor plate at 100 yards, will be not less than 0.42 inch.

Tabulated Data:

DODAC-----	1305-A202
UNO serial number -----	0012
UNO proper shipping name-----	Cartridges for weapons, inert projectile
Weight -----	424 gr
Length-----	3.34 in. (84.8 mm)
Tracer-----	NA
Primer-----	Percussion
Fuze-----	NA

Explosive:

Type ----- NA
Weight----- NA

Incendiary:

Type ----- NA
Weight----- NA

Propellant:

Type ----- WC 852
Weight----- 55 gr

Projectile:

Weight----- 165.7 gr

Performance:

Chamber pressure ----- 54,000 psi
Velocity----- 2715 fps, 78 ft from muzzle

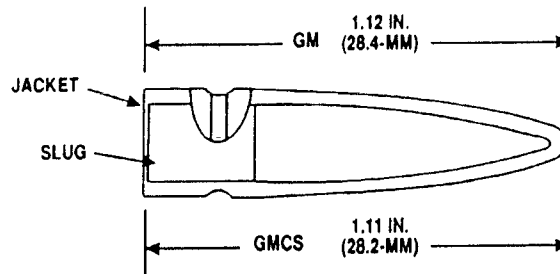
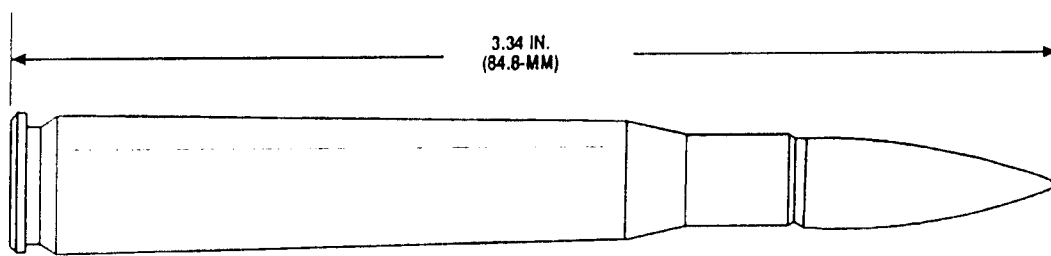
Shipping and Storage Data:

Quantity-distance class/SCG-----	1.4S
Storage code -----	Class V
DOT shipping class -----	C
DOT designation -----	SMALL ARMS AMMUNITION
Drawing number -----	6138194

References:

SB 700-20
TM 1005-222-12P/1
TM 9-1300-206

CARTRIDGE, CALIBER .30, BALL, M2



U
AR 5904

Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .30, M37, M1919A4 and M1919A6; and Rifle, Caliber .30, M1. The cartridge is intended for use against personnel or unarmored targets.

Description:

BALL Cartridge. The cartridge is identified by a plain bullet tip.

Tabulated Data:

DODAC.....	1305-A212
UNO serial number	0012
UNO proper shipping name.....	Cartridges for weapons, inert projectile
Weight	416 gr
Length.....	3.34 in. (84.8 mm)
Tracer.....	NA
Primer.....	Percussion
Fuze.....	NA

Explosive:

Type NA
Weight..... NA

Incendiary:

Type NA
Weight..... NA

Propellant:

Type IMR 4895
Weight..... 50 gr

Performance:

Chamber pressure 50,000 psi
Velocity..... 2740 fps, 78 ft from muzzle

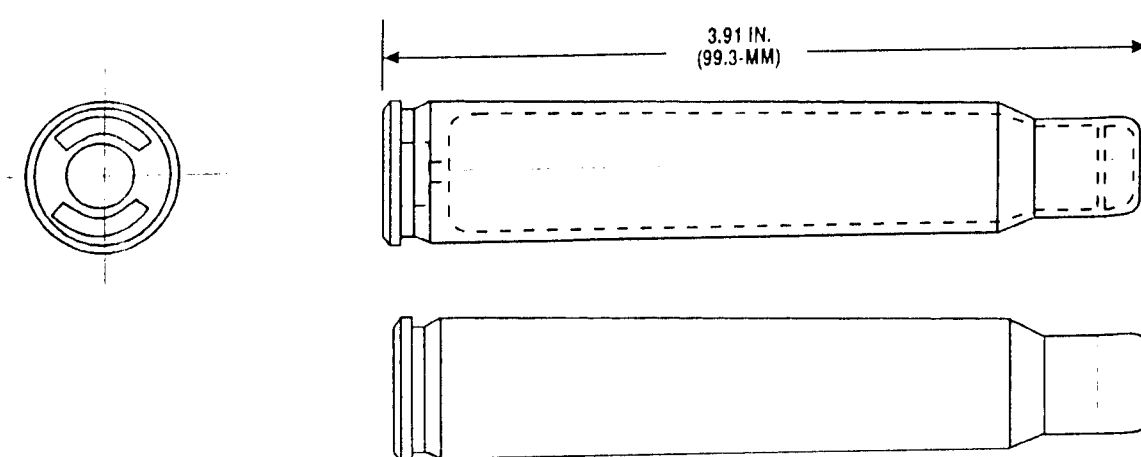
Shipping and Storage Data:

Quantity-distance class/SCG	1.4S
Storage code	Class V
DOT shipping class.....	C
DOT designation	SMALL ARMS AMMUNITION
Drawing number	6137544

References:

SB 700-20
TM 9-1005-222-12P/1
TM 9-1300-206

CARTRIDGE, CALIBER .50, BLANK, M1



U
AR 5928

Type Classification:

CONT - OTCM 36841.

Use:

Machine Gun, Caliber .50, M2 (flexible only). The cartridge is used to simulate firing in training exercises.

Description:

BLANK Cartridge. The cartridge is identified by the absence of a bullet and has a crimped cartridge case mouth.

Tabulated Data:

DODAC----- 1305-A558
 UNO serial number ----- 0338
 UNO proper shipping
 name----- Cartridges for
 weapons, blank
 Weight ----- 917 gr
 Length----- 3.91 in. (99.3 mm)
 Tracer----- NA
 Primer----- Percussion
 Fuze ----- NA
 Explosive:

Type ----- NA
 Weight----- NA
 Incendiary:
 Type ----- NA
 Weight----- NA
 Propellant:
 Type ----- WC 150
 Weight----- 46 gr

Performance:

Chamber pressure ----- NA
 Velocity----- NA

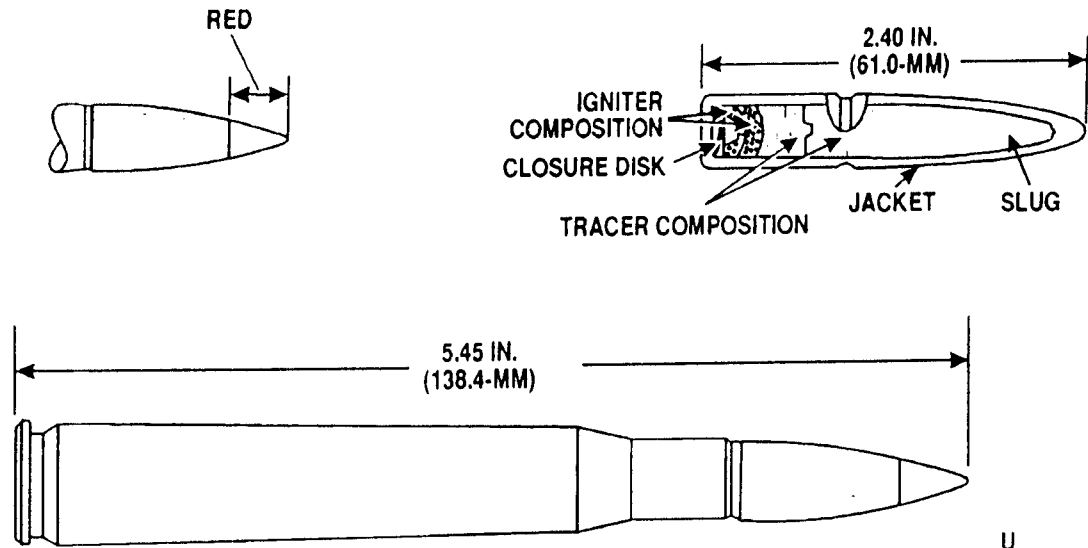
Shipping and Storage Data:

Quantity-distance class/
 SCG ----- 1.4C
 Storage code ----- Class V
 DOT shipping class ----- C
 DOT designation ----- SMALL ARMS
 AMMUNITION
 Drawing number ----- 7673517

References:

SB 700-20
 TM 9-1005-213-10
 TM 9-1005-231-10
 TM 9-1300-206

CARTRIDGE, CALIBER .50, TRACER, M1



U
AR 5925

Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .50, M2 and M85. The tracer is intended to permit visible observation of the bullet's in-flight path or trajectory to the point of impact. Limited to CONUS for training purposes only.

Description:

TRACER Cartridge. The cartridge is identified by a red bullet tip.

Tabulated Data:

DODAC----- 1305-A591
 UNO serial number ----- 0362
 UNO proper shipping
 name----- Ammunition, prac-
 tice
 Weight ----- 1785 gr
 Length----- 5.45 in. (138.4 mm)
 Tracer----- R256
 Primer----- Percussion
 Fuze----- NA
 Explosive:

Type ----- NA
 Weight ----- NA
 Incendiary:
 Type ----- NA
 Weight ----- NA
 Propellant:
 Type ----- IMR 5010
 Weight ----- 240 gr

Performance:

Chamber pressure ----- 52,000 psi
 Velocity ----- 2700 fps, 78 ft from
 muzzle

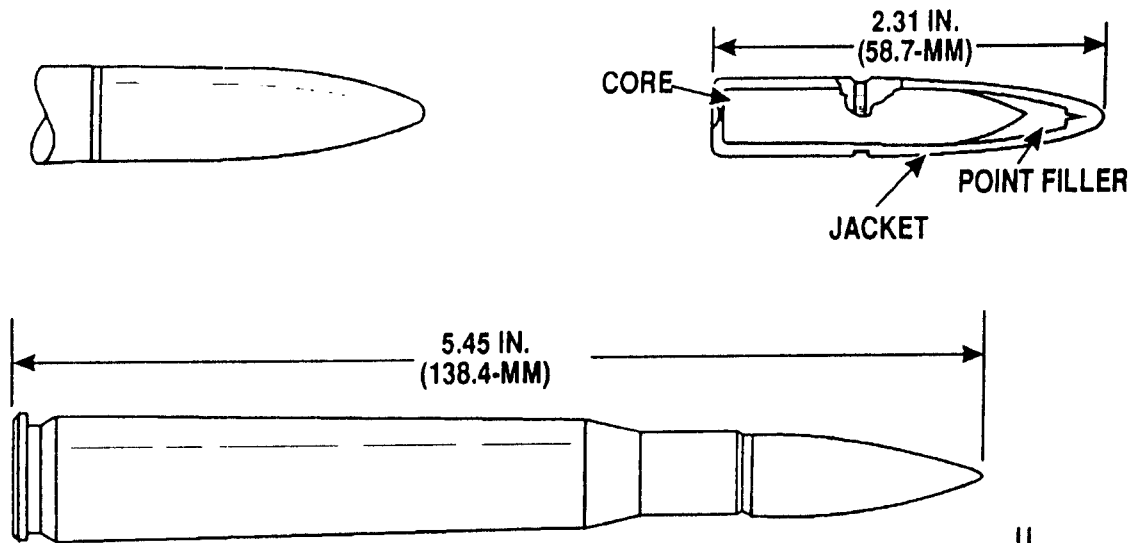
Shipping and Storage Data:

Quantity-distance class/
 SCG ----- 1.4C
 Storage code ----- Class V
 DOT shipping class ----- C
 DOT designation ----- SMALL ARMS
 AMMUNITION
 Drawing number ----- 5544843

References:

SB 700-20
 TM 9-1300-206

CARTRIDGE, CALIBER .50, BALL, M2



U
AR 5932

Type Classification:

STD - OTCM 36841.

Use:

Machine Guns, Caliber .50, M2 and M85. The cartridge is intended for use against personnel or unarmored targets.

Description:

BALL Cartridge. The cartridge is identified by a plain bullet.

Tabulated Data:

DODAC----- 1305-A552
 UNO serial number ----- 0339
 UNO proper shipping name----- Cartridges for weapons, inert projectile
 Weight ----- 1813 gr
 Length----- 5.45 in. (138.4 mm)
 Tracer----- NA
 Primer----- Percussion
 Fuze -----

Explosive:

Type ----- NA
 Weight ----- NA

Incendiary:

Type ----- NA
 Weight ----- NA

Propellant:

Type ----- WC 860
 Weight ----- 235 gr

Performance:

Chamber pressure ----- 55,000 psi
 Velocity ----- 2810 fps, 78 ft from muzzle

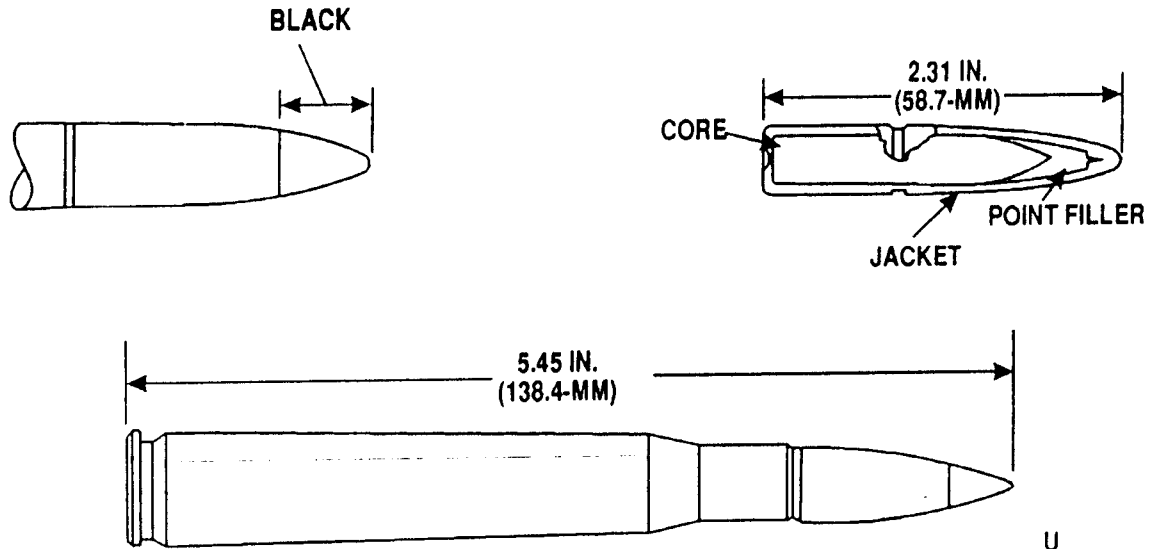
Shipping and Storage Data:

Quantity-distance class/
 SCG ----- 1.4C
 Storage code ----- Class V
 DOT shipping class ----- C
 DOT designation ----- SMALL ARMS AMMUNITION
 Drawing number ----- 5577960

References:

SB 700-20
 TM 9-1005-213-10
 TM 9-1005-231-10
 TM 9-1300-206

CARTRIDGE, CALIBER .50, BALL, ARMOR PIERCING, M2



U
AR 5930

Type Classification:

OBS - MSR 11756003.

Use:

Machine Guns, Caliber .50, M2 and M85. The cartridge is for use against light-armored or unarmored targets, concrete shelters, and similar bullet-resisting targets.

Description:

BALL Cartridge. The cartridge is identified by a black bullet tip.

Tabulated Data:

DODAC.....	1305-A526
UNO serial number	0339
UNO proper shipping name.....	Cartridges for weapons, inert projectile
Weight	1812 gr
Length.....	5.45 in. (138.4 mm)
Tracer.....	NA
Primer.....	Percussion
Fuze.....	NA

Explosive:

Type NA
Weight..... NA

Incendiary:

Type NA
Weight..... NA

Propellant:

Type WC 860
Weight..... 235 gr

Performance:

Chamber pressure 53,000 psi
Velocity 2810 fps, 78 ft from muzzle

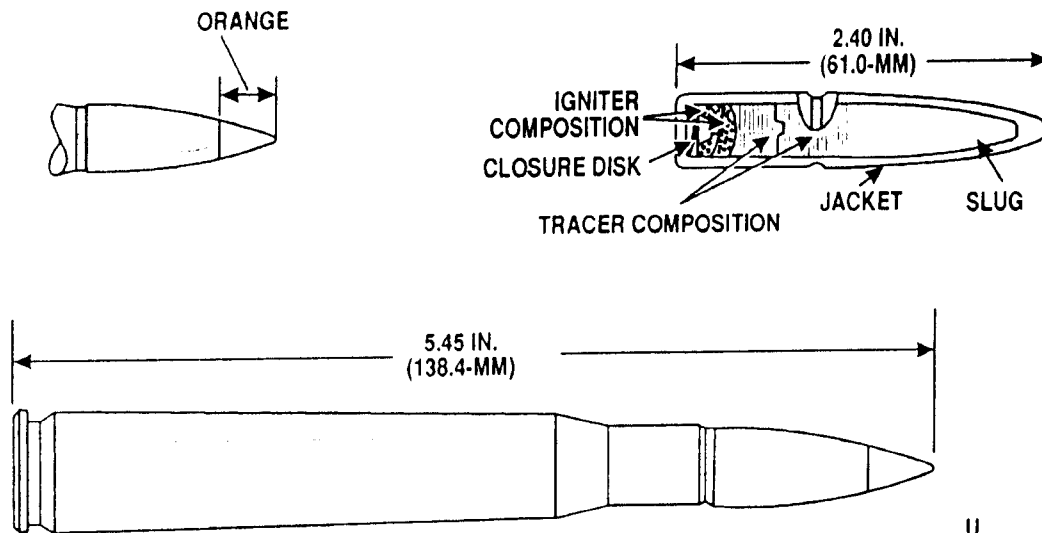
Shipping and Storage Data:

Quantity-distance class/
SCG 1.4C
Storage code Class V
DOT shipping class C
DOT designation SMALL ARMS AMMUNITION
Drawing number 5569930

References:

SB 700-20
TM 9-1005-213-10
TM 9-1005-231-10
TM 9-1300-206

CARTRIDGE, CALIBER .50, TRACER, M10



U
AR 5934

Type Classification:

STD - OTCM 37107.

Use:

Machine Guns, Caliber .50, M2 and M85.

Description:

TRACER Cartridge. The cartridge is identified by an orange bullet tip.

Function:

The tracer cartridge exhibits a visible trace from a point not greater than 100 yards from the muzzle of the weapon to a point not less than 1,600 yards from the muzzle.

Tabulated Data:

DODAC----- 1305-A570
 UNO serial number ----- 0339
 UNO proper shipping
 name----- Cartridges for
 weapons, inert pro-
 jectile
 Weight ----- 1752 gr
 Length ----- 5.45 in. (138.4 mm)
 Tracer----- R256
 Primer ----- Percussion

Fuze ----- NA
 Explosive:
 Type ----- NA
 Weight ----- NA
 Incendiary:
 Type ----- NA
 Weight ----- NA
 Propellant:
 Type ----- IMR 5010
 Weight ----- 240 gr

Performance:

Chamber pressure ----- 54,000 psi
 Velocity ----- 2860 fps, 78 ft from
 muzzle

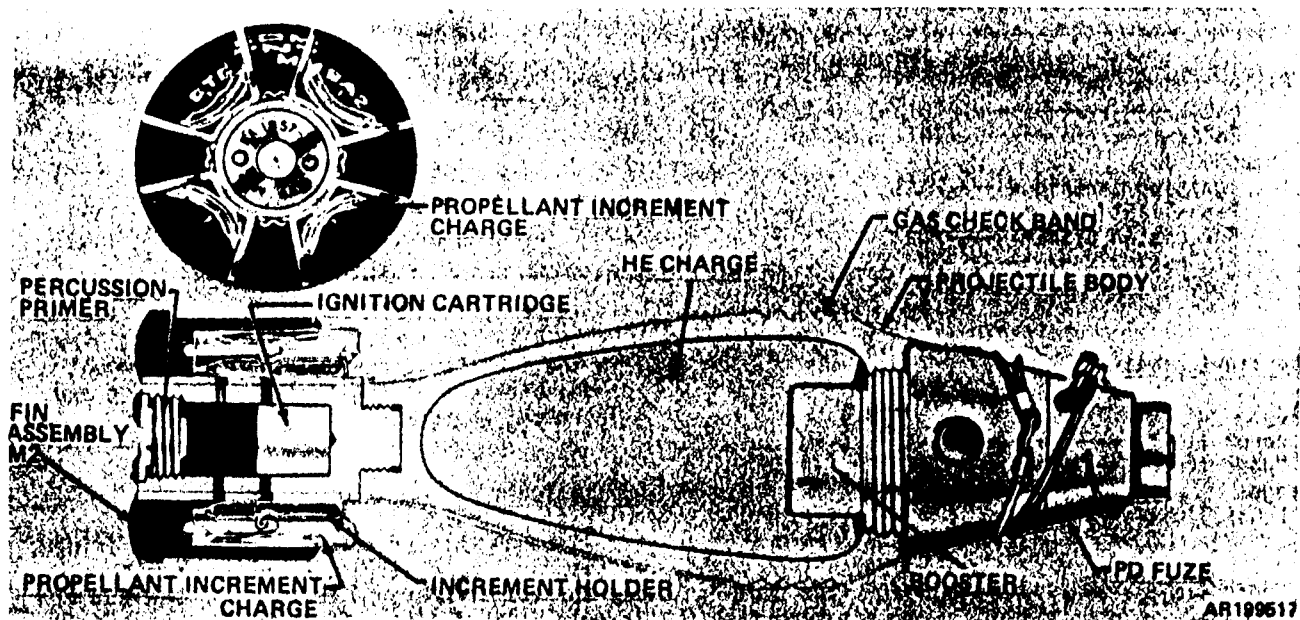
Shipping and Storage Data:

Quantity-distance class/
 SCG ----- 1.4C
 Storage code ----- Class V
 DOT shipping class ----- C
 DOT designation ----- SMALL ARMS
 AMMUNITION
 Drawing number ----- 7670296

References:

SB 700-20
 TM 9-1005-213-10
 TM 9-1005-231-10
 TM 9-1300-206

CARTRIDGE, 60 MILLIMETER: HE, M49A3 (M49A2E1) AND M49A2



Type Classification:

M49A3: Std AMCTC 6632, dtd 1969.
 M49A2: Std OTCM 37119, dtd 1959.

Use:

This cartridge is fired in 60mm Mortars M2 or M19 for use against personnel and materiel, providing both fragmentation and blast effect.

Description:

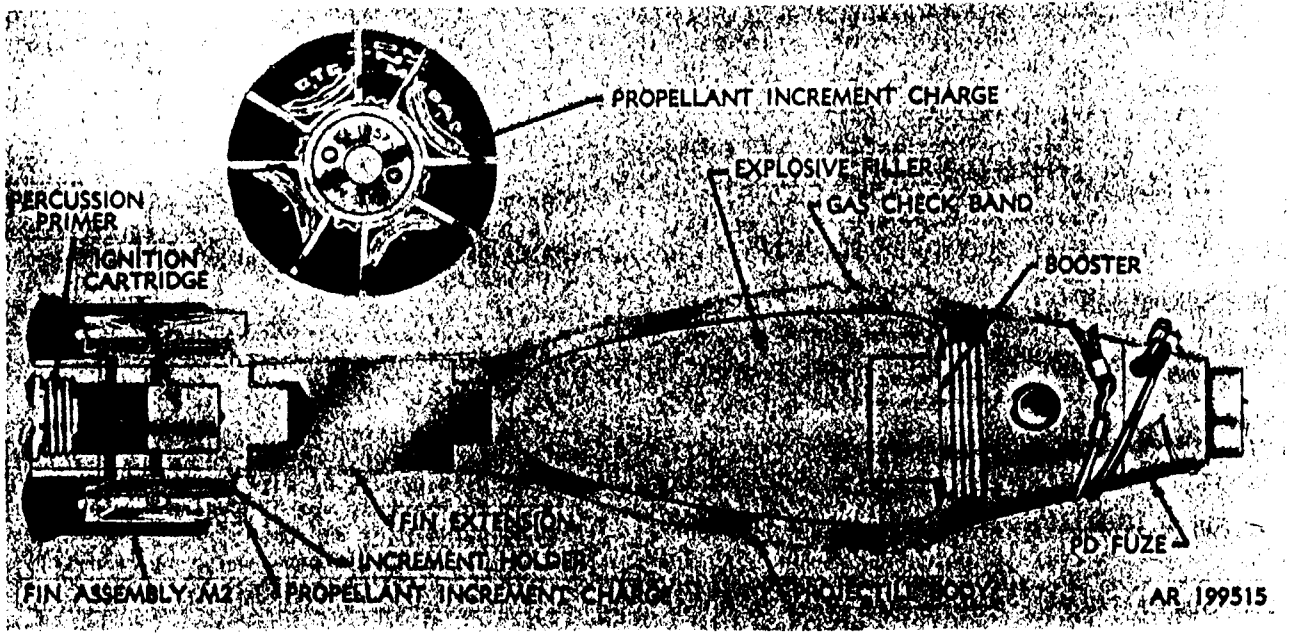
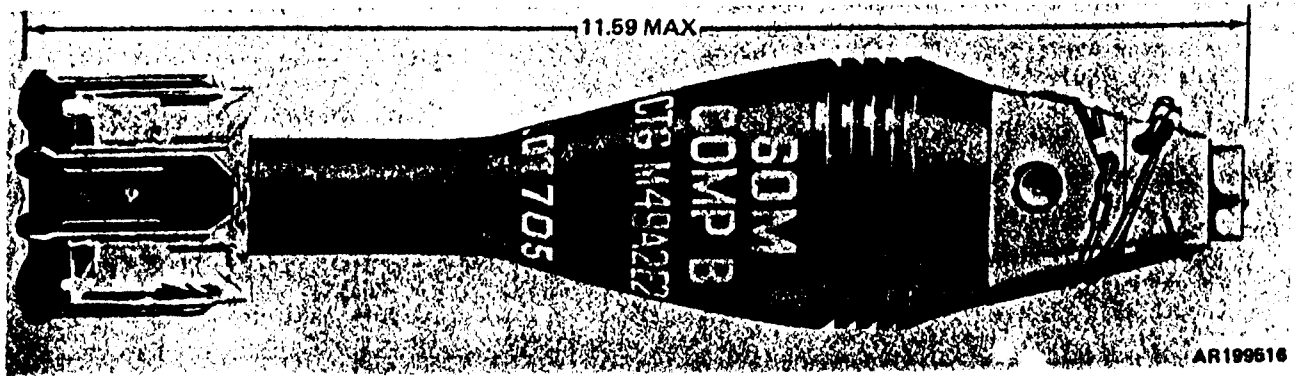
The complete round consists of a projectile body, a point-detonating fuze (staked), a fin assembly, four increments of propellant charge, an ignition cartridge, and a percussion primer. The projectile body is of pearlitic malleable iron (PMI), and is threaded internally at the

nose to accept the fuze and at the base to accept the fin assembly. The body is filled with Composition B high explosive.

Functioning:

When the cartridge is loaded, it slides down the mortar tube until the percussion primer in the ignition cartridge strikes the firing pin in the base cap of the mortar. The flash from the primer ignites the ignition cartridge, and the cartridge ignites the propellant charge. Rapidly expanding gases from the burning propellant expel the projectile from the mortar tube and propel it to the target. The projectile is fin-stabilized in flight. The point-detonating fuze functions on impact, detonating the fuze booster charge and, in turn, the high explosive charge. The high explosive charge shatters the projectile

CARTRIDGE, 60 MILLIMETER: HE, M49A4 (M49A2E2)



Type Classification:

CON MSR 11756003 (M49A4).
OBS MSR 11756003 (M49A2).

Use:

This cartridge is fired in 60mm Mortars M2 and M19 for use against personnel and light materiel, providing both fragmentation and blast effect.

Description:

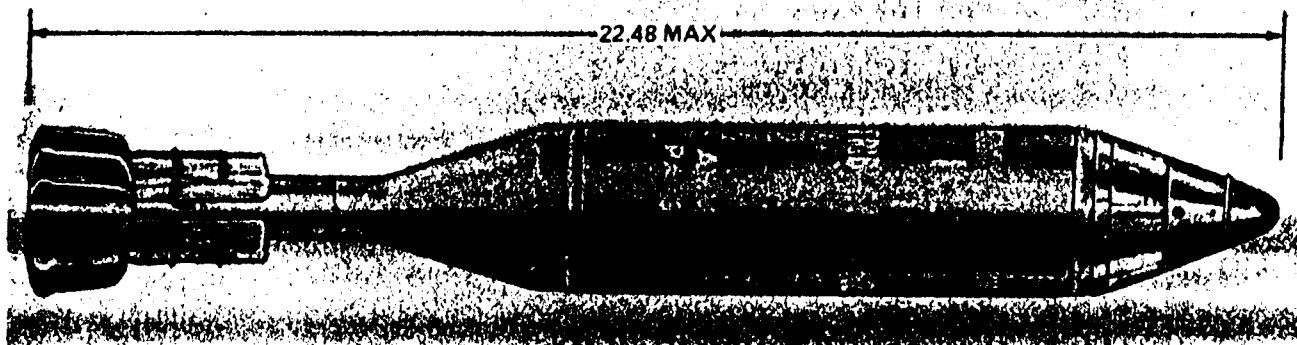
The complete round consists of a projectile body, a point-detonating fuze (staked), a fin assembly with a 2-in. extension, four increments

of propellant charge, an ignition cartridge, and a percussion primer. The projectile body is of forged steel or pearlitic malleable iron (PMI), and is threaded internally at the nose to accept the fuze and at the base to accept the fin extension. The body is filled with Composition B high explosive.

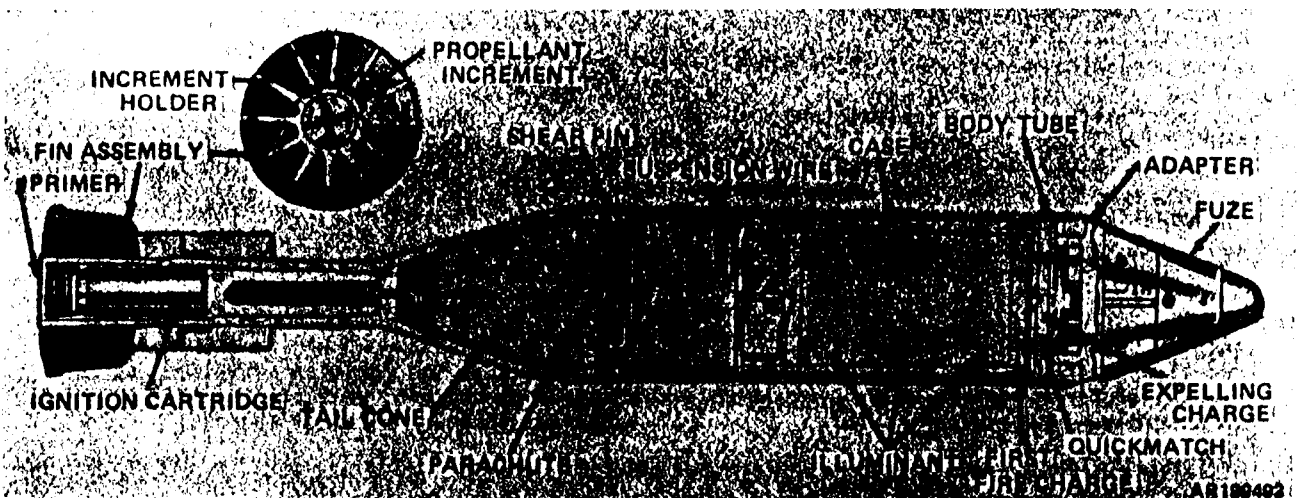
Functioning:

When the cartridge is loaded, it slides down the mortar tube until the percussion primer in the ignition cartridge strikes the firing pin in the base cap of the mortar. The flash from the primer ignites the ignition cartridge, and the cartridge ignites the propelling charge. Rapidly expanding gases from the burning

CARTRIDGE, 81 MILLIMETER: ILLUMINATING, M301A2 AND M301A1



AR199494



Type Classification:

CONT MSR 11756003.

Use:

This cartridge is used for illuminating a desired point or area.

Description:

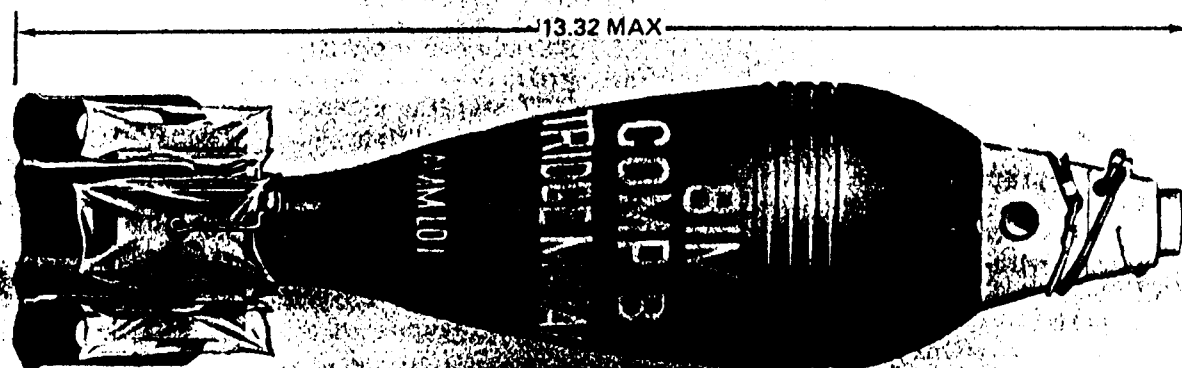
The complete round consists of a body tube and tail cone assembly, an illuminant candle and parachute assembly, a time fuze with a built-in expelling charge, a fin assembly with propellant charge, and an ignition cartridge with percussion primer. The nose of the thin-walled steel tubing body is fitted with a steel adapter and internally threaded to accept the

fuze. The tail cone is internally threaded to accept the fin assembly, and is attached to the body tube with four equally spaced shear pins. The illuminant assembly, consisting of a first-fire charge and an illuminant charge, is contained in a boxboard case and attached to the parachute with a 30-inch suspension line.

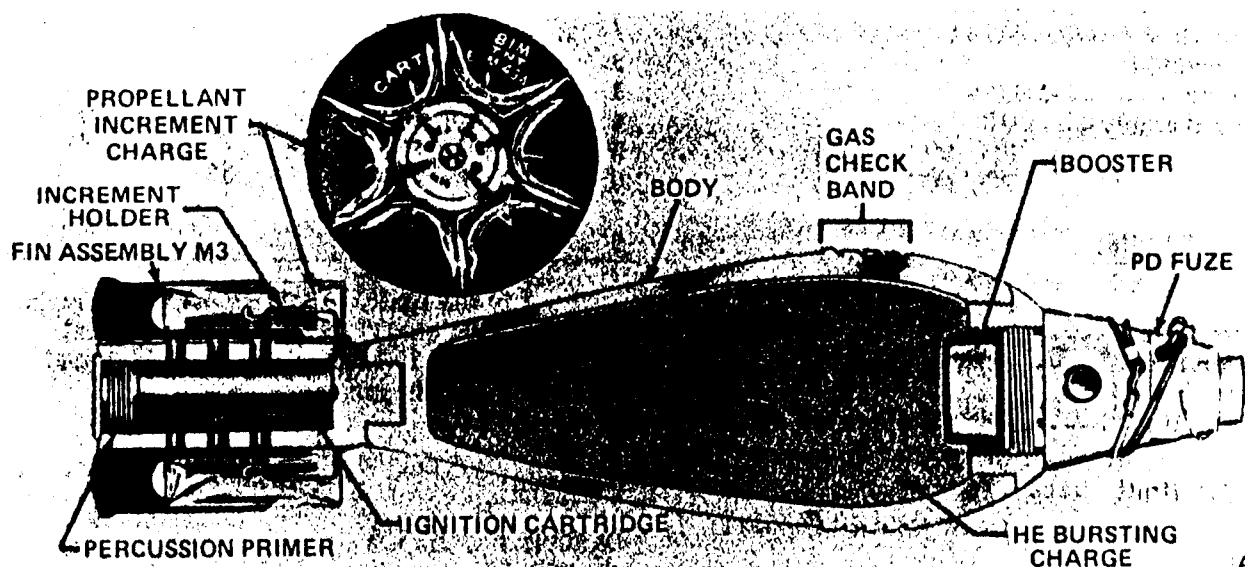
Functioning:

When the cartridge is loaded, it slides down the mortar tube until the percussion primer in the ignition cartridge strikes the firing pin in the base cap of the mortar. The primer ignites the ignition cartridge, and the cartridge ignites the propellant charge. Rapidly expanding gases from the burning propellant expel the projectile from the tube and propel it to the desired height. The projectile is fin-stabilized in

CARTRIDGE, 81-MILLIMETER: HE, M43A1 AND M43A1B1



AR199500



AR199490

Type Classification:

OBS 11756003

Use:

This cartridge is used against personnel and light materiel, providing both fragmentation and blast effect.

Description:

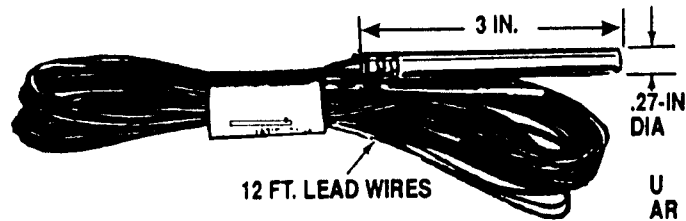
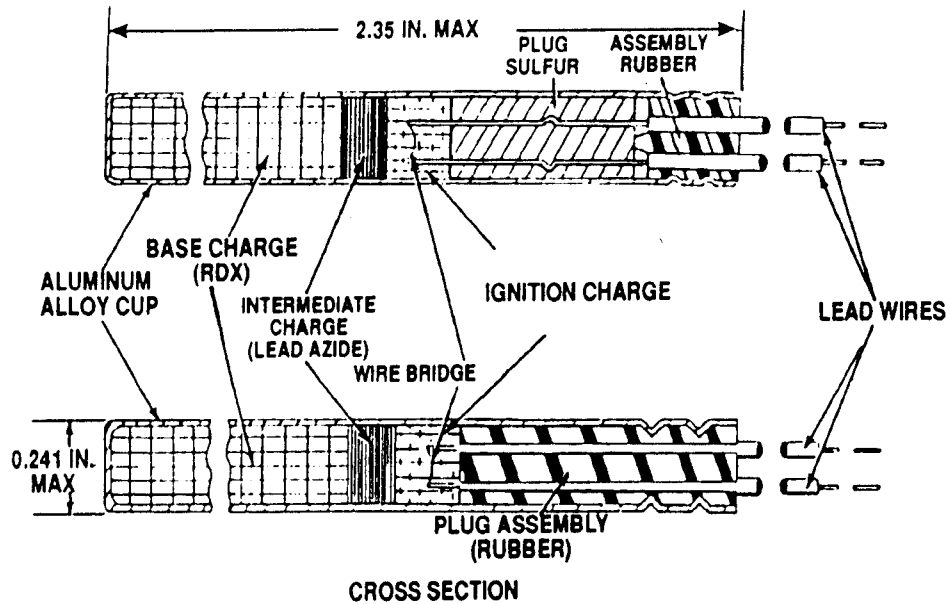
The complete round consists of a projectile body, a point-detonating fuze, a fin assembly, a propellant charge, and an ignition charge with a percussion primer. The projectile body is of forged steel, and is threaded internally at the nose to accept the fuze and at the base to accept

the fin assembly. The projectile body is filled with Composition B high explosive.

Functioning:

When the cartridge is loaded, it slides down the mortar tube until the percussion primer in the ignition cartridge strikes the firing pin in the base cap of the mortar. The primer ignites the ignition cartridge, and the cartridge ignites the propellant charge. Rapidly expanding gases from the burning propellant expel the projectile from the tube and propel it to the target. The projectile is fin-stabilized in flight. The PD fuze functions on impact detonating the fuze booster charge and, in turn, the high explosive charge. The bursting charge shatters the projectile body, producing near optimum fragmentation and blast effect at the target.

CAP, BLASTING, ELECTRIC: M6



Type Classification:

Std A OTCM 37041, dtd 26 May 1960.

Use:

Electric Blasting Cap M6 is used to initiate high explosives with a blasting machine or other suitable source of electric power. It is capable of detonating all standard military explosives.

Description:

Blasting Cap M6 consists of a base charge of RDX, an intermediate charge of lead azide and an ignition charge of smokeless powder, potassium chlorate and lead salt of dinitro cresol in an aluminum alloy cup. Two 12-foot lead wires, connected by a bridge wire in the ignition charge, extend through a rubber (or rubber and sulfur) plug assembly in the open end of the cup. Two circumferential crimps secure the plug assembly in the cup.

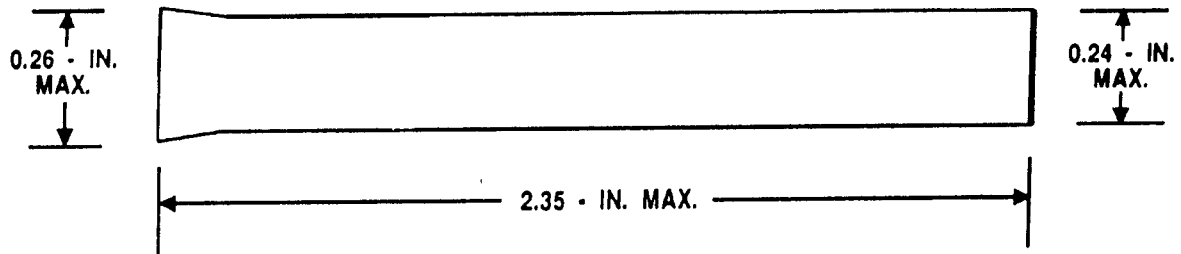
Functioning:

To function the cap, its leads are connected to a blasting machine. The blasting machine is actuated to produce electrical current which flows through the cap's bridge wire producing heat. If sufficient current is put through the bridge wire, the head ignites the ignition charge which initiates the intermediate charge which, in turn, causes detonation of the base charge.

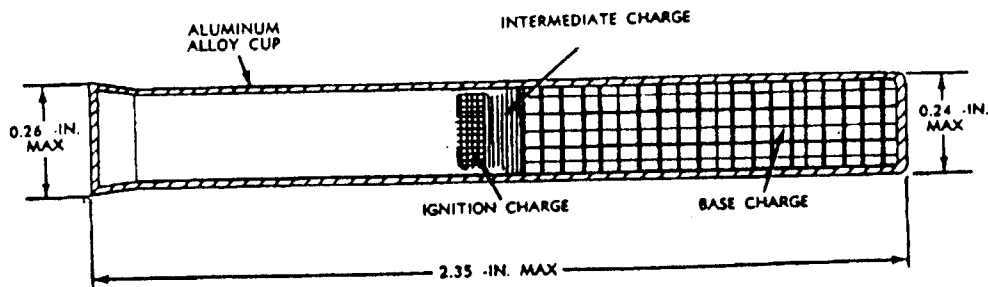
Tabulated Data:

Container material	Aluminum alloy
Color	Unpainted
Dimensions	2.35 in. x 0.24 in.
Filler:	
Base charge	RDX
Intermediate charge	Lead azide
Ignition charge	Special mix (e.g. Smokeless Powder)
Method of actuation	Electric current

CAP, BLASTING, NONELECTRIC: M7



U
AR 4769



U
AR 101132

Type Classification:

Std A OTCM 37041, dtd 26 May 1960.

Use:

Nonelectric Blasting Cap M7 is used to detonate all military explosives.

Description:

This nonelectric blasting cap consists of an aluminum alloy cup containing an ignition charge of lead styphnate, an intermediate charge of lead azide, and a base charge of RDX. The cup is flared at the mouth to mate with the matching shape of the nipple of a firing device Base Coupling and the flared end facilitates

insertion of time-blasting fuse or detonating cord.

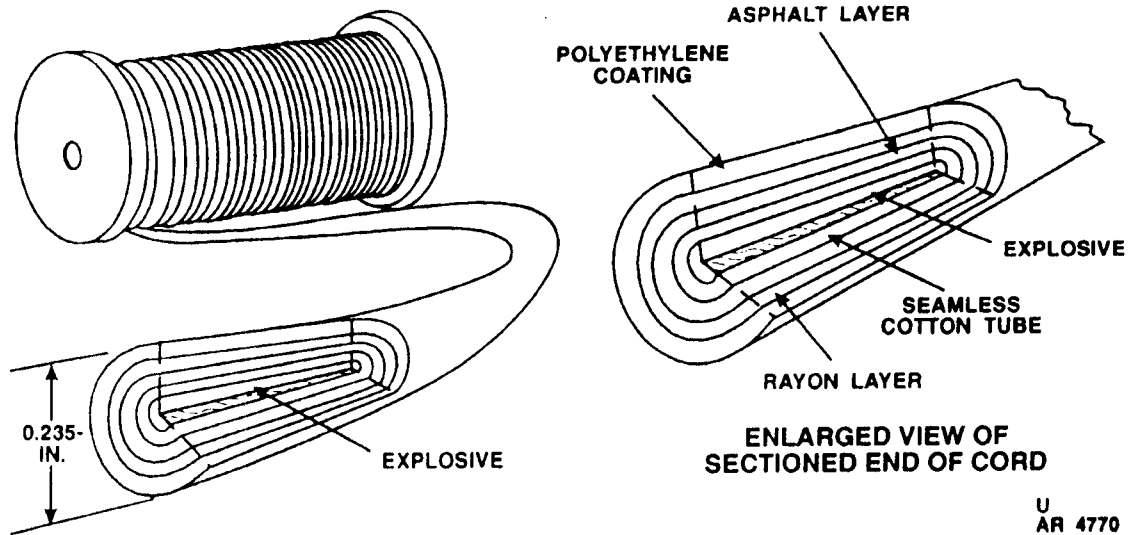
Functioning:

On initiation by time-blasting fuse, primer or detonating cord, the ignition charge detonates the intermediate charge which detonated the base charge, in turn. Detonation of the base charge initiates the explosive charge.

Tabulated Data:

Container material	Aluminum alloy
Color	Unpainted
Dimensions:	
Length	2.35 in.
Diameter	0.24 in. (base);
	0.26 in. (mouth)

CORD, DETONATING



Type Classification:

Std A OTCM 36841, dtd 1958.

Use:

Detonating Cord is used to prime and detonate other explosive charges.

Description:

Although specification MIL-C-17124 lists 12 different detonating cords, this data sheet addresses Type I, Class E only because it is the only detonating cord standard for U.S. Army use. This type of detonating cord consists of a core of high velocity explosive in a seamless textile tube. The tube is covered with a thin layer of asphalt, and sheathed in an outer cover of plastic coated textile. The plastic outer cover is smooth and colored olive drab. It has a detonating velocity of not less than 5,900 meters per second.

Functioning:

When the explosive core of the detonating cord is detonated by a blasting cap, the detonating wave travels along the cord to other blasting caps or explosive charges attached to it.

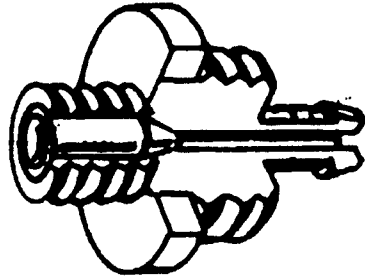
Tabulated Data:

Color	Olive drab
Filler	PETN
Weight (per 1000 ft):	
Class E	22 lb
Diameter:	
Type I Class E	0.235 in.
Method of actuation	Blasting cap

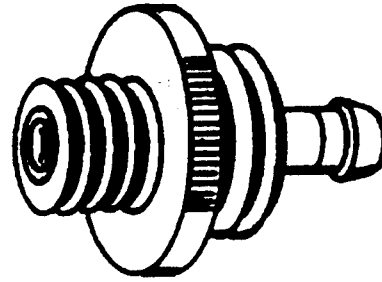
Shipping and Storage Data:

Quantity-distance class	1.1
Storage compatibility group	D-2
DOT shipping classification	Class C
DOT designation	CORD DETONATING FUSE-HANDLE CAREFULLY
UNO serial number	0065
UNO proper shipping name	Cord, detonating
DODIC	M456
Packaging	100 to 1000 foot/spool; Up to 8000 foot/wooden box

COUPLING BASE, FIRING DEVICE



INTERNAL



EXTERNAL

U
AR 6060

Type Classification:

Std A AMCTCM 3802, dtd 1965.

Use:

The coupling base provides the means for holding a primer and positioning it in a firing device so that the firing pin of the firing device will strike it properly to function the primer. It is designed for assembly to any military standard nonelectric blasting cap. Firing devices are supplied with base couplings. Base couplings are stocked for use in renovation and for use in replacement of base couplings expended in training.

Description:

The base is fitted with an M27 primer on one end and the other end is fitted with a protective shipping cap. The coupling base has two sets of external threads. One end permits assembly into the firing devices and the other end can be threaded into the explosive's capwell. The rubber seal in the nipple seals the cou-

pling into the blasting cap. The blasting cap user crimps the blasting cap onto the nipple.

The coupling base is cylindrical in shape and is made of metal.

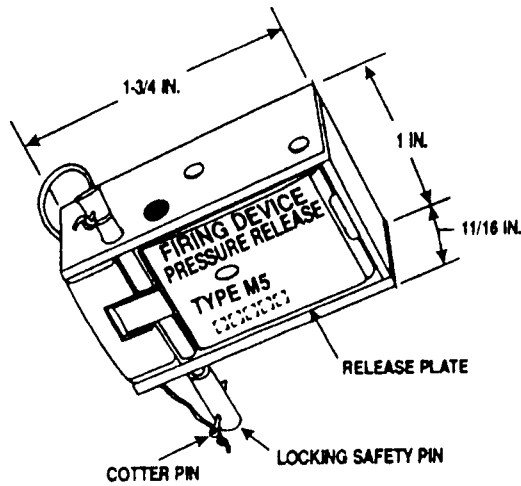
Functioning:

When the firing device functions, its firing pin strikes the primer. The primer ignites and, in turn, initiates the blasting cap. The blasting cap functions the explosive charge.

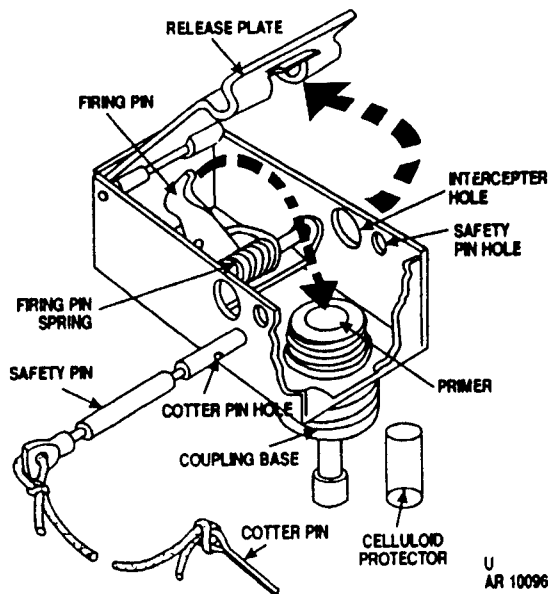
Tabulated Data:

Item material	Zinc based casting alloy
Color	Olive drab
Dimensions:	
Length	1 in.
Diameter	3/4 in.
Explosive component	M27 (old) or M39A1 (new) primer or commercial equivalent

FIRING DEVICE, DEMOLITION: M5, PRESSURE RELEASE



U
AR 100964



U
AR 100965

Type Classification:

C&T MSRS 11756003.

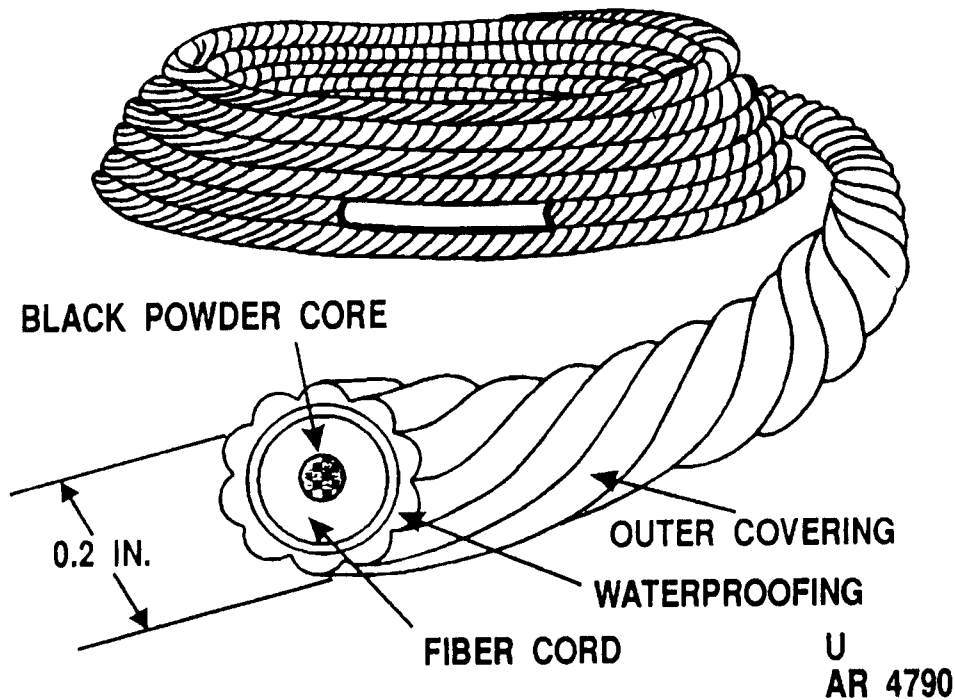
Use:

Pressure Release Firing Device M5 is used in boobytrap installations to activate mines and demolition charges.

Description:

This device consists of a rectangular body, containing the firing mechanism, and a primed coupling base. The firing mechanism consists of a spring-loaded firing pin, a release plate, and a safety pin. The coupling base, primed with a percussion primer, is threaded to fit in the capwell of a mine activator or demolition charge.

FUSE, BLASTING, TIME: (SAFETY FUSE)



Type Classification:

Std B OTCM 36841, dtd 1958.

Use:

Time blasting fuse (safety fuse) is used in military demolitions to ignite nonelectric blasting caps, above ground or underwater. The fuze is designed to permit the operator to ignite it and reach cover before detonation occurs.

Description:

Time blasting fuse consists of a waterproofed fiber cord with a core of black powder. The outer surface of the cord is corrugated, and is usually orange in color.

NOTE

Because of its corrugated surface, safety fuse does NOT form a waterproof seal when a blasting cap is crimped onto it. Sealing compound must be used to waterproof the installation.

Functioning:

On ignition, the flame travels through the core of black powder at a uniform rate towards the blasting cap and detonating it on contact. The burning rate varies between rolls, and sometimes within a single roll, from approximately 30 seconds per foot to 45 seconds or more. The burning rate may be affected by climatic conditions, and it increases significantly underwater.

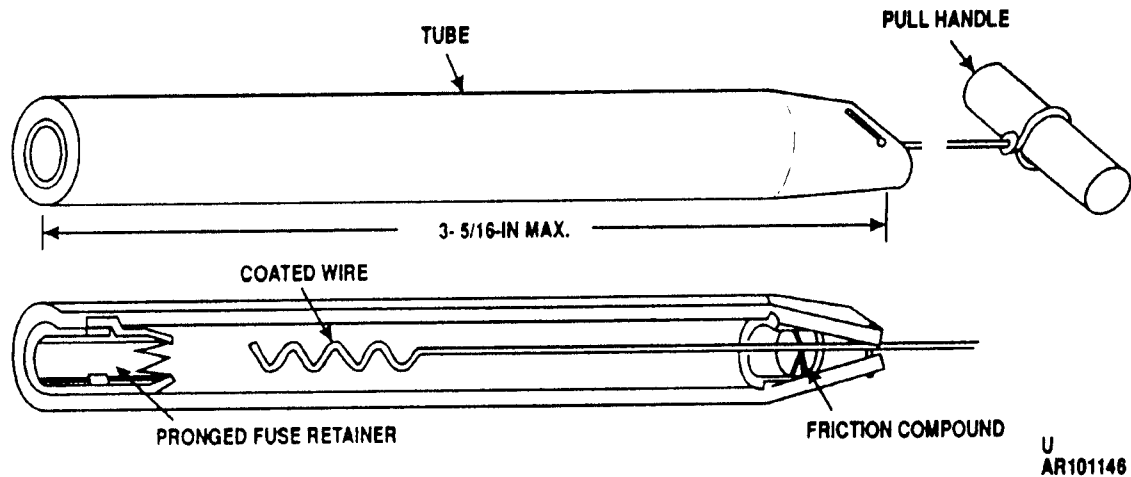
Tabulated Data:

Container material.....	Fiber
Color.....	Usually orange
Dimensions:	
Length.....	50 ft coil
Diameter.....	0.2 in.
Filler.....	Black powder
Method of actuation.....	Flame or fuse igniter

Shipping and Storage Data:

Quantity-distance class.....	1.4
Storage compatibility group.....	S
DOT shipping classification.....	Explosive C
DOT designation.....	SAFETY FUSE
UNO serial number.....	0105
UNO proper shipping name.....	Fuse, safety
DODIC.....	M670
Specification.....	MIL-F-20412, MIL-E-15160

IGNITER, TIME BLASTING FUSE: M1, FRICTION



Type Classification:

Obsolete Material Status Record 11756003.

Use:

Time Blasting Fuse Igniter M1 is a friction-actuated device used to initiate time blasting fuse.

Description:

Igniter M1 consists of a paper tube fitted with a pronged fuse retainer at one end and a pull handle at the other. The pull handle is assembled to a coated wire which extends through a small cup of friction compound in the forward end of the tube.

Functioning:

When the pull handle is pulled, the movement of the wire through the tube ignites the friction compound which, in turn, ignites the time blasting fuse held in the fuse retainer.

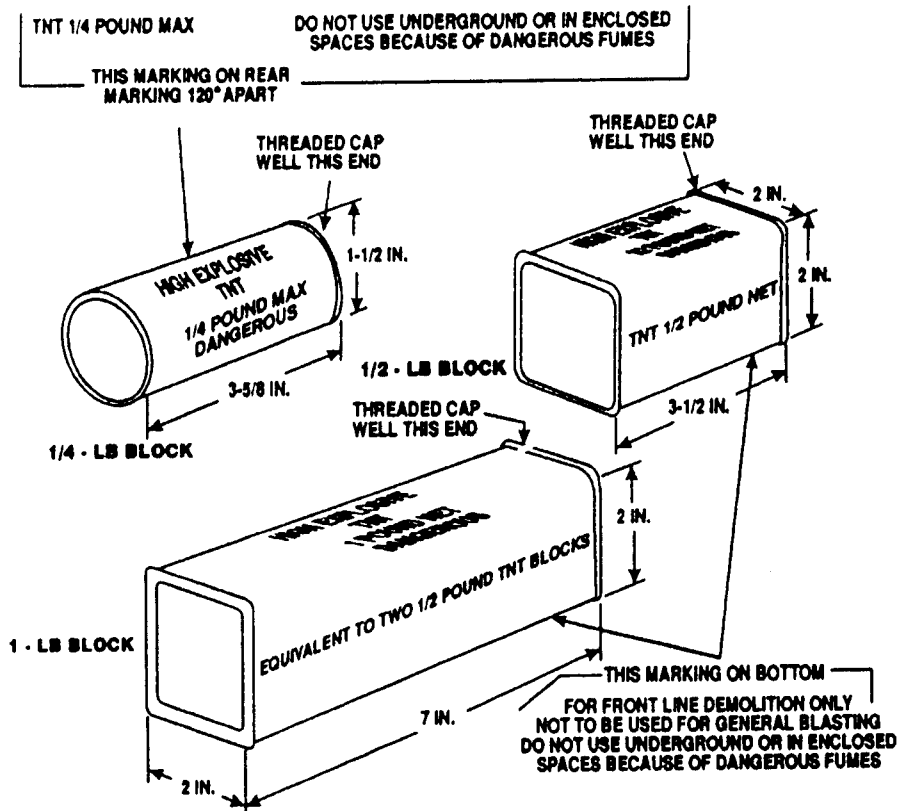
Tabulated Data:

Covering material -----	Paper
Color -----	Grey, Brown or Olive drab
Dimensions:	
Length -----	3-1/3 in.
Diameter -----	0.34 in.
Filler -----	Friction powder
Method of actuation -----	Pull wire handle

Shipping and Storage Data:

Quantity-distance class -----	1.4
Storage compatibility group -	S
DOT shipping classification -	Explosive C
DOT designation -----	FUSE IGNITERS
UNO serial number -----	0131
UNO proper shipping name -	Lighters, fuse
DODIC -----	M765
Specification -----	MIL-I-125
Packaging -----	10 cylindrical cardboard containers of 250 each (2500 igniters in each wooden box)

TNT BLOCK DEMOLITION CHARGES CHARGE, DEMOLITION: BLOCK (1/4-, 1/2, 1-POUND) TNT



U
AR 101154-A

Type Classification:

Std OTCM 36841, dtd 1958.
Std AMCTC 6039, dtd 1968.

Use:

TNT block demolition charges are standard demolition charges and are used for all types of demolition work. However, the 1/4-pound charge is used primarily for training purposes.

Description:

TNT block demolition charges are issued in three sizes. The 1/4-pound block demolition charge is in a cylindrical waterproof cardboard container, and the 1/2-pound and 1-pound block demolition charges are in rectangular waterproof cardboard containers. All three have metal ends with a threaded cap well in one end. TNT (trinitrotoluene) charges have a high detonating velocity and thus TNT is particularly well suited to cutting or breaching hard sur-

facéd materials.

Functioning:

When the charge is detonated, the explosive is converted into compressed gas. The gas exerts pressure in the form of a shock wave which demolishes the target by cutting, breaching, or cratering. The type of demolition achieved depends on the placement of the charge in relation to the target.

Tabulated Data:

Container material	Cardboard
Color	Olive drab w/yel- low markings
Weight	1/4 lb, 1/2 lb, or 1 lb
Dimensions:	
1/4-lb block	3-5/8 in. (length) x 1-1/2 in. (dia)
1/2-lb block	3-1/2 in. x 2 in. x 2 in.
1-lb block	7 in. x 2 in. x 2 in.

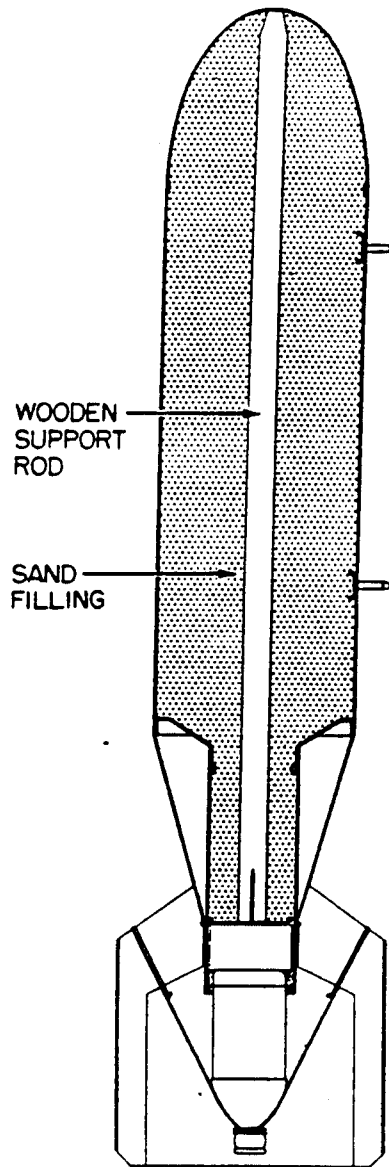


Figure 314. 100-pound Practice Bomb M38A2

its dark smoke filler, is well adapted for bombing practice over snow-covered terrain. The black-powder igniter charge contains approximately 425 grains. It is used in the Practice Bomb M38A2.

M5	
Over-all length, inches.....	7.37
Diameter, inches.....	2.95

Material	Glass
FS filler, fluid ounces.....	14.4

The Spotting Charge M5 consists of a glass bottle filled with FS smoke mixture. An ordinary bottle cap seals the mixture. The bottle is held to the Practice Bomb M38A2 by a wire twisted around the neck of the bottle and attached to the tail vanes. The charge assembly weighs 2.54 pounds.

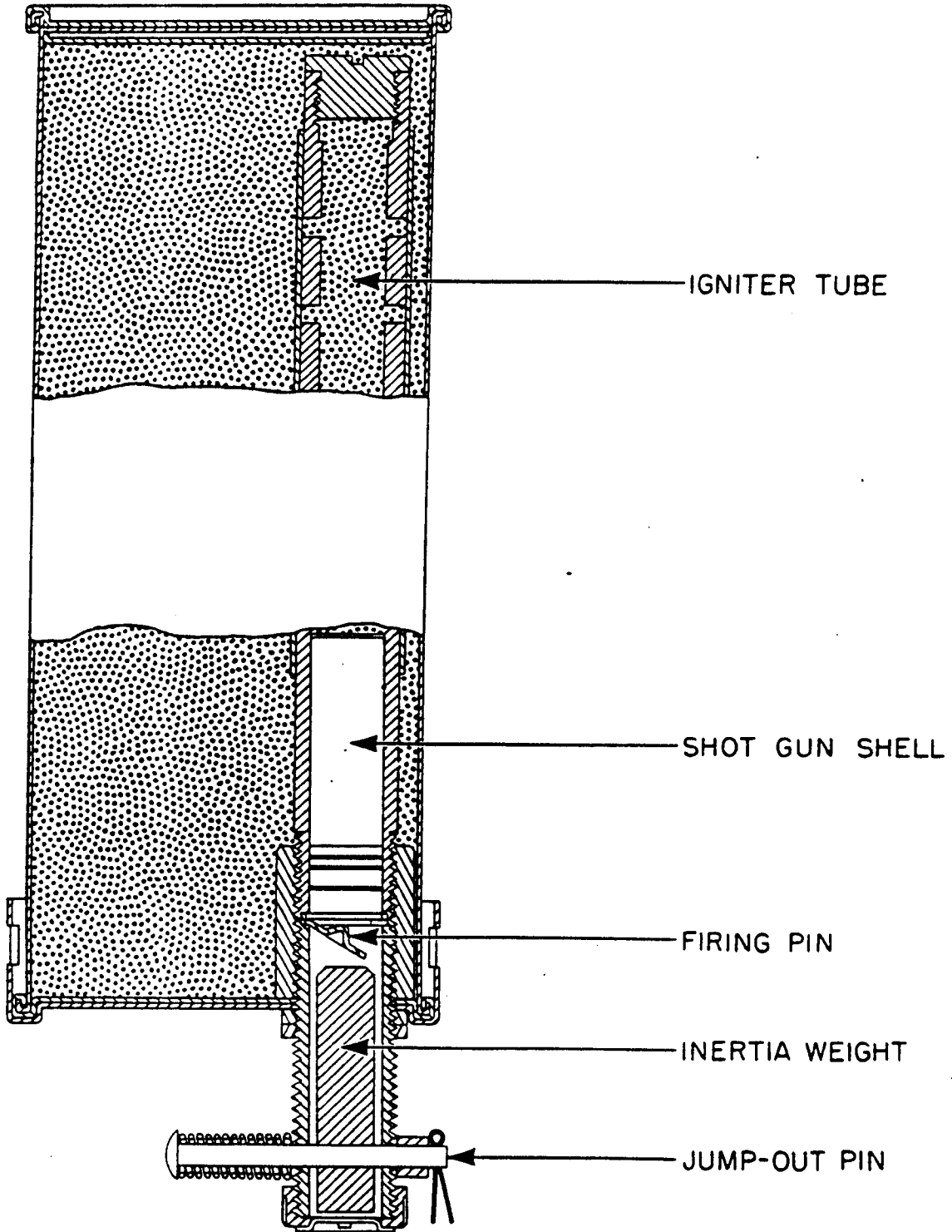


Figure 315. Spotting Charge M1A1

CONFIDENTIAL

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX E

REPORTS AND STUDIES

APPENDIX E

Reports and Studies

Table of Contents

E-1 Site Survey Summary Sheet, DERPS FUDS OE Site No. J09CA027401 (B-4).

E-2 Findings and Determination of Eligibility, DERP FUDS OE Site No. J09CA027401 (B-5).

E-3 Project Summary Sheet, DERPS FUDS OE Project Site No. J09CA027401 (B-6)

E-4 US DOI, Fish and Wildlife Service, Candidate, Proposed, Threatened or Endangered Species for Riverside County, California (1-6-96-TA-050) dated 11/27/95 (B-16).

E-5 California Historical Resources Information System, Cultural Resources Records Search dated January 18, 1996 (B-17).

E-6 Extract from State of California Points of Historical Interest list, dated April 8, 1968 (B-18).

E-7 Extract from Climatology of the United States Number 60, Climate of California, June 1982 (B-19).

SITE SURVEY SUMMARY SHEET
FOR
DERP-FUDS SITE NO. J09CA027400
CAMP COXCOMB
11 FEBRUARY 1994

SITE NAME: Camp Coxcomb

LOCATION: The Camp Coxcomb site is located in an undeveloped region of Riverside County, California, approximately 24 miles southwest of Freda, California and 16 miles northeast of Desert Center. Camp Coxcomb is located within T2S, R16E, Sections 35 and 36 (San Bernardino Meridian); T3S, R16E, Sections 1, 2, 11, 15, 21 (south ½), 22-27, 34, 35, and 36 (south ½).

SITE HISTORY: In January 1942, the success of the German Army in North Africa led the U.S. War Department to focus training in areas with a desert terrain and environment. On 5 February 1942, the Chief of Staff, General Headquarters, approved of a Desert Training Center and designated General George S. Patton as the Center's Commanding General. The total maneuver area encompassed 12 million acres in Southern California and Western Arizona, making it the largest training area in the U.S. Close to one million troops were trained in this area between 1942 and 1944.

Within the organization of the Desert Training Center (DTC), the Camp Coxcomb site was established as one of several divisional camps. On 13 May 1942 Real Estate Directive 959 transferred 10,560 acres from the U.S. Department of the Interior to the War Department. This was an implied transfer, therefore the War Department did not obtain formal permission from the Department of the Interior. In addition, 960 acres were acquired by permit. While it cannot be independently confirmed, it is assumed that these acres were acquired from the State of California through Revocable Permit No. 12 on 24 March 1942. Hence, a total of 11,520 acres were acquired for Camp Coxcomb.

The Camp was established during the Spring of 1942 and subsequently occupied by the 7th Armored Division, as well as the 93rd and 95th Infantry Divisions. Temporary improvements constructed on the site included 39 showers, 165 latrines, 283 tent frames, 35,052 feet of water pipe, two 1000 gpm centrifugal pumps, and one 4,000 gallon elevated metal water storage tank. Seven firing ranges were also provided. The two permanent features constructed on the site include a contour map of the Desert Training Center and a stone altar located in a former chapel area.

By March 1943, the North Africa Campaign was in its final stages and the primary mission of the DTC changed. By the middle of 1943, the troops who originally came for desert training maneuvers, were now deployed worldwide. Therefore, to reflect that change in mission, the name of the Center was changed to the

California-Arizona Maneuver Area (CAMA). The CAMA was to serve as a Theater of Operations to train combat troops, service units and staffs under conditions similar to those which might be encountered overseas.

The CAMA was enlarged to include both a Communications Zone and Combat Zone, approximately 350 miles wide and 250 miles long. Thousands of soldiers and equipment arrived by train at the Freda railroad siding as maneuvers continued at Camp Coxcomb.

Toward the end of 1943, the need for service units for overseas duty increased dramatically, leaving little or no support for the CAMA. Without service unit support, commanders made the decision in January of 1944 to suspend operation of the CAMA. The entire CAMA was declared surplus on 30 March 1944 and the Army formally announced that the CAMA was to be closed by 1 May 1944.

The Camp Coxcomb site was declared surplus on 16 March 1944. The 10,560 acres associated with the implied transfer from the Department of the Interior were relinquished on 2 September 1949. The permit with the State of California for the use of 960 acres was terminated on 11 November 1944.

The original roadway network has deteriorated a great deal due to scouring by erosion and the emergence of natural vegetation. Many portions of the roadway network are now impassable. The altar structure at Camp Coxcomb remains in good condition. Maintenance has been routinely done to stabilize the outer edges of these structures.

The contour map has deteriorated appreciably. Most of the wooden signs, which identified camps and significant features of the center, are no longer legible. The concrete protective surface used to hold the topographic features in shape has been broken. As a result, erosion has taken its toll on the map surface. A six-foot high fence was constructed around this map in 1984 by the Bureau of Land Management (BLM) to preserve what remains of this feature. However, neither this nor any other remains or structures constitutes a hazard.

Other remnants of the Camp include rock designs of military insignia and the stone work which lines the camp roads and walkways. Throughout the camp, a few artifacts of camp life can be found including eating utensils, ration cans and bottles. In addition, a few trash or latrine pits were found in the encampment area. There is no evidence of hazardous waste in these pits.

According to a BLM report, seven firing range areas are located on the Camp Coxcomb site. These accommodated small arms practice. All of these ranges are within the boundaries of the camp. Historical reports also suggest that landmines and grenades were used in the area.

The Bureau of Land Management (BLM) placed warning signs on the project site, however, the signs were removed several years ago. The BLM has not handled any incident reports in the past several years on the Camp Coxcomb site. Site preservation and protection are primary concerns of the BLM. Therefore, they do not want any surface disturbance at or restoration of the site. However, if a condition constitutes a genuine hazard they would be willing to accept appropriate restoration activities on the site. The BLM requested that they be notified of any contemplated activity on the project site.

Today, the majority of the site is undeveloped, scrub-covered foothills. The Colorado River Aqueduct passes through a portion of the site. Approximately 8,563 acres of the site is currently owned by the U.S. Department of the Interior and under the jurisdiction of the Bureau of Land Management. Approximately 2,957 acres of the site is owned by the Metropolitan Water District of Southern California and various private parties. In addition, historical records indicate that approximately 50 mining claims have been located on the Camp Coxcomb site.

SITE VISIT: The site was visited on 20 October 1993 by Ron Kepford and David Eckstein of Ebasco Environmental, Santa Ana, California. Since military facilities appear to have been removed from the site, and the site returned to an undeveloped condition, no on-site point of contact was established.

CATEGORY OF HAZARD: OEW.

PROJECT DESCRIPTION: Recommend that the MCX for OEW at Huntsville Division make a final OEW determination if further action is appropriate.

AVAILABLE STUDIES AND REPORTS: A real estate file was found at the Real Estate Division, Los Angeles District, U.S. Army Corps of Engineers. Real estate documents, aerial photographs, and other information was obtained at the Needles Branch of San Bernardino County Public Library. Extensive personal interviews were conducted with Mr. John Lynch of the Council on America's Military Past. Other reports includes "Iron Mountain Divisional Camp, Resource Management Plan" by the U.S. Department of the Interior, Bureau of Land Management, 1984; Desert Training Center, California-Arizona Maneuver Area, Interpretive Plan", by U.S. Department of the Interior, Bureau of Land Management, 1986;

SITE NO. J09CA027400

"Patton's Desert Training Center" by Lynch, Kennedy and Wooley,
Council on America's Military Past, 1982; and "The Desert
Training Center and CAMA, Study No. 15", by Sgt. Sidney L.
Meller, Historical Section--Army Ground Forces, 1946.

DISTRICT POC: Jatin Desai, Los Angeles District, (213) 894-6266

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FORMERLY USED DEFENSE SITES
FINDINGS AND DETERMINATION OF ELIGIBILITY

CAMP COXCOMB
FREDA, CALIFORNIA
SITE NO. J09CA027400

FINDINGS OF FACT

1. On 13 May 1942, Real Estate Directive 959 transferred 10,560 acres from the U.S. Department of the Interior to the War Department. In addition 960 acres were acquired by permit. While it cannot be independently confirmed, it is assumed that these acres were acquired from the State of California through Revocable Permit No. 12 on 24 March 1942. Hence, a total of 11,520 acres were acquired for Camp Coxcomb.

2. Within the organization of the Desert Training Center, the Camp Coxcomb site was established as one of several division camps dedicated to the training and conditioning of troops and testing military equipment. The camp was established during the Spring of 1942 and subsequently occupied by the 7th Armored Division, as well as the 93rd and 95th Infantry Divisions. Temporary improvements constructed on the site included 39 showers, 165 latrines, 283 tent frames, 35,052 feet of water pipe, two 1000 gpm centrifugal pumps, and one 4,000 gallon elevated metal water storage tank. Seven firing ranges were also provided. The two permanent features constructed on the site include a contour map of the Desert Training Center and a stone altar located in a former chapel area.

3. Camp Coxcomb was declared surplus on 16 March 1944. On 2 September 1949, the 10,560 acres associated with the implied transfer from the Department of the Interior were relinquished. The permit with the State of California for the use of 960 acres was terminated on 11 November 1944. The only improvement still on the site are the altar structure and the remnants of the contour map. With the exception of these improvements, the site has returned to its natural state. The Colorado River Aqueduct passes through a portion of the site. Approximately 8,563 acres of the site is currently owned by the U.S. Department of the Interior and under the jurisdiction of the Bureau of Land Management. Approximately 2,957 acres of the site is owned by the Metropolitan Water District of Southern California and various private parties. In addition, approximately 50 mining claims have been located on the Camp Coxcomb site.

DETERMINATION

Based on the foregoing Findings of Fact, it has been determined that this site was formerly used by the Department of Defense (DOD). It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites, established under 10 USC 2701 et seq.

26 Sep 94

Date

DAVID E. PEIXOTTO

DAVID E. PEIXOTTO
Colonel, EN
Commanding

PROJECT SUMMARY SHEET
FOR
DERP-FUDS OEW PROJECT NO. J09CA027401
CAMP COXCOMB
SITE NO. J09CA027400
11 FEBRUARY 1994

PROJECT DESCRIPTION: Camp Coxcomb was used by the Army as one of several divisional camps dedicated to the training and conditioning of troops and testing military equipment. The camp was established during the Spring of 1942 and subsequently occupied by the 7th Armored Division, as well as the 93rd and 95th Infantry Divisions. Seven firing ranges were established on the site. Ordnance used consisted of landmines, explosives, grenades and small arms.

PROJECT ELIGIBILITY: The property was formerly owned and used by the U.S. Army.

POLICY CONSIDERATIONS: No policy considerations are known to exist which would affect the proposal of this project.

PROPOSED PROJECT: Recommend the Corps' Mandatory Center of Expertise (MCX) for OEW at the Huntsville Division make a determination if further action is appropriate.

RAC FORM: Attached.

DISTRICT POC: Request CEHND inform Mr. Jatin Desai, Los Angeles District, at (213) 894-6266 when a determination is made regarding project status.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, California 92008

November 27, 1995

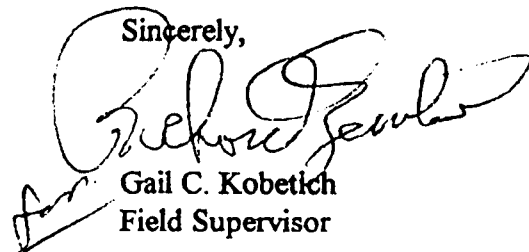
Ms. Shirley Daniels
Attn: Sioac-ESL
USADACS
Savannah, Illinois, 61074-9639

RE: Request for Candidate, Proposed, Threatened, or Endangered Species for Riverside County, California (1-6-96-TA-050)

This letter is in response to your request, dated November 24, 1995, for information on species of concern that occur within the referenced area. We are providing a list of endangered, threatened, and proposed species which may be present within the referenced area.

If you have any questions regarding this species list contact Shawnetta Grandberry of my office at (619) 431-9440.

Sincerely,



Gail C. Kobetich
Field Supervisor

Listed Endangered, Threatened
and Candidate Species that May Occur in
Riverside County, California

November 27, 1995

Common Name	Scientific Name	Status
<u>Listed Species</u>		
<u>AMPHIBIANS</u>		
arroyo southwestern toad	<u>Bufo microscaphus californicus</u>	E
desert slender salamander	<u>Batrachoseps aridus</u>	E
<u>BIRDS</u>		
American peregrine falcon	<u>Falco peregrinus anatum</u>	E
bald eagle	<u>Haliaeetus leucocephalus</u>	E
brown pelican	<u>Pelecanus occidentalis</u>	E
least Bell's vireo	<u>Vireo bellii pusillus</u>	E
peregrine falcon	<u>Falco peregrinus</u>	E
southwestern willow flycatcher	<u>Empidonax traillii extimus</u>	E
Yuma clapper rail	<u>Rallus longirostris yumanensis</u>	E
Aleutian Canada goose	<u>Branta canadensis leucopareia</u>	T
coastal California gnatcatcher	<u>Polioptila californica californica</u>	T
<u>CRUSTACEANS</u>		
Riverside fairy shrimp	<u>Streptocephalus woottoni</u>	E
vernal pool fairy shrimp	<u>Branchinecta lynchii</u>	E
<u>FISH</u>		
bonytail chub	<u>Gila elegans</u>	E

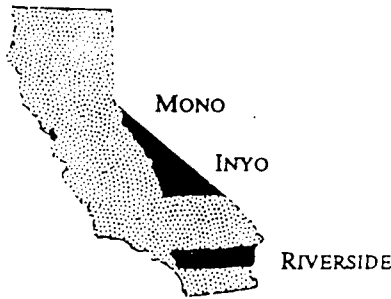
Common Name	Scientific Name	Status
Colorado squawfish	<u>Ptychocheilus lucius</u>	E
desert pupfish	<u>Cyprinodon macularius</u>	E
Mojave tui chub	<u>Gila bicolor mohavensis</u>	E
razorback sucker	<u>Xyrauchen texanus</u>	E
unarmored threespine stickleback	<u>Gasterosteus aculeatus williamsoni</u>	E
<u>INSECTS</u>		
Delhi Sands flower-loving fly	<u>Rhaphiomidas terminatus abdominalis</u>	E
<u>MAMMALS</u>		
Stephens' kangaroo rat	<u>Dipodomys stephensi</u> (includes <u>D. cactus</u>)	E
<u>REPTILES</u>		
Coachella Valley fringed- toed lizard	<u>Uma inornata</u>	T
desert tortoise (Mojave Desert population)	<u>Gopherus agassizii</u>	T
<u>PLANTS</u>		
slender-horned spineflower	<u>Dodecahema leptoceras</u>	E
Santa Ana River woolly- star	<u>Eriastrum densiflorum</u> ssp. <u>sanctorum</u>	E
Parish's daisy	<u>Erigeron parishii</u>	E
San Diego button celery	<u>Eryngium aristulatum</u> var. <u>parishii</u>	E
California Orcutt grass	<u>Orcuttia californica</u>	E

Common Name	Scientific Name	Status
<u>Proposed Species</u>		
<u>AMPHIBIANS</u>		
California red-legged frog	<u>Rana aurora draytoni</u>	PE
<u>INSECTS</u>		
Quino checkerspot butterfly	<u>Euphydryas editha quino</u>	PE
<u>MAMMALS</u>		
peninsular bighorn sheep	<u>Ovis canadensis cremnobates</u>	PE
<u>REPTILES</u>		
flat-tailed horned lizard	<u>Phrynosoma mcalli</u>	PT
<u>PLANTS</u>		
Munz's onion	<u>Allium munzii</u>	PE
Coachella Valley milk-vetch	<u>Astragalus lentiginosus</u> var. <u>coachellae</u>	PE
triple-ribbed milk-vetch	<u>Astragalus tricarinatus</u>	PE
San Jacinto Valley crownscale	<u>Atriplex coronata</u> var. <u>notatior</u>	PE
Nevin's barberry	<u>Berberis nevinii</u>	PE
Parish's meadowfoam	<u>Limnanthes gracilis</u> var. <u>parishii</u>	PE
thread-leaved brodiaea	<u>Brodiaea filifolia</u>	PT
Vail Lake ceanothus	<u>Ceanothus ophiochilus</u>	PT
prostrate navarretia	<u>Navarretia fossalis</u>	PT
<u>Candidate Species</u>		
<u>INSECTS</u>		
greenest tiger beetle	<u>Cicindela tranquebarica viridissima</u>	C1

Common Name	Scientific Name	Status
<u>MAMMALS</u>		
San Bernardino Merriam's kangaroo rat	<u>Dipodomys merriami parvus</u>	C1
<u>PLANTS</u>		
Johnston's rock cress	<u>Arabis johnstonii</u>	C1
sticky-leaved dudleya	<u>Dudleya viscida</u>	C1
Little San Bernardino Mountains gilia	<u>Gilia maculata</u>	C1
San Bernardino blue grass	<u>Poa atropurpurea</u>	C1
Hidden Lake bluecurls	<u>Trichostema austromontanum</u> ssp. <u>compactum</u>	C1

- E:** Endangered
T: Threatened
PE: Proposed Endangered
PT: Proposed Threatened
C1: Category "1" candidate for listing; taxa for which the Service has substantial information to support listing as threatened or endangered.

**CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM**



Eastern Information Center
Department of Anthropology
University of California
Riverside, CA 92521-0418

Phone (909) 787-5745
Fax (909) 787-5409

January 18, 1996
RS #1741

Larry M. Dauphin
ATTN: SIOAC-ESL (DAUPHIN)
Director
USADACS
Savanna, IL 61074-9639

Re: Partial Cultural Resources Records Search

Dear Mr. Dauphin:

We received your request on January 2, 1996 for a partial cultural resources records search for the project areas of Camp Granite, Camp Coxcomb, and Desert Center Division Camp, located in various sections of T.1S, R.17E; T.1S, R.18E; T.2S, R.16E; T.3S, R.16E; T.4S, R.15E; T.5S, R.14E; and T.5S, R.15E, in Eastern Riverside County. We have reviewed our site records, maps, and manuscripts to provide you with the following information.

Our records indicate that a cultural resources survey has been conducted on only a small portion of the project area (approximately 1%). Our records indicate that 14 archaeological sites are located within the project area designated Desert Center Division Camp. The following is a listing of the positive findings of archaeological sites:

T.5S, R.14E
Sections 25, 26: 1 site recorded

T.5S, R.15E
Section 28: 5 sites recorded
Section 29: 1 site recorded
Section 31: 1 site recorded
Section 32: 6 sites recorded
Section 34: 1 site recorded
Section 35: 1 site recorded

In addition to the California Historical Resources Information System, the following were reviewed:

The National Register of Historic Places Index: State Historic Landmark #985 is eligible for National Register status (enclosures).

Office of Historic Preservation, Archaeological Determinations of Eligibility (listed through 04/11/95): None of the properties or sites have been evaluated for eligibility.

Office of Historic Preservation, Directory of Properties in the Historic Property Data File (dated 03/31/95): State Historic Landmark #985 (enclosure).

A review of USGS Coxcomb 15' (1963), Chuckwalla 15' (1963), Iron Mountains 15' (1956) and Canyon Spring 15' (1940) indicated historic structures/features present in the following locations:

T.4S, R.15E

- Section 6: 1 historic feature
- Section 7: 1 historic feature
- Section 17: 1 historic feature
- Section 18: 1 historic feature
- Section 31: 1 historic feature

T.5S, R.14E

- Section 27: 1 historic feature
- Section 28: 1 historic feature
- Section 32: 1 historic feature
- Section 33: 1 historic structure
- Section 34: 1 historic structure
- Section 35: 8 historic structures

T.5S, R.15E

- Section 6: 1 historic feature
- Section 7: 1 historic feature
- Section 29: 3 historic structures

These structures/features are over 45 years old and need to be included in the inventory of cultural resources using the appropriate form.

As per our telephone conversation, the General Land Office Plat Maps were not referred to during this record search as such research is beyond your current needs.

Mr. Dauphin
January 17, 1996
Page 3

This statement does not constitute a negative declaration of impact. This statement reports only known archaeological materials on or in the vicinity of the property in question. The presence of additional archaeological resources on the property cannot be ruled out until a systematic survey is conducted.

As you are seeking general information about the aforementioned area, only a partial records search was conducted. If and when you are in need of a more detailed records search, please contact this office at your nearest convenience.

Enclosed as per your request you will find an additional copy of records search #1730 dated October 16, 1995, regarding Camp Iron Mountain. Should you wish to expand upon this records search to the detail of the above (RS #1741) do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dan Haney', written over a horizontal line.

Dan Haney
Information Officer

Enclosures

SR	STREET ADDRESS	CITY	OWN YR-C	C	C	#PR	OTHREG	CHL#	PROP-#	ONP-PROG.	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRT
SR 15	CARVED ROCK	(VIC) CORONA	P	C	S	187	089991	HIST.REG.	SHL-0187					
SR 71	OLD TEMESCAL ROAD	(VIC) CORONA	S	C	S	638	090574	HIST.REG.	SHL-0638			06/20/35	7L	
SR 71	BR 56-58	(VIC) CORONA	P	1926	S		059304	HIST.SURV.	1728-0005-0000			03/31/58	7L	
TIN MINE RD	CAJALCO TIN MINE	(VIC) CORONA	U	1868	C		059301	HIST.SURV.	1728-0002-0398				6	
0	CONTRACTORS GENERAL HOSPITAL	DESERT CENTER	D	C	S	992	073052	ST.HS.LDMK	33-0014			08/17/90	7L	
	CORN SPRINGS RD	NONE						HIST.REG.	SHL-0992			08/17/90	7L	
	CORN SPRINGS RD	CORN SPRINGS	DESERT CENTER	F	0	0	060532	HIST.SURV.	2239-0018-0000				5S	
	CORN SPRINGS RD	AZTEC WELL	DESERT CENTER	F	1932	B	060531	HIST.SURV.	2239-0017-0000				5S	
	GAS LINE RD	HOPKINS WELL	DESERT CENTER	F	1915	O	060534	HIST.SURV.	2239-0020-0000				5S	
	MAYFIELD RD	MAYFIELD PUMPING STATION, JULIAN MINE	DESERT CENTER	F	1939	B	060530	HIST.SURV.	2239-0016-0000				5S	
	I 10	SKYLARK RANCH, ROCK HOUSE	DESERT CENTER	P	1935	B	060511	HIST.SURV.	2239-0003-0000				5S	
	I 10	NONE, ALLIGATOR	DESERT CENTER	P	1935	B	060510	HIST.SURV.	2239-0002-0000				5S	
	KAISER RD	DESERT STEVE RAGSDALE MEMORIAL PLAQUE	DESERT CENTER	P	1962	B	060529	HIST.SURV.	2239-0015-0000				5S	
	RAGSDALE RD	HOLLYWOOD CABINS	DESERT CENTER	P	1942	B	060528	HIST.SURV.	2239-0014-0000				6	
	RAGSDALE RD	RAGSDALE HOUSE	DESERT CENTER	P	1933	B	060527	HIST.SURV.	2239-0013-0000				3S	
44375	RAGSDALE RD	DESERT CENTER CAFE, CABIN #3	DESERT CENTER	P	1925	B	060520	HIST.SURV.	2239-0008-0005				40	
44375	RAGSDALE RD	DESERT CENTER CAFE, GARAGE/GAS STATIO	DESERT CENTER	P	1925	B	060521	HIST.SURV.	2239-0008-0006				40	
44375	RAGSDALE RD	DESERT CENTER CAFE	DESERT CENTER	P	1925	D 6	060522	HIST.SURV.	2239-0008-9999				40	
44375	RAGSDALE RD	DESERT CENTER CAFE, SWIMMING POOL	DESERT CENTER	P	1925	S	060517	HIST.SURV.	2239-0008-0002				40	
44375	RAGSDALE RD	DESERT CENTER CAFE, CABIN #1	DESERT CENTER	P	1925	B	060518	HIST.SURV.	2239-0008-0003				40	
44375	RAGSDALE RD	DESERT CENTER CAFE, CABIN #2	DESERT CENTER	P	1925	B	060519	HIST.SURV.	2239-0008-0004				40	
44375	RAGSDALE RD	DESERT CENTER CAFE	DESERT CENTER	P	1925	B	060516	HIST.SURV.	2239-0008-0901				40	
44400	RAGSDALE RD	STUMP RANCH	DESERT CENTER	P	1933	B	060525	HIST.SURV.	2239-0011-0000				4S	
44400	RAGSDALE RD	LINK TRAINER BUILDING, DESERT CENTER	DESERT CENTER	P	1942	B	060524	HIST.SURV.	2239-0010-0000				5S	
	RICE RD	OLD DESERT CENTER	DESERT CENTER	P	1921	C	060515	HIST.SURV.	2239-0007-0000				5S	
	RICE RD	DESERT CENTER SCHOOL, OLD SCHOOL HOU	DESERT CENTER	P	1935	B	060526	HIST.SURV.	2239-0012-0000				5S	
	RICE RD	DESERT CENTER ARMY AIR BASE, DESERT C	DESERT CENTER	C	1942	C	060512	HIST.SURV.	2239-0004-0000				5S	
	RICE RD	CORONA WELL	DESERT CENTER	C	1913	O	060513	HIST.SURV.	2239-0005-0000				5S	
	RICE RD	SUNKIST TRAIL	DESERT CENTER	P	1905	O	060514	HIST.SURV.	2239-0006-0000				5S	
	RICE RD	BOULDER WELL	DESERT CENTER	U	1891	O	060509	HIST.SURV.	2239-0001-0000				5S	
18050	RICE RD	CIRCLE E RANCH, TOTEM POLE DATE RANCH	DESERT CENTER	P	1935	B	060523	HIST.SURV.	2239-0009-0000				4S	
	WILEY WELL	WILEY WELL	DESERT CENTER	F	1907	O	060535	HIST.SURV.	2239-0021-0000				5S	
	EAGLE CLIFF MINE (JOS.TR.MULTI.)	(VIC) DESERT CENT	F	1890	C		080333	HIST.SURV.	2260-0024-0000			12/28/92	3S	
	EAGLE MOUNTAIN IRON	(VIC) DESERT CENT	P	C	C		090967	HIST.RES.	SPHI-RIV-041			04/15/93	3S	
	CAMP GRANITE--DESERT TRAINING CENTER,	(VIC) DESERT CENT	F	C	S	985	091818	HIST.RES.	SHL-0985			10/05/71	7L	
	CAMP IRON MOUNTAIN--DESERT TRAINING C	(VIC) DESERT CENT	F	C	S	985	091817	HIST.RES.	SHL-0985			06/12/89	7L	
	CAMP COXCOMB--DESERT TRAINING CENTER,	(VIC) DESERT CENT	F	C	S	985	091816	HIST.RES.	SHL-0985			06/12/89	7L	
	CAMP YOUNG--DESERT TRAINING CENTER, C	(VIC) DESERT CENT	F	C	S	985	091815	HIST.RES.	SHL-0985			06/12/89	7L	
	ELDORADO MINE & MILL (JOS.TR.MULTI.)	(VIC) DESERT CENT	F	1911	C		080334	HIST.SURV.	2260-0026-0000			12/28/92	7J	
	CORN SPRINGS	(VIC) DESERT CENT	U	C	C		090939	HIST.RES.	SPHI-RIV-014			04/15/93	3S	
	PINTO WYE ARRASTRA (JOS.TR.MULTI.)	(VIC) DESERT CENT	F	C			080337	HIST.SURV.	2260-0025-0000			12/28/92	3S	
	PINON MTN. HIST. MINING DIST.	(VIC) DESERT CENT	F	1890	D		080332	HIST.SURV.	2260-0024-9999			04/15/93	3S	
0	BRIDGE, CA-RIV-4153H	(VIC) DESERT CENT	U	1930	S		070135	PROJ.REVW.	BLM910321A			12/28/92	7J	
	CORN SPRING RD	CORN SPRING	(VIC) DESERT CENT	F	1000	C 0	075249	NAT.REG.	33-0034			04/15/93	3S	
	66011 1ST ST	NONE	DESERT HOT SPRING	P	1946	B	060558	HIST.SURV.	2240-0023-0000				6	
	66029 1ST ST	NONE	DESERT HOT SPRING	P	1951	B	060560	HIST.SURV.	2240-0025-0000				6	
	66031 1ST ST	NONE	DESERT HOT SPRING	P	1935	B	060561	HIST.SURV.	2240-0026-0000				6	
	66321 1ST ST	NONE	DESERT HOT SPRING	P	1935	B	060559	HIST.SURV.	2240-0024-0000				6	

Handwritten notes:
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 Hist. note
 Jordan
 11/15/94
 12/14

Handwritten note:
 w/ key

Handwritten note:
 completed
 11/15/95

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

APPENDIX F

Letters/Memorandums/Miscellaneous Items

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- F-1 Target Ranges, and general camp layout of Camp Coxcomb (B-20).
- F-2 Improvements to Camp Coxcomb (B-21).
- F-3 List of Project Tested by Desert Warfare Board (B-22).
- F-4 Letter, Subject: Chemical Ammunition for Desert Training Center (B-23).
- F-5 Training Directive Number 27, 19 July 1943 (B-24)
- F-6 Field Report: Final Report DTC Maneuvers (B-25).
- F-7 Letter, Camps Ibis, Coxcomb and Laguna, California and Arizona (B-26).
- F-8 Letter, Subject: Target Ranges (B-27).
- F-9 Status of California-Arizona Maneuver Area (B-28).
- F-10 Two letters, Subject: Evacuation of the California-Arizona Maneuver Area (B-29).
- F-11 Letter, Subject: Request for Portion of California-Arizona Maneuver Area, 24 Feb 44 (B-30).
- F-12 Warning Notice and Memorandum, Subject: Surplus Installations, California-Arizona Maneuver Area (B-31).
- F-13 Letter, Subject: COE Request for Portion of California-Arizona Maneuver Area, 30 Mar 44 (B-32).
- F-14 7th Armored Division History (B-33).
- F-15 Brief historical sketch of the 95th Infantry Division (B-34).

F-16 Field Report: No. 15 The Desert Training Center and CAMA, "The Beginning", Chap I (B-35).

F-17 Field Report: No. 15 The Desert Training Center and CAMA "The Close", Chapter VII (B-36).

E-18 Certificate of Clearance, Camp Coxcomb, California, CAMA, (B-37).

F-19 Letter, Subject: CAMA Dedudding (NOTE: Coxcomb areas identified by ★) (B-38).

F-20 Letter, Subject: Public Lands Contaminated and Contaminated Lands by Defense Agencies (B-39).

F-21 Letter, Subject: Contamination of Land by Defense Agencies (B-40).

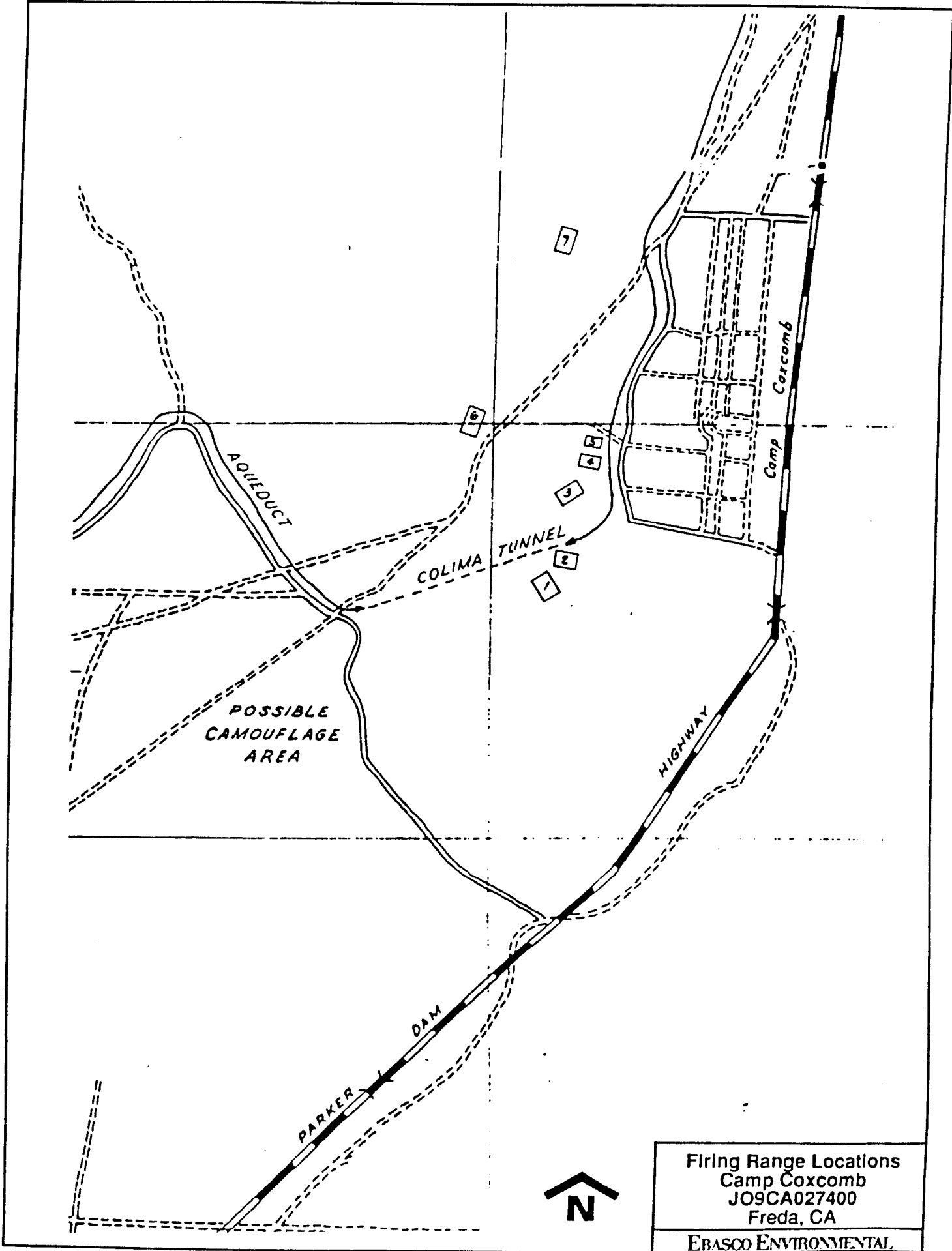
F-22 Study on Desert Training Center/California-Arizona Maneuver Area, Part II, Sites and Relics (B-41).

F-23 Excerpt from A History of Large Scale Army Maneuver in the United States (B-42).

F-24 Excerpt from a Desert Strike Final Report (B-43).

F-25 Study by BLM, Camp Coxcomb (B-44).

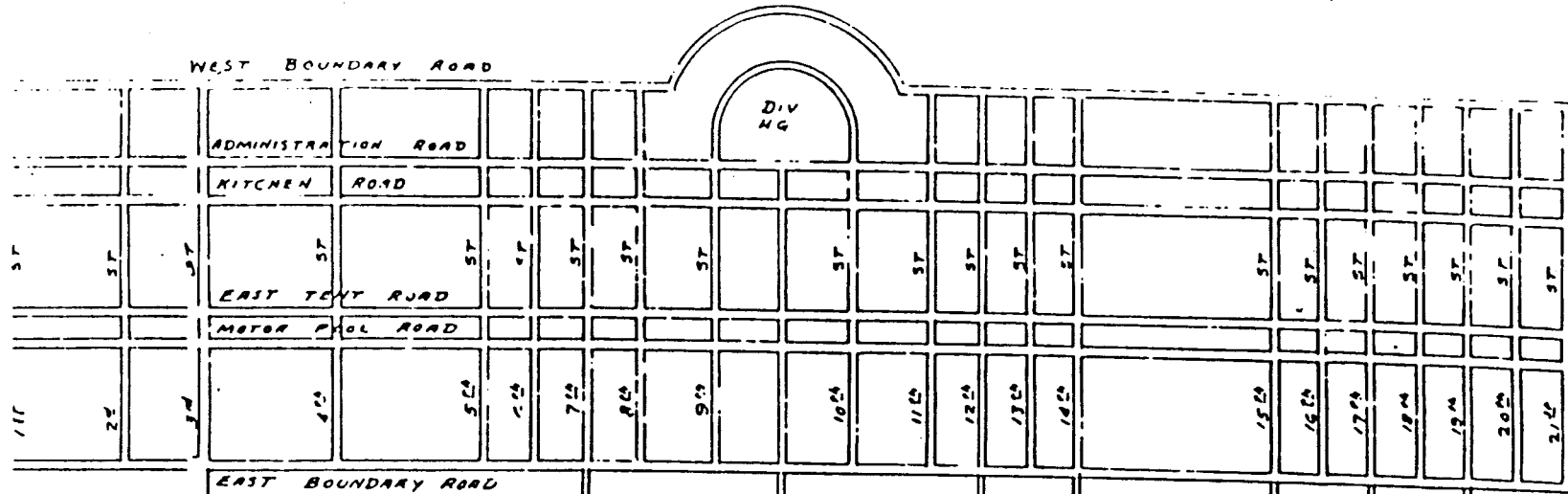
F-26 Excerpt from DOI Information Bulletin No. 95-30 (B-45).



COXCOMB RANGE

RANGE	DESCRIPTION
No. 1	INFILTRATION COURSE - .30 Cal.
No. 2	KNOWN DISTANCE - 1000 inches. .45 Cal. sub-machine gun.
No. 3	KNOWN DISTANCE - 1000 inches. .30 Cal. machine gun and Browning Auto rifle.
No. 4	KNOWN DISTANCE - 100 - 200 - 300 - 500 yds. .30 Cal.
No. 5	KNOWN DISTANCE - 15 and 25 yds. .45 Cal. pistol.
No. 6	INFILTRATION COURSE - .30 Cal.
No. 7	INFILTRATION COURSE - .30 Cal.

WEST BOUNDARY ROAD



F-1



Encampment Area
Camp Coxcomb
J09CA027400
EBASCO ENVIRONMENTAL

SECTION 3: COMCOMB

Location by map coordinates
C-AMA map 1/500,000 (700 - 1100)

1. INSTALLATIONS: (See diagramatic camp layout)

a. SHOWER BUILDINGS:

- (1) Battalion Enlisted Mens shower building. Total 26.
(See typical photo exhibits, E, G, H.)
- (2) Battalion Officers shower buildings. Total 13.
(See typical photo exhibits, F, I.)

**b. LATRINE BUILDINGS: Total 165.
(See typical photo exhibit D.)**

**c. WOOD TENT FRAMES, PYRAMIDAL:
(See typical photo exhibits, A, B.)**

- (1) Single, total 142.
- (2) Double, total 136.
- (3) Triple, total 5.

d. WATER SUPPLY INSTALLATIONS: (See diagramatic water system layouts)

- (1) Source; Metropolitan Water District Aqueduct.
- (2) Storage facilities; (See photo exhibits, L, M.)
(1 - 4,000 gal. metal tank.)
- (3) Equipment; 2 - Centrifugal Rex pumps, powered by 2 Waukesha pump motors.

e. RANGES: (See diagramatic range layout).

f. MISCELLANEOUS:

- (1) Small 10' observation and flag tower, total 1.
- (2) Duckboards, 5' x 15', total 6.
- (3) Benches, tables, parts of tent frames, and office furniture in considerable quantities.

LIST OF PROJECTS TESTED BY DESERT WARFARE BOARD

Air Filters	Carriage M1
Precleaner and Oil Bath Cleaner	Clutch Dust Covers
Anti-Aircraft Material	Clutch Assemblies
Air Conditioned Ambulance	75mm Gun Motor Carriage, Half-Track, Special Springs For
Refrigerated Ambulance	76 MM Gun Motor Carriage T-70
Field Ambulance	165mm Gun Motor Carriage T-6
Ammunition	Special Two Plate Clutch
Airborne Ammunition Containers	Detergent, Synthetic Neutronys
Air Tank Bombing	Detector Set, A/T Mine
Air-Horner Supply	V Type Road Drag
Anti-Dust Measures	Duck, Coated Canvas
Automotive Equipment(Accessories)	Armored Force Vehicles
Marker, Beacon	Chemical Warfare Equipment
Desert, Warfare Boots	Engineer Equipment
Boots, Parachutest	Matchbox, Compress Type
Boots, Field M1943	Insect Repellant
Boots, Cavalry	Photographic Equipment
Boots, Commercial	Tire Patching Equipment
Level Bubbles	Visual Equipment
Steel Treadway Bridges	Polaroid Eyeshades
Tire Chains	Jettison Fuel Tanks and Trailers
Coveralls	Clare Filters for Tank Telescopes and Periscopes
Gasoline Cans	Smoke Generators
Canteens, 2-1/2 Gallon	Sun Glasses
Null Compasses	Gasoline
Compasses	Goggles Ski Type
Cots, Canvas Folding	Gas Warfare
Armored Car T-17 (British)	Gun T10 & Gun Carriage T1, 3"
Armored Utility Car M20	Half Track Personnel Carriers M3
Carriage, MG, Cal. 50	Hose Tops
87mm Gun M3A1	Modified Half Tracks, M2 & M3
Heaters, Circulated Fuel Oil Burner	Half Track Shutter Brackets
Havelocks	Blockout Headlights
Scout Car M3A1	Special Springs for Half Tracks
Half Track Car, M2E6	
Special Springs for 75 MM Gun Motor Carriage.	Interphone Equipment
Ventilating Insoles	Lubricants
Kits, Medical, Jungle	Liners, Helmet
Trouble Lamps	Lipsticks and Creams
Leather	Medical Supply Units
Lubrication, Artillery	Muzzle Cover
Muzzle Cover	Motor Carriage Gun Mount M8
Mount, 105 Howitzer, M7	Oil, Can, Replaceable Caps for
Navigation Sets	Paint
Oil	Puttees, Khaki, Woolen
Public Address Systems	Prime Movers
Panel Set AP 50	Ground Projector M4
Pack Boards	Radio Set SCR 506
Radio Carrier T17	

LIST OF PROJECT LISTED BY DESERT WARFARE BOARD (Cont'd)

Ration Boxes	Rations
Motors	Restrictor Rings, Tires
Rucksacks	Refrigerated Chamber
AC Spark Plug Pump	High Speed Road Pioneering
Spring Loaded Idler Assembly	Air Ground Signalling
Shell, Illuminating, 80 mm	Gasoline Stoves
Impregnite Shoe M1	Shirts, Convertible Collar
Shirts	Socks, Ski
Socks, Cool Cushion Sole	Hardwater Scap
Spring Fatigue in 1/4 Ton Truck	Steering Stabilizers for Half
Double Coil Springs for Spring	Trucks and Scout Cars
Loaded Idler Assembly	Snubbers for Scout Cars
Station Wagons	Steel Shell Cases
Signal, Ground M21	Tape, Phosphorescent
Steel Tent Frame	Towels
Synthetic Tracks for Tanks	Amphibian Trucks
Tire Tubes	Gas Tankers
Ordinance Shop Trucks	12 volt Electrical System for
Dodge Truck 1-1/2 Ton	1/4 Ton Trucks
Trucks, 1/2 Ton	1/4 Ton Welding and Crane Truck
Tractors	Armored Cargo Trailer, M8
Trailers for Light Tanks	Trailers
Water Trailer	Trailers for Medium Tanks
Ten Ton Tractors D7	Caterpillar Tractor D4
High Speed Tractors	Traction Devices
Goodrich Company Tubeless Combat	Heavy Tractor T16
Tires	Galanot Katson Iyr Tracs
Special Tires	Desert Tires for Motorcycles
Aircraft Tires	Tank Destroyers M10 and M10A1
Lt Tank M3 with Low Turret	Bogie Suspension for Medium Tank M3
Tank M4A1E1	Medium Tank M4A2
Medium Tank M4A3	Medium Tank M4A4
Medium Tank M5	Steel Tank Tracks T36E2 and E6
Air Cleaners for Medium Tank M3	Vortex Air Cleaners for Light Tank M3
Veotographs	Motor Transport Vehicles
Medical Vehicles	Command Post Vehicles
Marking of Vehicles	Vapor Locks
Wire	Water
Storage Batteries	Tank Recovery Vehicle, T2
Desert Clothing	Cars, Armored, Reconnaissance, M8
Cargo Carriers, T15, T16 & T24	2 1/2-Ton, Cross Country Carrier
Camouflage	(Swamp Buggy)
40mm Gun Carriage, M2 and T2	Overall Zipper Covers
Thornton Locking Differentials	Multiple Gun Motor Carriage, T29
Eye Shields, Anti-gas	Radio Direction Finding Equipment
Lubricants and Fuels	Lights
Antitank Mines, Mine Sweepers, and	Luminous Markers
Detectors	AA Mounts for Tanks
Recording Odograph	Radio Set SCR-504 & 274
Dust Respirators	Smoke Munitions
Telescopes	Truck-Tractors & Semi-Trailers
Tank Transporters	Heavy Freckers

HEADQUARTERS ARMY GROUND FORCES
GROUND CHEMICAL SECTION
ARMY WAR COLLEGE
WASHINGTON, D.C.

1942 AUG 6 PM 17

August 4, 1942.

AUG 6 6 S

MEMORANDUM FOR Field Service Division, Office, Chief of Chemical Warfare Service, War Department, Washington, D. C. (Attn: Colonel Gillett).

Subject: Chemical Ammunition for Desert Training Center.

1. The Commanding General, Army Ground Forces has authorized the issue of the following listed chemical ammunition to the Desert Training Center, Indio, California:

Pot, smoke, HC, M1	400
Pot, tear gas, CN	500
Mine, land, chemical, empty, w/burster	100
Gas, tear solution, CNB, gallons	200

AW-1919

Requirements at quantity of Col. Ford to be confirmed by letter.

2. The above munitions are to be charged to the allowances of the Commanding General, Army Ground Forces. It is requested that the undersigned be informed when the shipment of these munitions has been effected.

Thomas G. Ford
THOMAS G. FORD,
Colonel, C.W.S.,
Ground Chemical Officer.

63-006
FILED
AUG 29 1942
22

MEMO FOR RECORD:

Paragraph 67, AR 775-10 which is now in the process of publication, authorizes the following chemical munitions for the Commanding General, Army Ground Forces:

Mine, land, chemical, empty, w/burster	15000
Pot, smoke, HC, M1	15000
Pot, tear gas, CN, M1	5000
Gas, tear solution, CNB, gallons	10000

*AW-1919
8-11-42*

412

2

TRAINING, D.T.C. PERIOD BEGINNING 19 July, 1943.

- Section I Recission.
- Section II Combat Units.
- Section III Program - Combat Units.
- Section IV Program - Service Units.

353.01

SECTION I RECISSION.

1. Training Memorandum No. 17, 1 April, 1943 is hereby rescinded.

SECTION II PERIOD BEGINNING 19 July.
COMBAT UNITS

2. Divisions will start training cycles as follows:

9th Armored Division -----	19 July, 1943.
85th Infantry Division -----	19 July, 1943.
93rd Infantry Division -----	16 Aug, 1943.
81st Infantry Division -----	16 Aug, 1943.
79th Infantry Division -----	13 Sept, 1943.
90th Infantry Division -----	13 Sept, 1943.
16th Field Artillery Brigade ----	13 Sept, 1943.

- a. Pursue the program of Desert Training prescribed in Section III.
- b. Deficiencies in MTP individual and small unit training will be corrected concurrently with this training program.
- c. Attachments and supporting missions will be assigned appropriate non-divisional units by this headquarters to provide for combined training.
- d. Attached units will follow the program prescribed for the unit to which attached modified only to fit the particular type of attached unit.

3. Non-divisional units not attached will pursue the program of training prescribed by Section III, modified only as necessary to adapt it to the special type of unit concerned.

4. All combat units will cover all elements of training prescribed in Section III for the 1st - 4th week in individual and small unit training in the most thorough manner. Careful supervision of training performed during this period in particular will be given by all echelons of command.

SECTION III THIRTEEN WEEKS TRAINING PROGRAM.

5. Extract AGF letter, 320.2/46 (Desert)-GNGCT, (11-18-42), April 6, 1943, subject: "Organization and Training, Desert Training Center".

- *****
- "4. Purpose. a. To train, maintain, and supply troops realistically as in a theater of operations.
 - b. To harden troops physically.
 - c. To train soldiers mentally for the shock of battle.
 - d. To conduct firing under realistic battle conditions.
 - e. To develop tactics, technique, and training methods suitable for desert warfare.
 - f. To test and develop equipment and supplies.

- "5. Subjects of Training. Special attention will be given to:
 - a. Movement across country; navigation. Highways will be placed off-limits, and tactical movements, except at defiles.

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e. To develop tactics, technique, and training methods suitable for desert warfare.
f. To test and develop equipment and supplies.

"5. Subjects of Training. Special attention will be given to:
a. Movement across country; navigation. Highways will be placed off-limits, for tactical movements, except at defiles.
b. Reconnaissance, combat intelligence, counterintelligence, and liaison.
c. Exercises which are realistic and complete in all details.
d. Dispersion of vehicles during the march, halts, and bivouac.
e. Aggressive action by dismounted individuals and small units against armored vehicles (see paragraph 71, FM 7-10).
f. Laying and removal of mine fields.

-1-

DECLASSIFIED

F-5

Authority NAVJ 730029
By ERC NARS, Date 4/26/84

(6)

e. Antiaircraft defense with both organic and task weapons and units. Each vehicle authorized an antiaircraft machine gun will carry it or a dummy machine gun mounted and ready for action during the daylight hours of each tactical exercise. A gunner or driver will be designated at the gun of all vehicles. Other vehicles carrying more than two soldiers, including the driver, will have an antiaircraft sentry on the alert similarly. Planes should make simulated attacks frequently to test antiaircraft personnel. Fire of all available and suitable weapons will be delivered against hostile planes when concealment is not essential or obviously does not exist.

h. Rapid close-in air support of ground units, on call.
i. Artillery observation by liaison planes.
j. Camouflage.
k. Night operations.
l. Use of identification panels.
m. Adherence to tables of equipment.
n. Battlefield recovery and evacuation of armored vehicles and other heavy equipment.

o. Day by day maintenance of motor vehicles.
p. Driver training with emphasis on night driving and driver maintenance; aggressive supervision of driving and maintenance by all command echelons.
q. Realistic supply of all classes, including ammunition, with actual tonnage, especially at night.
r. Special features of hygiene, sanitation, and first aid peculiar to the desert.
s. Cooking by individuals, and small groups.
t. Supply by air.

6. Night Training. The present war has emphasized the necessity for all units to operate under all conditions of terrain and weather at night. Night operation will be habitual for infantry in exercises and maneuvers. Such training will include, for:

a. Individuals and small units:
(1) Raids.
(2) Night patrolling - with special emphasis placed on long range patrolling into hostile lines.
(3) Infiltration tactics for the destruction of automatic weapons, combat vehicles, supplies and command posts.
b. Large units:
(1) Long cross country movements.
(2) Shifting of defended bivouacs as a security measure.
(3) Movements to surround hostile defended bivouacs or to assembly area preparatory to attack of a defended area.
(4) Armored attack in late afternoon followed by relief of armored units by infantry during the night. Withdrawal of armored unit to a rear assembly area and movement to second assembly area preparatory to attack in a new direction at dawn.
(5) Night attack by infantry to secure position from which armored unit may attack at dawn.
(6) All-around night defense of armored unit bivouacs by infantry, field artillery, and tank destroyers in preparation for a hostile attack at dawn.

7. Air-ground Training. Such training will include the thorough application and test of the principles and methods set forth in Inclosure 5 to Army Ground Forces letter, file 353/52 (Tng Dir)-GNGCT (10-19-42), with particular emphasis on mutual communication and mutual air-ground identifications. Ground-air and air-ground umpiring (paragraph 25g, 27c of FM 105-5 and paragraph 3, Chapter V of FM 105-6), and designation of targets by ground troops to planes in the air will be stressed during maneuvers.

8. Training of Air Units. Supporting air units will:
Conduct operations from improvised bases, airdromes, and landing fields
Conduct operations from established bases and airdromes.

- k. Night operations.
- l. Use of identification panels.
- m. Adherence to tables of equipment.
- n. Battlefield recovery and evacuation of armored vehicles and other heavy equipment.
 - 1. Day by day maintenance of motor vehicles.
 - 2. Driver training with emphasis on night driving and driver maintenance; progressive supervision of driving and maintenance by all command echelons.
 - a. Realistic supply of all classes, including ammunition, with actual tonnage, specially at night.
 - 2. Special features of hygiene, sanitation, and first aid peculiar to the desert.
 - a. Cooking by individuals, and small groups.
 - b. Supply by air.

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- *8. Training of Air Units. Supporting air units will:
 - a. Conduct operations from improvised bases, airdromes, and landing fields as distinguished from permanent, long established bases and airdromes.
 - b. Rapidly evacuate and move ground echelons between bases, and air echelons between airdromes and landing fields. ~~Movements to and occupation of improvised airdromes and landing strips will include self-sustained operation of advance echelons for 72 hours, and 10 days operation by all units without benefit of base services.~~
 - c. Camouflage ground installations and aircraft.

d. Defend bases, airdromes and landing fields from hostile air attacks and attacks by parachutes, airborne armored, and mechanized forces, and by other ground troops.

9. Training Program a. The program will cover thirteen weeks of special advanced training.

b. Units which have not completed individual and unit training and all prescribed tests before coming to the Desert Training Center, will be given an opportunity to complete such training insofar as practicable.

c. The special advanced training schedule will be generally as follows, although the sequence may be varied by the Commanding General, Desert Training Center:

<u>Week</u>	<u>Sequence</u>
1st)	Individual and small unit training with special
2nd)	emphasis on junior leadership and battle
3rd)	conditioning.
4th)	
5th	Battalion - combat firing.
6th	Reinforced battalion - combat firing.
7th	Combat command or team - field exercise.
8th	Combat command or team - combat firing.
9th	Division - Field exercise.
10th	Division - Field exercise.
11th	Field maneuver - attack and defense of an organized position.
12th)	
13th)	Field maneuver.

10. 1st - 4th Weeks. Individual and small unit training with special emphasis on junior leadership and battle conditioning.

a. Individual training will include:

Use of individual weapons under combat conditions.

Scouting and patrolling - emphasis on night operations.

Laying of mines by all personnel of all combat branches. Detection and removal of mines by all personnel.

Exact performance of duties affecting the security of the command.

"Digging in" - even if stopped momentarily.

Individual and field sanitation.

Proper preparation of food by individual and group cooking.

b. Officers and men must be tough, physically and mentally, and imbued with the desire to close with the enemy and destroy him. Training will include:

Rough and tumble fighting (see FM 21-150, Unarmed Defense for the American Soldier).

Games and exercises involving physical combat.

Normal exertion over long periods.

Extreme exertion over short periods.

Battle conditioning exercises to accustom men to the sound of bursting shells in their immediate vicinity and to accustom them to the crack of small arms bullets passing near them.

c. Junior leaders must be trained to accept responsibility, to be self-reliant, and to operate effectively "on their own". Every non-commissioned officer and platoon leader must be able to successfully lead a patrol over extended distances, unknown terrain, at night; to infiltrate into hostile position and return with specific information.

d. Night patrol problems will be conducted over difficult terrain, with men pitted against one another, one in a security role and the other as a reconnaissance platoon.

a. Each platoon will participate in a leadership course to be laid out adjacent to its unit training area. (Sketch attached, Annex #1 to be used as a guide).

b. The utmost realism will be introduced. At least one 24-hour exercise will be conducted, designed to prevent any sleep whatever; to require action over difficult terrain at night: to drive troops to the limit of endurance; to provide

- 1st) Individual and small unit training with special
- 2nd) emphasis on junior leadership and battle
- 3rd) conditioning.
- 4th)
- 5th) Battalion - combat firing.
- 6th) Reinforced battalion - combat firing.
- 7th) Combat command or team - field exercise.
- 8th) Combat command or team - combat firing.
- 9th) Division - Field exercise.
- 10th) Division - Field exercise.
- 11th) Field maneuver - attack and defense of an organized position.
- 12th) Field maneuver;
- 13th)

"10. 1st - 4th Weeks. Individual and small unit training with special emphasis on junior leadership and battle conditioning.

- a. Individual training will include:
 - Use of individual weapons under combat conditions.
 - Scouting and patrolling - emphasis on night operations.
 - Laying of mines by all personnel of all combat branches. Detection and removal of mines by all personnel.
 - Exact performance of duties affecting the security of the command.
 - "Digging in" - even if stopped momentarily.
 - Individual and field sanitation.
 - Proper preparation of food by individual and group cooking.
- b. Officers and men must be tough, physically and mentally, and imbued with the desire to close with the enemy and destroy him. Training will include:
 - Rough and tumble fighting (see FM 21-150, Unarmed Defense for the American Soldier).
 - Games and exercises involving physical combat.
 - Normal exertion over long periods.
 - Extreme exertion over short periods.
 - Battle conditioning exercises to accustom men to the sound of bursting shells in their immediate vicinity and to accustom them to the crack of small arms bullets passing near them.
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 - a. Each platoon will participate in a leadership course to be laid out adjacent to its unit training area. (Sketch attached, Annex #1 to be used as a guide).
 - 1. The utmost realism will be introduced. At least one 24-hour exercise will be conducted, designed to prevent any sleep whatever; to require action over difficult terrain at night; to drive troops to the limit of endurance; to provide very limited quantities of food and water; to "find out the leaders and men who can't take it".
 - c. The exercises outlined in paragraphs c and d above may be continued concurrently with other training during the remaining weeks as necessary. Training outlined in paragraphs a and b should run concurrently with other training during the entire desert training period.

11. 5th Week. Battalion combat firing exercises, at least one of which will be by the complete battalion with all weapons participating in coordinated fires. Targets will represent the enemy realistically. The problems will be conducted so as to require definite action by reconnaissance and intelligence agencies for the location of the targets. Within ammunition allowances, development of maximum fire power will be stressed. Ammunition supply will be executed realistically.

"12. 6th Week. Reinforced Battalion - Combat firing.
Same as 5th week, but including units supporting or attached to the battalion.

"13. 7th Week. Combat Team or Command - Field exercise.
A field exercise of about four days and three nights for the combat team or command, together with supporting combat and service units. The exercise to be executed step-by-step, including tactical and administrative functions, with special attention to perfecting details and developing standing operating procedure.

"14. 8th Week. Combat Team or Command - Combat firing.
Same as 5th week. The exercise (maneuver) will be against a represented or complete hostile force. Action on both sides will cease at a prearranged signal, whereupon the enemy will set up certain targets in the places occupied at that moment and then withdraw entirely from the area. The combat team or command will then continue its action, using live ammunition. Infantry combat teams will execute this phase of the exercise as a river crossing.

"15. 9th Week. Division - Field exercise.
A field exercise of about four days and three nights for the purpose of perfecting performance, step-by-step, of both combat and service functions, and developing standing operating procedure.

"16. 10th Week. Division - Field exercise.
A division field exercise of about four days and three nights. A retirement involving:
 Defense in depth on a narrow front.
 Defense on a broad front, combat teams abreast.
 Defense (by division) across open, flat terrain.
 Defense through parallel corridors and defiles by semi-independent columns retiring on a common objective. Terrain will be varied.

"17. 11th Week. ***** - Field maneuver.
 ***** ***** ***** ***** ***** *****

b. The defending force to select and organize a position in detail for the purpose of protecting a vital area or installation. The fortifications should include tank ditches and traps, road blocks and demolitions, wire and obstacles, and mine fields. ***** ***** ***** *****
 The operations of the attack will be complete and detailed, including rehearsal in the rear area of operations against particular portions of the position.

"18. 12th-13th Weeks. ***** - Field maneuver
 ***** ***** ***** ***** ***** *****

6. Ammunition allowances are as authorized in AR 775-10, March 13, 1943, subject to current amendments and reductions prescribed from time to time by this, or higher headquarters.

7. More detailed directives for 11th to 13th weeks inclusive will be

battalion.

"13. 7th Week. Combat Team or Command - Field exercise.

A field exercise of about four days and three nights for the combat team or command, together with supporting combat and service units. The exercise to be executed step-by-step, including tactical and administrative functions, with special attention to perfecting details and developing standing operating procedure.

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***** ***** ***** ***** ***** *****

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"18. 12th-13th Weeks. ***** - Field maneuver"

***** ***** ***** ***** ***** *****

6. Ammunition allowances are as authorized in AR 775-10, March 13, 1943, subject to current amendments and reductions prescribed from time to time by this, or higher headquarters:

7. More detailed directives for 11th to 13th weeks inclusive will be issued later.

SECTION IV 19 July - 31 December.
SERVICE UNITS

8. Desert Training.

a. All Service Units will take part in Desert Training. Those units of a type which may be called upon to engage in field maneuvers in the desert will insure their proficiency in desert field operations.

b. The purpose of Desert Training for Service Units is as outlined in paragraph, 5, Section III for Combat Units.

9. Pre-Maneuver Training.

a. All echelons of command will endeavor to integrate all phases of training to produce well balanced units ready to participate in or support maneuvers of large units.

- b. Material, vehicles and all other types of equipment will be maintained in the highest possible state of efficiency at all times.
- c. Personnel will be brought as nearly as is physically possible to the training standards prescribed for movement overseas.

10. Performance of Primary Missions.

- a. Continuous demands will be made upon Service units to perform routine maintenance, supply, administrative and operational functions in this Training Theater.
- b. All commanders must so organize the activities under their direction that time is available for the completion of individual and unit training.

11. The following is quoted from AGF directive for Training of Service Units, (10-19-42):

7. GENERAL:

a. The training program of all service units will include the following where applicable:

- (1) Disciplinary drills and inspection.
- (2) Known distance and combat range firing.
- (3) Reconnaissance necessary for that service.
- (4) Employment in current work of character appropriate for the unit.
- (5) Instruction in battlefield recovery, evacuation of damaged material, and destruction of abandoned material.

b. Where practicable, service units will participate in field exercises conducted by combat units, in order to develop teamwork and skill in the accomplishment of service tasks under field conditions. During field training set up in field - not in buildings.

8. ENGINEER UNITS:

a. Units which have completed the training prescribed in MTP 5-1 will emphasize technical training.

- b. General engineer units will become proficient in:
- (1) Construction of obstacles, including installation and marking of mine fields, and erection of all types of wire entanglements.
 - (2) Removal of obstacles and mines, including use of bangalore torpedoes and methods of disarming mines.
 - (3) Installation and removal of booby traps.
 - (4) Use of explosives and demolitions.
 - (5) Stream crossing, including use of standard floating equipment and expedients.

(6) Field fortifications and camouflage, including hasty field fortifications.

c. Topographical, water supply, and ponton units will perfect the technique of their functions.

9. MEDICAL UNITS:

a. Units which have completed the training prescribed in MTP 8-1 will complete the technical training of individuals and stress the training of units to include the battalion. This training will include the establishment and operation of field installations and construction of simple improvised field sanitary facilities.

b. Medical companies, battalions, regiments and all attached medical personnel will perfect their training in the collection, sorting, treatment, and evacuation of casualties and operation of their field installations under all conditions. Attached medical personnel and bearer units should be physically trained for littering - 2 men per litter.

c. Medical supply depots will continue training in the procurement, storage and movement of the unit by echelons.

d. Medical supply depots will continue training in the procurement, storage and issue of medical supplies.

#7. GENERAL:

a. The training program of all service units will include the following where applicable:

- (1) Disciplinary drills and inspection.
- (2) Known distance and combat range firing.
- (3) Reconnaissance necessary for that service.
- (4) Employment in current work of character appropriate for the unit.
- (5) Instruction in battlefield recovery, evacuation of damaged material, and destruction of abandoned material.

b. Where practicable, service units will participate in field exercises conducted by combat units, in order to develop teamwork and skill in the accomplishment of service tasks under field conditions. During field training set up in field - not in buildings.

#8. ENGINEER UNITS:

a. Units which have completed the training prescribed in MTP 5-1 will emphasize technical training.

b. General engineer units will become proficient in:

- (1) Construction of obstacles, including installation and marking of mine fields, and erection of all types of wire entanglements.
- (2) Removal of obstacles and mines, including use of Bangalore torpedoes and methods of disarming mines.
- (3) Installation and removal of booby traps.
- (4) Use of explosives and demolitions.
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c. Ambulances, hospitals, and first aid stations will stress the care and treatment of patients and the movement of the unit by echelons.

d. Medical supply depots will continue training in the procurement, storage, and issue of medical supplies.

e. Medical laboratories will place special emphasis on the training of mobile subsections in preventive measures for control of intestinal, communicable, and airborne diseases.

f. Upon completion of unit training, field exercises will be conducted, preferably in conjunction with other troops, to stress combat dispositions and to perfect the state of readiness for medical service in combat.

(6)

#10. ORDNANCE UNITS:

a. Mobilization Training Programs are prescribed for ordnance units as follows:

Maintenance companies	-	MTP 9-2
Ammunition companies	-	MTP 9-3
Depot companies	-	MTP 9-4

b. The unit training program will include:

(1) A review of individual technical training covered in basic training periods.

(2) ~~Enemy driving with special emphasis on night driving without lights.~~

(3) Map reading and use of compass.

(4) Practical application of the prescribed functions of the units concerned.

c. Maintenance units will use mobile shop equipment.

d. In general, a trained unit is now designated as the sponsor of each newly activated ordnance unit. Technical training of individuals of the new unit will be conducted by specialists of the sponsor unit. New men will be assigned to work with qualified and experienced men of the same classification and sections. Men will be placed on actual maintenance work as soon as they have demonstrated their fitness.

e. Key personnel may be trained at branches of the Ordnance School in accordance with quotas allotted by this headquarters.

#11. QUARTERMASTER UNITS:

a. Units which have completed training prescribed in MTP 10-1 will stress unit and individual specialist training emphasizing the technical functions of individuals. The training objective will be the development of units capable of providing quartermaster service for combat units.

b. Maximum advantage will be taken of all permanent installations at locations to secure technical training for individual specialists. Where mobile equipment has been furnished, field installations will be set up to augment permanent quartermaster facilities.

#12. SIGNAL UNITS:

a. Units which have completed the training prescribed in MTP 11-1 will continue training according to principles outlined in TM 11-450. Emphasis will be placed on the following:

(1) Training of wire teams. Proficiency will be acquired in laying wire in open country, woods, and across streams. Wherever practical, wire lines should be laid so as to be a minimum of 100 yards from roads.

(2) Training of radio teams in procedure to be followed in the event of jamming. Reference Training Circular No. 58, War Department, August 22, 1942.

(3) Command post exercises employing communication personnel and equipment at reduced and normal distances. Arrangements should be made for participation of sufficient staff personnel in order to develop teamwork.

(4) Training in air-ground communication.

b. Communication exercises will include periods of radio silence and will simulate enemy neutralization of radio and wire channels.

c. The maintenance and repair of communication equipment will be performed by Signal Corps units of the Army Ground Forces to the limit of their capabilities.

#13. CHEMICAL WARFARE UNITS:

a. Mobilization Training Programs are prescribed for Chemical Warfare Units as follows:

Chemical Weapons Battalions	-	3-1
Chemical Service Units	-	3-3

b. Unit training will be for eleven weeks and will include tactical training and a review of special technical training. Emphasis will be placed on the practical use of special equipment.

- Maintenance units will use mobile shop equipment.
- a. In general, a trained unit now designated as the sponsor of each newly activated ordnance unit. Technical training of individuals of the new unit will be conducted by specialists of the sponsor unit. New men will be assigned to work with qualified and experienced men of the same classification and section. Men will be placed on actual maintenance work as soon as they have demonstrated their fitness.
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- a. Mobilization Training Programs are prescribed for Chemical Warfare Units as follows:
- | | |
|-----------------------------|-------|
| Chemical Weapons Battalions | - 3-1 |
| Chemical Service Units | - 3-2 |
- b. Unit training will be for eleven weeks and will include tactical training and a review of special technical training. Emphasis will be placed on the practical use of special equipment.

(1) Chemical weapons battalions will perfect the tactical training at platoon, company, and battalion. Platoon training will stress support communications and liaison with the support companies. In all operations, special attention will be given to

(2) Chemical depot and chemical maintenance companies will establish and operate chemical warfare depots and maintenance facilities in the field. No large units of combat troops are located in the training area, operations will be represented with salvaged and simulated materials.

(3) Chemical decontamination companies will stress all types of decontamination operations in field exercises, using simulated materials.

(4) Chemical laboratory companies will install and operate laboratories. Training will be given in collection of samples in the field, determination of contents, examination of materials, and the preparation of laboratory records and reports.

d. Additional training time will be utilized in review."

12. REPORTS:

a. All service units will submit weekly training schedules to the next higher headquarters.

b. Each Special Hq., DTC and Hq Communications Zone will maintain current files of "Status Reports" on service units under its control.

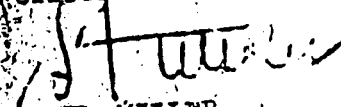
c. A "Status Report" will be made on each unit immediately after its arrival in DTC. Changes in "Status" will be determined by inspections made monthly or more often if necessary.

d. Three copies of the original "Status Report" and each change in "Status" will be submitted to this headquarters.

By command of Major General WHITE:

JOHN C. WHITE,
Colonel, G.S.C.,
Chief of Staff.

OFFICIAL:


S. F. MILLER,
Colonel, A.G.D.,
Adjutant General.

DISTRIBUTION: "B" (G-3).

1 Incl: Sketch (reverse side).

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***** ***** ***** ***** ***** *****

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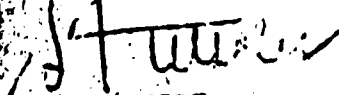
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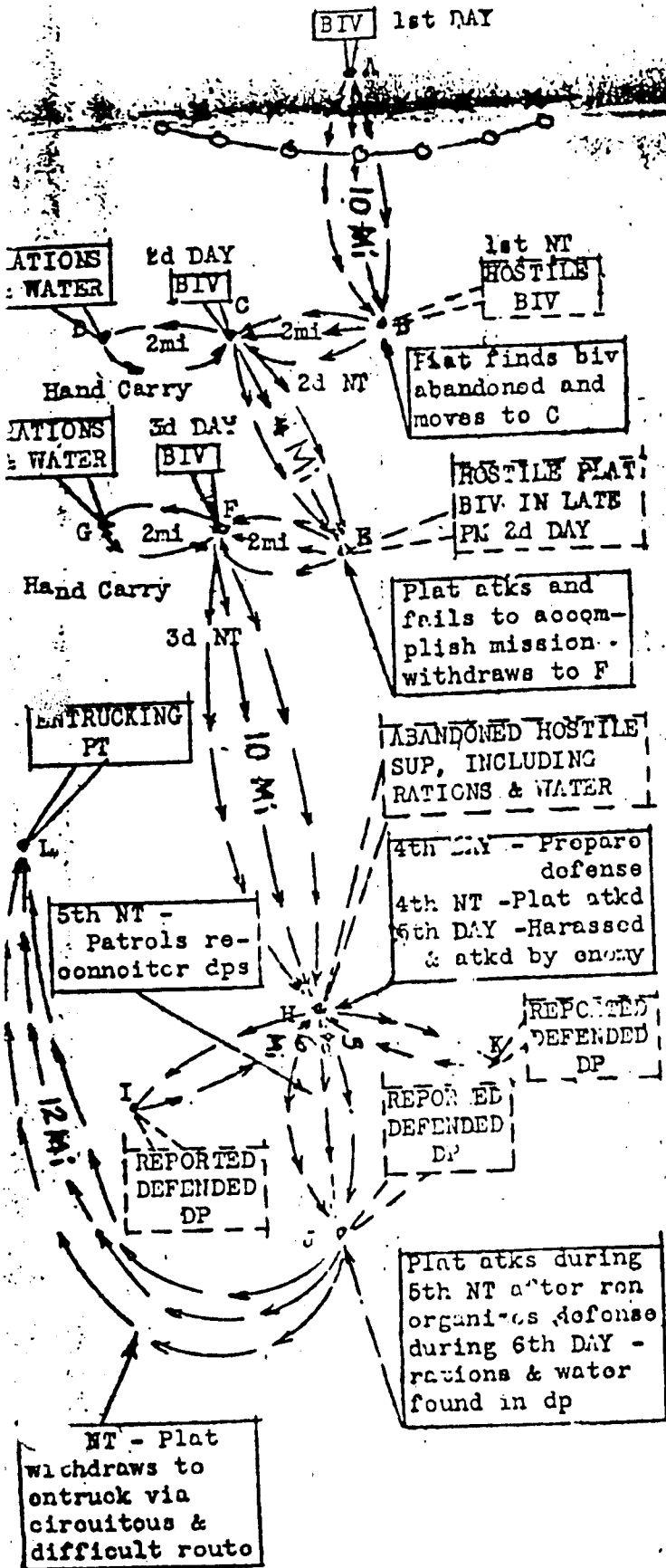
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(5)

LEADERSHIP EXERCISE FOR PLAT LDERS

reinforce rifle platoon of infantry division, motorized division and armored infantry regiment including separate armored infantry platoon.

a. Similar exercises should be prepared for other platoons such as tank and combat engineer platoons.



SCENARIO

PM 1st DAY: Platoon in bivouac at "A". A mission will be given requiring the platoon to proceed through a mine field and wire to reconnoiter a hostile bivouac at "B". The mission will include instructions for the platoon to be in a concealed bivouac near "G" prior to daybreak and to remain in bivouac during the next day.

1st NT: Platoon accomplishes assigned mission.

2d DAY: Security details of the platoon should discover a hostile force at "E" by visual observation. Platoon should remain in bivouac and report presence of enemy to higher headquarters. Platoon should receive instructions to attack during the night and destroy the hostile unit.

2d NT: Platoon proceeds on assigned mission. Enemy strong forces prevent platoon from withdrawing to the vicinity of "F" for reorganization. Platoon reports failure to accomplish mission and receives instructions to remain in concealment in bivouac during the day.

3d DAY: During late PM, platoon receives instructions to move to "F" during the night to secure and defend an abandoned hostile supply depot.

3d NT: Platoon moves to accomplish mission.

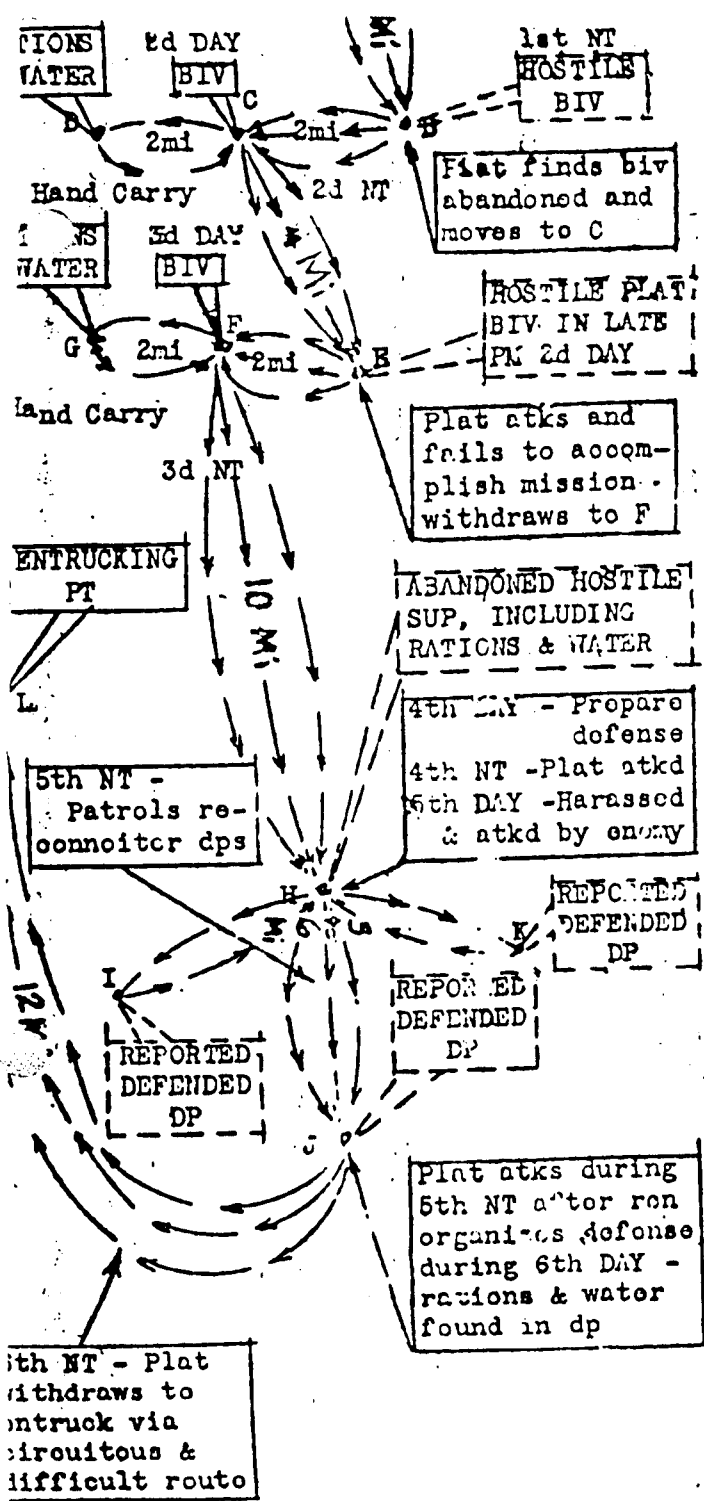
4th DAY: Defensive position is prepared during the 4th day.

4th NT: Platoon is attacked during the 4th night.

5th DAY: Enemy harassing action is constant during the 5th day. Late in the PM, the enemy launches an attack. Attack is repulsed. Enemy withdraws. Platoon reports mission accomplished. Platoon reconnoiters at "I", "J", and "K". Platoon is directed to make a night reconnoiter of the 3 locations and to seize any supplies found.

5th NT: Patrols are sent on reconnoiter. A defensive position is located only at "J". It is attacked and seized during the night. Platoon reports mission accomplished and receives instructions to secure the captured defensive position particularly against hostile mine counter attack. AT mines are found in defensive position.

6th DAY: Platoon accomplishes mission. Platoon receives instructions that it will be entrucked during the night and will proceed to point "L" to entruck when reloaded.



near "G" prior to daybreak and to remain in biv during the next day.

1st NT: Plat accomplishes asgd mission.

2d DAY: Security dets of the plat should discover a hostile force at "E" by visual obsn. Plat should remain in biv and rpt presence of enemy to higher hq. Plat should receive instructions to atk during the nt and destroy the hostile unit.

2d NT: Plat proceeds on asgd mission. Enemy str forces plat to withdraw to the vic of "F" for reorganization. Plat rpts failure to accomplish mission and receives instructions to remain in concealment in biv during the day.

3d DAY: During late PM, plat receives instructions to move to "H" during the nt to secure and defend an abandoned hostile sup dp.

3d NT: Plat moves to accomplish mission.

4th DAY: Defensive position is prepared during the 4th day.

4th NT: Plat is atk during the 4th nt.

5th DAY: Enemy harassing action is constant during the 5th day. Late in the PM, the enemy launches an atk. Atk is repulsed. Enemy withdraws. Plat rpts mission accomplished. Plat rocd at "I", "J", and "K". Plat is directed to make a nt rcn of the 3 locations and to seize any sups found.

5th NT: Patrols are sent on rcn. A dp is located only at "J". It is atkd and seized during the nt. Plat rpts mission accomplished and receives instructions to secure the captured dp particularly against hostile mecz counter atk. AT mines are found in dp.

6th DAY: Plat accomplishes mission. Plat receives instructions that it will be held during the nt and will proceed to point "L" to entruck when held.

6th NT: Plat accomplishes mission.

RM: Hq t will be given the plat except organic tac vehicles. Tac vehicles will not be used to t sups other than fuel and am. Cooking will be done by small gps. Rations and water will be drawn from the following pts.

- | | | | |
|------------|-----------|------------|------------------------|
| 1st Day--- | Point "A" | 4th Day--- | Point "H" (Hostile Dp) |
| 2nd Day--- | Point "D" | 5th Day--- | Point "I" (Hostile Dp) |
| 3rd Day--- | Point "G" | 6th Day--- | Point "J" (Hostile Dp) |

note 1.

HEADQUARTERS DESERT TRAINING CENTER
Camp Young, Indio, California

March 20, 1943

SUBJECT; Final Report D.T.C. Maneuvers

TO : Commanding General, A.G.F., Army War
College, Washington, D.C.

1. Transmitted herewith is a final report for the Desert Training Center Maneuvers, conducted during the period February 15, to March 6, 1943.

2. These maneuvers were conducted under the new D.T.C. Training Theater of Operations organization. A short description of the Organization and Functioning of this training theater is included in Section I of the report.

_____/s/ WALTON H. WALKER
/t/ WALTON H. WALKER
Major General
Commanding

DECLASSIFIED

Authority NND 770072
BY ERC DATE 4/26/84

ORGANIZATION OF DESERT TRAINING CENTER

The Desert Training Center is a Training Theater of Operations. It comprises a rough oval approximately 350 miles wide and 250 miles deep extending from Pomona, California to Phoenix, Arizona and from Yuma, Arizona to Boulder City, Colorado. It is divided into a combat zone and a Communications Zone. The combat zone occupies the central portion of the oval and is divided by the Colorado River. The communications Zone surrounds the combat zone.

The terrain of the combat zone varies from the muck of dry lakes, which are occasionally covered with shallow water, to sand dunes and sandy or rocky terrain of varying degrees of roughness to include high mountains. The entire area is a series of dry lakes, wide and narrow sandy valleys and rock mountain ranges. To the casual observer there appears to be little vegetation suitable for camouflage but there are areas filled with trees averaging 15 to 20 feet high, particularly in the numerous dry stream beds and washes. Coloring and background is of such a nature, that vehicles and other objects blend into the terrain. Two railroad lines, the Los Angeles Metropolitan Aqueduct and the Indian Reservation along the Colorado River are the only man made major obstacles to free maneuver.

Within this area every effort has been made to develop as realistically as possible an actual Theater of Operation. From depots and other facilities located near the outer edge of the communications zone supplies are delivered to units through Advance Army Depots at Yuma, Needles and Coachella and other localities on the edge of the combat zone. Simulation of actual service conditions is not confined to maneuver periods. Supply and evacuation operates in this manner at all times. Class I trains arrive daily at advance depots and distribution is made at night. Casualties are evacuated from units to field hospitals located near the advance depots and if necessary to the base hospitals in the communications zone. Evacuation by air is employed when necessary.

Base tent camps for each division and attachments have been established at Ibis, Coxcomb Mountain Area and Laguna. Construction in these camps consists of latrines, showers and graded roads. At Camp Young where Headquarters Desert Training Center and various small units are located, hospitals, mess and office buildings and tent floors have also been constructed. Within the combat zone construction other than the above has been avoided and all other construction previously completely has been removed. During maneuvers or other exercises units construct desert roads as they advance and make every effort to destroy them as they withdraw. A railhead company arriving at a new railhead finds a siding and sand, when they depart there remains only the siding and sand.

During the entire three week period of maneuvers units lived in the field under combat conditions. During the remainder of the training period troops average from three to five days a week under the same conditions.

SECTION II

The D.T.C. Maneuvers directed by letter Headquarters Army Ground Forces Subject: "Organization and training Desert Training Center", November 18, 1942, conducted between February 14 and March 6, 1943, had as their primary object the attainment as nearly as possible of actual battle conditions. They were intended to force troops to live, move and fight under the same conditions which they would encounter in combat.

The exercises were designed to extend personnel and equipment to the limit of their capabilities so that from this experience units and individuals would develop complete confidence in their ability to extend themselves to that limit in battle.

Paved roads were off limits to participating troops, and certain restrictions in crossing railroads and the aqueduct were obligatory, but in all other respects, maneuver was free and controlled only by the tactical situation.

There were no assumed demolitions or obstacles; restrictions were not placed upon their execution and the effect was real. Demolitions were executed in several instances to destroy passes through mountains and block other defiles, causing advancing units to remove many obstacles. Roads were built by units to facilitate their advance and destroyed to hinder the opposing forces.

Tear gas was sprayed from the air and otherwise used as opposing commanders directed to the extent available. Three thousand smoke pots were used for screening operations and marking artillery fires. Land mines were extensively used and it was demonstrated that all units had been trained in the laying of mine fields and in their removal. More than 20,000 mines were buried by a division during one exercise.

Available aviation included one observation group and one dive bombardment group, both at reduced strength. In two exercises it was divided equally between the two forces. In exercise "C" the blue force was given all available observation aviation while the red force was supported by the entire bombardment group. The IV Air Support Command exercised command over all air units and acted as Air Director Headquarters. Air support parties were furnished to all divisions and in some instances down to and including combat commands and combat teams. Control was exercised both by the Corps and by allotment to divisions.

Artillery fires were marked by the use of lime bombs and smoke and in some instances by the use of explosives. Lime bombs were also used to indicate gun positions. Fire power was credited in accordance with the umpire manual and gun crews were required to be present and operating their pieces. The play of ammunition supply was carefully checked by umpires and no credit was allowed for fire power where units failed to deliver represented ammunition to the guns.

Two of the three divisions used vehicular or group cooking almost entirely. The C ration was extensively used by small parties and reconnaissance elements.

Long marches, under desert conditions, and the length of supply lines over difficult terrain placed a heavy strain on supply facilities. In one exercise supplies were hauled for sixty miles on roads and trails over which the speed of travel was approximately five miles per hour. Two exercises ended in time to prevent a complete breakdown of the supply system and it is regretted that time did not permit a continuation of the exercise to determine the actual limit of supply under these conditions.

Corps military police were given authority to arrest and hold any person violating certain maneuver regulations. This was effective in enforcing orders in regard to the use of paved roads and blackout discipline.

Throughout all phases there was no compromise, or deviation from a constant effort to obtain as nearly as possible actual combat conditions.

Critiques were held after the conclusion of each exercise.

SECTION III

Exercise "A"

Purpose: Exercise "A" was intended to test and develop the capabilities of elements of the Corps to move long distances, to reconnoiter and maneuver under desert conditions, and to force a realistic play of supply and evacuation in all its phases.

Initial Situation: A (RED) Armored Division with AA and TD attachments was located in the vicinity of Searchlight. A (BLUE) Motorized Division, with similar attachments was just north of Yuma. Two (BROWN) forces, one consisting of an Armored Division with AA and TD attachments, and the other of a TD Group were concealed west of Desert Center. Main bodies of the Red and Blue forces were 175 miles apart. Reconnaissance elements were restricted so that they were 70 miles apart when the exercise opened. Both Red and Blue had Dive Bombardment and Observation Aviation. Both were given aggressive missions which were designed to develop combat.

Action: When the exercise opened the Red force moved south and the Blue force north. Aviation was grounded the first day of the exercise. Ground reconnaissance elements made contact late the first day; the main forces were in contact by dark the second day. At that time the Brown division was committed to a fifty mile march, through rough terrain which would bring it into the area on the Blue side. Limited supply by air was simulated. The TD Gp moved over a similar route to join the Red side. The Red mission was changed from offense to delaying. The exercise ended late the fourth day with Blue forces attacking and Red forces executing a delaying action on their front.

Comments: At the end of the exercise both armored divisions were almost out of gasoline due to lack of sufficient supporting supply vehicles. Supply considerations, particularly gasoline supply, to a large extent govern armored or motorized operations in the desert. The necessity not only for route reconnaissance but intelligent route reconnaissance was emphasized. Armored forces can traverse very rough terrain but their speed is greatly reduced. Once moving in desert formation on open terrain, the power of an armored division appears almost irresistible unless slowed or stopped by obstacles or mine fields. A motorized division is vulnerable to armored attack while moving, but when halted and dug in, behind an obstacle, it can stop strong armored attacks. Deficiencies in liaison, communications, and reconnaissance were noted during this exercise. The capabilities of available aviation were not fully exploited.

SECTION IV

Purpose: Exercise "B" was intended to give defending units practice in actually organizing and constructing a defensive position in detail including tank ditches, mine fields, wire entanglements, and similar obstacles, and to require the attacking units to first rehearse an attack against this position, then attack with artillery and infantry leading, followed by tanks.

Initial Situation: The Blue Motorized Division, assumed to be a part of a larger force, was directed to organize and defend a sector with secure flanks 8000 yards in width. Blue Tank and Tank Destroyer Groups remained in concealed locations and prepared plans to meet probable Red attacks. Two Red armored divisions, which had recently arrived in the area, reinforced an assumed Red force which was in contact with Blue. An attack to penetrate the Blue position was delayed due to non arrival of ammunition.

Action: Pending the arrival of ammunition the Red divisions rehearsed attacks against outlined replicas of the Blue positions. Information of Blue positions was furnished by aerial photograph prepared by Corps Topographic troops in the field and by engineer reconnaissance.

When ammunition supply was assured Red attacked to breach the Blue position and exploit. One armored division reinforced with all the artillery and one third the infantry of the other division breached the enemy position, then the second armored division passed through the first.

The collapse of assumed Blue forces on one flank had forced the motorized division to withdraw to a second position prior to Red's attack. When the exercise ended, Red had developed and was preparing to attack Blue's second position. Blue tanks and tank destroyers units were poised for a counterattack.

Comments: As was realized when this exercise was prepared, an additional Red infantry division, and an artillery brigade would have been required to actually justify Red's attack against Blue's strong position. The greatest value of this exercise was the cooperation and coordination required between Red divisions for the execution of an attack against an organized position, followed by a passage of lines. Blue benefited by the actual construction of an organized defensive position, including type obstacles and demolitions of all kinds. Blue buried and later recovered 20,000 mines. Again deficiencies in liaison and communications were noted in some units. Aviation was much more effectively employed than in the preceding exercise.

SECTION V

Exercise "C"

Purpose: The purpose of Exercise "C" was to test and develop the ability of the IV Armored Corps to maneuver, fight, and supply itself under desert conditions with long lines of supply.

Initial Situation: Headquarters IV Armored Corps which had operated as Director Headquarters during Exercise "A" and "B" took the field as Blue Corps Headquarters in Exercise "C". Umpires exercised the only control used.

The Blue Armored Corps, consisting of two armored divisions (less one combat command), one motorized division, one AA Group (Automatic Weapon) one mechanized cavalry regiment, and an Observation Aviation Group was completing concentration south of highway 60-70. Mechanized cavalry protected the concentration. Aviation operated from Yuma airfields. Supply was through Yuma and Niland.

The Red force consisting of a composite force of a combat command from an armored division, a tank group, a tank destroyer group, an engineer detachment was north of Parker Dam Highway. It was supported by a Dive Bombardment Group operating from the Needles airfield. Red forces were not required to observe maneuver restrictions. Umpires acted as Red observation aviation.

Action: The IV Blue Armored Corps received a mission requiring it to move north to destroy a red force concentrating in the vicinity of Searchlight. Red was given the mission of delaying Blue's advance.

Blue moved north in wedge formation, the motorized division leading. The mechanized cavalry reconnoitered in advance of the Corps. The advance was controlled by boundaries and phase lines. It continued until at the end of the second day Red's dispositions and strength had been determined. Blue then initiated an attack to destroy the Red force, to facilitate the advance on Searchlight. The exercise ended at dark the third day, when Red's destruction was assured, and orders for continuation of the advance on Searchlight had been issued.

Comments: At the end of the exercise the fuel supply situation for Blue was critical and continuation of the advance would have resulted in immobilizing the Blue force.

The Corps Command Post was located well in rear of the divisions at the start of the exercise resulting in long lines of communications over difficult terrain. This conditions made the use of wire and messenger communications uncertain and placed a strain on radio communications. This exercise brought out the necessity for Corps command posts being located well forward close behind the divisions. Liaison officers were invaluable, but the long distances they were required to travel, limited their effectiveness.

APPENDIX "J"

Corps & Period of Jurisdiction over DTC-CAMA	Commanding General	First Campaign and Date of Commitment	Units Entering DTC-CAMA During Each Corps Phase	Commanding General	Dates in DTC-CAMA	Dates in Training Cycle in DTC-CAMA	First C of Co
I Armored Corps (1 Apr - 29 Jul 1942)	M/G George S. Patton Jr.		3d Armored Division	M/G Leroy H. Watson	25 Jul-3 Nov 42	31 Aug-16 Oct 42	Western
II Armored Corps (2 Aug - 8 Nov 1942)	M/G Alvan C. Gillem Jr.		75th P. A. Brigade VII Corps 7th Inf Div (Mtz) 5th Arm Div	B/G Ralph Hospital L/G Robert C. Richardson M/G Albert E. Brown M/G Jack W. Esard	13 Aug-18 Oct 42 14 Aug-17 Oct 42 31 Aug-16 Oct 42 31 Aug-16 Oct 42	31 Aug-16 Oct 42 31 Aug-16 Oct 42 31 Aug-16 Oct 42 31 Aug-16 Oct 42	Utah Be. Attal Western
IV Armored Corps (6 Nov 1942 - 29 Mar 1943)	M/G Melton H. Walker		6th Arm Div 4th Arm Div 6th Inf Div (Mtz)	M/G William H. Morris M/G Henry W. Baird M/G Franklin C. Sibert	16 Oct 42-11 May 43 17 Nov 42-10 Jun 43 11 Dec 42-21 Mar 43	1 Dec 42-22 Feb 43 1 Dec 42-22 Feb 43 1 Dec 42-22 Feb 43	Western Western Wadke-S.
IX Corps (29 Mar - 23 Jul 1943)	M/G Charles H. White		8th Inf Div (Mtz) 7th Arm Div 33d Inf Div 77th Inf Div 76th P. A. Brigade 93d Inf Div 9th Arm Div 85th Inf Div 81st Inf Div	M/G William C. McMahon M/G Lindsay M. Silvester M/G John Millikin M/G Andrew D. Bruce E/G Charles P. George M/G Raymond G. Lehman M/G John W. Leonard M/G John B. Coulter M/G Paul J. Mueller	20 Mar-12 Aug 43 22 Mar-17 Aug 43 28 Mar-17 Jul 43 7 Apr -25 Sep 43 16 Apr-18 Aug 43 21 Jun-5 Jan 44 25 Jun-22 Nov 43 26 Jun- 3 Oct 43 28 Jun-22 Nov 43	19 Apr-17 Jul 43 19 Apr-17 Jul 43 19 Apr-17 Jul 43 19 Apr-17 Jul 43 13 Sep-13 Dec 43 9 Jul-18 Oct 43 9 Jul-16 Oct 43 6 Aug -13 Nov 43	Western Western Luson, P Guam, 2 Eougain Luxenbo Italy, Angaur
XV Corps (23 Jul - 13 Nov 1943)	M/G Wade H. Haislip	Western Eur, 1 Aug 44	79th Inf Div 90th Inf Div	M/G Ira T. Wyche M/G Henry Terrell Jr.	21 Aug- 2 Dec 43 2 Sep-26 Dec 43	6 Aug-13 Nov 43 13 Sep-13 Dec 43	Western Western
IV Corps (13 Nov 1943 - 17 Jan 1944)	M/G Alexander M. Patch	Italy--took command of II Corps Sector, 28 May 44	95th Inf Div 11th Arm Div 104th Inf Div	M/G Harry L. Twaddle M/G Edward H. Brooks M/G Terry Allen	11 Oct 43-10 Feb 44 19 Oct 43-10 Feb 44 10 Nov 43- 8 Mar 44	1 Nov 43-29 Jan 44 1 Nov 43-29 Jan 44 6 Dec 43- 2 Mar 44	Western Western Belgion
X Corps (17 Jan - 30 Apr 1944)	M/G Jonathan W. Anderson	Leyte, P.I.	80th Inf Div	M/G Horace L. McEride	1 Dec 43- 5 Apr 44	6 Dec 43 -3 Mar 44	Western

LIST OF MAJOR UNITS IN DTC - CAMA AND CAMPAIGN IN WHICH EACH GAINED COMBAT EXPERIENCE

APPENDIX "J"

First Campaign and Date of Commitment	Units Entering DTC-CAMA During Each Corps Phase	Commanding General	Dates in DTC-CAMA	Dates in Training Cycle in DTC-CAMA	First Campaign and Date of Commitment
	3d Armored Division	M/G Leroy H. Watson	25 Jul-3 Nov 42	31 Aug-16 Oct 42	Western Eur - 29 Jun 44
	75th P. A. Brigade VII Corps	B/G Ralph Hospital	13 Aug-18 Oct 42	31 Aug-16 Oct 42	Utah Beach, Normandy, 6 Jun 44
	7th Inf Div (Mtz)	L/G Robert C. Richardsen	14 Aug-17 Oct 42	31 Aug-16 Oct 42	Attu, 11 May 43
	5th Armd Div	M/G Albert E. Brown	31 Aug-16 Oct 42	31 Aug-16 Oct 42	Western Eur, 2 Aug 44
		M/G Jack W. Esard	31 Aug-16 Oct 42	31 Aug-16 Oct 42	
	6th Armd Div	M/G William H. Morris	18 Oct 42-11 May 43	1 Dec 42-22 Feb 43	Western Eur, 24 Jul 44
	4th Armd Div	M/G Henry W. Baird	17 Nov 42-10 Jun 43	1 Dec 42-22 Feb 43	Western Eur, 17-18 Jul 44
	6th Inf Div (Mtz)	M/G Franklin C. Sibert	11 Dec 42-21 Mar 43	1 Dec 42-22 Feb 43	Wadke-Sarmi, 12 Jun 44
	8th Inf Div (Mtz)	M/G William C. McMahon	20 Mar-12 Aug 43	19 Apr-17 Jul 43	Western Eur, 7-Jul 44
	7th Armd Div	M/G Lindsay M. Silvester	22 Mar-17 Aug 43	19 Apr-17 Jul 43	Western Eur, 10-14 Aug 44
	33d Inf Div	M/G John Millikin	28 Mar-17 Jul 43	19 Apr-17 Jul 43	Luzon, P.I., 10 Feb 45
	77th Inf Div	M/G Andrew D. Bruce	7 Apr -25 Sep 43	15 Apr-17 Jul 43	Guam, 21 Jul 44
	76th P. A. Brigade	E/G Charles P. George	16 Apr-18 Aug 43	19 Apr-17 Jul 43	
	93d Inf Div	M/G Raymond G. Lehman	21 Jun 43-5 Jan 44	13 Sep-13 Dec 43	Sougainville, 28 Mar 44
	9th Armd Div	M/G John W. Leonard	25 Jun-22 Nov 43	9 Jul-18 Oct 43	Luxembourg, 22-24 Oct 44
	85th Inf Div	M/G John B. Coulter	26 Jun- 3 Oct 43	9 Jul-16 Oct 43	Italy, 10 Apr 44
	81st Inf Div	M/G Paul J. Mueller	28 Jun-22 Nov 43	6 Aug -13 Nov 43	Angaur I., 17 Sep 44
Western Eur, 1 Aug 44	79th Inf Div	L/G Ira T. Wyche	21 Aug- 2 Dec 43	6 Aug-13 Nov 43	Western Eur, 19 Jun 44
	90th Inf Div	M/G Henry Terrell Jr.	2 Sep-26 Dec 43	13 Sep-13 Dec 43	Western Eur, 10 Jun 44
Italy--took command of II Corps Sector, 28 May 44	95th Inf Div	M/G Harry L. Twaddle	11 Oct 43-10 Feb 44	1 Nov 43-29 Jan 44	Western Eur, 19 Oct 44
	11th Armd Div	M/G Edward H. Brooks	19 Oct 43-10 Feb 44	1 Nov 43-29 Jan 44	Western Eur, 23 Dec 44
	104th Inf Div	M/G Terry Allen	10 Nov 43- 8 Mar 44	6 Dec 43- 3 Mar 44	Belgium, 25 Oct 44
Leyte, P.I.	80th Inf Div	M/G Horace L. McBride	1 Dec 43- 5 Apr 44	6 Dec 43 -3 Mar 44	Western Eur, 10 Aug 44

WAR DEPARTMENT

CHIEF OF ENGINEERS U.S. ARMY
WASHINGTON, D. C.

OFFICE OF THE CHIEF OF ENGINEERS

WASHINGTON

OE 601.1 (Desert Training Center,
Camp Ibis, Coxcomb & Laguna) SPELR

65323

30 August 1943

Subject: Camps Ibis, Coxcomb and Laguna, California and
Arizona.

The Division Engineer
Pacific Division
San Francisco Branch
351 California Street
SAN FRANCISCO, CALIFORNIA

1. Reference is made to previous correspondence pertaining to the establishment of Camps Ibis and Coxcomb, in California, and Laguna Mountain, in Arizona. All of these are within the area withdrawn by Public Order for the Desert Training Center, the recognized headquarters of which has been Camp Young, California.

2. Directives have not been issued for Camps Ibis, Coxcomb and Laguna Mountain, and little information has been obtained about them except that they would be camp sites within the area withdrawn for Camp Young and the Desert Training Center.

3. It now appears, since the Camp Young boundary is being definitely established, that these camp sites may still be in use, and are separate operating units. It is desired that this office be informed as to this, and if the camps are in operation directives are necessary and will be obtained upon receipt of the using service request for same, together with the necessary signed approvals. Copies of correspondence pertaining to same have been found, but the signed request and approvals are necessary to obtain directives.

4. It is requested that complete information be furnished this office promptly in order to clear up what has long been a matter full of misunderstanding.

By order of the Chief of Engineers:

OFFICE DIVISION ENGINEER
PACIFIC DIVISION
SEP 1-43-8 30 AM
SAN FRANCISCO, CALIF. U.S.A.

John J. O'Brien
JOHN J. O'BRIEN,
Colonel, Corps of Engineers,
Chief, Real Estate Branch

RECEIVED
SEP 10 1943

WD ESSENTIAL OFFICIAL
AIR MAIL



OFFICE LETTER OF ENGINEERS
OCT 19 1943
601.1 (Desert Training Center)

Desert Training Center (30 Aug 43)

AG 400 GFWXD

SUBJECT: Target Ranges.

TO : See Distribution:

1. Reference is made to Ltr., AG 400 GFWXD, this headquarters, 31 Jan 1944, Subject: Property and Equipment.

2. Commanders of major units are charged with responsibility for closing of target ranges, and removal of salvageable material, supplies and equipment, at each camp or vicinity thereof as follows:

- a. ESSEX: By 827 TD Battalion, before departure about 14 February.
- b. IRON MOUNTAIN: By X Corps Artillery as determined by that unit.
- c. IBIS: By the 15th TD Group before departure for maneuvers about 10 February. To coordinate with the 819th TD Battalion and 711th Tank Battalion which will leave about 25 February and 1 March respectively.
- d. GRANITE: By 1135th Engineer C Group prior to departure of units to Camp Young about 19 March.
- e. COXCOMB: By 95th Division, before departure.
- f. HORN, HYDER: By the 104th Division prior to departure for maneuvers about 10 February.
- g. LAGUNA: By 80th Division before departure.
- h. PILOT KNOB: By 15th TD Group prior to departure about 15 March.
- i. Camp YOUNG: By 1134th Engineer C Group prior to departure about 15 April.

3. Permanent installations will be left in place, and such items (target frames, pulleys, ropes, supplies, etc) as are readily removable or could be easily carried away by trespassers, will be turned in to Area Property Officer, along with tentage, cots, and other PC&S Property.

4. In addition to the above, each unit indicated will show on a copy of the 1:25,000 Photomap where available, and otherwise upon the largest scale map available, the location and description of each major range installation. This is for future records and for further dismantling if later required.

By command of Major General ANDERSON:

D C Blake

D C BLAKE
Major A. G. D.
Asst Adj General

DISTRIBUTION

80th Inf Div	5
104th Inf Div	5
X Corps Arty	5
1134 Engr C Gp	5
1135 Engr C Gp	5
95th Inf Div	5
15th TD Gp	5
827th TD Bn	5
819th TD Bn	5
711th TK Bn	5

DECLASSIFIED

Authority NND 947556

By *LLP* NARA Date *11-21-95*

REPRODUCED AT THE NATIONAL ARCHIVES

CONFIDENTIAL

Military Supply
file

HEADQUARTERS, ARMY GROUND FORCES
Army War College
Washington 25, D.C.

320.2/104(C-AMA)(C)(22 Jan 44)GNGCT

22 January 1944.

SUBJECT: Status of California-Arizona Maneuver Area.

TO: Commanding General, California-Arizona Maneuver Area.

1. The operation of California-Arizona Maneuver Area will be discontinued as soon as practicable after 15 April 1944. California-Arizona Maneuver Area will cease to exist as a training theater of operations not later than 1 May 1944. It is intended that the area will not be evacuated entirely and closed at that time, but that sufficient troops will be maintained therein to preserve its status as an army training area pending decision as to its ultimate utilization or disposition.

2. Pending issuance of more detailed instructions, it is desired that you initiate and carry forward as expeditiously as training requirements will permit, necessary action preliminary to the closing and evacuation of the area. No construction other than that of an emergency nature will be initiated or continued. Representatives from Commanding General, Ninth Service Command, will visit California-Arizona Maneuver Area about 27 January 1944 to collaborate in the formulation of plans which will serve the best interests of Commanding Generals, Army Ground Forces and Army Service Forces.

3. The following information is furnished with reference to the transfer of troop units to and from the area:

a. Combat units will be transferred from the area upon completion of training cycles, except where the shortness of time remaining before the overseas shipment of such units requires that they be prepared in and shipped from the area to the port of embarkation. Combat units will not be replaced.

b. Service units now in the area will remain there, unless required for mission of higher priority, within the policies indicated below:

- (1) Army Service Forces type units assigned pursuant to War Department letter, AG 320.2 (2 Feb 43)OB-S-C-M, 5 February 1943, Subject: "Supply Directive, Desert Training Center," will be transferred as required by Commanding General, Army Service Forces.

RECORDED No. *4870-137*

CONFIDENTIAL

DECLASSIFIED

Authority NND 947556

By *LLP* NARA Date 11-21-95

REPRODUCED AT THE NATIONAL ARCHIVES

2

(2) Army Ground Forces service units in California-Arizona Maneuver Area placed upon overseas shipment orders with readiness dates on or before 1 April 1944 will be prepared in and shipped from the area to port of embarkation. Units placed upon alert instructions for period 2-30 April 1944 will be transferred from the area on or about 1 March 1944 to other stations in continental United States. All other units will be transferred from the area beginning 1 April 1944, with priority to those under alert instructions for May and June 1944.

(3) Service units will be replaced, within limits of availability, in those instances where the replacement unit is essential to the evacuation and closing of the area.

4. It is contemplated that units transferred from California-Arizona Maneuver Area to stations in continental United States (other than ports of embarkation) will move with full equipment, serviceable for training use.

5. Periodic reports will be made as personnel assigned to allotted overhead becomes available for reassignment, so that reduction of overhead allotment may be accomplished.

6. All matters pertaining to the closing or evacuation of camps and training areas are classified confidential pending official announcement by the War Department. It is desired that no publicity be given the plans outlined herein.

By command of LT. GEN. McNAIR:

R. A. Meredith

R. A. MEREDITH,
Major, A.G.D.,

Ass't Ground Adjutant General.

DISTRIBUTION:

"X"

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SPX 370.05 (17 Feb 44) Headquarters, Army Service Forces
Office of the Adjutant General
Washington 25, D.C.

February 1944

SPX 370.05 (17 Feb 44) OB-S-SPOPI

EVH/sw - 2B939 Pentagon.

General, California-Arizona Maneuver Area, 17 February 1944.

SUBJECT: Evacuation of the California-Arizona Maneuver Area.

TO: Commanding General, Ninth Service Command;
Director of Materiel;
Director of Supply;
Chiefs of Technical Services.

1. War Department directive to Commanding General, Army Service Forces of 12 February 1944 is quoted for your guidance and compliance:

"1. The rehabilitation and evacuation of equipment in the California-Arizona Maneuver Area is and will remain the responsibility of the Commanding General, Army Ground Forces, until such time as it may be mutually agreed by the Commanding General, California-Arizona Maneuver Area, and the representatives of the Commanding General, Army Service Forces, that such responsibilities should be taken over by Army Service Forces, which date shall not be later than 1 May 1944.

2. It is desired that you provide suitable liaison officers to assist the Commanding General, California-Arizona Maneuver Area, in expediting the return of excess ammunition, equipment, supplies, and repair parts to normal supply channels. Shipments to Zone of Interior depots will be speeded up to the maximum possible.

3. The Pomona Ordnance Base Depot, the San Bernadino General Depot, and other communications zone supply and service installations will be turned over to the Army Service Forces at such time as shall be mutually agreed upon by the Commanding General, Army Ground Forces, and Commanding General, Army Service Forces. Upon transfer of responsibility to Army Service Forces, personnel stationed at the above installations and such stocks then on hand, will be turned over to Army Service Forces. This action shall be completed not later than 1 May 1944."

2. The Commanding General, Army Ground Forces has been directed by the Secretary of War to repair, overhaul, and evacuate all items of equipment in excess of that required and moved out by the Army Ground Forces organizations upon departure from the area. The responsibility for notification to the responsible Army Service Forces agency of the location, amount, and type of equipment to be evacuated rests on the Commanding General, California-Arizona Maneuver Area.

- 3. The Commanding General, Ninth Service Command:
 - a. Is designated as the representative of the Commanding General, Army Service Forces in all matters pertaining to the closing of the California-Arizona Maneuver Area.
 - b. Is charged with the closing of this area and the disposition

Incl. #1 1

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of the property remaining at this station when this area is transferred to the control of the Commanding General, Army Service Forces.

c. Will provide suitable liaison officers to assist the Commanding General, California-Arizona Maneuver Area in expediting the return of excess ammunition, equipment, supplies and repair parts to normal supply channels. Shipment to Zone of Interior Depots will be speeded up to the maximum possible extent. He will request the chiefs of technical services to furnish such assistance as may be necessary in the accomplishment of this mission.

d. Will take necessary action to assure the prompt disposition of salvage accumulated from this area in accordance with existing directives and regulations, any exceptions to be approved by appropriate authorities.

e. Will submit to this Headquarters recommendations at the earliest practicable date for the continued operations of such maintenance installations in the California-Arizona Maneuver Area as may be required.

f. Will give due consideration to freight rates charged for long hauls when issuing shipping instructions out of the area. These excessive rates must be weighed against the value of the property shipped.

g. Will inform this Headquarters when the Pomona Ordnance Base Depot and the San Bernardino General Depot no longer will be required for the purpose of this mission, in order that they may be assigned filler missions for the Los Angeles Port of Embarkation.

h. Will keep this Headquarters informed as to the status of this mission.

4. The Director of Supply:

a. Will exercise necessary staff supervision through the Commanding General, Ninth Service Command in the expeditious disposition through normal supply channels of all supplies and equipment, excess to the California-Arizona Maneuver Area.

b. Will take necessary measures to determine promptly the items and supplies in the California-Arizona Maneuver Area which are surplus to the Army so that disposition in place can be effected under the staff supervision of the Director of Materiel to extent possible thereby avoiding unnecessary handling and transportation.

c. Will provide the required supervision of all maintenance and storage matters.

d. Will coordinate his activities with the Director of Materiel.

5. The Director of Materiel:

a. Will exercise necessary staff supervision through the Commanding General, Ninth Service Command:

- (1) For the disposition of property surplus to the need of the War Department so that expeditious disposal may be effected through the Treasury Department, Procurement Division, or otherwise, to the extent appropriate.

27 February 1944.

CONFIDENTIAL

- (2) For the prompt disposition of salvage accumulated from the area, in accordance with existing regulations, any exception to be approved by appropriate authorities.

b. Will coordinate fully with the Director of Supply as to his plan for prompt processing of property as surplus.

c. Will make necessary arrangements with the appropriate agencies for the prompt disposition of real property which may be determined surplus.

6. The Chiefs of Technical Services:

a. Will provide necessary assistance as may be requested by the Commanding General, Ninth Service Command.

b. Are authorized to send representatives to the California-Arizona Maneuver Area, reporting to the representative of the Commanding General, Ninth Service Command. Such officers will be qualified to advise and be empowered to act for the chief of technical service in conjunction with the staff of the service command on matters pertaining to the disposition of property excess to the needs of this area; as to what property is economically repairable; as to where the material will be repaired; and as to what property is excess to the needs of the Army and should be declared surplus thereto. All operations of these officers will be coordinated through the representative of the Commanding General, Ninth Service Command.

7. The general hospitals in the area will continue in operation after 1 May 1944 pending determination of future requirements.

By Command of Lieutenant General SOMERVELL:

/s/ J. A. Ulio

J. A. ULIO,

Major General,

Adjutant General.

COPIES FURNISHED:

Commanding General, Army Ground Forces;
Deputy Chief of Staff for Service Commands, ASF;
Director of Personnel, ASF;
Director, Military Training Division, ASF
Fiscal Director, ASF
Director, Planning Division, ASF (10);
Director, Mobilization Division, ASF.

C O P Y

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Headquarters, Army Service Forces
Office of the Adjutant General
Washington 25, D. C.

SPX 370.05 (1 Mar 44)OB-G-SPOPI

FM/alg 2H-939 Pentagon

7 March 1944

SUBJECT: Evacuation of the California-Arizona Maneuver Area.

82900

TO: Commanding General, Ninth Service Command
Director of Materiel
Director of Supply
Chief of Technical Services

1. Reference is made to letter, SPX 370.05 (17 Feb 44)OB-G-SPOPI, 17 February 1944, subject as above, which outlines the general procedure for the closing of the California-Arizona Maneuver Area.

2. War Department directive to Commanding Generals, Army Ground Forces, Army Service Forces, and Army Air Forces, same subject, 23 February 1944, is quoted for your guidance and compliance:

"1. Reference is made to War Department Memorandum to the Commanding General, Army Ground Forces and the War Department Memorandum to the Commanding General, Army Service Forces, same subject as above, dated 12 February 1944. Copies of above are attached hereto as inclosures one and two.

"2. Above referenced directives make no reference to Army Air Forces installations or activities since they are not directly under control of the Commanding General of the California-Arizona Maneuver Area. There may be instances, however, where facilities under control of the Commanding General, Army Ground Forces are jointly used by the Army Air Forces within the Area. Such instances might be telephone, telegraph, power lines and other utilities.

"3. It is desired that any action taken by the Commanding General, California-Arizona Maneuver Area or representatives of the Commanding General, Army Service Forces, which affect Army Air Forces installations or activities in the California-Arizona Maneuver Area be fully coordinated with the Army Air Forces."

By command of Lieutenant General *SOMMEVELL*:

Spert...
Adjutant General.
File
19 1/44
31

373.37 (California-Arizona Maneuver Area) (7 Mar 44)

FOR COPIES FURNISHED SEE PAGE 2

ARMY GROUND FORCES

ARMY WAR COLLEGE

WASHINGTON 25, D. C.

24 FEB 1944

684(C)(CAMA)(24 FEB 1944)WNGCT

54

Memorandum for THE CHIEF OF STAFF, U. S. ARMY:
(Attention: G-3 Division)

Subject: Request for Portion of California-Arizona Maneuver Area

1. Memorandum WDCGT 354(15 Jan 44), 22 January 1944, directs that:
 - a. The California-Arizona Maneuver Area be discontinued as a maneuver area as of 15 April 1944.
 - b. The California-Arizona Maneuver Area ceases internal operations as a training theater as of 1 May 1944.
 - c. A relatively small number of troops be maintained in California-Arizona Maneuver Area to preserve its status as an army training area pending later decision as to its future utilization or disposition.
2. Attached requests for use of parts of the California-Arizona Maneuver Area for bombing ranges have been received from the U. S. Naval Air Station, San Diego, California and from Headquarters Fourth Air Force, San Francisco, California. These areas are to be used by squadrons from the Marine Corps Air Station and flyers from Fourth Air Force, which are training crews in ground gunnery and bombing.
3. Army Ground Forces is agreeable to use of sections of California-Arizona Maneuver Area by the Marine Corps or the Army Air Forces, or by both, provided agreements entered into, which permit use of this area by other than Army Ground Forces, are revocable. This provision is introduced to insure that future requirements of ground troops in this area will not be jeopardized.

For the COMMANDING GENERAL:

F. A. Meredith

F. A. MEREDITH
Major, A.G.D.

Asst. Ground Adj. Gen.

2 Incls.

- No. 1 Ltr 4th Air Force, dtd
12 Feb 44, w/1 Ind. & 1 Incl.
- No. 2 Ltr Marine Fleet Air, West
Coast, U.S. Naval Air Sta. w/1 Ind.
and 3 Incls.



- 1 -

CONFIDENTIAL

F-11

CONFIDENTIAL

DATE 1 April 1944

ARMY SERVICE FORCES
OFFICE OF THE CHIEF OF ENGINEERS
REAL ESTATE DIVISION

Calif-
602 (Army Maneuver Area)

WARNING NOTICE

File Copy

TO: CHIEF, ACQUISITION PLANNING SECTION
 CHIEF, ANALYSIS BRANCH, REALTY RECORDS SECTION
 CHIEF, MILITARY RESERVATION DIVISION, OFFICE OF JUDGE ADVOCATE
 GENERAL (Surplus government owned land)
 CHIEF, DISPOSAL BRANCH
 CHIEF, MILITARY CONSTRUCTION DIVISION, OFFICE OF THE CHIEF OF
 ENGINEERS, Attention: Mr. Lanier
 DIVISION ENGINEER Pacific DIVISION, ATTENTION: REAL
 ESTATE OFFICER. FOR INFORMATION ONLY

Registered Mail
1406987

1. Notice was received 1 April 1944 that the
California Arizona Maneuver Area* project
 located in Division designated above at _____ (City),
 _____ (County) California & Arizona (State) is classified:
 STANDBY _____ EXCESS _____ SURPLUS X, as of 30 March 1944.

2. This notice involves 13,000,000 ** (acres) (~~square feet~~)
 which constitutes: the entire project (), a portion of the project
 (X), land only (), land and buildings (X).

3. This is a leased (X)/^{and}government owned (X), industrial ()
 command (X), installation.

4. The property was used for ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~
 by ~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~ which will vacate the property

345678
 APR 1944
 HOD FOR
 DISPATCH
 CLASSIFIED MESSAGE
 SECTION

APR 1 10 10 PM '44

*Declaration covers all of the California Arizona Maneuver Area except: Pomona
 Ordnance Depot, San Bernardino Base Depot, General Hospitals at Spadra, Henning, and
 Beaumont, Station Hospitals at Needles, Camp Young, and Yuma and Army Air Force in-
 stallations at Thermal, Desert Center, Rice, and Shaver's Summit.

**This declaration involves retransfer of government owned lands, cancellation of leases
 and disposal of buildings and improvements.

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92-7019ABCD-2500

new F-12

OUTGOING CLASSIFIED MESSAGE

Office of origin REAL ESTATE, DISPOSAL, PLANNING-SPELM
(Division, branch, section, and symbol)

Date 1 APRIL 1944

Telephone Ext. 78209
(Originating office)

Classification CONFIDENTIAL
(Restricted—Confidential—Secret)

Precedence ROUTINE
(Deferred—Routine—Priority—Urgent)

To: THE DIVISION ENGINEER
PACIFIC DIVISION
CORPS OF ENGINEERS, USA
351 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA

HEADQUARTERS ARMY SERVICE FORCES HAS DECLARED SURPLUS TO NEEDS OF WAR DEPARTMENT ALL
LANDS WITHIN CALIFORNIA—ARIZONA MANEUVER AREA WITH EXCEPTION OF THAT OCCUPIED BY
INSTALLATIONS ENUMERATED IN ITEMS A TO E IN DISPOSITION FORM DATED 16 MARCH 1944,
COPY OF WHICH WAS FORWARDED YOUR OFFICE 28 MARCH 1944. PROCEED WITH CANCELLATION
OF LEASES

ROBINS ACTING

CR 602 (California-Arizona Maneuver Area)

SENDING OFFICE D. C. E.
DATE 1 April 1944

*file
jth*

DISTRIBUTION:

Content and classification
authenticated by R. H. FABIAN
Major, Corps of Engineers

CONFIDENTIAL

2

ADDRESS REPLY TO:
CHIEF OF ENGINEERS, U. S. ARMY
WASHINGTON, D. C.

CO WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS

CE 602 (CALIF-ARIZ.) WASHINGTON
MANKUVER AREA, ARMY SERVICE FORCES
WASHINGTON 25, D.C.

REFER TO FILE NO.

SPRMO 354.2
(23 Mar 44)

WOH/nob - Ext 4155
1 April 1944

Handwritten initials and scribbles

30 March 1944
**SUBJECT: Surplus Installations, California-Arizona
Maneuver Area**

**MEMORANDUM FOR THE CHIEF OF ENGINEERS:
The Division Engineer**

**TO: Pacific Division
Subject: Surplus Installations, California-Arizona
Corps of Engineers, U.S.A.
351 California Street
San Francisco, (19) California**

Reference is made to my memorandum of 23 March 1944, file SPRMO 354.2, subject as above, which directed the Chief of Engineers to take the necessary action with the disposition of all surplus land in the Desert Training Area with the following exceptions:-

2. Inclosed herewith is copy of Memorandum dated 30 March 1944 from the Commanding General, Army Service Forces, declaring as surplus to the needs of the War Department all land within the Desert Training area, with the exception of that land occupied by the installations enumerated in Items "A" to "K" in the above mentioned memorandum.

3. Army Air Force installations at Thermal, Desert. It is requested that you proceed with the cancellation of all leases covering land included in the declaration of surplus.

4. For the Chief of Engineers: not own any of the land in the Desert Training Center and the annual rental is less than \$50,000. All land except that occupied by the installations enumerated in Items "A" to "K" above is declared surplus and will be disposed of in accordance with existing regulations.

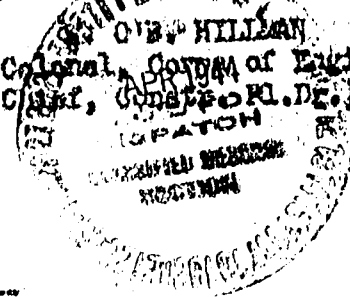
JOHN J. O'BRIEN
For the Commanding General, Colonel, Corps of Engineers
Chief, Real Estate Division

Incl:
copy memo dtd 3/30/44
in CG, ASF

LEE A. WENSON
Colonel, General Staff Corps
Director, Requirements Division

/s/ **W. O. HILLMAN**

W. O. HILLMAN
Lt. Colonel, Corps of Engineers
Acting Chief, General Staff Corps, Req. Division



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Handwritten word 'new'

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WAR DEPARTMENT
HEADQUARTERS, ARMY SERVICE FORCES
WASHINGTON 25, D.C.

WOH/mob - Ext 4155
1 MAR 1944

SPRMC 354.2
(23 Mar 44)

30 March 1944

MEMORANDUM FOR THE CHIEF OF ENGINEERS:

SUBJECT: Surplus Installations, California-Arizona
Maneuver Area

1. Reference is made to our memorandum of 23 March 1944, file SPRMC 354.2, subject as above, which directed the Chief of Engineers to proceed immediately with the disposition of all facilities within the Desert Training Area with the following exceptions:-

- a. Pomona Ordnance Depot
- b. San Bernardino Base Depot
- c. General Hospitals at Spadra, Benning, and Beaumont
- d. Station Hospitals at Needles, Camp Young and Yuma.
- e. Army Air Force installations at Thermal, Desert Center, Rice, and Shaver's Summit
- f. All government owned or leased land

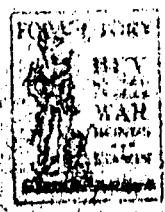
2. As the War Department does not own any of the land in the Desert Training Center and the annual rental is less than \$50,000. per year, all land except that occupied by the installations enumerated in items a to e above is declared surplus and will be disposed of in accordance with existing regulations.

For the Commanding General:

LEE A. DENSON
Colonel, General Staff Corps
Director, Requirements Division

/s/ W. O'B. HILLMAN

W. O'B. HILLMAN
Lt. Colonel, Corps of Engineers
Acting Chief, Constr. Pl. Dr., Req. Divis



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ADDRESS REPLY TO
CHIEF OF ENGINEERS, U. S. ARMY
WASHINGTON, D. C.

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS

CE 684 (California-Arizona Maneuver Area)-SPELR

REFER TO FILE NO.

20 May 1944

SUBJECT: Request for Portion of California-Arizona Maneuver Area.

TO : Office, Division Engineer
Pacific Division
Corps of Engineers, U.S.A.
351 California Street
San Francisco, California

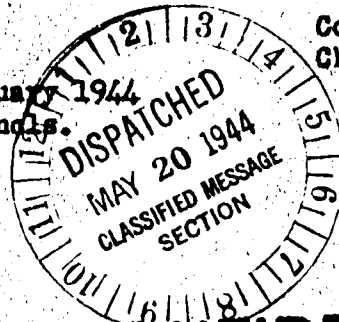
1. Attention is invited to the attached basic letter, with five indorsements thereon, dated 12 February 1944, from the Commanding General, Fourth Air Force, requesting permission to use a certain part of the California-Arizona Maneuver Area for a bombing and gunnery range.
2. Second Indorsement dated 30 March 1944 indicates that the Commanding General, Army Ground Forces, makes no objections to the use of a portion of the land for a bombing and gunnery range.
3. Fourth Indorsement dated 25 April 1944, from the Commanding General, Fourth Air Force, describes an area located approximately 34° 30' North and 115° 42' West, containing approximately 300 sections.
4. Fifth Indorsement from the Commanding General, Army Air Forces, requests that the matter be investigated by your office as to the desirability of using this land by the Fourth Air Force. It is also indicated that occupation of some of the land by the United States is without any legal basis.
5. It is requested that the papers be returned with your report and recommendation.

For the Chief of Engineers:

JOHN J. O'BRIEN
Colonel, Corps of Engineers
Chief, Real Estate Division

Incls:

#1 - Ltr dtd 12 February 1944
w/5 Inds. & 2 Incls.



REGISTERED MAIL

1413400

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CUT-OFF AS OF 31 DECEMBER 1945



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7TH ARMORED DIVISION HISTORY

The following pages contain the History of the 7th Armored Division from the date of its activation through the end of the year, 1943.

This History has been approved by the Commanding General.

On February 22d, orders came to the division from Headquarters III Armored Corps for movement to the Desert Training Center in the California Nevada Desert area.⁵¹ Immediately the command was set into action pending the first major cross-country movement to be made by its members.

The 8th Armored Division, which was succeeding the 7th at North Camp Polk had had an advance contingent at the camp for several days to receive vehicles and equipment left behind by the 7th. This process was stepped up so that completion was assured well in advance of date of departure. Only a limited amount of equipment was to be taken to the desert by the 7th; a completing issue by transfer was expected as soon as the division reached the new training area--this to be desert adapted equipment already having been used for some time.

The advance detachment of the 7th left North Camp Polk for the desert on February 27, traveling by train. The detachment was commanded by Brig. Gen. John B. Thompson, and included a representative of each general staff section of Division Headquarters. This advance detachment had the responsibility of setting up a temporary camp at Camp Coxcomb, California, pending completion of movement of the 6th Armored Division from the base Camp.

The first train of the main body (General Silvester's train) left North Camp Polk on March 5th. Following trains left the Louisiana station on a precise, pre-arranged schedule, and following the earlier groups, detrained at Freda, California, and traveled by motor vehicle to Camp Coxomb, 35 miles distant. The last train arrived at Freda on March 18th, and on that date, Headquarters, 7th Armored Division, officially opened at the desert composite.⁵²

51. See Appendix 1, Item 3 - (orders)

52. See Appendix 2b, GO #7, 1943.

(Military officials and representatives of the transportation systems carrying the division across the country were high in their praise of the smoothness of the movement, due compliment to the work of Lt. Col. A. J. Adams (G-4) and his staff of assistants.)

The division, upon arriving in the California desert, did not immediately start the 13 weeks training prescribed by AGF.

The first month was spent acclimating the men to desert condition, performing maintenance, and learning desert driving and bivouac formations.

On April 19th the division began the prescribed AGF Training Period. The first four weeks were devoted to individual and small unit training. Physical toughness, night patrolling and self-reliant leadership by non-commissioned officers and junior commissioned officers were the subjects most stressed during this period.

The AGF program prescribed that units spend at least two days and a night in the field each week. However, Gen. SILVESTER, realizing the unequalled value of field training, ordered each tactical unit to leave base camp Monday morning and return not earlier than ~~2000~~ Thursday of each week. As a result it was but a few weeks before the Lucky 7th was sun-darkened and desert hardened.

The fifth and sixth weeks were devoted to battalion and reinforced battalion combat and firing problems. During the seventh and eighth weeks, the combat commands conducted similar exercises.

At the completion of the 8th week on June 14th, the division as a whole was ready to go into the field, first for a division problem and then for Corps Maneuvers.

During these two and half months in the desert, recreation for the men had not been forgotten. Government convoys left each Friday morning to carry 25% of the command to San Bernardino, a two hour train ride from Los Angeles, to Idlewild, a nearby mountain resort, or to points of interest such as the Grand Canyon.

Realizing that once in four weeks was very little time for a man to get out of the desert and seek entertainment, Gen. SILVESTER brought entertainment to the camp.

Dr. IQ, Bob Crosby's Clambake, Guy Kibbee, Al Jolson and Edgar Bergen and Charlie McCarthy were but a few of the stage shows put on in the division bowl. The Special Service Officer arranged for shipments of movies so that every man could see at least two a week if he so desired. These sources of entertainment, together with well-stocked Post Exchanges, provided the men of the Lucky Seventh with more means of relaxation than they had forseen.

As had been expected, the 7th had many visitors during its stay in the desert. Col. LUIS MARTINEZ LENNON, Chilean Army, and Capt. H. P. ARENDS, Royal Netherlands Marines, stayed with the division for a considerable period of time, the former from March 20th to May 26th, the latter from April 6th to May 17th. Both were representatives of their nation's incipient armored force. They divided their time among the various units and studied the technique and problems of each.

Other visitors were Under Secretary of War ROBERT PATTERSON on April 7th, Lt. Gen. DEVERS and Staff on April 9th, Chief of Ordnance Maj. Gen. CAMPBELL on April 19, and Brig. Gen. CLANCY, head of the Tank Center, Detroit, Mich, and Mr. DAVIDSON of General Motors Corp. on May 3rd, who came to determine what the desert did to vehicles and what improvements could be made.

On April 23rd the desert had its most distinguished visitor, Secretary of War STIMSON. Though he did not visit Camp Coxcomb, Gen. SILVESTER and Lt. Col. GRIFFITH, G-3, went to Camp Yound for a conference with him.

On May 13th representatives of newspapers and broadcasting stations from all over the country arrived at Camp Coxcomb, in the course of a nationwide tour of training centers arranged for by Under Secretary Patterson's office. The division put on a demonstration of a coordinated air, tank, infantry, and artillery attack for their benefit.

Once more as the division prepared to take to the field there were many new faces both on the division staff and among the unit commanders.

Maj. V. Maxwell⁵³ - G-1

Col. O. W. Martin⁵⁴ - Arty Command

Lt. Col. Austin Miller⁵⁵ - Div. QM

Capt. Richard Walton⁵⁶ - Hq. Comdt.

Brig. Gen. J. B. Murphy⁵⁷ - CG, CC "A"

53. See Appendix 2b, GO #15

54. On May 7th, Col. O. W. Martin arrived to replace Col. R. A. Gordon, who left on April to be Chief of Staff the 16th A.D. See Annex 2, GO #22.

55. Appointed 27 January 1943.

56. See Appendix 2b, GO #8.

57. Col. Murphy arrived on May 7th to replace Brig. Gen. Greene who left to command the 16th A. D. Colonel Murphy was promoted to Brig. Gen. on May 14th.

Col. D. A. Rosebaum⁵⁸ - CO 31st

Maj. James Milner⁵⁹ - CO 489th

Maj. Dubuisson⁶⁰ - CO 434th

Maj. Vincent Boylan⁶¹ - 87th Armd Rcn Bn

Capt. Robert L. Moffet⁶² - CO Supply Bn

On June 14th the 7th A.D. left for a two weeks maneuver. This consisted of an attack of a fortified position, defense through parallel corridors, defense in depth on a narrow front and defense across open flat terrain. ⁶³

The 4th Cavalry Regiment (Mecz) provided the reconnaissance for the mythical enemy which held a fortified area prepared by the 33d Engrs and modeled on a German defensive position utilizing the fire power of a German Infantry Division.

Again on June 26th, the division left Camp Coxcomb, this time for a three weeks maneuver under the direction of IX Corps. ⁶⁴

The principal units participating in this maneuver were as follows:

-
58. Replaced on June 14th Col. Paul Steele who left the division for overseas duty.
 59. Assumed command 26 November 1942.
 60. Assumed command 21 November 1942.
 61. Replaced Lt. Col. Claybrook on 17 March 1943.
 62. Assumed command 27 February 1943.
 63. See Appendix 5, item 2.g
 64. See Appendix 5, item 2 b

The division, upon completion of the Corps maneuvers, returned to Camp Coxcomb to round out its desert tour. On July 25th, orders were received from Desert Training Center for the division to move to Fort Benning, Georgia.⁷⁸ Prior to the movement, a major portion of the vehicular equipment of the division had to be turned to Ordnance bases,⁷⁹ and again the division was without most of its vehicular needs, expecting to receive necessary items upon arrival at its new station.

Again came the problem of a lengthy cross-country movement by rail. Personnel and retained equipment entrained at Freda Station, California, making the movement thereto by motor, using cargo vehicles to the last to transport personnel, turning these over to ordnance representatives at the depot immediately prior to departure by the using personnel.

Again an advance detachment under the command of Brig. Gen. Thompson went forward to the Sand Hill Area, Fort Benning, Georgia, to make initial arrangements, and to receive such equipment as was available to the division at the new post.

The movement was completed on August 12th, and the Division Headquarters was opened at Fort Benning, on that date.⁸⁰

78. See Appendix 1, Item 3.

79. For vehicles to be taken with division to new station, See Appendix 1, Item 3, paragraph 6.

80. a. See Appendix 2b GO #30.

b. The division was under III Corps, Second Army, upon arrival at Fort Benning, Georgia.

DECLASSIFIED PER EXECUTIVE ORDER 12356, SECTION 3.3, NND PROJECT
NUMBER NND 73507, BY DMG / R.B., DATE 10/20/95

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BRIEF HISTORICAL SKETCH OF THE 95TH INFANTRY DIVISION

BH-18

WORLD WAR I

1918 -
1914

The initial activation of the 95th Division was begun at Camp Sherman, Ohio, September 5, 1918. The original activation order called for the division's composition to include the following major units:

- 189th Infantry Brigade
- 190th Infantry Brigade
- 170th Field Artillery Brigade
- 358th Machine Gun Battalion, 320th Engineer Battalion, 620th Field Signal Battalion and 95th Division Trains

The organization and training of all units except the 320th Engineer Battalion and the 95th Division Trains was fully under way at the time of the Armistice.

Brig. Gen. Mathew C. Smith was the division's World War I commander.

Orders were received the first week in December, 1918, directing the demobilization of the division. Demobilization of all units of the division was completed December 21, 1918, the enlisted men being discharged or transferred, and all officers signifying their desire to be discharged were so discharged, the Regular Army officers reverting to an unassigned status as of December 22.

Between this date and the World War II activation of the 95th Division, the division was set up as an Oklahoma reserve division with headquarters in the state capitol in Oklahoma City.

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CLASSIFICATION F-15
CANCELLED
 BY AUTHORITY OF THE ADJUTANT GENERAL
 CONFIDENTIAL
 DOWNGRADING COMMITTEE 25 June 94

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DECLASSIFIED PER EXECUTIVE ORDER 12356, SECTION 3.3, NND PROJECT
NUMBER 20073507, BY Ding / R.B., DATE 10/20/95

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Other training salients of the Camp Polk stay included emphasis on map training, counter-intelligence and prisoner of war procedure, scouting and observing, grenades, signal security and an all-out drive to bring the division up to POM qualifications.

During the Camp Polk stay the division adopted its current nickname, "The Victory Division".

The division was only able to complete the first phase of its Camp Polk post-maneuver training as orders were received late in September to make a permanent change of station to the California-Arizona Maneuver Area, at that time designated as the Desert Training Center. The movement to the California desert, which was made entirely by rail, was completed in late October and a 13-week training program was begun November 1.

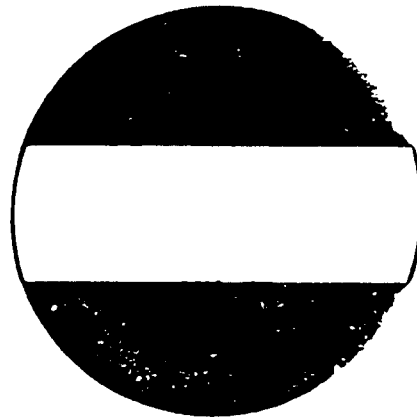
Extensive small unit training, including combat firing exercises for all rifle and weapons platoons, much night training in all phases of field activities, battalion combat firing exercises, regimental combat team exercises (with live ammunition) and the tactics of desert warfare highlighted training in the C-AMA. Division Field Exercises were held from December 28, 1943, through January 4, 1944.

Desert maneuvers were conducted from January 10, through January 30, the division again maneuvering against the 11th Armored Division.

It may be said that, practically without exception, division leaders found desert training to be the best the division had undergone. This was true for several reasons: the fact that small unit training was more feasibly applied than theretofore, the fact that troops were able to familiarize themselves with live ammunition to far greater advantage than ever before, the excellent physical hardening effects of the desert training and the extensive night training undertaken in the C-AMA. In addition, desert maneuvers, though of a different nature,

THE DESERT TRAINING CENTER AND C - A M A

Study No. 15



Historical Section . Army Ground Forces

1946

Restricted Classification
Removed Per
Executive Order 10501

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PART ONE. TRAINING IN DESERT WARFARE
CHAPTER I
THE BEGINNINGS

Proposals, Plans and Explorations

On 29 January 1942 the Germans recaptured the port of Bengasi, and in a week rumbled one hundred miles Egyptward. If they continued and if the Japanese pierced through India, the Axis powers might join forces in Persia and supplement each other in supplies. They would be in a position to attack Russia from east, west, and south.

The War Plans Division of the War Department General Staff believed that the campaigns in North Africa, like those which had taken place in Norway, Albania, and Crete, had proved conclusively the necessity for troops specially organized, trained, and equipped to operate on difficult terrain. The lack of such troops had proved disastrous. The War Plans Division therefore recommended that troops be trained in desert warfare. ¹ On 5 February 1942, Lt. Gen Lesley J. McNair, Chief of Staff, General Headquarters, gave his concurrence. ²

What type of units and how many of them should be desert-trained was not clear at this early stage. Suggestions were various. The War Plans Division recommended training a corps consisting of two armored divisions and one motorized division. General McNair spoke of armored and motorized units, but did not specify how many units or how long a period of training. G-3 of the War Department General Staff proposed selecting a site large enough for the training of any type of division and also suitable for combined training with Air. ³

By the end of February 1942 GHQ had decided on an armored combat team as the initial force and informed G-3 of the War Department, the Chief of the Armored Force, and the Commanding Generals of the Second and Third Armies what type of units it desired from them to form or support such a team. (See Appendix "A") By this time GHQ contemplated that, after the preparatory and development period, divisions and other units would be moved to the desert for a six-weeks' period of intensive training and maneuver. ⁴

Suggestions concerning equipment, site, etc. arrived at the War Department from interested sources. The War Department letter to General McNair on 6 March 1942 condoned what it had found acceptable. The purpose was reaffirmed: training in desert warfare. Equipment was to be tested, tactical doctrine applied, and the technique and methods of training developed. No more housing would be provided than necessary for the minimum requirements of health, sanitation, and the safeguarding of government property. If possible, tactical medical units would perform hospitalization. The War Department asked for a site recommendation, detailing how much of the site was government-owned, estimating the cost for maneuver and trespass rights on any privately-owned land in the area and the personnel required from Corps Area Service Command for necessary supply and administrative functions. ⁵

GHQ has already designated the Commanding General of the I Armored Corps, Maj. Gen. George S. Patton, Jr., as Commanding General of the Desert Training Center. It had ordered General Patton to reconnoiter southeastern California and western Arizona for a suitable site.

Accompanied by Col. John M. Devine, Col. Hugh Gaffey, Col. Hobard R. Gay and Lt. Col. Walter J. Muller of the I Armored Corps, and Lt. Col. Riley F. Ennis and Maj. Carl Smith, GHQ representatives, General Patton arrived by airplane at March Field, California. From the 4th through the 7th of March the party reconnoitered from air and ground.

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General Patton concentrated chiefly on two parcels of land: "A" which extended from the California bank of the Colorado River in the east to Desert Center in the west, from Searchlight (Nevada) in the north to Yuma (Arizona) in the south; and "B" which lay east of the southern portion of "A". He quickly favored parcel "A". It possessed greater water supply. More of its area was government-owned, 79.3 percent being under the jurisdiction of the Department of the Interior. Patented land (privately-owned) comprised but 1.5 percent and could be avoided because it consisted as far as could be determined of mining claims in country unsuitable for maneuver. Costs for trespass right probably would be negligible. "A" was larger than "B", comprising some 10,000 square miles with a usable width of 90 miles and length of 180 miles. It was served by the Union Pacific Railroad in the north, the Santa Fe Railroad in the center, and the Santa Fe and Southern Pacific Railroads in the south.

General Patton and his party did more than look over the land. They ascertained what facilities would be available to a training center in the desert. A conference was held at the Metropolitan Water District Office in Los Angeles. General Patton dominated it. When a civilian proposed that soldiers build storage for water, General Patton replied that troops had no time to build anything. They had to learn how to fight. He told officials of the Water District that they would be given a week's notice before water would be needed. 8

On 9 March 1942, General Patton attended a conference exploring railroad possibilities with representatives of the Southern Pacific Company and of the U. S. District Engineers at Los Angeles. He asked specific questions about trackages between Indio and Yuma. He found that no trackage existed for the exclusive use of the Army, but the Southern Pacific promised to cooperate to the fullest degree possible. 9

General Patton conferred with Col. Donald B. Sanger, Assistant Signal Officer of the Ninth Corps Area. 10 General Patton wanted a repair shop established at the Desert Training Center for the general repair of signal equipment, particularly organizational radio equipment. None of his tactical personnel was to be considered available for the operation of post signal activities or the fixed communication system; instead, a post signal officer and a post signal property officer and a detachment of service company personnel sufficient to operate the post signal activities should be established at the Desert Training Center without delay.

The next signal conference included Mr. Ed Dawson of the Southern California Telephone Company and Col. Hardy P. Browning of the Office of the Chief Signal Officer. The commercial telephone program decided upon would have taken several weeks before facilities could be used by troops. Arrangements were therefore made to provide before 15 April three circuits into Indio through the locally-owned Coachella Valley Home Telephone Company board at Thermal, near Indio. These three circuits provided one talking circuit to the railhead at Indio, one talking circuit to the rear echelon at Indio, and one circuit to the Thermal board. 11 Since General Patton wanted no female telephone operators at any of the camps, the Southern California Telephone Company planned on a private branch exchange which would be controlled at Whitewater, some 60 miles from the base camp. 12

After his energetic reconnaissance of the area, General Patton informed General McNair of his findings. He stated the reasons for his preference of parcel "A" -- its size, an adequate supply of water and adequate rail facilities. Electric current could be furnished from the power lines of the Metropolitan Water District of Southern California which ran adjacent

██████████
██████████
to its aqueduct. Telephone wire lines existed within reasonable distances of the base camp and each division camp site.

For his base camp he chose a location slightly over twenty miles by automobile east of Indio. In addition, sites for divisional camps lay in the vicinity of Desert Center, Iron Mountain, and Needles, over which he wanted jurisdiction, though he did not contemplate construction at that time. Because of the desolateness of the terrain -- during his four-day reconnaissance over it he had encountered no inhabitants -- he did not believe it advisable for the War Department to take over this land by executive order except for the sites he indicated.

General Patton was unstinting in his praise of the area. He foresaw that the numerous mountain chains, the varied nature of the soil, and the presence of considerable vegetation in some sections rendered the area suitable not only for armored combat service but also for practically all forms of combat exercises. Possessed for a summer climate suitable for hardening troops for desert warfare, it also had a winter climate which was "probably the most salubrious in the world." He declared this to be "probably the largest and best training ground in the United States." 13

The Site

What was it like, the site of this new training area? In the popular mind the desert is composed of endless stretches of sand, wavering before the eye because of heat convection, where little or no rain falls.

This image is incomplete. The site of the training area did have sandy stretches, but it had much else. There were regions of rocks and crags. There were dry salt lake beds. There were many mountains, most of them running in a north-south direction and most of them springing precipitously from the floor of the desert. Some of the mountains attained a height of more than 7,000 feet. Many of the valleys were wide and flat. Only one over-all generalization can be made concerning the terrain: it was varied.

The desert was hot. Temperatures climbed as high as 130° in the shade, and the dwarfish sparse growth of the desert -- the usage brush and mesquite and cactus -- provided little shade. The heat bore down less harshly on man and machine than another attribute not commonly associated with desert -- shifts in temperature. During the winter the temperature might bound from freezing in the early morning to 100° at mid-day. On the average the daily range in temperature was greater in summer than in winter. Sudden changes in weather were frequent. A rise or fall in temperature, a cloudburst, a wind and sandstorm might occur with little warning.

The average yearly rainfall was less than 5 inches. July, August, and September were the rainy months, though peak rainfall for any of these months was seldom over .37 inches, and that amount might be received at one time. Danger therefore lurked for the novice who might take a nap in a draw or wash because a cloudburst might cause a wall of water to batter down upon him.

The region, then, was arid. The only large stream, the Colorado River, ran along the eastern boundary of the training area. An aqueduct had been brought through the center of the area. Other sources of water were merely local, such as wells. The vegetation of this arid region? -- "All of the desert plants are the world's most thorny objects."

Such an area naturally supported no centers of great population. On the fringes of the training area several communities of a few thousand people were located, such as Needles, Blythe, and Yuma along the Colorado River, with populations in 1940 of 5,000, 2,340 and 5,325 respectively. Indio, the largest town at the western edge of the training area, had a population of 1,600. The

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Desert Terrain--4 miles east of Thermal, Calif.
(From files of Engineer Board, Yuma Test Branch)



Desert Terrain--rocky terrain north of Ogilby, Calif.
(From files of Engineer Board, Yuma Test Branch)

- 4 -

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fact that General Patton had gone through the region for four days without meeting an inhabitant indicates the sparsity of population. On maps of the region even a service station is sometimes indicated.

It must not be thought that this experience with desert country was the Army's first. Troops had long before fought Indians in the desert. In early 1942 a number of installations existed or were being activated in the general region -- a Field Artillery Training Area south of Indio, an Ordnance Section at Camp Seeley, an Engineer Board Desert Test Section at Yuma and later at Thermal, an Army Air Base at Victorville, the San Bernardino Air Depot at San Bernardino, Camp Haan at Riverside, an Army Air Base at March Field, Camp Irwin at Barstow, a Holding and Reassignment Depot at Yermo, and an Army Air Base at Las Vegas. ¹⁴

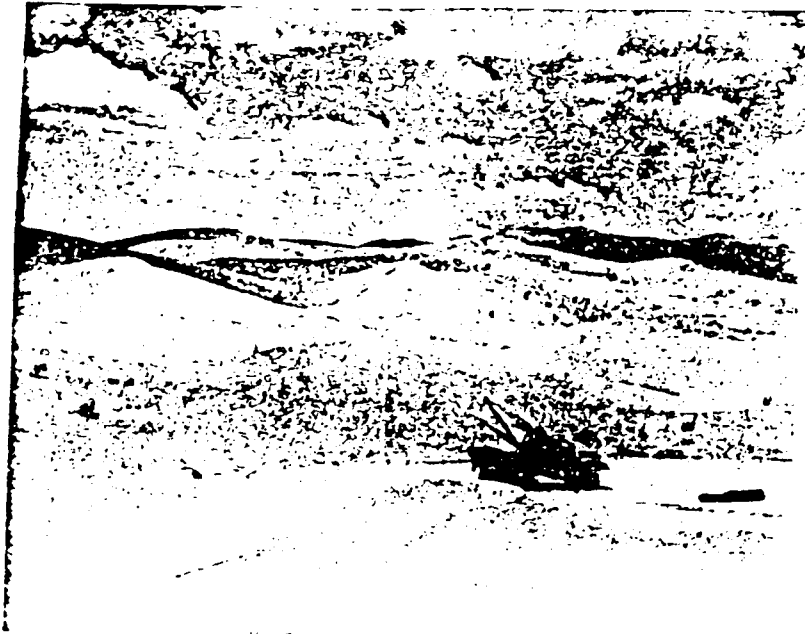
Blueprint Stage -- The Roles of Services of Supply, The Army Air Forces, and The Army Ground Forces.

Headquarters, Army Ground Forces -- successor to GHQ -- was made responsible for the Desert Training Center. Headquarters, Services of Supply, was assigned a supporting role; and Headquarters, Army Air Forces, that of providing certain types of air units.

Headquarters, Services of Supply, and its subordinate agency, the U. S. District Engineers at Los Angeles, secured for the Desert Training Center the right to use lands in the desert. They had no voice in deciding what lands were necessary; that was the domain of the Army Ground Forces. ¹⁵ Subordinate commands of Services of Supply were to supply the Desert Training Center. The Commanding General of the Ninth Corps Area was ordered to send from personnel available to him the necessary commissioned and enlisted personnel for the operation and maintenance of the fixed camp installations in the desert. These included a finance department, base camp, a detachment of military police, a quartermaster detachment base camp, and a utilities detachment. ¹⁶

The part Air would play was decided at a conference between Col. George L. King of the Armored Force, Ground-Support Section, and Col. Nelson M. Walker and Lt. Col. Riley F. Ennis, representing Headquarters, Army Ground Forces. A composite consisting of not less than one squadron of combat aviation, one medium observation squadron, and an air ambulance were to be associated with and under the operational control of the Desert Force commander. Later the War Department added an entire bombardment group. Other combat aviation units might be attached for shorter periods to gain experience and conditioning prior to their departure with task forces. But no air operations would be independent; all would be under the Desert Force commander. Insofar as possible the permanently associated Desert Force aviation was to be based on and operate from desert-constructed air fields and landing strips, not from established bases and airdromes. ¹⁷

To the Army Ground Forces was intrusted responsibility for the operation of the Desert Training Center. ¹⁸ When the Army Ground Forces heard that an AAF establishment would open at Blythe, Calif. and that an enemy alien detention camp was being built in the vicinity of Parker Dam, it pointed out to the War Department the possibility of increasing the size of the Desert Training Center. It listed the advantages for training purposes of the area east of the Colorado River: variety of terrain, government ownership of most of the land, mildness of climate, for the greater part of the year, and availability of the Colorado River for river-crossing exercises. It secured assurance from the War Department that no installation would be authorized in the DTC area or in the proposed enlargement that would interfere with Ground Force use without previous consideration by the Commanding General of the Army Ground Forces. ¹⁹



Desert Terrain--sand dunes NW of Yuma, Arizona.
(From files of Engineer Board, Yuma Test Branch)



Desert Terrain--east of Thermal, Calif., looking towards San Jacinto Mountains. There is a flat-top camouflage net one inch above bottom, center, of photograph. (From files of Engineer Board, Yuma Test Branch)

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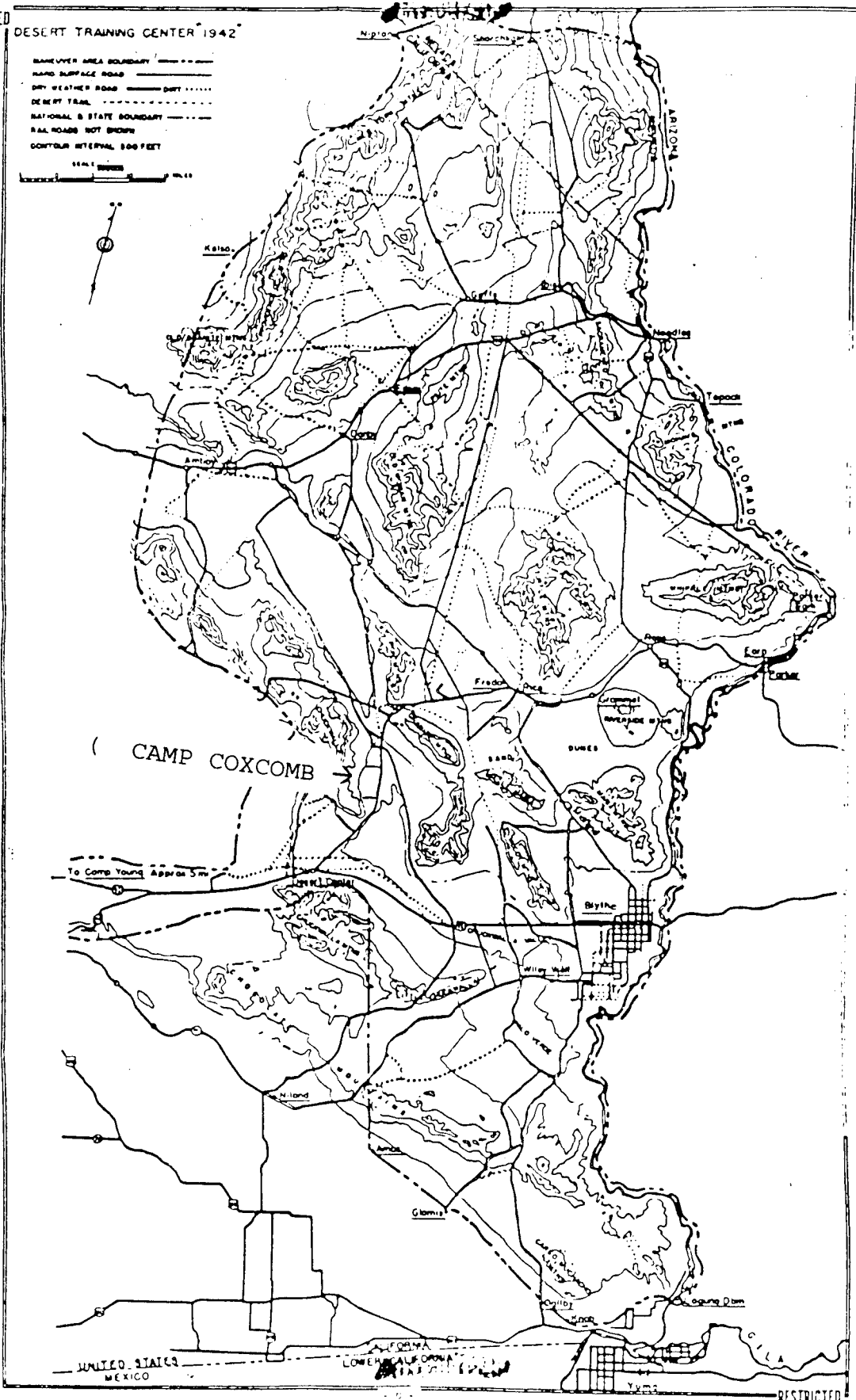
From units under its command, the Army Ground Forces assigned the great bulk of the troops that went to the Desert Training Center. 20 (See Appendices "A" and "B".) It instructed General Patton to develop appropriate tactical doctrine, technique, and training methods; to test the suitability of current equipment and supplies and to develop necessary items; and to determine the nature of any necessary changes in tables of organization and tables of basic allowances. It outlined the type of training to be undertaken. Training was to emphasize operations with restricted water supply; sustained operations, remote from railheads, in dispersed combat groups, during which constant threat of hostile air and mechanized attack would be simulated; speed in combat supply, particularly in refueling and ammunition supply; supply under cover of darkness; desert navigation for all personnel; laying and removal of mine fields by all units; maintenance and evacuation of motor vehicles; special features of hygiene, sanitation, and first aid; and combined training with the Army Air Forces. 21

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DESERT TRAINING CENTER 1942

MANEUVER AREA BOUNDARY
ROAD SURFACE ROAD
DRY WEATHER ROAD
DESERT TRAIL
NATIONAL & STATE BOUNDARY
RAILROADS NOT SHOWN
CONTOUR INTERVAL 500 FEET

SCALE 1:50,000



RESTRICTED

PLANS BECOME REALITIES

Advance Party

On 21 March General Patton ordered an advance party of officers from the I Armored Corps to the desert. They proceeded to Indio and set up headquarters at the Indio Hotel. Col. John F. Conklin, Engineer for the I Armored Corps and thereby for the Desert Training Center, established and maintained contact with the U. S. District Engineers. He supervised engineering activities, arranged for water in the temporary and permanent camp site, and laid out the temporary camp for the initial force. He arranged for the establishment of units in their temporary areas. He investigated power and telephone resources to facilities establishment of the necessary lines. Lt. Col. Walter J. Muller prepared for the reception of troops at Indio and for the supply and evacuation of troops. Col. Hobard R. Gay worked out the details for securing adequate railhead facilities and made sure that sufficient supplies were available for troops upon arrival. ¹

In order to avoid construction on land not owned by the Government from which the Army could be put off after having been given 30-days' notice, the site chosen by General Patton for the permanent base camp had to be changed during his absence. Colonel Conklin chose a site on government-owned land which had additional advantage of being by the aqueduct of the Metropolitan Water District, from which water could easily be obtained. It had the disadvantage, however, of being hemmed in between the aqueduct and Highway No. 60, across which troops must go in order to reach land where freedom of action was possible.

The site chosen, the engineers planned the layout for the permanent base camp. ² Meanwhile troops were being readied to proceed to the temporary camp.

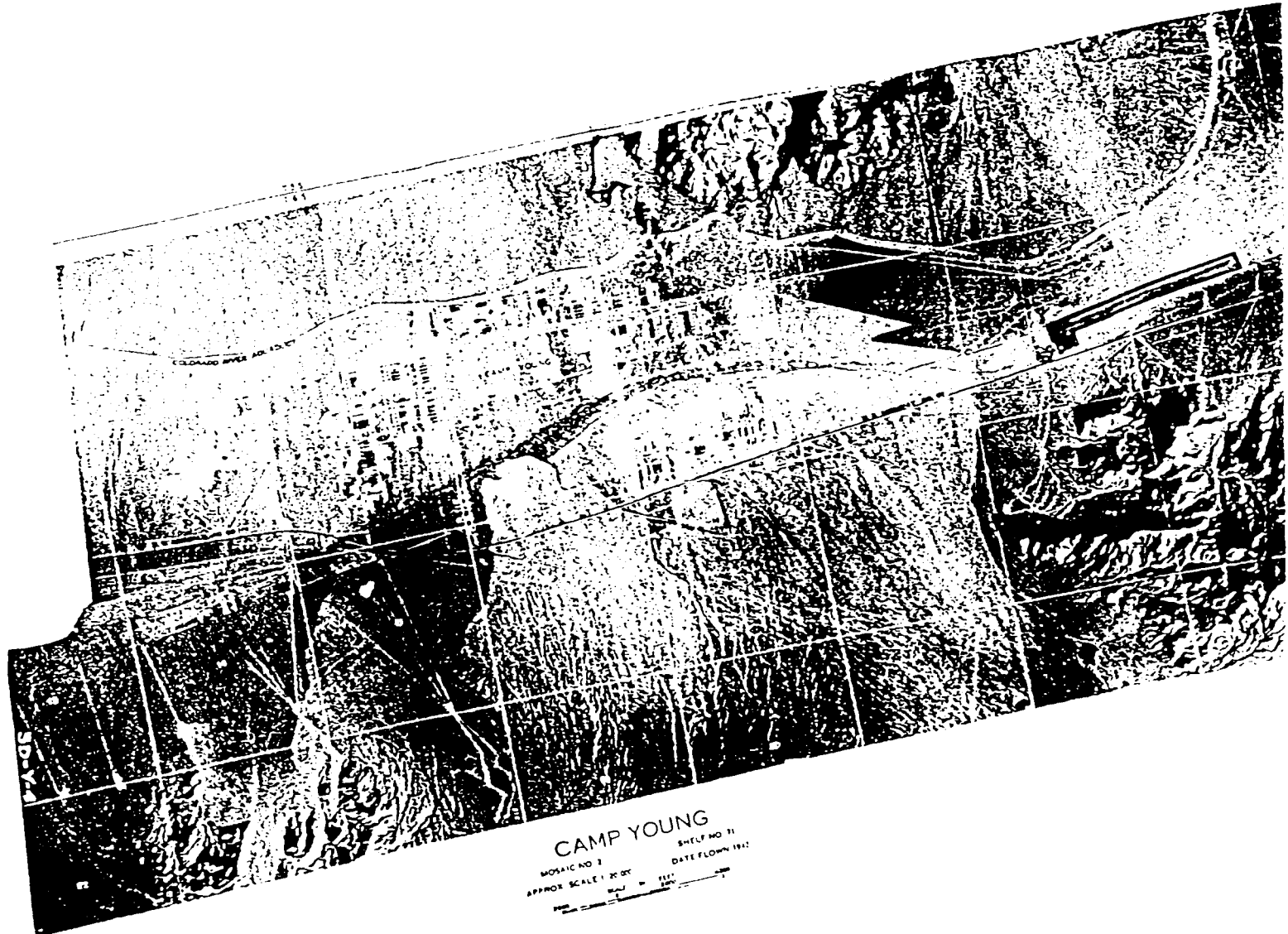
Temporary Camp to Permanent Camp

On the first of April 1942, while General Patton was busy in the east, troops of the I Armored Corps began leaving Ft. Benning, Ga., by train, headed for the desert. ³ Other troops traveled by motor. The commanding officers of the first increments to arrive by motor reported for further instructions to the advance message center at the Indio Hotel; succeeding increments proceeded directly to the temporary camp site. Units brought three days' rations with them as well as a number of other supplies, including extra five-gallon containers, based on an allowance of one gallon of water per individual per day for three days. ⁴ This was the desert.

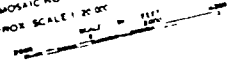
It was impossible to tell how big this project was going to become or where the stresses would be felt. When Capt. R. W. Smith arrived, he reported to headquarters at the Indio Hotel. Captain Smith had been the Transportation Officer at Camp Lewis, and the officer who interviewed him, ruling that there was no need for such an officer in the Desert Training Center, placed him in command of the Quartermaster Provisional Battalion -- a catch-all unit. Within a week the need for a transportation officer became apparent, and a second lieutenant without experience in transportation was appointed; his one enlisted man working in the Southern Pacific Depot at Indio knew little more than he did. So there were difficulties until a former railroad man, Lt. L. A. Moore, was appointed Transportation Officer. ⁵

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CAMP YOUNG
MOSAIC NO 3 SHELF NO 11
APPROX SCALE 1:20,000 DATE FLOWN 1942



The temporary camp was boxed in by the aqueduct of the Metropolitan Water District on the north, the unpaved Cottonwood Springs Road on the east, and the modern Highway 60 on the south. To the east stretched the desert, bare except for gaunt spiny plants. When Capt. F. Guetschow arrived on 12 April with his Company C" of the 57th Quartermaster Heavy Maintenance Regiment, he was told "Your area is from this telephone pole to that telephone pole and from the Cottonwood Springs Road back to the ditch. Don't disturb the ground foliage any more than possible as it holds down the dirt." 6

The first reaction of troops was distinctly unfavorable. Some of them advised returning the area to the Indians. Some called it "The place that God forgot." 7

Thus did the temporary camp spring into existence, beginning above Highway 60 with the tents of the first platoon, Company "A" of the colored 240th Quartermaster Service Battalion and rising with the tents of other units to the tents of Headquarters, Desert Training Center, adjacent to the aqueduct. 8 (For AGF units assigned to Desert Training Center 1 May 1942, see Appendix "B".) Between the modern highway and the aqueduct -- a miracle of the twentieth century which brought water from the Colorado River through the desert, through tunnels in mountains, to homes and factories on the West Coast -- men lived in tents in ways reassembling those of a century before: no electric lights, no electricity at all, not even sheets for cots, no hot or even cold water running through pipes, no way to heat either except by gathering and burning the none-too-plentiful twigs.

Water was obtained, though no contract had yet been negotiated with the Metropolitan Water District. A small engineer unit set up a temporary plant that pumped water from the aqueduct to a small tank on the ground above the temporary camp, and the water has to be hauled down by the units. The Quartermaster provisional battalion transported water in G.I. cans on a truck. Some units had small water tank trailers, and the two S.O. truck companies used tank trucks. 9 In order to get a cold shower, men and officers walked or rode three miles. 10

Men improvised. They bought candles to light their tents. Company "C" of the 57th Quartermaster Heavy Maintenance Regiment used the company portable generator and rigged up electric lights for the kitchen tent, headquarters, and the dayrooms tent.

Construction of the base camp meanwhile progressed rapidly. On 12 May the base camp received a name, Camp Young. 11 On 26 May, power was requested from the Department of Interior and waivers secured from the electric companies whose territories were infringed upon. Power was transmitted from Parker Dam over lines belonging to the Metropolitan Water District to the substation at the Hayfield Reservoir, which was rented from the Water District. From this station the U.S. District Engineers constructed their own power line to Camp Young.

Water and power were soon supplied and units were moved from the temporary camp to Camp Young. 12 The permanent base camp climbed up a gentle slope between mountain ranges. Below it was Highway 60, above it the embanked aqueduct. The camp stood on decomposed granite which had washed down from the mountain. The troops continued to live in tents. The low buildings used by headquarters were the standard theater of operations type -- boards with cracks showing between them, covered on the outside of tar paper. 13

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Training

Exercises and Conclusions

A necessary first step toward the training of units to fight a modern war in the desert was the assembling of data on means of existence under desert conditions, the testing of equipment, and the development of tactical doctrine and technique. 14

General Patton drew on available resources for information. To Dr. Roy Chapman Andrews who had conducted expeditions into the Gobi Desert he wrote, "While I have played polo and navigated ships across the Pacific, I have a limited amount of knowledge about the desert, so do not hesitate to give me the most trivial details which, from your experience, you might consider superfluous." 15 Later on he did not need to ask for such information. So-called experts -- bearded and unbearded, natty and matted and tattered -- attached themselves to General Patton and the base camp, all of them blessed with one attribute in common -- a mouth that kept talking.

It being wartime, the Army could not wait until the background material was gathered and evaluated. To a great extent, learning and training has to be carried on together. While General Patton was himself in the east, he made his policies felt in his first training memorandum. The necessity to get a number of things done quickly did not divert him from the primary purpose of the Desert Training Center. No administrative duties were to be performed within tactical units during training hours. He wanted his men conditioned physically to operate for protracted periods in the desert with a minimum of food and water without a material decrease in combat efficiency.



Lt Gen McNair, Major Gen Patton study a map
July 1942.

For his command, which consisted of less than ten thousand officers and enlisted men,¹⁶ General Patton worked out a training program. It was not to exceed six weeks from 20 April. In the first of its four phases emphasis was to be placed on the individual driver, the crew, squad, section and platoon; in the second, on company and battery; in the third, on the battalion; and in the fourth, on the combat team. He desired to develop teamwork not only between armored members but also between air and ground units.

For the end of the training period he planned a combined field exercises for several days during which there would be a movement of approximately 300 miles through the desert. Advanced supply bases would be established along the axis of advance, tactical movements would be carried out under cover of darkness, and tactical bivouacs would be established in the presence of hostile air and mechanized threats. During an operation against a simulated enemy, service ammunition would be fired and combat aviation would drop live bombs.¹⁷

Time was not wasted. In the middle of April a fleet of modern self-propelled field artillery units, mounting 75's, disembarked from flat cars; on the following morning they were trundled out for their first desert exercise.¹⁸ The Desert Warfare Board was formed to test equipment and supplies and to develop necessary items. After the arrival of Col. Donald B. Sanger, who became President of the Board, things began to move. (For an account of the Desert Warfare Board see Appendix "H".)

General Patton returned from the east and was taken immediately to the Indio Hotel. One of the many officers told him that he regretted being able to offer nothing better than the best room in the hotel. General Patton said he was not going to stay there but would be with his men. By nightfall only one officer remained in the hotel. According to the story, that officer was ill. Actually an officer remained in Indio for liaison purposes.¹⁹

General Patton required that all men, within a month after arrival, should be in condition to run a mile in ten minutes, carrying full packs and rifles. In a month all the men were able to do it.²⁰

Within a few days after the Commanding General's arrival, training has so far progressed that a second desert march was completed.²¹ By the 29th of April a task force of about 225 vehicles took to the fields. It consisted of a reconnaissance troop reinforced by a reconnaissance tank platoon, a tank battalion, a battery of towed 105-mm howitzers, two tank destroyer companies, a company of infantry and a detachment of engineers, with the necessary supply vehicles for a four-day operation.

After the first day's march of 50 miles, which terminated in a protected bivouac, the Commanding General made certain observations. The drill movements of forming a group column from camp had to be perfected. Definite phase or report lines were necessary so that a periodic intervals the force could halt and realign itself. Lateral communication during the march had to be done by tanks, which possessed greater speed than any other mode of transportation in the hard desert. Large signal flags on long poles used by the force leader and the leaders of the several columns were important, and necessitated the leaders' leading. The radio worked too well, so that when the Commanding General put in a radio intercept on the enemy side, he could always determine the exact location of the command.

Weaknesses were disclosed. Although vehicles were able to negotiate some of the most difficult terrain General Patton had ever seen, the expenditure of gasoline ran up enormously. Even such an elementary matter as the technique of driving had to be suited to the terrain. To make a rapid change of direction, especially with the half-track, was fatal. In marching over sand dunes with tanks, the obstacle had to be taken at right angles to the slope; if taken diagonally, the tracks were thrown.

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The need for improved design in equipment became apparent. The 105-mm howitzers, towed by 2 1/2-ton trucks, lacked sufficient speed and maneuverability to operate successfully with an armored force; full-track mounts seemed to be indicated.

On the second day the task force marched to battle and attacked an outlined enemy presumed to be an armored force. The operation went well, and the second protected bivouac greatly improved upon the first. On the third and last day the task force formed march column from defended bivouac and forced a defile by the use of infantry and artillery.

In the report sent to Headquarters, Army Ground Forces, on the activities of this task force, General Patton included not only the recital of events, but also a digest of what had been learned concerning techniques, weaknesses in equipment, and dangers. He even pointed out that the sharp dead twigs of desert vegetation punctured tires. He included information similar to that given in the paragraphs above, and he went into detail concerning a device for cooking, which consisted of a small can filled with gravel soaked in gasoline. Requiring no extra equipment tires made a good hot fire that was not extinguished by wind.²²

A party from the Ground-Air Support Directorate of the Army Air Forces observed from the air, on the 29th of April, the special formations and part of the practice march phase of the exercise. Two of the party were trained observers, though without experience over desert terrain. In spite of the rare atmosphere and resultant long vision, only when the vehicles were in motion -- and then only by dust clouds -- could the formation be picked up by the eye at eight, six, and four thousand feet elevations.

The party believed the Desert Training Center was off to a good start. If the Desert Force were supplemented by enough aviation of the right kind, many valuable lessons concerning aviation in support of ground forces could be gained.²³

After the troops moved into the permanent camp, most of the exercises were held on the other side of Highway 60.²⁴ By 5 July the men were sufficiently trained to permit the carrying out of a seven-day operation. As in all other training, General Patton noted carefully what occurred. He was pleased by the skillful handling of the defending force by Lieutenant Colonel Bender. Instead of immediately placing all his antitank guns in position. Colonel Bender kept half of them mobile, backed up the other half with all his tanks, and put up an excellent defense against superior numbers. General Patton noted what had proved successful. Thus, red paints on the turrets of the defending tanks and the windshields of the half-tracks enabled men for the first time to distinguish friend from foe after the fight got under way. The Commanding General enunciated elementary lessons which still had to be learned. The light tanks, traversing the desert with greater facility than the scout cars of the reconnaissance squadron had to learn not to close on the squadron. The squadron needed time and space in which to do its work. The General passed on his recommendations to Headquarters, Army Ground Forces. Armored infantry, cooperating with an armored division, should be in half-tracks or all-tracked armored vehicles because, in order to arrive in time, they moved deployed in their vehicles to well within range of machine guns.

General Patton worked out the role air could assume in the desert. The light liaison plane he found invaluable. From a light plane well back of the front line and at a height of only 300 feet above the ground the contour of the front of the dust cloud was clearly visible and an exact determination of the enemy distance

and formation could be secured. Above 1,000 yards the contour of the front of the dust cloud was not clear. For desert operations in which ground targets could not be definitely located, the Commanding General worked out a method for achieving the best results. Prior to the main battle the air should attack critical points in the hostile supply and communications net. For the critical battle the ground troop should be supplied with a smoke bomb or shell of a peculiar color. When the air was to come in, this smoke should be sent out along the whole line and the air told to bomb a zone just beyond the smoke to a depth not to exceed 1,500 yards. 25

From observations such as these General Patton wrote his "Notes on Tactics and Technique of Desert Warfare (Provisional)," long issued to troops at the Desert Training Center. It was crammed with concrete detail. The half-track being slower than the tank in the desert, it was desirable that the company maintenance vehicle be a full-track, so that after having halted to make repairs it would have the capacity to catch up. Marching was a science and susceptible to more or less dogmatic treatment. The function of the air arm was explicitly defined.

The mimeographed brochure is imbued with aggressive spirit. Statements such as the following bristle from its pages:

Formation and material are of very secondary importance compared to discipline, the ability to shoot rapidly and accurately with the proper weapon at the proper target and the irresistible desire to close with the enemy with the purpose of killing and destroying him.

It is my opinion that the force commander can exercise command from the air in a liaison plane by the use of two-way radio. He should remain in the plane until contact is gained, after which one of his staff officers should be in the plane and he himself on the ground to lead the attack.

Sitting on a tank watching the show is fatuous -- killing wins wars.

Believing that battle was an art and that "he who tries to define it closely is a fool," is roughly blocked out the successive phases and movements which may be paraphrased as follows: 26

Air and reconnaissance, the first to function, locate the enemy. While the march flows smoothly and without halting into battle formation -- a transition that must be completed while the enemy is still some 3,000 yards away -- our air must be attacking the enemy, especially his artillery, anti-tank guns, and close in trains. In these attacks, the air acts on its own, picking those targets which it can use. It is also learning the terrain. During this phase the ground reconnaissance and advance guard clear the front and act as ordered by higher command, always remembering not to lose a chance to hurt the enemy.

Four-ninths of the tanks move into firing position, engage the enemy from a staggered line formation. Under cover of this fire, probably opened at 2,000 yards, the artillery moves up and enters the fire fight. The leading elements of tank destroyer units, from their positions on the flank, also engage in the fire fight. The targets for artillery and tank destroyers should be the enemy's artillery and anti-tank guns. Progress is made in rushes. Whether artillery displaces forward with each rush made by the tanks depends on the observation they can secure. But certainly as the battle nears its climax, the artillery must be in line with the tanks.

As the fight progresses and the dust clouds prevent further observations, the reserve tank unit moves out to encircle the enemy. When in position to attack him from the rear, it signals the force commander so that a synchronized assault be executed.

Prior to this time the air has been attacking the enemy. It should be notified of the probable time of the final attack sufficiently in advance to enable it to load with the proper type of bombs and be ready to take off. A few minutes before the planes are over our force, they notify the force commander by radio. On receipt of this message, the fronts of the main assault and encircling forces are outlined by clouds of specially colored smoke produced either by grenades or artillery. The smoke gives air a datum line and enables it with safety to attack the narrow zone of the enemy front between two lines of smoke.

The King's Throne 27

No study of training during this period would be complete without a brief examination of the precedent set by the first Commanding General. The air officers who had visited the Desert Training Center in the latter part of April had commented on the high enthusiasm evident among the men in spite of the new, unusual, and rugged field service conditions. They attributed this spirit to the rare brand of leadership, "uncompromising but understanding," exhibited by the Commanding General, who participated fully in every exercise, activity, and training task. 28

The Commanding General was "uncompromising." First, he was not easy on his men. When they did not drill, they policed. And he made sure they drilled and policed properly. He was a driver, a disciplinarian. He stated that the greatest difficulty in the Army was the lack of initiative and sense of responsibility among the younger officers. Within two weeks after his arrival at the Desert Training Center two officers were under arrest awaiting investigation for failure to perform obvious duties. 29

Second, he was uncompromising with himself. Demanding that his men be "in uniform" despite heat and sand, he himself wore his uniform in a military manner. He did not live in Indio but at camp. He was with his men in whatever they did. He would be in the first of the tanks, tearing up the ground; from his cub plane or from his hill he would study his troops in a march; he supervised them, he exhorted them, he taught, he pleases. His men and officers never knew what vehicle -- Jeep, Packard sedan, tank or half-track, cub plane or tractor -- might suddenly erupt him. 30

His hill, called by some of his men "The King's Throne," deserves mention. It was a lone elevation between the Crocopia and the Chuckwalla Mountains and separated from both. The General used to sit or stand up there, scrutinizing critically the line of march of tanks and motorized units below him. He would watch tanks line up in the manner of two football teams, with their support, slightly different on either side, behind them like backfields, charge together while the backfield of one swerved and made an end-run. Detecting a mistake or a way to improve, he would shout instructions into his radio. 31

In the third place, he was uncompromising in steering towards his destination. At the very beginning he informed General Devers, "Unless you wish otherwise I propose to hold the housekeeping arrangements here to the minimum, that is, to spend just as little time as possible on 'prettying up' and as much time as possible on tactical and technical instruction." 32

Consequently, as will be shown in the two succeeding chapters, administration was not balanced and supply channels were confused. General Patton concentrated on teaching men to kill efficiently, instinctively. He once introduced a speaker with these words: "Men, I want to introduce to you the noblest work of God -- a killer!" 31

The air officers spoke of his understanding. He understood machines. He would "bawl hell out of a man" for getting his tank stuck so that he couldn't pull it and then the General would proceed to pull it out himself. 34 He knew how to get things done. One day the slowness with which men were unloading tanks at the Indio railroad yard made General Patton impatient -- he always demanded speed. He told the sergeant behind him, the famous wrestler, Man Mountain Dean, to hurry the work along. When the sergeant ranted at the men, the men stopped work to gape at the source of the noise. General Patton went to the men and showed them how to place the timbers, and after that the tanks rolled down smoothly. 35

He had understanding and solicitude for men. He wanted his base camp situated as closely as possible to Indio so that the men could get into town. When he saw the deplorable situation that arose when so many troops were foisted on the miniscule desert communities (a situation described in the next chapter), he wrote to General McNair requesting a qualified special services officer of field grade. 36 Those who served under him, and those who observed what occurred, have said that he would not ask a man to do anything he would not do. 37 Frequently he closed a "bawling out" of troops with this remark, "I'm doing this for your own good. If you'd done out there what you did here, you'd be killed." 38 In an accident a soldier was riddled by bullets. General Patton was not to be seen at his headquarters, but remained by the man in his hospital tent until the man died. 39 He once remarked, "I'm a hell of a guy. I'm giving them [the troops] hell one minute and crying over them the next." 40 Such an understanding inevitably added up to high morale among the troops. Coming down in his cub plane, General Patton narrowly missed the telephone poles leading to his headquarters. Troops, without orders, took down the poles and buried the copper wire under the ground, a blasphemy to a representative of the Southern California Telephone Company, but it worked because of the dryness of the desert. The boys said they did not want their General killed. 41

When General Patton left, many of the troops who remained said they wished they could have gone with him, whatever his destination. 42

Interruptions in Training

Training did not proceed without interruption. Three chiefs of staff, Colonels Devine, Pickering, and Gaffey, promoted to the rank of general officers, were lost to the Desert Training Center. Experienced and capable officers were at a premium in the hectic expansion of 1942. 43 A serious epidemic of yellow jaundice in July filled hospitals, and convalescents had to be tried out before they were capable of returning to duty. 44

A crisis, indicative of the state of tension in the spring of 1942, was caused when a Japanese task force prowled in the Pacific. Since it was believed to be capable of attacking the West Coast of the United States, that Coast was placed under a "yellow alert."

Acting under orders of the Western Defense Command, General Patton's staff prepared for any eventuality,, checking strategic areas in Southern California. 45 On 31 May all units in the Desert Training Center were placed on a continuous alert, and all caliber .50 guns were mounted and manned during the night, and those not

necessary for drill were mounted and manned during the day. Those used in drill were kept ready for action. Ammunition was on hand, and a plan of deployment was formulated. Combat units were to proceed with General Patton's organization to wherever they might be needed. Military police, a colored truck outfit, and miscellaneous service troops were to be left at Camp Young. In the absence of General Patton, Col. Donald B. Sanger was to command these troops and the area. Defense of Camp Young was based on the personnel available and the necessity of holding the aqueduct, only source of water. No dry run was held; the precautions were taken secretly and did not alarm the countryside. After the Battle of Midway, 7 June 1942, the scare was over. 46

Preparation for the Maneuvers -- Exit

Early in the career of the Desert Training Center, General Patton was empowered, as director of maneuvers, to form such provisional forces as he deemed desirable from the units in the desert and from the VII Army Corps. 47 Two staff officers from the VII Army Corps came to the Desert Training Center, and preliminary coordination was begun. 48 The geographical disposition of incoming units had to be planned. The 3d Armored Division, for example, was to have the area at Iron Mountain, near the recently-opened railhead at Freda, Calif.; the 5th Armored Division would camp in the vicinity of Needles. 49

General Patton planned maneuvers involving quick movement. He directed the VII Corps to base its supply and gasoline estimates on 50 miles a day, 7 days a week, for the duration of the maneuvers. 50 But difficulties intervened. All of the Divisions, and many other units, scheduled to be in the maneuvers had not yet come to the Desert Training Center and were not yet under General Patton's command. Logistics had to be planned with great meticulousness because of lack of supplies and facilities -- problems that will be treated in the next chapter. Such difficulties led to the postponement of the maneuver period from 13 July - 6 September to 24 August - 18 October.

Headquarters, Desert Training Center, continued to make the necessary preparations. Engineers were sent out to inspect water facilities and camp sites. The difficulties continued. Units, learning of the postponement, delayed submitting estimates for the maneuvers, 51 and the supply picture did not improve. General Patton even sought to make over his command into an armored division in the hope of securing supplies, but this expedient was not carried out. 52 Though General Patton prepared for the first DTC maneuvers, he was not to command them. He was called to Washington. The troops which he had recommended be formed into the nucleus for a new armored division went from the Desert Training Center. He and his troops were needed to attend to business more urgent than maneuvers -- business with the Axis in North Africa.

[REDACTED]

CHAPTER VII

THE CLOSE

Decision

When shipments of service units overseas were increasing towards the end of 1943, conditions in the California-Arizona Maneuver Area became correspondingly worse with no promise of improvement. In December 1943, the need for service units was such that Operations and Planning Division considered the possibility of detaching them from divisions in training in the United States for immediate shipment overseas. General McNair therefore recommended to the War Department that the CAMA be closed. The 80th Division, the last of four divisions to complete its training in CAMA, would have done so by approximately the first of April 1944. Allowing for the necessary delay in movements, General McNair believed it possible to close the theater on or about 1 May 1944.¹

The War Department was receptive to the proposal for additional reasons also. The number of divisions remaining in the United States would progressively decline. Moreover, the anticipated commitment of tactical aviation would leave at a maximum only enough to support air-ground training in two maneuver areas concurrently. Of the two maneuver areas, one might possibly be a training theater of operations. The War Department called for a representative of the Commanding General of the Army Ground Forces, the Army Service Forces, and the Army Air Forces to confer on 12 January 1944 and to agree on the controlling elements of a general plan.²

The conference accepted the recommendation of Headquarters, Army Ground Forces. The CAMA was to be closed as rapidly as possible after 15 April 1944, and no theater of operations training area would be maintained thereafter. The Tennessee Maneuver Area would be discontinued as a maneuver area after March 1944. The West Virginia Maneuver Area would be discontinued after June 1944, except for one training assignment. The Louisiana Maneuver Area was to be continued, and the Carolina Maneuver Area was to be used in airborne training.³

The War Department formally announced to the Commanding General of the Army Ground Forces, the Army Air Forces, and the Army Service Forces that the CAMA was to be discontinued as a maneuver area on 15 April 1944 and was to cease internal operations as a training theater as of 1 May 1944. A relatively small number of troops was to be maintained in the CAMA to preserve its status as an army training area pending later decision as to its future utilization or disposition.⁴

Execution

In the latter part of January 1944, Headquarters, Army Ground Forces, communicated the decision of the War Department to the Commanding General of the CAMA.⁵ Conferences were held between officers from the Army Ground Forces and the Army Service Forces, and AGF officers attended conferences at the CAMA.⁶ What should be done, for example, about vehicles? About 27,000 vehicles were scattered throughout the area on 17 January 1944.⁷ Brig. Gen. J. W. Barnett of the War Department estimated about 12,000 of these to be in pools. About half of the pooled vehicles needed only first and second echelon maintenance; of the remaining 6,000, about 600 were beyond economical repair. So approximately 5,400 would require third or higher echelon maintenance. The limited space at the Pomona Ordnance Base permitted the storage of only about 5,500 vehicles, and about 4,500 vehicles were already there.⁸

The Commanding General of the Army Ground Forces was made responsible for the rehabilitation and evacuation of equipment in the CAMA. For fear of too greatly

restricting the Commanding General of the CAMA, Headquarters, Army Ground Forces, instructed him only in general terms to repair, overhaul, and evacuate equipment in excess of that required. The Pomona Ordnance Base Depot and the Base General Depot would be turned over to the Commanding General of the Army Service Forces with such personnel as was stationed there and such stocks as might be on hand at the time agreed upon by the Commanding Generals of the Army Ground Forces and the Army Service Forces.⁹

The War Department's indecision over the possible future utilization of the area hampered Headquarters, CAMA. On 23 February, General Anderson asked the Chief of Staff of the Army Ground Forces for instructions as to the utilities he should take out of the camps being abandoned. General Walker, G-4, AGF, informed General Christiansen that the Commanding General of the Army Service Forces had stated he favored cleaning out the CAMA lock, stock and barrel. By tearing down buildings, except those at hospitals and at bases such as Pomona and Base General Depot, General Somervell estimated that the Army Service Forces would be able to retrieve approximately 35,000,000 feet of lumber needed for the boxing and crating of equipment going overseas. But the Army Service Forces could do nothing until the War Department reached a decision.¹⁰

Early in March 1944, G-3, War Department, expressed himself to be willing to have no camp sites retained. The closing was to be coordinated with the Army Service Forces, without whose advice General Anderson was to do nothing. This decision by the War Department permitted General Anderson, who was in touch with the Army Service Forces, to proceed more effectively.¹¹

He took steps and secured coordination with the Army Air Forces. Four army air fields were located within the CAMA, at Thermal, Rice, Shavers Summit, and Desert Center. Abandoning of AAF activities at these fields was not contemplated in the near future, and utility service to those fields was to be continued. Liaison was maintained with agents of the Army Air Forces until full control of the area was returned to the Army Service Forces.¹²

Headquarters, CAMA, drew up a plan which involved the following:

Personnel. Combat troops were to move from the area on completion of the 13-week training cycle. Service troops not on an alert status or more urgently required elsewhere were to remain in the area until no longer required. Units in an alert status were to be processed in the area and moved to a port until 1 April. Those with later dates were to be moved domestically after 1 March and were to be processed elsewhere. Details of the transfer of units and personnel to the Army Service Forces were to be coordinated with the Army Service Forces.

Materiel. As the troop strength diminished, depots in the combat zone were to be closed and stocks shipped to Base General Depot, Pomona Ordnance Base, or out of the area.

Installations. Camps were to be closed, tentage, stoves, and similarly movable items being shipped to the base depot. No steps were to be taken to dismantle permanent structures but camps were to be policed and placed in condition for subsequent occupation if the need arose. Pole lines were to be removed.

General Police. The entire area was to be policed for the purpose of recovery and disposition of any abandoned equipment and supplies, and for general clean-up purposes. This procedure was to devolve principally upon combat troops.

██████████

Location and Disposal of Unexploded Shells. Consideration was to be given to the location and disposal of unexploded shells. It was recognized that practically the entire maneuver area had been used for firing during a period of approximately one-and-a-half years. In a majority of cases no record were available detailing areas in which firing had actually been conducted. The training requirements and preparations for movement of troops prevented any extensive use of troops to search for duds. Headquarters and Headquarters Battery of the X Corps Artillery was to police the Iron Mountain Range.

Fortified Area, Palen Pass. The task of restoring this area to its original condition exceeded the capabilities of the troops available, so it was to be left as it was and marked by appropriate signs. Materials of various types which had not been incorporated into the position were to be collected and disposed of.

A high priority was given to the sorting and classification of material in the base depots, and service troops were made available for this work. They were aided between 4 February and 14 March by approximately thirteen hundred Italian Prisoners of War.¹³

By 7 March 1944, General Anderson was able to inform General McNair that everything was running according to schedule with the single exception of getting troops out of the area.¹⁴ Heavy demands on the Southern Pacific, which carried the bulk of traffic from the desert, limited the movement to about three trains daily. The fact that units moved with full, and sometimes extra, equipment created a considerable demand for cars.¹⁵

By the beginning of April the number of troops in the area had been reduced to approximately 35,000. All divisions had departed from the area except the 80th Infantry Division, and it cleared on 5 April. Seven principal camps, two general hospitals, and three principal supply installations were evacuated. Plans for disposition of personnel not in tabular units had been put into effect, and approximately 250 men were being processed weekly through the replacement training depot which checked to see if they were qualified for overseas duty. Conferences with local government representatives were held for the purpose of discussing road damage and measures to be taken. Investigations were conducted on reports of alleged destruction or misappropriation of government property, the majority of which were proved to be groundless.

By 15 April, all camps and installations were evacuated except Camp Young, headquarters of the communication zone, the Base General Depot and the Pomona Ordnance Base.¹⁶

Lt. Col. Rolf Dallmer of the Fourth Army had previously been directed by the Commanding General, Army Ground Forces, to survey the Army fixed-wire plant in the CAMA. His report, written in January 1944, was intended to indicate possible economies in the wire plant, but instead served as an aid in its dismantling.¹⁷ The Army open-wire plant in the CAMA consisted of 659.35 line miles of a total of 6655.1 wire miles. At the request of the Commanding General, Ninth Service Command, 827.4 wire miles were left in place to serve installations to be operated by the personnel of the Service Command after the closing of the simulated theater. The remainder, a total of 5827.7 wire miles, was removed and the salvaged equipment shipped in accordance with instructions received through representatives of the Army Service Forces. All commercial contracts were terminated except those required for operation by the Ninth Service Command.¹⁸

The Headquarters and Headquarters Detachments, Special Troops, were inactivated, except the 4th, which was transferred to Fort Riley and assigned to the Second Army. Records of the Headquarters of Special Troops were turned over to headquarters of the communication zone.

Base General Depot and Pomona Ordnance Base retained records pertaining to their respective headquarters. Records pertaining to Headquarters, CAMA, and headquarters, communications zone, were turned over intact in their file cabinets to the Ninth Service Command Liaison Detachment, CAMA, at San Bernardino, California. Records pertaining to the various staff sections, such as Signal, Engineer, Finance, were turned over to the corresponding staff officers of the Liaison Detachment. Records of the CAMA Post Exchange were turned over to the Ninth Service Command Liaison Exchange representative.²⁰

Authority was obtained to ship surplus maps, plates, and negatives to the Army Map Service, San Antonio, Texas. Over 400,000 copies of maps were finally shipped.²¹

Some concept of the magnitude of the task may be grasped from a few figures:

Between 17 January and 15 April 1945, the following ordnance materiel had been turned in to the zone of interior:

1,239	pieces of artillery
43,708	small-arms weapons
6,110	tons of serviceable parts (automotive and weapons)
3,830	tons of reclaimable parts
989	tons of scrap
13,604	vehicles 22

Of the 27,000 vehicles in the CAMA on 17 January, all were evacuated from the CAMA except 1,238 which were turned over to the Ninth Service Command. Of these, 300 were in the hands of troops, 536 were on Memorandum Receipts, and 402 were pooled. All of the pooled vehicles had been given technical inspections and 266 were ready for issue.²³

Within the capabilities of the troops available, work on the location and destruction of duds was carried out in the Iron Mountain impact area. Two hundred eight duds were located and destroyed. In the records a map was included of the known impact areas throughout the CAMA for the information and guidance of the Army Service Forces.

By the end of April all camps east of San Geronio Pass, that is, in the entire combat zone and a portion of the communications zone, had been evacuated of personnel, supplies, and readily removable property. At the request of the Ninth Service Command and by agreement with the District Engineer, Pacific Division, six division camps were released through the Commanding General, Ninth Service Command, to the District Engineer for disposal. Two temporary nondivisional camps were completely dismantled by CAMA troops. The remaining installations and camps, including those not declared surplus, were turned over under guard to the Ninth Service Command on 30 April 1944.²⁴

The certificates of audit for Class I, II, and IV Quartermaster Section accounts at Base General Depot indicated many errors and discrepancies. The discrepancies were adjusted prior to the completion of the audit.²⁵

Four hundred fourteen units, with a total strength of approximately 130,000, were moved from the area, turned over to the Army Service Forces, or disbanded.

Equipment processed at Base General Depot included among much else approximately 100,000 tents, 400,000 cots, and 300,000 gasoline cans; among other shipments from the depot were included about 45 tons of scrap rubber, 90 tons of rags, 90 tons of tin cans, and 100 tons of assorted metal.

The status of all personnel remaining in the area had been established and the necessary records transmitted to the service command.²⁶

Officers from Headquarters, Army Ground Forces, inspected the CAMA during the final period and found the general appearance of the entire area to be excellent. All highways, tracks, and trails had been policed to a condition probably better than had existed before Army use of the area. The officers from Army Ground Forces declared the performance of Major General Anderson, Colonel Edmunds, and their respective staffs to be superior. Since the results could have been serious if the evacuation had not been carried out as efficiently, they recommended the Distinguished Service Medal for General Anderson, the Legion of Merit Medal for Col. James B. Edmunds (Colonel Hughes of Army Ground Forces not concurring), and three other officers. Headquarters, Army Ground Forces, made formal recommendation but The Adjutant General did not consider their duties to have been such as to warrant the awards.²⁷

When Maj. Gen. D. McCoach, Commanding General, Ninth Service Command, had first seen the extent of work that would be necessary to clear material from the maneuver area, he had not believed that the evacuation could be as nearly completed as it was toward the end of April. He stated that finishing the job would be an easy task and he expressed his appreciation for what General Anderson had accomplished.²⁸

At midnight of 30 April - 1 May 1944, General Anderson relinquished command and turned over responsibility for the CAMA to the Commanding General, Ninth Service Command, the representative of the Commanding General, Army Service Forces.²⁹ The allotment of personnel by Headquarters, Army Ground Forces, to the CAMA personnel were transferred to the control of the Commanding General, Ninth Service Command, for a short period.³⁰

The first simulated theater of operations in the United States was at an end.

* * * *

ADDRESS REPLY TO:
DISTRICT ENGINEER
LOS ANGELES DISTRICT
CORPS OF ENGINEERS
P. O. BOX 5188-METRO. STATION
LOS ANGELES 14, CALIFORNIA

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES DISTRICT
751 SOUTH FIGUEROA STREET
LOS ANGELES 14, CALIFORNIA

REFER TO FILE NO.

8 June 1949

CERTIFICATE OF CLEARANCE
CAMP COXCOMB, CALIFORNIA
CALIFORNIA-ARIZONA MANEUVER AREA

55-1624
All lands within Camp Coxcomb, California, California-Arizona Maneuver Area, located approximately 18 miles northeast of Desert Center, California, have been given a careful visual inspection and nothing of a dangerous and/or explosive nature, reasonably possible to detect, could be found.

It is recommended that Sections 15, 22, 27, 34 and the east half of 21, as shown on the inclosed Real Estate Map, be restricted to surface use only as it is evidenced that high explosives (mortar, hand grenade, 75 MM and 105 MM shells) were used. All other lands are recommended for any use for which the land is suited.

B. C. Hedrick
B. C. HEDRICK
Engineer, Civil

enc 1

EXHIBIT D

LA DISTRICT
CAMA FILE (REAL ESTATE)

RECEIVED
LAND OFFICE
LOS ANGELES, CALIF.
DISTRICT ENGINEER
LOS ANGELES DISTRICT
CORPS OF ENGINEERS
P. O. BOX 1170
LOS ANGELES 14, CALIFORNIA

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DISTRICT ENGINEER
LOS ANGELES DISTRICT
751 SOUTH FIGUEROA STREET
LOS ANGELES 17, CALIFORNIA

REFER TO FILE NO.
SPIRM 602 (CAMA - Dedudding)

Route	Initial	Date
1	Palmer	9/24
	Corbett	
2	W. J. W.	10/3
	Eck	
	W. J. W.	
	Schaefer	
	Andrus	
3	Corbett	

21 September 1956

RECEIVED
LAND OFFICE
LOS ANGELES, CALIF.
P 2:10 AM 10:00

Manager, Land Office
Bureau of Land Management
Department of the Interior
215 W. 7th Street
Los Angeles 14, California

Dear Sir:

Recs. Action.....
Information.....
Distnb.....

RETURN TO: PALMER

Reference is made to conference held in your office on 19 September 1956 between your Messrs. Palmer and Corbett and Mr. John Houston of this office, at which time the contamination by explosives of certain lands under jurisdiction of the Bureau of Land Management was discussed.

There is inclosed for your use in determining the location of such contaminated land a drawing indicating the following:

a. Lands (shown in red) which have been visually inspected and cleared of all explosive materials reasonably possible to detect, but because of the possibility that there may remain unexploded mines, bombs, shells and other missiles which might possibly constitute a hazard to life and property, their use is restricted to surface use only.

b. Lands (shown in green) which have been given a careful visual inspection and have been cleared of all explosive materials reasonably possible to detect. These lands are recommended for any use for which suited.

c. Uncolored areas within the boundaries of the California-Arizona Maneuver Area have not been inspected for explosive materials as it has been determined from information available that these lands were never used by the Department of the Army as artillery ranges or bombing areas.

If this office can be of further assistance in this matter do not hesitate to call upon us.

FOR THE DISTRICT ENGINEER:

Very truly yours.

FJC/erg

Land Office
215 West Seventh Street
Los Angeles 14, California

October 17, 1956

Memorandum

To: Assistant to State Supervisor
From: Manager, Land Office, Los Angeles
Subject: Public Lands Contaminated by Explosives
California-Arizona Maneuver Area

Attached is list of contaminated lands by section, township and range, compiled by Mr. Corbett of the Status Unit from information furnished by Harold E. Spickard, Chief, Real Estate Division, Corps of Engineers, Los Angeles District.

The affected areas will be posted immediately to tract and plat books by the Status Unit when information is furnished as to the type of notation desired.

There are 80 townships in California shown as having contaminated lands; total number of sections 993, and a total acreage of 629,120 acres between Ranges 11 E. to 24 E. and Townships 13 N. to 7 S., San Bernardino Meridian.

Arizona apparently has not been advised by the Corps of Engineers as to the contaminated lands in Arizona, although Mr. Houston of the Corps of Engineers in a conference held September 19, 1956 in your office agreed to notify ELM in Arizona.



Paul B. Witzner
Manager

Attachment

FJCorbett:arg

P. J. Kelly

LIST OF LANDS IN CALIFORNIA CONTAMINATED
BY EXPLOSIVES - CALIFORNIA-ARIZONA MANEUVER AREA
COMPILED FROM DRAWING NO. 16-13-01,
CORPS OF ENGINEERS MAP APPROVED OCTOBER 1951

(List Compiled by Status Unit, LALO, 10/12/56)

SEM

T13N R19E
Secs. 34, 35

T12N R19E
Secs. 2, 3, 10, 11, 14

T11N R18E
Secs. 1, 2, 11, 12

T11N R19E
Secs. 2, 3, 10, 11, 12, 13, 14, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36

T11N R20E
Secs. 13 thru 36

T10N R17E
Secs. 8, 9, 10, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36.

T10N R19E
Secs. 1, 2

T10N R20E
Sec. 6

T9N R15E
Secs. 22, 23, 25, 26

T9N R17E

- T9N R20E
Secs. 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 17, 18

- T9N R21E
Secs. 6, 7, 23, 24, 25, 26, 35, 36

- T9N R22E
Secs. 19, 20, 21, 28, 29, 30, 31, 32, 33

- T8N R14E
Secs. 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 28, 29

- T8N R15E
Secs. 2, 7, 8, 9, 10, 11

- T8N R16E
Secs. 17, 18, 19, 20, 29, 30, 31, 32

- T8N R18E
Secs. 13, 23, 24, 25, 26, 35, 36

- T8N R19E
Secs. 7, 17, 18, 19, 20, 29, 30, 31

- T8N R21E
All of Township

- T6N R22E
Secs. 3, 4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29

- T7N R11E
Secs. 25, 26, 35, 36

- T7N R12E
Secs. 13, 19, 20, 21, 28, 29, 30, 31, 32, 33

- T7N R13E
Secs. 4, 5, 8, 9, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26,
27, 28, 29, 30, 32, 33, 34

- T7N R15E
Secs. 1, 11, 12, 13, 14, 24, 27, 28, 33, 34

- T7N R16E
Secs. 4, 5, 6, 7, 8, 9, 16, 17, 18, 19

- T7N R18E
Secs. 1, 2, 3, 10, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25,
26, 27, 28, 32, 33, 34, 35, 36

⊕ T7N R19E
Secs. 6, 7, 18, 19, 25, 30, 31, 35, 36

- T7N R20E
Secs. 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, thru 36

- T7N R21E
Secs. 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 22,
23, 28, 29, 30, 31, 32, 33, 34

+ T6N R16E
Secs. 20, 21, 22, 27, 28, 29, 32, 33, 34

+ T6N R18E
Secs. 1, 2, 3, 4

⊕ T6N R19E
Secs. 1, 2, 6, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26,
27, 33, 34, 35, 36

x T6N R20E
All of Township

⊖ T6N R21E
All of Township

T5N R16E

+ T5N R20E
Secs. 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

no plat. + T4N R20E
Secs. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 16, 17, 18

* T4N R23E
Secs. 25 thru 36

* T4N R24E
Secs. 19, 20, 21, 28, 29, 30, 31, 32, 33

* T3N R17E
Secs. 25, 35, 36

⊖ T3N R18E
Secs. 14, 15, 22, 23, 30, 31

⊕ T3N R19E
Secs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19,
20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

no plat. + T3N R20E
All of Township

no plat. * T3N R24E
Secs. 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31,
32, 33

* T2N R17E
Secs. 1, 2, 22, 23, 24, 25, 26, 27

* T2N R18E
Secs. 19, 29, 30, 31, 32

* T2N R19E
Secs. 2, 3

* T2N R23E
Secs. 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16

* T2N R24E
Secs. 4, 5, 6, 7, 8, 9, 16, 17, 18

* T1N R13E
Secs. 13, 24

* T1N R14E
Secs. 18, 19

* T1N R15E
Secs. 13, 24, 25, 36

* T1N R16E
Secs. 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29,
30, 31, 32, 33, 34, 35

* T1N R18E
Secs. ~~2, 3, 10, 11~~, 12, 13, ~~14, 15~~, 22, 23, 24, 25, 26

* T1N R20E
Secs. 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33

* T1N R21E
Secs. 34, 35

* T1S R15E
Secs. 1, 12, 13

* T1S R16E
Secs. 1 thru 24

* T1S R17E
Sec. 36

⊕ T1S R21E
Secs. 25, 26, 34, 35, 36

25 10 25

⊕ T1S R22E
Secs. 28, 29, 30, 31, 32, 33

28 3 11 5

25 2 25

⊕ T1S R23E
Secs. 19, 30, 31

⊕ T2S R17E
Secs. 1, ~~8~~, 9, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25,
26, 27, 28, 29, 32, 33, 34, 35, 36

× T2S R18E
Secs. 1, 2, 3, 4, 5, ⁶/₈, 9, 10, 11, 12, 13, 14, 15, 16, 23,
24, 25, 26, 30, 31, 32, 36.

⊕ T2S R19E
Secs. 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19,
20, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 35, 36

⊕ T2S R20E
Secs. 30, 31

⊕ T2S R21E
Secs. 1, 2, 3, 4, 10, 11, 12, 13, 14, 24,

⊕ T2S R22E
Secs. 1 thru 30, 32 thru 35

★ T3S R16E
Secs. 15, 21, 22, 29, 34, 35

⊕ T3S R17E
Secs. 1, 2, 3, 4, 5, 25, 26, 35, 36

✓ T3S R18E
Secs. 2, 3, 4, 5, 6, 10, 11, 14, 15, 16, 21, 22, 23, 25, 26, 27, 28,
29, 30, 31, 32, 33, 34, 35

* T3S R22E
Secs. 3, 4

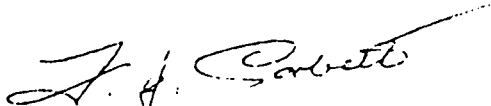
* T4S R16E
Sec. 2

+ T4S R17E
Secs. 1, 2, 11, 12, 13, 14

+ T4S R18E
Secs. 1 thru 11, 15, 16, 17, 20

+ T6S R11E
Secs. 24, 25, 36

+ T6S R12E
Secs. 21, 22, 23, 26, 27, 28, 30, 31, 33, 34, 35



F. J. Corbett
Acting Chief, Status Unit

Additional lands contaminated - per telephone conversation, *John*
Houston, C of E, and Corbett, 10/17/56

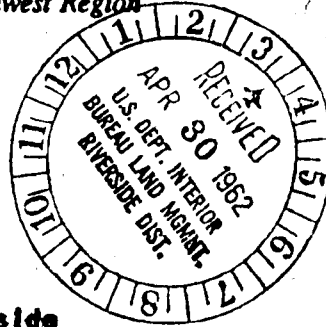
+ T2S R16E
Secs. 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22,
27, 28, 29, 32, 33, 34

★ + T3S R16E
Secs. 3, 4, 5

+ T6S R11E
Secs. 25 thru 36

+ ^{S.}T4S R12E
Sec. 3

WARNING:



LOR

Director

ACTING
Manager, Land Office, Riverside

APR 27 1962

Contamination of Land by Defense Agencies (6.03b)

The following is in answer to your Memorandum, Instruction No. L&R-6:

1. Present withdrawals (some in process of restoration or amendment) are as follows:

<u>Name</u>	<u>Acres</u>
Inyokern	306,555.32
Mojave B and C	174,000.00
Chocolate Mountain	228,319.62
George Air Force Base	7,545.80
Pandleton	80.87
Irwin	645,282.72
El Centro	30,701.50
Twenty Nine Palms	443,000.00
Elliott	2,594.86
Muroc	564.46
Edwards	156,473.13
Carrizo Impact	10,325.24
	<u>2,005,443.52</u>

2. There appear to be no outstanding Special Land Use Permits to the Department of Defense. One Free Use Permit, covering 160 acres, is still operative.

3. Portions of the southeastern part of California were taken over in 1942 by Gen. Patton, as training grounds prior to the North Africa invasion. The precise limits of the area are not known but have been set by approximation. Where explosives are used it is customary to have maps showing impact areas, but as far as we know Gen. Patton kept no record of the impact areas in the southern California area.

By approximation and with the aid of the Army Engineers, figures were set up in the following-listed areas:

Riverside, Calif.

Reproduced from the holdings of the National Archives
Pacific Southwest Region

<u>Name</u>	<u>Total Area</u>	<u>De-dudded, Clear for all uses</u>	<u>Inspected and/or de-dudded and restricted to surface use only</u>
Midway	92,160	92,160	
Camp Wiley	5,760	5,760	
Camp Granite	46,080		46,080
" "			
Sand Dunes	7,680		7,680
5th Artillery	46,080		46,080
Vidal	2,560	2,560	
Whippie Mts	69,120		69,120
Needles Div.	70,640	11,520	59,120
Ibis	80,640	11,520	69,120
Plate Artillery	46,080		46,080
Essex	103,680	34,560	69,120
Cadiz	55,040	11,520	43,520
Iron Mt	30,600	23,040	7,560
Sheep Hole Mts	7,680	3,840	3,840
Coxcomb	40,640	26,080	14,560
Desert Center	23,040		23,040
Young	46,080	23,040	23,040
Chuckawalla Maneuver	11,520	11,520	
Iron Mt Div	166,480	86,200	80,640
Sand Hills	46,080	*	*
Victorville	1,920	1,920	
Wiley Wells	26,400	26,400	
Gavilan	1,312	1,312	
	<u>1,027,272</u>	<u>372,592</u>	<u>608,600</u>
			* <u>46,080</u>
			654,680

* The extent of contamination is not known.

Note: Contaminated areas are flagged conspicuously at frequent intervals.

cc: State Director
 Manager, LO
 Manager, Riverside DO ✓
 " Bakersfield

Oliver J. Johnson



DESERT TRAINING CENTER California - Arizona Maneuver Area PART II - SITES and RELICS

© 1988

by
Francis G. Blake
Fullerton, California.

Forward

Over 43 years have drifted by since the close of the California - Arizona Maneuver Area. Choking dust no longer swirls around convoys of tanks and half-tracks. The canyons no longer echo the bark of cannon and mortar fire. GI's no longer suffer sweaty summer maneuvers or freezing winter bivouacs. American troops and Italian P.O.W.'s pulled the tent camps down soon after they were abandoned in early 1944. Salvaging everything, they left nothing. Or did they? When the army moved out, civilians moved in: scavengers, treasure hunters, historians, shooters, jeepers and politicians. After four decades of being picked over, could anything remain? Could anything but faded memories survive this long?

Yes, indeed! The camp roads and gravel paths are still there. Unit insignias, relief maps and foxholes are still there. Flying over the maneuver areas reveals miles upon miles of tank track marks. Walking through the campsites reveals numerous artifacts lost or discarded by men who are now of retirement age. Thanks to the climate, even delicate artifacts are found today: pages of a 1943 Los Angeles HERALD EXAMINER newspaper, a utility jacket sleeve with a 93rd Infantry Division shoulder patch, small glass ampuls of Mercurochrome and, the most delicate of all, ashes of a burned Dodge 1/2 ton truck parts book.

If someone were to ask me what is the most common artifact found at all these

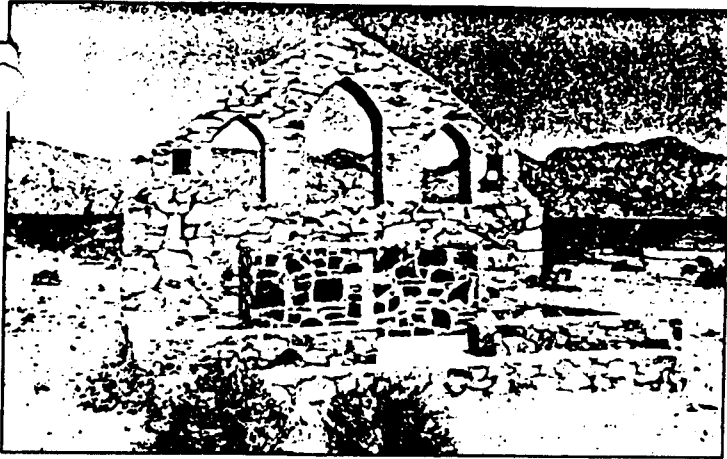
places, I would immediately answer "bottle caps". There are thousands at every campsite. Next would be tin cans, razor blades and broken bottles. Among all this junk are the real souvenirs: uniform buttons, coins, dogtags, gun and auto parts, tent pegs and even an occasional whole Coca-Cola bottle. Canvas and webb material survive too. As you will see, administrative sites such as flag circle and battalions' headquarters are discernible by the fancier rockwork, insignias and/or small artifacts like ink pen tips, paperclips and thumb tacks.

Rumors of buried equipment are rife in the desert. Tanks are the most common victim of these stories, but, except for some battered ones still on old target ranges, none have been found (and publically announced). The WHY of buried equipment has to do with, so it is said, a unit having too many of something on their T O and E list. An old gas station attendant in Needles, California, swears a pal of his took a backhoe to the site of Camp Ibis in the 1960's and dug up a case of Thompson submachine guns.

Unfortunately, all this activity within the old C.A.M.A has spooked environmentalists. They are pushing the federal government to make C.A.M.A. off limits to the only practical mode of transportation: the 4 wheel drive auto. The Bureau of Land Management, the agency with jurisdiction over most of the desert, is caught between those who want to use the desert and those who want to "save it for future generations." (Which one, we

wonder?) Sadly the BLM leans toward the save it side. It is far easier and cheaper to keep everyone out - except themselves of course - than to regulate limited use. If the BLM had the necessary budget, all the old campsites would be fenced off (one campsite already is) and helicopters would patrol the countryside. U.S. Senator Alan Cranston has joined the environmentalists and is trying to make a large chunk of the Eastern Mojave Desert into another national park. (Death Valley and Joshua Tree National Parks already consume much of the desert.) Presently however, the BLM is limited to posting areas as historical places where souvenir collecting is forbidden.

If man had ignored C.A.M.A. since 1944, the desert would have preserved it to nearly 1944 condition. But man has a way of changing nature faster than nature itself. Evidence of all eleven tent camps remain, but today's visitor would find it difficult to explore some of them. The site of Arizona's Camp Horn has been ploughed back into farm land. Camp Pilot Knob, in California near Yuma, has been mutilated almost beyond recognition by private landowners. Camp Young, C.A.M.A. headquarters, was picked squeaky clean by scavengers in the 1950's, badly eroded by flash floods and partially destroyed by a modern interstate highway. Other camps, thankfully, such as Iron Mountain, have a wealth of interesting relics still in good condition. Most are still accessible too.



Chapel altar at the south end of Camp Iron Mountain in 1986. Same view as Army photo on page 23 of Army Motors #40. A St. Christopher medal was found here.



Chapel altar Northeast of flag circle, Camp Iron Mountain. Same view as Army photo on page 23 of Army Motors #40. Like the altar at the Southern end, all the crosses and inscriptions are missing.

Near most campsites, especially in canyons, are areas of small unit training sites such as rifle and grenade firing ranges, obstacle and driving courses. At some sites, grenade fragments are so plentiful, they can be shoveled into a bucket. Waste dumps accompany campsites and interesting bits of army life can be found there. Some dumps have been burned by the army, some not. It is disheartening to find a useful instrument gauge or taillamp damaged beyond repair.

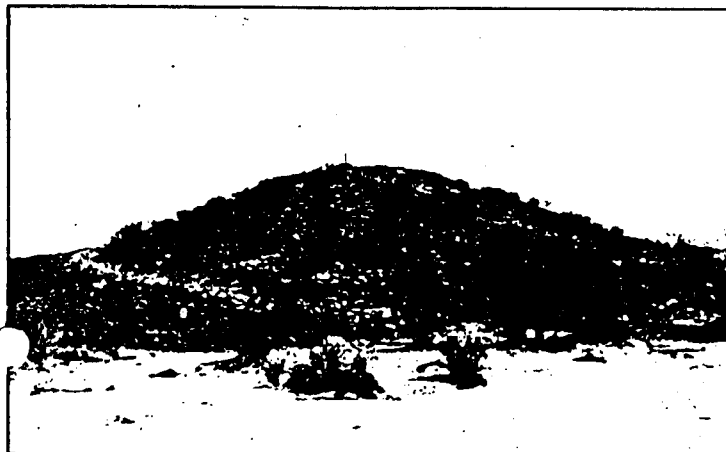
The following text is a description of the camps and nearby points of interest as the author has found them during his explorations with Club members since 1983. Two members have been exceptionally helpful in this regard: Lino Milesi of Riverside and Mack Mitchell of Redlands, California. Photographs have been selected herein to show a characteristic or an unusual feature of each campsite. Some photos can be compared to the 1942-1944 Army photos printed in Part 1, C.A.M.A. history (ARMY MOTORS, issue No. 40, Spring,

1987). Those camps not yet visited are very briefly described in a following section using the words of Kennedy, Lynch and Wooley (see bibliography, Part 1). Finally, the Palen Pass maneuver area, the Freda Quartermaster supply depot and two army airfields are also described in a separate section because of their importance to C.A.M.A.

For the reader who is planning to explore C.A.M.A., words of warning are appropriate here: while most camps are not far from paved roads, today's visitor should take the precaution of using a 4 wheel drive auto. A 4x4 is not absolutely necessary, but it is a safe method of exploring the desert. Take a buddy and his 4x4 too. Be wary of BLM patrols. Be sure to carry ample drinking water (1 gallon per person per day at least). If high heat bothers you, stay out of the desert during May to September. One warning cannot be emphasized enough: there is still live ordnance in the desert. Artillery rounds, mortar bombs and live anti-tank land mines have been found in recent years. Leave the ordnance alone!

CAMP YOUNG, CALIFORNIA

Very little evidence remains of the most important camp. It was here Major General George Patton, Jr. commanded the Desert Training Center (later renamed California - Arizona Maneuver Area) in mid-1942 before he was ordered to North Africa. Old Highway 60/70 skirted the southern edge of the camp back then. Now interstate 10 passes through the campsite. Construction of it and a gas pipeline destroyed the southern half of Young. Flash flood erosion, funneled by gaps in the Colorado River aqueduct, has partially destroyed the northern half. Some camp roads are still present especially the paved ones, but all are badly eroded with large sections entirely missing. Flag circle, the administrative center of every camp, was found with great difficulty. Only meager rockwork (rock lined paths and roads) is to be found. A few pieces of concrete foundations lie scattered about. Abrupt changes in the density and color of desert vegetation marks the old boundaries of an often used area such as a



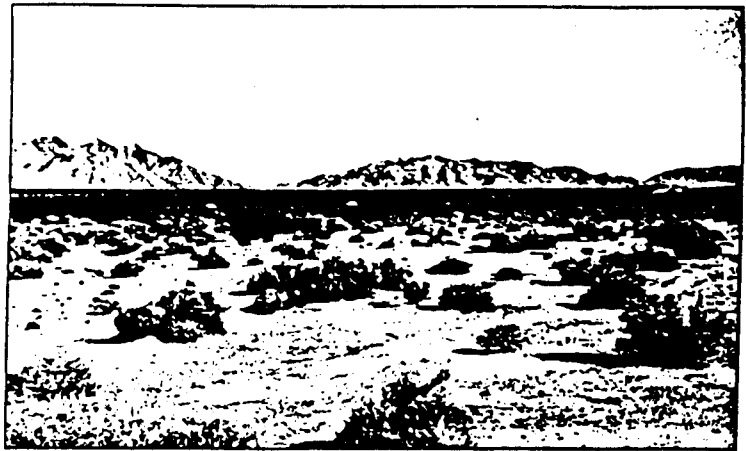
King's Throne, a 100 foot hill used by Major General Patton to observe tank maneuvers in 1942.



View to the North from King's Throne. Camp Young is behind the hills at the left.



Site of Freda Quartermaster Supply Depot. Same view as Army photo on page 25 of Army Motors #40. Additional railroad sidings were laid for the army in the foreground, then taken up after the war. Depot included area on south side of the tracks (and highway 62) as well. Freda was caught in the middle of early war games until the mock battles were moved to Palen Pass.



Camp Granite Motor Pool, site of Company A, 83rd Armoured Division. Same view as Army photo on page 25 of Army Motors #40. Besides tools and auto parts, the author also found a wooden sign here that said "Old Latrine". Also noted on the sign was an Army unit: "Co. A, 83rd RCN BN".

motor pool site. Thus large squares of former military occupations tend to stand out from the rest of the desert. No small items so common to other camps were found. Easy access to this camp from Cottowood Springs Road allowed it to be scavenged by people from nearby towns.

East of Camp Young is Chiriaco Summit, formerly called Shavers Summit. It is, and was back then too, a roadside stop for passing travelers. It was also the nearest civilian hangout for Camp Young's GI's. An Ex-army airfield, still in use, parallels the interstate. Having a long runway, B-25's landed here as well as smaller cargo and passenger aircraft. The modern day visitor can also examine at Chiriaco three dummy tank frames. These were pipe and canvas simulated tanks fitted over jeeps (see photo on page 14 of ARMY MOTORS No. 27, winter issue, 1983). Mr. Chiriaco pulled these out of the mountains years ago and reassembled them next to his cafe.

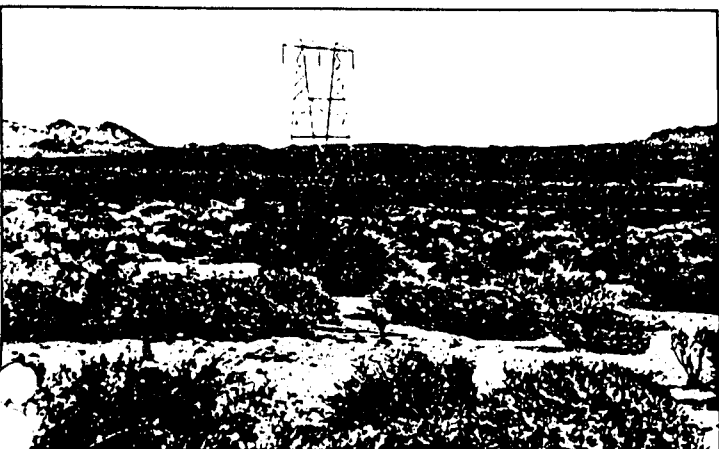
Halfway between Chiriaco Summit and Desert Center to the east, then 10 miles south on a dirt road stands an isolated 100 foot hill nicknamed "King's Throne". Major General Patton used this mound to observe tank maneuvers over a 50 square mile area mainly to the west and north. A road was bulldozed to the top for easy access. Legend says errant tank commanders were vaporized by lightning bolts from the Throne. Despite being a mile north of the Chocolate Mountain aerial target range, modern practise bombs litter this site.

CAMP COXCOMB, CALIFORNIA

Constructed in 1943, Coxcomb was the base camp for the 7th armored Division, 95th and 93rd Infantry Divisions at different times. Erosion has affected only some camp roads so most are quite passable. The Bureau of Land Management has posted warning signs against artifact collecting. A paved access road from Highway 177 to the Colorado River aqueduct allows easy access to the

southern end of Coxcomb. Unlike Camp Young, Coxcomb's street plan is of the typical pattern illustrated in Part 1. Of special interest here are the chapel altar in the southern half and the small relief map near flag circle. The latter has a BLM fence around it. Also near flag circle are rock insignias including a white medical cross and white stars for the Commanding General. An occasional intact concrete foundation is found and some have a GI's name and the date scratched into the surface. A woodpile consisting of old tent frames and screen door parts covers an acre.

West of camp, beyond the aqueduct, in small canyons are small unit training sites. Rifle and grenade firing ranges are common. One of the best preserved obstacle courses is nearby. Practice anti-tank land mines (with a small smoke charge) have been found very close to camp. An easterly directed dirt road runs 15 miles from camp to Palen Pass, site of large scale maneuvers which will be covered later.



Approximate site of Camp Young administration buildings. Same view as in center photo, pages 24 & 25 of Army Motors # 40 (the hills in old photo are obscured by dust). The powerline is post war.



Approximate location of Headquarters Company, 1st Signals Battalion Motor Pool, Camp Young. Same view as Army photo on page 24 of Army Motors #40. Severe erosion of Camp Young makes location of exact site difficult.

A History of Large Scale Army Maneuver
in the United States, 1935-1964

Jean R. Moenk Dec. 1969

Exercise DESERT STRIKE

Exercise DESERT STRIKE was an unfunded, unprogramed, joint training exercise conducted by the U.S. Strike Command during the period, 17 to 30 May 1964, to satisfy a requirement developed by the Joint Chiefs of Staff. At the time the JCS approved the concept for DESERT STRIKE, all exercises remaining in the U.S. Strike Command's FY 1964 joint exercise program had been cancelled, with the exception of a brigade level CPX/FTX. Exercise DESERT STRIKE was to be a 2-sided, semi-controlled joint Army-Air Force field training exercise which would permit the forces of the U.S. Strike Command to become familiar with the concepts and doctrines associated with the large-scale employment of nuclear weapons. Its major purpose was to train the major combat organizations, as well as combat support and combat service support units, of USARSTRIKE and USAFSTRIKE in the conduct of joint operations employing tactical nuclear as well as conventional weapons. The exercise also would train Army and Air Force troop units and individuals in passive and active Electronic Counter Measures and Electronic Counter Counter Measures; stress joint and unilateral intelligence operations in support of joint conventional and nuclear warfare; and evaluate appropriate concepts, operations, and procedures having a joint interest.⁵⁶

Exercise DESERT STRIKE was conducted in the desert maneuver area used in World War II which was located in western Arizona, southern California, and the southern tip of Nevada. This vast area was used to depict two fictitious world powers, CALONIA on the west and NEZONA on the east, whose common border extended from Mexico on the south (played as a neutral country) along the Colorado River to Las Vegas in the north (Map 20). Armed conflict resulted from a dispute over water rights, with CALONIA's armed forces represented by Joint Task Force MOJAVE and NEZONA's by Joint Task Force PHOENIX. An important innovation of this exercise was the creation of an official War Cabinet for each country. In view of the importance of nuclear play in the conduct of the exercise and the necessity for testing a means to limit escalation, the physical presence of a War Cabinet as a decision maker lent realism to political direction as well as to judgment as to when nuclear or chemical weapons should be used.⁵⁷

56

(1) Ltr, CINCSRIKE to CINCAFSTRIKE, 19 Aug 64, subj: Final Report of USSTRICOM Joint Exercise DESERT STRIKE. In ODCSOPS Ops Div files. (2) USCONARC Stf Study, 1 Dec 64, subj: DESERT STRIKE. (3) Semiannual Hist Rept, ODCSUTR Ops Div Mvr Br, Jan - Jun 64, pp. 18 - 19.

57

U. S. Army Military History Institute

HEADQUARTERS SIXTH UNITED STATES ARMY
PRESIDIO OF SAN FRANCISCO, CALIFORNIA 94129

IN REPLY REFER TO:
AMEDS

23 July 1964


SUBJECT: Final Report, Joint Exercise DESERT STRIKE (RCS ATUIR-368)

TO: Commanding General
United States Continental Army Command
Fort Monroe, Virginia
ATTN: ATUIR-P&O (Maneuvers Branch)

Attached final report of ARSTRIKE Action Agent, Joint Exercise DESERT STRIKE, is forwarded in accordance with paragraph 2, Appendix XI to Annex L, USCONARC Training Directive, dated 17 February 1964.

FOR THE COMMANDER:

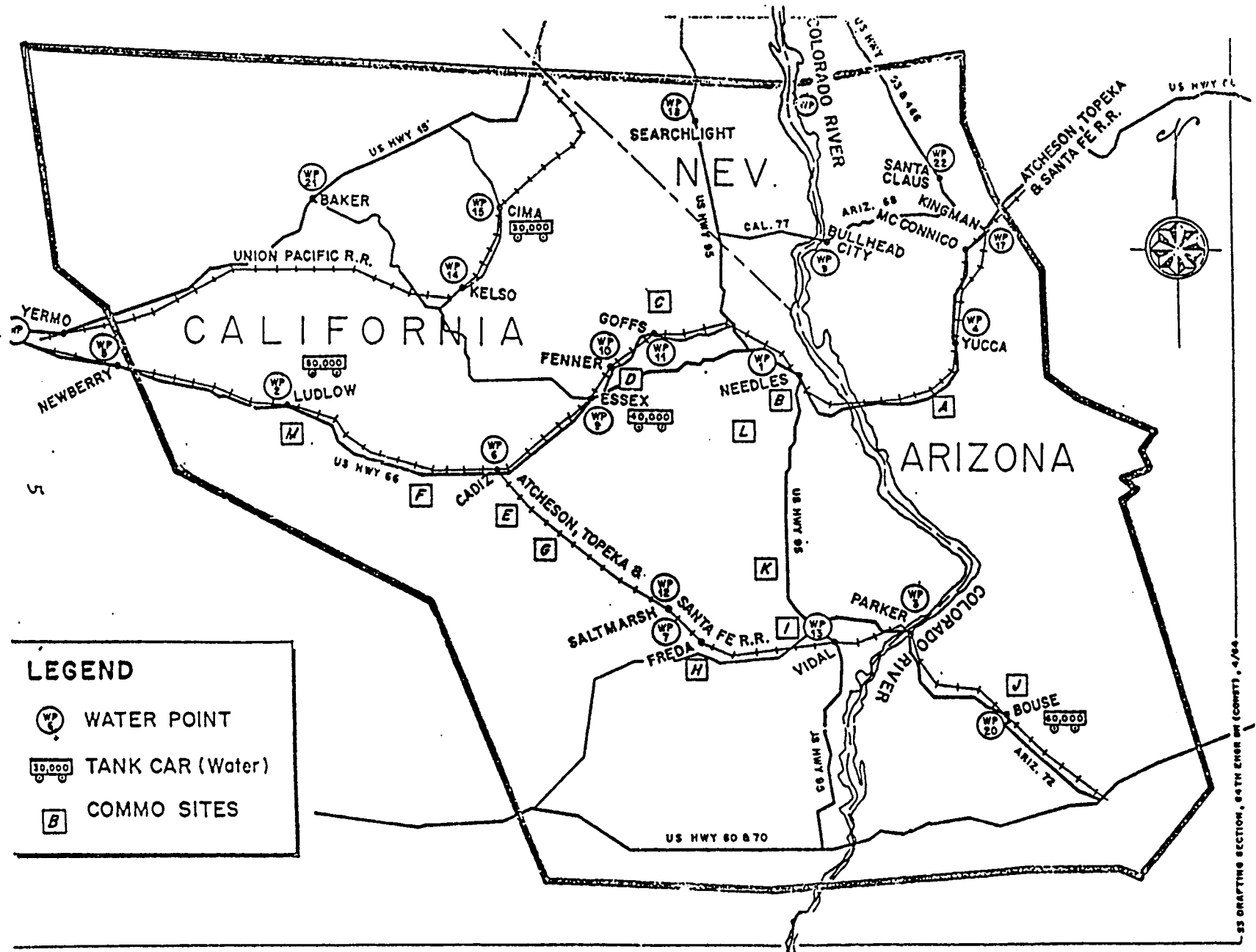
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as


B. J. BROWN
Colonel, AGC
Adjutant General




DISTRIBUTION:

A,C,D(2.1),E,J(6,7) 2 ea
Addressees listed in Appendix XVI,
Annex L to USCONARC Training
Directive, 17 February 1964

LIBRARY
US ARMY WAR COLLEGE
CARLISLE BARRACKS, PA.



LEGEND

-  WATER POINT
-  TANK CAR (Water)
-  COMMO SITES

F-24

L 93 DRAFTING SECTION, 64TH ENGINEER REG (CONSTR), 4/74

FINAL REPORT
JOINT EXERCISE DESERT STRIKE

SUPPORT UNITS

<u>UNIT</u>	<u>STRENGTH</u>	<u>SUPPORT FURNISHED</u>
<u>AVIATION-AVN MAINT</u>		
4th Avn Bn*	241	Avn supt for Dir Hq, Ump/Cont, NF
Co E, 704th Maint Bn	50	2d & lmtd 3d ech acft maint supt, 4th Avn Bn
217th TC Bn (Acft Maint)(ARNG)	557	Backup 3d & 4th ech acft maint, all exer units
SUB TOTAL	<u>848</u>	
<u>ENGINEER</u>		
30th Eng Det(WP)	4	Operate NF water supply points
35th Eng Bn(C)	622	Initially augment 84th Eng Bn; asgd JTF during exer; post-exer damage repair
84th Eng Bn(Const)*	795	Build tent city; operate NF water sup pts; pre-exer survey; damage repair
506th Eng Det(Util)*	27	Maintain util at NF FSPs & Needles
582d Eng Det(FFG)	18	Fire protection at 2 NF FSPs
593d Eng Gp HHC (S&M)*	37	Staff office of Dir, S&M, Hq NF & NF FSPs
593d Eng Det(FFG)*	18	Fire protection at Needles & Ludlow
SUB-TOTAL	<u>1,521</u>	
<u>ORDNANCE</u> ←		
1st Ord Co(GAS)	189	Backup 3d & 4th ech auto maint, Dir Hq, CSE, Ump/Cont, NF USAR equip pool
19th Ord Co(DAS)	119	Operate DX facility; 3d ech maint for Dir Hq, CSE, Ump/Cont, NF, USAR equip pool
63d Ord Bn HHD (Maint Supt)	35	
133d Ord Det(ED)	7	Fire atomic simulators; explosive ← disposal
170th Ord Det(ED)	7	Fire atomic simulators; explosive ← disposal
SUB-TOTAL	<u>357</u>	
<u>QUARTERMASTER</u>		
16th QM Bn	274	Operate 3 NF FSPs (Class I & III resupply; field maint, salvage

* Unit hq personnel also utilized as members of NF staff

FINAL REPORT
JOINT EXERCISE DESERT STRIKE

SECTION III - OPERATIONS

1. Land Acquisition: ←

a. CG Sixth US Army, as personal representative of CG USCONARC for land acquisition matters, briefed governors, mayors, civic leaders, etc., during the period 13-18 November. Information presented included:

(1) Purpose and scope of the exercise.

(2) Facilities, such as house, barn, corral, plowed or planted fields, etc., which exercise troops would not be permitted to use.

(3) Damage control measures.

(4) Claims procedures.

b. The Los Angeles District Engineer, charged with primary responsibility for land acquisition, effected the initial public news release (prepared by USSTRICOM) on 18 November 1963. Dispatch of letters to the 4,373 land owners involved was initiated on the same date. Final results of the land acquisition program are summarized as follows:

(1) Of the estimated 12,500,000 acres for which maneuver permits were requested, signed agreements were received granting permission to use 12,204,481 acres (98%).

(2) Only 24 of the 4,373 land owners contacted ($\frac{1}{2}$ of one percent) specifically refused use of their property for exercise purposes.

c. Upon conclusion of the exercise, letters were dispatched by CG Sixth US Army to all land owners, expressing appreciation for their cooperation and contribution to the success of the exercise.

2. Deployment/Redeployment.

a. Deployment of Neutral Force units was accomplished in accordance with movement schedules developed by Hq Sixth US Army and approved by Hq USCONARC. Deployment of player units was accomplished in accordance with/letter, Hq, USCONARC, subject: Transportation Movement Data - Joint Exercise DESERT STRIKE, dated 17 March 1964,

unprogrammed items as gas cylinders, construction materials, generators and tentage. Some requirements were not made known until the trucks arrived in the exercise area. A request for 3,000 water cans was not received until 7 days prior to the start of the exercise.

(9) 46% of the 17,808 Class II and IV requisitions received by the Neutral Force Consolidated Supply were filled during the exercise. A total of 4,753 short tons of II and IV supplies were received by Neutral Force.

d. Class V: ←

Requirements for Ordnance and Chemical Class V ammunition were developed by the player forces and requisitioned by Hq Sixth US Army and/or Neutral Force; approximately 850 short tons of Class V supplies were received.

e. Supply Liaison Representatives:

(1) Several supply agencies, namely DSA, GSA, AMC, SMC, OTAC and USAVSCOM, assigned supply liaison representatives on TDY to Hq, Neutral Force to assist in identifying sources of supply and to expedite exercise requisitions as much as possible.

(2) The assistance rendered by these liaison representatives was of incalculable value to the Neutral Force supply operation.

(3) Technical representatives of Gruman Aircraft, Bell Helicopter, Sikorsky Helicopter, De Havilland Aircraft, Lycoming Engine and Hamilton Standard Propeller were also present in the exercise area and provided invaluable assistance to Neutral Force.

6. Maintenance

a. Player force maintenance capabilities were self-sufficient except for aircraft. Neutral Force provided maintenance assistance during the pre-exercise and post-exercise periods.

b. The 217th Transportation Battalion (California National Guard), assigned to Neutral Force, provided direct third echelon support for 110 aircraft in non-divisional player forces, and direct fourth echelon and back-up third echelon support for all participating Army aircraft (approximately 400).

c. The national short supply of certain repair parts restricted maintenance capabilities, particularly parts required for the M 38A1 $\frac{1}{4}$ ton truck.

d. The second echelon maintenance capability of USAR and National Guard units was virtually non-existent, since these units did

APPLICATION FOR REGISTRATION OF HISTORICAL LANDMARK

SHL 985

of Proposed Landmark DESERT TRAINING CENTER, CALIFORNIA-ARIZONA MANEUVER AREA

DTC - CAMA

Location see page two of application

County Imperial, Riverside, and San Bernardino Counties

Name and Address of Landowner upon Whose Property Landmark is Proposed Bureau of Land Management - see page 2

Name and Address of Applicant Sandra J. Elder

Phone No. (916)

Office of Historic Preservation, Sacramento, CA

Bus. Phone No. 445-8006

Is this landmark of statewide significance as described in the State of Policy?

Explain (use extra sheet if necessary):

During the early days of World War II, the War Department recognized a need to train its troops under conditions similar to the rough terrain and harsh climates they would encounter and to develop and test equipment, doctrine and tactics for desert warfare. In 1942 the Desert Training Center was created to fulfill this requirement. This simulated theater of operations became the largest military training ground in the history of military maneuvers. Consisting of eleven divisional camps, the Desert Training Center (DTC), later to become the California-Arizona Maneuver Area (CAMA), eventually stretched from Indio, California eastward almost to Prescott, Arizona, and from Yuma, Arizona northward to Searchlight, Nevada, covering approximately 18,000 square miles.

The first commanding officer, Maj. General George S. Patton, Jr. initiated an intense program of training designed to test both men and equipment. Augmenting the rigors of the desert, his methods and ideals instilled a sense of discipline in over one million men who passed through the DTC-CAMA before its closure in 1944.

Is bibliography complete? (To enable verification of statements and claims made herein.)

Is permission of property owner for registration attached?

Is approval of property owner to place a plaque attached?

Is proof of reasonable protection for requested landmark attached?

Are photographs, prints, or drawings (two views) attached?

BRIEF HISTORY AND DESCRIPTION (Corresponding to one or more items under I, II, or III of the Statement of Policy.)

The following material was excerpted from the Bureau of Land Management, California Desert District, Interpretive Plan for Desert Training Center, California-Arizona Maneuver Area.

"On January 29, 1942, the Germans recaptured the port of Bengasi, and in one week rumbled one hundred miles toward Egypt. If they continued and if the Japanese pierced through India, the Axis powers might join forces in Persia and supplement each other in supplies. They would be in a position to attack Russia from east, west and south.

The War Plans Division of the War Department General Staff believed that the campaign in North Africa, like those which had taken place in Norway, Albania, and Crete, had proved conclusively the necessity for troops specially organized, trained, and equipped to operate on difficult terrain. The lack of such troops had proved disastrous. The War Plans Division therefore recommended that a training center be established to train troops in desert warfare."¹

On February 5, 1942, Lt. Gen. Lesley J. McNair, Chief of Staff, General Headquarters, gave his approval and designated Maj. General George S. Patton, Jr. of the First (I) Corps, as Commanding General of the Desert Training Center. General Patton was ordered to reconnoiter southeastern California and western Arizona for a suitable site. The General and his staff arrived at March Field, Riverside, California on March 4, 1942 and spent the next three days evaluating areas in California, Nevada and Arizona. General Patton thought that this was the greatest area possible and recognized that "the numerous mountain chains, the nature of the soil, and the presence of dense vegetation in many sections, all rendered the area suitable not only for armored combat service but also for practically all forms of combat exercises."²

During his stay he arranged for water, electricity, telephone connections and railroad support. General Patton selected a location approximately 25 miles east of Indio, at Shavers Summit (now known as Chiriaco Summit) for his base camp. Additional sites for divisional camps were selected in the vicinity of Desert Center, Iron Mountain and Needles over which he wanted jurisdiction, though he did not contemplate construction at that time.

The base camp received its name designation on May 12, 1942. It was named for Lieutenant General S.B.M. Young, who had campaigned in the region and later became the first Army Chief of Staff. One of the first units transferred to the DTC, the 773rd Tank Destroyer Battalion, recorded in their official history, "Camp Young was the world's largest Army Post and the greatest training maneuver area in U.S. military history. Eighteen thousand square miles of nothing, in a desert designed for Hell."

1. & 2. Maller, Sgt. Sidney L., "The Desert Training Center and CAMA," Army Ground Forces Historical Study No. 15, 1946.

Under Major General Charles H. White, the Desert Training Center was enlarged and the military strength of the Center soared until it reached almost 190,000 men. The name of the Center was changed by War Department directive to the California-Arizona Maneuver Area (CAMA). By November, 1943, in support of its worldwide commitment, the CAMA had grown to include the headquarters at Camp Young, Camp Coxcomb, Camp Iron Mountain, Camp Granite, Camp Clipper (Essex), Camp Ibis and Camp Pilot Knob in California and Camp Hyder, Camp Horn, Camp Laguna and Camp Bouse in Arizona.

Maneuvers continued as the numbered corps rotated through the CAMA en route to theaters of operations around the world. The 10th Corps directed the last maneuvers held at the CAMA. At midnight on April 30, 1944, training at the Desert Training Center ended and with it a significant phase of the epoch of World War II.

With deactivation of the CAMA, a concentrated effort began to clean up the area, close the camps, collect, salvage and ship to outside depots thousands of pieces of equipment and tons of material. The last facilities to close were the Base General Hospital Depot, the Pomona Ordnance Base and the headquarters at Camp Young.

Now, 40 years after the departure of the Generals, their headquarters, the combat tanks and infantrymen and their various support units for other assignments, the desert has slowly reclaimed a great deal of the area.

Following the closure of the the CAMA in 1944, the land within the maneuver area was returned by the War Department to the original owners. The vast majority of this area was public land, administered by what is now the Bureau of Land Management.

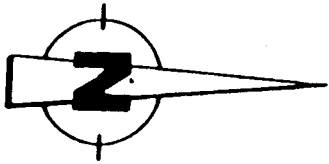
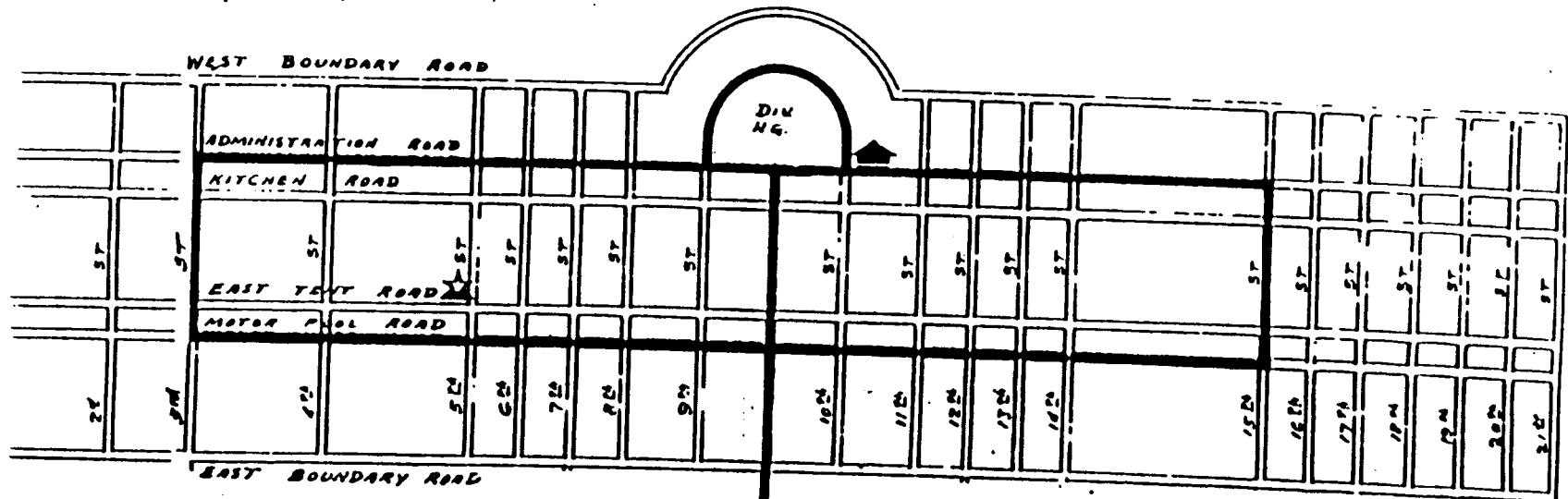
The initial action, which is designed to focus attention on the BLM's commitment to establish and maintain a group of interpretive facilities honoring the soldiers that trained on the surrounding desert during World War II, was the dedication of a monument on May 8, 1985 (see Photo 1). The site selected for the monument is adjacent to Camp Young, the original headquarters camp of the DTC and the date was selected to coincide with the 40th anniversary of Victory in Europe (V.E.) day.




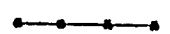



Plans are currently underway in the private sector to develop a memorial museum and visitor center to honor Major General George S. Patton, Jr., who was the driving force behind the development of the Desert Training Center and its first Commander. The General George S. Patton Jr. Museum Inc. is sponsored by private citizens and supported by donations and volunteer activities.

(Museum opened November 1988, see Sunset Magazine article, February 1989)

Interpretive measures including the placement of a monument and plaque and a kiosk at or near the campsite will provide an opportunity to distribute information. The kiosk will display a variety of information ranging from maps and photographs of the original camp to actual "orders of the day" and schedules of camp events. A visitor register will be located at the kiosk to generate sources of information or support and to monitor levels of use. The kiosk will be located along "B" Street near the entrance to the camp. The monument will be a replica of one placed at Camp Horn to memorialize several men who died while stationed there. An interpretive trail connecting points of interest will be constructed. These points of interest will undergo some degree of restoration depending on the recommendation of a qualified archaeologist. Additionally, any restorative or stabilizing work done throughout the camp will be performed under direct supervision of an archaeologist. Areas whose original function can be determined will be signed with low-profile markers for identification. Since Ditaxis californica, a BLM sensitive plant species, occurs here, a botanist will check sites of new trails and facilities before construction.

Maintenance of these facilities and monitoring of the site will be done routinely. Monitoring will best be achieved through establishment of photo plots and the maintenance of a permanent photographic record.



-  Open Access Route
-  Paved Road
-  Dike
-  Range Fence
-  Information Kiosk
-  Monument
-  Altar

MAPS NOT TO SCALE

**EXISTING
CAMP COXCOMB.
Coxcomb, Calif.**

MAP 7

In order to arrest the site's deterioration and provide opportunities for the public to enjoy and to better appreciate the significance of this historical site, a number of actions are proposed specifically for Camp Coxcomb.

A monument with a plaque identifying the camp will be erected at the intersection of Highway 177 and the dirt road leading to the Divisional Headquarters area. The monument will be placed off of the highway in order to provide room for vehicles to pull over. The large berm blocking the road will be removed. The other roads leading into the site will remain closed and the existing berms will remain in place. The Motorpool Road, the Administration Road, 3rd Street and 15th Street will be opened for vehicle traffic. This loop drive will provide access into the site, placing visitors within very short walking distance to most of the remaining areas. These routes will be signed "open" and identified by their original names. Vegetation will be removed, rock alignments replaced and minor repairs made to the surface to insure that the route is passable and vehicles are not forced "cross-country."

A military style bulletin board will be erected on Administration Road in the vicinity of the flag circle. Copies of maps, information, DTC-CAMA history, photos, in addition to "orders of the day", camp events, schedules and other activities relating to the period will be displayed. A visitor register will be placed at the site.

A self-guided interpretive trail connecting points of interest will be established. As new interpretive features are discovered or developed they will be included. Restoration of any facility will be carefully considered as specific cases arise and will only be accomplished under the direct supervision of an archaeologist.

Areas of known activity (dispensary, motor pool, theater, chapel, etc.) will be identified with low profile signs. (See Appendix E).

A monitoring program, which includes a permanent photographic record, will be implemented to insure the stability of the site.

As with the other camps that formerly composed the Desert Training Center, a pyramid shaped monument with a plaque describing the camp's historical significance is planned. The monument will be located at the intersection of Highway 177 and the dirt road that goes up to the camp flag circle. The monument will be placed off of the highway in order for vehicles to pull over. The road berm will be removed to make the monument and route easily accessible. The North Motor Pool Road, Administrative Road, 4th Street, and 16th Street will be opened for vehicle use. This network will provide access into the site in addition to a loop drive that will place visitors within very short walking distance of most of the remaining camp. These routes will be signed "open" and identified with street name signs. Vegetation will be removed, rock alignments replaced and minor repairs made to the surface to insure that the route is passable and vehicles are not forced "cross-country".

A military style bulletin board will be erected on Administrative Road near the flag circle. Information relating to the camp's active period will be displayed along with current information and maps. A visitor register will be placed at this site.

A self-guided trail will be developed to ensure that visitors are directed to the significant areas and features. New interpretive features will be included as they are found. Restoration and/or modifications will be accomplished only under the direct supervision of an archaeologist.

Areas of known past activity will be identified with low profile signs.

Periodic monitoring, to include a permanent photographic record will be developed to insure the continued stability of the camp.

RECEIVED
 BUREAU OF LAND MANAGEMENT
 04 NOV -9 AM 9:31
 CALIF. DESERT DISTRICT
 RIVERSIDE, CA.

060

United States Department of the Interior
 Bureau of Land Management
 1849 C Street, N.W.
 Washington, D.C. 20240

October 20, 1994

Rout- ing	18	10/24/94	init
Date		10/17/94	

ROUTING		
NO	DATE	INIT
1	11/14	AMS
2	11/14	mbs
SA WM		
SA SCAG		
CSR 4		
FA		
ADMIN		
RCSW		
PZCR		
LRM 3	11-16	JLC
AMS		

In Reply Refer To:
 1703 (260)

Information Bulletin No. 95-30

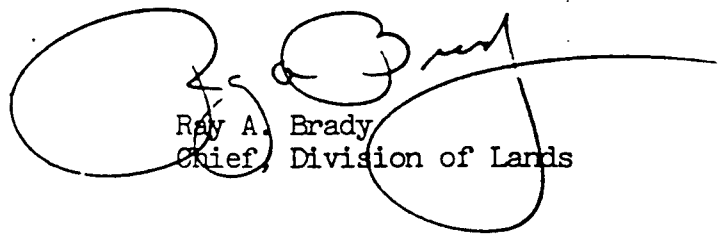
To: All State Directors, SCD
 From: Chief, Division of Lands
 Subject: Unexploded Ordnance Report

cc: to All

Attached for your information is the report UNEXPLODED ORDNANCE ON LANDS MANAGED BY THE DEPARTMENT OF THE INTERIOR which was submitted to the Congress July 1994. The Bureau of Land Management portion of this report was derived from the formerly used Defense site (FUDS) information the State Offices submitted earlier this year.

We delayed transmittal of this report pending an effort to reconcile the Interior report with the Corps of Engineers (COE) FUDS report. As this reconciliation is taking longer than anticipated, we are forwarding the report separately. We will provide the results of the report reconciliation effort and follow-up coordination procedures with the COE at a later date.

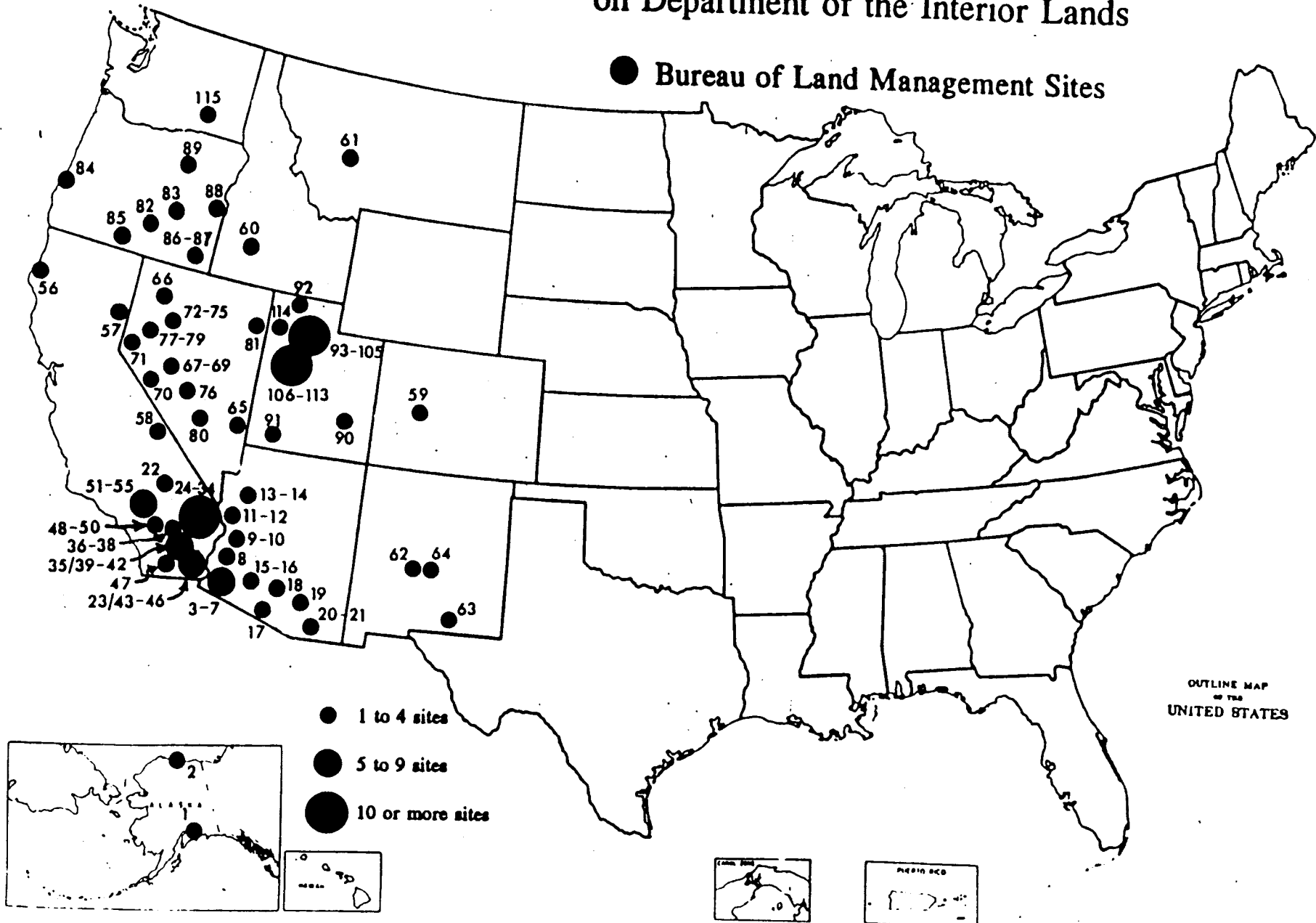
If you have any questions concerning the attached report, please contact Dwight Hempel or Helen A. Roberts at (202) 452-7780.


 Ray A. Brady
 Chief, Division of Lands

- 1 Attachment
- 1 - Unexploded Ordnance on Lands Managed by the the Interior (33 pp.)

UNEXPLODED ORDNANCE on Department of the Interior Lands

● Bureau of Land Management Sites



No.	BLM SITE/LOCATION	ACRES OF UXO	TYPE OF ORDNANCE	ADDITIONAL COMMENTS
36	CADIZ ORDNANCE DISPOSAL SITE, CA	Suspected 100	WWII Army - various	
37	CAMP GRANITE, CA	Suspected 400	WWII Army - various	General Patton's desert training in WWII.
38	CAMP IRON MOUNTAIN, CA	Suspected 400	WWII Army - various	General Patton's desert troop training in WWII.
39	CHOCOLATE MOUNTAIN, CA	Suspected 770	Bombs and aerial munitions	Ordnance needs to be cleared from peripheral areas.
40	CORN SPRINGS GAP FILLER, CA	Unknown 10	Unknown	General Patton's desert troop training in WWII. There is one building located on site.
41	CAMP COXCOMS, CA	Suspected 400	WWII Army - various	General Patton's desert troop training in WWII.
42	RICE VALLEY SAND DUNE, CA	Suspected 1,000	WWII Army - various	This is a large area contaminated with ordnance from WWII maneuvers.
43	PALO VERDE GAP, CA	Unknown 2	Unknown	1957 to 1970 Army radio relay site - Corps of Engineers - abandoned. Petroleum product contamination from fuel tanks suspected. Pieces of asbestos littering the ground.
44	EAST MESA I BOMBING, CA	Known 4,450	Navy air delivered munitions	There is live ordnance outside the periphery of the range on approximately 4,450 acres. Injuries have occurred.
45	EAST MESA II BOMBING, CA	Known 5,500	Navy air delivered munitions	There is live ordnance that needs to be removed on 5,000 acres.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX G

REAL ESTATE DOCUMENTS

APPENDIX G

Real Estate Documents

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- G-1 Memorandum, Subject: Request to use land for armored maneuvers (B-46).
- G-2 Letter, Subject: Land Acquisition, Desert Training Center Land Acquisition and Disposal (B-47).
- G-3 Document, Revocable Permit No. 12 (B-48).
- G-4 Excerpt from affidavit describing Camp Coxcomb (B-49).
- G-5 Letter, Subject: Release for liability (B-50)
- G-6 Certificate revoking Permit No, 12 (B-51).
- G-7 Military Acquisition Project Report and Tract Register for Camp Coxcomb (B-52).
- G-8 Letter recommending portions of Coxcomb be restricted to surface use only (B-53).
- G-9 ENG Form 836, "Real Property Management and Disposal Report", 15 Oct 45 (B-66)

Gilbert F. Olson
Governor



J. M. CLIFFORD
EXECUTIVE OFFICER

GEORGE KILLION
CHAIRMAN
ELLIS E. PATTERSON
MEMBER
HARRY B. RILEY
MEMBER

CONFIDENTIAL

State Lands Commission
DIVISION OF STATE LANDS
DEPARTMENT OF FINANCE
STATE OF CALIFORNIA
STATE BUILDING
LOS ANGELES

RECEIVED
ORDER SEC. 1. 1 BY THE GOV. OF CALIF.

March 9, 1942.

United States Engineer's Office,
751 South Figueroa Street,
Los Angeles, California.

Attention: W. B. Higgins, Lt. Colonel,
Corps of Engineers.

Gentlemen:

This is in reference to your letter of March 9, 1942, in which you request permission on behalf of the War Department for the U. S. Army to use certain lands owned by the State of California for armored division maneuvers.

The lands involved are located in the southeastern portion of the State and lie within that area outlined in green on the map submitted with your letter.

You are hereby authorized to use the property in question for the purpose indicated subject to the following terms and conditions:

1. That such use shall not interfere with the use and occupancy of any portion of such lands occupied by any person with the consent of the State;
2. That this authorization is not be construed as vesting in the United States of America any permanent interest of whatever nature in the above described land;
3. That permission is granted to use said lands for a period of four months beginning March 10, 1942, and ending July 10, 1942;
4. That upon termination of this authorization, the United States will at its sole expense and within a reasonable time after receipt of notice therefor remove all its property from said land and restore it as nearly as practicable to its original condition if so requested by the State;
5. That in the event that loss, destruction or damage occurs to any property of the State of California or to any property of any person occupying any of said lands with the consent of the State occasioned in whole or in part by the negligence of any of the officers, agents, employees or servants, of the United States in connection with the use of said land, the War Department shall submit to the Congress of the United States a statement of facts in regard thereto and make appropriate recommendations with respect to indemnifying and saving harmless the State of California or any person holding under it in whole or in part as the circumstances warrant;

United States Engineer's Office.

2.

3/9/42.

CONFIDENTIAL

6. That no Member of or Delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this permit, or to any benefit to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the permit be for the general benefit of such corporation or company;

7. That the authorization herein given is subject to the formal approval of and confirmation by the State Lands Commission of the State of California.

Yours very truly,



J. M. CLIFFORD
Executive Officer.

In a telephone conversation March 9, Mr. Clifford stated that he would request authority for the use of the above land by the Army for an indefinite period during a meeting of the State Lands Commission to be held in Sacramento March 12, 1942. He felt certain that such authority could be obtained. He asked that he be furnished with a formal request for the use of the land in order that it might be made a matter of record.

SUBJECT: Land Acquisition, Desert Training Area, Needles, California.

1st Ind.

War Department, Headquarters, Services of Supply, May 13, 1942.
TO: The Under Secretary of War.

1. The Secretary of War directs that you be informed that a military necessity exists for the acquisition of the land referred to in basic communication, by transfer from the Department of Interior.

For the Commanding General:

W. D. STYER,
Brigadier General, G.S.C.,
Chief of Staff.

2 Incls. n/c

2nd Ind.

Office of the Under Secretary of War, May 13, 1942. TO: Chief of Engineers.

For acquisition by transfer from the Department of Interior in compliance with memorandum, Subject: "Acquisition of Land", approved by the Under Secretary of War June 7, 1941.

By direction of the Under Secretary of War:

BASIL D. EDWARDS,
Colonel, Infantry.
Assistant Executive.

2 Incls. n/c

Consecutive No. D 959
May 16, 1942

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON

Refer to File No. CE 601.1 (Needles, Calif.)
SPELA

May 13, 1942

SUBJECT: Land Acquisition, Desert Training Area, Needles,
California.

TO: The Commanding General of the Services of Supply.

1. There is a military necessity for the acquisition by transfer from the Department of Interior of certain lands in the vicinity of Needles, California, to be used as a desert training area for armored troops. Although the War Department has received a permit from the Department of Interior to use several million acres in this area, 105,901.27 acres are necessary for camp sites and must be transferred to the jurisdiction of the War Department. The transfer is essential in order to prohibit the filing of land claims in the area for the duration. Inclosed is a copy of the proposed Executive Order described the lands to be withdrawn and transferred.

2. The determination of military necessity is based upon conclusions reached in several conferences between this office, the Army Ground Forces, and the Department of Interior.

3. It is recommended that the Under Secretary of War be requested to authorize this office to acquire the necessary land by transfer from the Department of Interior.

For the Chief of Engineers:

THOMAS M. ROBINS,
Major General,
Assistant Chief of Engineers.

2 Incls.

#1 - Cy. ltr. 4-24-42

#2 - Executive Order

* FOR INFORMATION ONLY *

C O P Y

REVOCABLE PERMIT
NO. 12 PUBLIC RESOURCES CODE

WHEREAS, the War Department is desirous of obtaining the use of certain lands of the State of California situated in the Counties of San Bernardino, Riverside and Imperial, State of California, and lying within the exterior boundaries of that certain area more particularly described as follows;

Beginning at a point at the intersection of the township line between Townships 15 and 16 North and the State boundary line between California and Nevada; thence West to a point at Townships 15 and 16 North, Ranges 12 and 13 East; thence South to a point at Townships 10 and 11 North, Ranges 12 and 13 East; thence South to a point at Townships 5 and 6 North, Ranges 11 and 12 East; thence South to a point at Townships 2 and 3 North, Ranges 11 and 12 East; thence South to the San Bernardino Base between Ranges 13 and 14 East; thence South to a point at Townships 4 and 5 South, Ranges 13 and 14 East; thence West to a point at Townships 4 and 5 South, Ranges 9 and 10 East; thence South to a point at Townships 6 and 7 South, Ranges 9 and 10 East; thence East to a point at Townships 6 and 7 South, Ranges 16 and 17 East; thence South along the line between Ranges 16 and 17 East to the intersection of said line with the northerly right-of-way line of the Southern Pacific Railroad from Niland, California, to Yuma, Arizona; thence southeasterly along the northerly right-of-way line of the Southern Pacific Railroad to the west bank of the Colorado River; thence northerly following the West bank of the Colorado River to its intersection with the California-Nevada boundary line; thence northwesterly along said California-Nevada boundary to the point of beginning, the points described being at the intersection of the respective township and range lines all referred to the San Bernardino Base and Meridian; and

WHEREAS, the State of California, through the State Lands Commission, pursuant to Division 6 of the Public Resources Code, has consented to the use of said lands by the United States for the purpose of conducting armored division maneuvers; and,

WHEREAS, the use of said lands will be of mutual benefit to the parties hereto;

THEREFORE, in consideration of the foregoing, the State of California hereinafter referred to as the Permitter, pursuant to the authority contained in Division 6 of the Public Resources Code, hereby grants permission to the United States of America, hereinafter referred to as the Permittee, to use those lands under the jurisdiction of the State Lands Commission lying within the exterior boundaries of the foregoing described area as a site for armored division maneuvers.

Permission to use said lands for the purposes indicated is granted only for the duration of the present War and six months thereafter, and is subject to the following terms and conditions:

1. That the use of the lands involved shall not interfere with the use and occupancy of any portion of such lands occupied by any persons with the consent of the Permitter;

2. That this authorization is not to be construed as vesting in the Permittee any permanent interest of whatever nature in the above described lands, and upon termination of the within permit, the use of said lands shall revert to the State of California;

3. That upon termination of this authorization, the Permittee shall at its sole expense and within a reasonable time after receipt of notice therefor remove all its property from said land and restore it as nearly as practicable to its original condition if so requested by the Permitter;

4. That in the event that loss, destruction or damage occurs to any property of the Permitter or to any property of any person occupying any of said lands with the consent of the Permitter occasioned in whole or in part by the negligence of any of the officers, agents, employees or servants, of the Permittee in connection with the use of said land, the Permittee shall submit to the Congress of the United States a statement of facts in regard thereto and make appropriate recommendations with respect to indemnifying and saving harmless the Permitter or any person holding under it in whole or in part as the circumstances warrant;

5. That no Member of or Delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this permit, or to any benefit to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the permit be for the general benefit of such corporation or company;

6. That in all matters in connection with this permit requiring the approval or action of the Secretary of War, The Commanding Officer, Ninth Corps Area, Salt Lake City, is hereby designated and empowered to act as the local representative of the War Department.

IN WITNESS WHEREOF, on behalf of the State of California, the within revocable permit has been executed this 24th day of March, 1942.

STATE OF CALIFORNIA
STATE LANDS COMMISSION

By *J. H. Clifford*
J. H. CLIFFORD
Executive Officer.

This permit is executed on behalf of the United States of America by the Secretary of War, representing the War Department, in acknowledgment of the acceptance of the terms and conditions therein set forth.

UNITED STATES OF AMERICA

By Secretary of War.

DATE	BY	DATE	BY
		APR 1 1942	J.H.

Camp Coxcomb
Surplus Directive: 20 April 1944
Pacific Division No. 245-73
Los Angeles District No. 126-73

Description: From map of camp-site dated 9 February 1944.
San Bernardino Base and Meridian.

T 3S, R 16E,
Secs. 1, 2, 11, 12, 13, 14, 15, 21, partly surveyed.
Secs. 22, 23, 24, 25, 26, 27, partly surveyed.
Secs. 34 & 35.

T 2S, R 16E,
Sec. 35

Reference: Files in the Los Angeles Sub-Office do not disclose that permission to use described Public Domain was obtained from Department of Interior. Attention is invited to Letter, Office of the Chief of Engineers to Division Engineers, Pacific Division, 30 August 1943, paragraphs 1, 2, and 4, Inclosure No. 29.

(WITHIN CALIFORNIA - ARIZONA MANEUVER AREA) (AREA " A ")
PUBLIC DOMAIN AS PER FIELD REPORT : IO, 560.0 AC.

STATE LANDS COMMISSION
Division of State Lands
Department of Finance
State of California
State Building
Los Angeles

12

March 8, 1945

A TRUE COPY

Major S. N. Tideman, Jr., Chief,
Los Angeles Sub-Office
Office of the Division Engineer
WAR DEPARTMENT
621 South Hope Street
Los Angeles 14, California

In re: 601.5 (Camp Coxcomb, Riverside County, Calif.
C-AMA) LA PADRE-D 7.15 MLG

Dear Major Tideman:

, May I acknowledge and thank you for your letter of February 17, 1945, with reference to the Release Form to be executed by the State Lands Commission for State land in Sec. 36, T. 2 S., R. 16 E., and the SE $\frac{1}{4}$ and SW $\frac{1}{4}$ of Sec. 36, T. 3 S., R. 16 E., S.B.B. & M, Riverside County, which has been used and/or occupied by the United States Government.

The Release, in its present form, can not be signed by anyone on behalf of the State. The only form of release that can be signed is one releasing for any claims for rental after the expiration of the agreement.

In other words, the State could not give a release for any liability that might accrue from any act or condition incident to the use of the property by the United States. If a release can be drafted by the United States Government with the above feature incorporated, please submit it to this office for Commission approval.

Yours most sincerely,

/s/ CARLYLE F. LYNTON
CARLYLE F. LYNTON
Executive Officer

CFL: mk

COPY

C E R T I F I C A T E

I do hereby certify that:

1. Revocable Permit No. 12, Public Resources Code was issued by the State of California to the United States Government 24 March 1942.
2. On the 11th day of November 1944, a Release, was mailed to State of California, State Lands Commission, Sacramento, California. Description of the Property covered by the Release follows:
Sec. 36, T. 2 S., R. 16 E., and the SE $\frac{1}{4}$ and SW $\frac{1}{4}$ of Sec. 36, T. 3 S., R. 16 E., S.B.D. & M., Riverside County, California. (Camp Coxcomb, California).
3. Acknowledgement of the Receipt of the Release by the State Lands Commission was made by letter under date of 8 March 1945, copy of which is attached.
4. I certify that the premises have been inspected and there are no Government improvements located thereon.
5. I further certify that the State Lands Commission has refused to sign the Release and that further efforts to obtain said release are not justified.
6. The period of the duration of the permit extended from the date of the issuance of permit through approximately 1942, 1943 and 1944.

5 September 1946

/s/ Harold E. Spickard
HAROLD E. SPICKARD
Chief, Los Angeles Sub -Office

C O P Y

the 142

G-6

MILITARY ACQUISITION PROJECT REPORT		DATE OF REPORT	REPORTS CONTROL SYMBOL ENOLC-2 (R1)				
TO WAR DEPARTMENT, OFFICE OF THE CHIEF OF ENGINEERS, REAL ESTATE, REALTY REQUIREMENTS DIVISION, REALTY CONTROL BRANCH, WASHINGTON 25, D.C.		FROM (DIVISION) South Pacific					
PROJECT NAME Camp Coxcomb		DIRECTIVE DATE Unknown 5-13-42	DIRECTIVE NUMBER <i>RE-D 95</i> Use Permit (in lieu of formal directive)				
PURPOSE Campsite - California-Arizona Maneuver Area		COUNTY San Bernardino	STATE California				
FINAL REPORT	2276	CURRENT PERIOD			PROGRESS TO DATE		
		TRACTS	ACRES	DOLLARS	TRACTS	ACRES	DOLLAR
GENERAL							
1. TOTAL AUTHORIZED FOR ACQUISITION					3	11,520	-
a. Fee					-	-	-
b. Easements & Lesser Interests					2	960	-
c. Public Lands					*1	10,560	-
d. Leased to U.S.					-	-	-
ACQUISITION OF FEE, EASEMENTS AND LESSER INT.							
2. TOTAL (Items 1a & 1b)					2	960	-
3. TRACT OWNERSHIP DATA COMPLETED					2		
4. TRACT MAPS COMPLETED					2		
5. APPRAISALS APPROVED					-	-	-
6. TITLE EVIDENCE ORDERED					2		
7. TITLE EVIDENCE RECEIVED					2		
PURCHASE (Including Donations)							
8. OPTIONS OBTAINED					**2		
9. OPTIONS ACCEPTED					2	960	-
10. TITLE EVIDENCE SUBMITTED					2		
11. PRELIMINARY TITLE APPROVED					2		
12. PAYMENTS AND CLOSINGS COMPLETED					2	960	-
13. FINAL TITLE PAPERS SUBMITTED					2	960	-
CONDEMNATION (Including Declarations of Taking)							
14. ASSEMBLIES SUBMITTED							
15. CONDEMNATION PETITION FILED							
16. ORDER OF POSSESSION ENTERED							
17. TITLE EVIDENCE TO U.S. ATTORNEY							
18. DECLARATION OF TAKING FILED							
19. STIPULATIONS AND AWARDS APPROVED							
20. AWARDS AND DEFICIENCIES DEPOSITED							
21. PARTIAL DISBURSEMENTS							
22. FINAL DISBURSEMENTS							
PROJECT MANAGER (Name) <i>John M. Keller</i> JOHN M. KELLER Chief, Real Estate Division				OFFICE ADDRESS SOUTH PACIFIC DIVISION Oakland Army Base Oakland 14, California			

2 September 1949

602 California-Arizona Maneuver Area.
Camp Coxcomb, California. B4GLT

Director,
Bureau of Land Management,
Department of Interior,
Washington, D. C.

Dear Sir:

The following described property was used in connection with
Camp Coxcomb, California-Arizona Maneuver Area, California:

Description and Location of the Property: Land is located
in San Bernardino County, California, approximately 24
miles Southwest of Freda, California.

Legal Description: A - Sections 1, 2, 11, 12, 13, 14, 15,
22, 23, 24, 25, 26, 27, 34, 35, E. 1/2, Section 21, T.3 S.,
R. 16 E., SBBLM; Section 35, T. 2 S., R. 16 E., SBBLM,
San Bernardino County, California.

This property was evidently used in accordance with an informal
understanding with field representatives of your Department. No formal
instrument authorizing such use can be located. This land is no longer
required and the use thereof is hereby relinquished.

All improvements placed on the property by this Department have
been removed and no restoration is deemed necessary. The land has
been inspected and has been found to be clear of all explosives or
explosive objects reasonably possible to detect by visual inspection.
However, it is recommended that sections 15, 22, 27, 34 and the east
half of Section 21 be restricted to surface use only as there is evidence
that high explosives were used on this land. Action is being taken to
post the restricted areas with suitable warning signs at the sites indi-
cated on the inclosed map.

Your cooperation in making these lands available is appreciated.

Very truly yours,

Sincerely yours,

W. H. HASTINGS
Colonel, Corps of Engineers
Assistant Chief of Engineers for Real Estate

- 2 Inclosures:
1. Exhibit D
2. " E

Realty

tr.A

Kerley

REAL PROPERTY MANAGEMENT AND POSAL REPORT				DATE OF REPORT 15 October 1949		REPORTS CONTROL SYMBOL ENGL-12(P-1)			
TO: CHIEF OF ENGINEERS ATTENTION: ENGLH WASHINGTON 25, D.C.				AUDITED REPORTS SECTION		FROM (DIVISION) South Pacific			
PART I FINAL REPORT									
INSTALLATION Camp Coxcomb, Audit #2276				LOCATION 2 1/2 Miles southwest of the town of Freda					
MILITARY <input checked="" type="checkbox"/> COMMAND <input type="checkbox"/> INDUSTRIAL		CIVIL <input type="checkbox"/> FLOOD CONTROL <input type="checkbox"/> RIVERS AND HARBORS		COUNTY San Bernardino		STATE California			
ACREAGE OF ENTIRE INSTALLATION		W.D. OWNED	PUBLIC LAND	LEASED	LESSER INT.	LAST USING SERVICE			
		-	10,560	✓ -	960 ✓	C-AMA			
PART II									
DATE	CLASSIFICATION	E OR P	WAR DEPT. OWNED (Acres) (1)	PUBLIC LANDS (ACRES) (2)	LEASED (ACRES) (3)	LESSER INT (ACRES) (4)	NATURE OF FACILITIES	COST TO GOVT. (DOLLARS)	CUSTODY BY C.E. (DATE)
A. 3/16/44	Surplus ✓	E ✓	-	10,560 ✓	-	960 ✓	Campsite	7,000 (Est) ✓	4/2/44
B.									
C.									
D.									
E.									
F.									
PART III									
TEMPORARY USE GRANTS									
REF.	IN PROCESS			GRANTED			PURPOSE		
	No.	Acres	Consideration (\$)	No.	Acres	Consideration (\$)			
DECLARATION TO WAR ASSETS ADMINISTRATION (GIVE DATES)									
REF.	FORM 1005 REQUESTED	FORM 1005 TO O.C.E.	DECLARED TO WAA	LTR OF ACCEPT.	CUSTODY ASSUMED				
TRANSFER OR RETRANSFER TO OTHER GOVERNMENT AGENCIES									
REF.	DATE AUTHORIZED	RECEIVING AGENCY	DATE OF LETTER FROM WAR DEPT.	RESTORATION OR RLDG. DISP. COMPLETED (DATE)	DATE CUSTODY ASSUMED				
A2	3/16/44	Dept of Interior	9/2/49 ✓		*				
LEASE CANCELLATIONS									
REF.	IN PROCESS OF DISPOSAL			CANCELLED					
	No.	Acres	Rental (Dollars)	No.	Acres	Rental (Dollars)			
OTHER WAR DEPARTMENT DISPOSALS									
REF.	DATE AUTHORIZED	DATE NEGOTIATIONS INITIATED	DATE OFFER ACCEPTED	CONSIDERATION (DOLLARS)	DATE COMPLETED OR CUSTODY ASSUMED				
A4	3/16/44				*				
SIGNATURE <i>G.E. LAVERDOLA</i>		TITLE Chief, Statistical Br.			ADDRESS Oakland Army Base Oakland 14, California				

INSTRUCTIONS

- a. REPORTS WILL BE PREPARED QUARTERLY AS OF 15 MARCH, 15 JUNE, 15 SEPTEMBER, AND 15 DECEMBER.
- b. REPORTS WILL BE PREPARED IN QUADRUPLICATE FOR THE FOLLOWING DISTRIBUTION: Forward original and one copy in sufficient time to reach the Office, Chief of Engineers on or before the 22nd of the month in which the report is prepared. One copy forwarded to the Division Office and one copy retained in the project office.
- c. SUBMISSION OF REPORTS WILL BEGIN AS SOON AS NOTICE OF ISSUANCE OF A DIRECTIVE IS RECEIVED AND CONTINUED UNTIL ALL ACTION HAS BEEN COMPLETED, INCLUDING DISTRIBUTION OF FUNDS DEPOSITED ON EXCESS AWARDS.
- d. RECORDS WILL BE MAINTAINED ON A FRACTIONAL ACREAGE AND DOLLAR BASIS: Totals thereof however will be rounded to the nearest acre or dollar in preparing this report (.60 acre will be reported as an additional acre; 50 cents will be reported as an additional dollar).
- e. THE NUMBER OF TRACTS, ACRES, AND AMOUNT OF MONEY SHOWN IN ITEM 1 OF THE INITIAL REPORT WILL BE AS RECITED THE DIRECTIVE. The number of tracts and acres will be revised as the preparation of tract ownership data and tract maps progresses. The amount of money will remain constant under item 1 unless changed by a subsequent Directive.
- f. THIS REPORT WILL COVER ALL TYPES OF ACQUISITION OF REAL ESTATE OR INTERESTS THEREIN:
 - 1. Tracts involving Public Domain, State owned land not being acquired, or land to be leased will NOT be reported in six columns of report but will be reported under remarks below. Tracts under lease will be identified by contract number, tract number and acreage.
 - 2. Completed transactions not involving condemnation which do not follow regular acquisition procedure steps (such as easements, licenses, and donations) will for report purposes be reflected in all purchase steps (items 8-13) and will be identified by appropriate footnote showing interest acquired and number of tracts. Where no actual acreage is involved as in the case of informal agreements to top trees, only "tract" and "dollar" data will be reported.
- g. ALL TRACTS TRANSFERRED FROM "PURCHASE" TO "DECLARATION OF TAKING" SHOULD BE DEDUCTED FROM ALL "PURCHASE" STEPS AFFECTED AND REPORTED UNDER "DECLARATION OF TAKING".
- h. ALL TRACTS TRANSFERRED FROM "CONDEMNATION" TO "PURCHASE" SHOULD BE DEDUCTED FROM ALL "CONDEMNATION" STEPS AFFECTED AND REPORTED UNDER THE "PURCHASE" STEPS.
- i. WHERE TWO OR MORE "REAL ESTATE DIRECTIVES" HAVE BEEN ISSUED IN CONNECTION WITH THE SAME PROJECT, A SEPARATE REPORT WILL BE SUBMITTED FOR EACH DIRECTIVE. "GENERAL DIRECTIVES" WILL BE REPORTED WITH THE "REAL ESTATE DIRECTIVE" TO WHICH EACH RELATES.

ADDITIONAL TRACTS: DURING THE CURRENT PERIOD, _____ TRACTS, IDENTIFIED AS TRACTS NUMBERS _____ WERE ADDED UNDER THE FOLLOWING AUTHORITY _____ AND FOR THE FOLLOWING REASONS:

TRACT REDUCTIONS. DURING THE CURRENT PERIOD, _____ TRACTS, IDENTIFIED AS TRACTS NUMBERS _____ WERE DROPPED UNDER THE FOLLOWING AUTHORITY _____ AND FOR THE FOLLOWING REASONS:

REMARKS

*10,560 acres of Public Domain transferred from Department of Interior by Use Permit, date unknown. *IMPLIED TRANSFER*

**2 tracts covering permit, 960 acres - both nominal consideration.

INSTRUCTIONS

ALL NUMBERS TO BE ROUNDED TO THE NEAREST DOLLAR OR ACRE IN PREPARING THIS REPORT

1. REPORTS WILL BE PREPARED MONTHLY AS OF THE 15TH DAY OF EACH MONTH.
2. REPORTS WILL BE PREPARED IN QUADRUPPLICATE FOR THE FOLLOWING DISTRIBUTION: Forward original and one copy in sufficient time to reach the Office, Chief of Engineers on or before the 23rd day of the month in which the report is prepared. One copy forwarded to the Division Office and one copy retained in the preparing office.
3. WHEN REQUIRED: Reports will be required commencing with the month in which the installation or any portion thereof is classified as Standby, Inactive or Surplus and continued until surplus property is disposed of by transfer, sale, termination of leases, or otherwise; but if another portion of the installation is classified at a later date and the report resumed, all previous actions will be reflected; where the installation or portion thereof is classified inactive or Standby, the report may be suspended when the granting of temporary use of facilities made available for such purposes shall have been completed or definite information shall not have been received that temporary use of facilities at installations or portions thereof in standby or inactive status cannot be granted.
4. PART I will identify the installation as to name, location and type, set forth the entire acreage either acquired or being acquired, and name the last using service. The acreage will be divided to show War Department owned, Public Lands (Public Domain and Lands transferred from other Government Agencies), Leasee, and Lessee interests. If an installation in part industrial and part Command the acreages of these parts similarly broken down will be reflected in "Remarks". State, county, or municipally owned lands will not be shown as Public Lands.
5. PART II will reflect information as to areas which have been classified "Standby", "Inactive" or "Surplus". A separate line will be used for each report of classification, but subsequent withdrawals or adjustments affecting a classified area will be reflected by net figures and an explanation under "Remarks". The date will be that on which the Appropriate Authority approved the classification. A symbol P or C will be used to denote whether "Classified area" is a portion of or the entire installation. The acreage will be divided as explained in PART I above but will cover only the actual area or areas classified. The nature or use of the area will be reflected under "Nature of Facilities", i.e. housing Area, Warehouse Area, Modification Center #2, PW Camp, etc. and if the installation is comprised of both command and industrial portions the symbol I (Industrial) or C (Command) will be used to indicate to which portion the area belongs. The cost of both land and construction will be shown under "Cost to Government". If the Corps of Engineers assumed custody the date will be shown, otherwise "00" will be entered in the last column.
6. PART III will reflect management or disposal actions taken in connection with areas classified under PART II. The reference column will indicate the area by referring to the line on which it is listed under PART II (A, B, C, etc.) and the appropriate column (1), (2), (3), or (4). No areas or portions of areas which required separate classification reports will be combined in a single line under PART III; however, it may be necessary to use several lines under PART III to reflect separate actions taken in connection with an area listed on a single line under PART II. The latter occurrence will be explained under "Remarks" and if necessary a further division of acreage recited.
7. TEMPORARY USE GRANTS will be reported by cumulative figures showing the number of instruments, acres involved, and annual consideration. When right of entry has been given but a formal instrument not executed and delivered it will be reported "In Process", with appropriate footnote under "Remarks" including date right of entry granted. After delivery of the instrument it will be reported "Granted". "Process" will reflect type of interest (L for Lease, LI for License) and the proposed use of the area, such as agriculture, industrial, etc. (Elaboration where necessary will be indicated under "Remarks").
8. DECLARATIONS TO WAR ASSETS ADMINISTRATION. The dates of the following will be recorded: Letter from DCE requesting WAA Form 1005, Letter transmitting WAA Form 1005 to DCE, the declaration to WAA, the letter of acceptability from WAA, and the assumption of custody by the disposal agency. The symbol or abbreviation of the disposal agency will also be shown under "Custody Assumed".
9. TRANSFER OR RETRANSFER TO OTHER GOVERNMENT AGENCIES. Entries in the second, third, and fourth columns will be made from information or informational copies of documents received from DCE being required only to complete Division and lower echelon records. The date restoration or building disposal (if required) is completed will be shown, otherwise the entry "None" will be made. The last column will reflect the date of written acceptance either from a field or departmental level with appropriate notation in "Remarks".
10. LEASE CANCELLATIONS will show the total number of leases, acreage and annual rental "In Process of Disposal" and "Cancelled" for each "Area" of Classification.
11. OTHER WAR DEPARTMENT DISPOSALS mainly involving EPP contracts, easements, licenses, etc. will be recorded under this section of report using entries most nearly applicable to the circumstances and making entries under "Remarks" to explain unusual disposal actions.

REMARKS

PART II

<u>Ref</u>	<u>Authority</u>	<u>P.L.</u>	<u>L.I.</u>	<u>Cost to Govt.</u>
A2,4	WDGDS 11314	10,560 acres	960 acres	\$7,000 (Est)

PART III

Retransfer to Other Govt Agency

A2 No formal permission obtained from Dept of Interior, relinquished 9/2/49 ✓ 10,560 acres 7,000 (Est)

* Letter dtd 9/2/49 relinquished Public Land to Dept of Interior. Bureau of Land Management, Dept of Interior advised that there is no record in that office of the use of the Public Domain by the Dept of the Army; therefore, official assumption of custody by the Dept of Interior will not be effected.

Other War Dept. Disposals

A4 Permit with State of California, 640 acres - cancelled effective 9/5/46 (audit = 11/1/46)
 " " " " " 320 " " " 9/5/46

Copy of this report should be filed in the file of land of interest.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX H

NEWSPAPERS/JOURNALS

APPENDIX H

Newspapers/Journals

Table of Contents

H-1 Excerpts from the Prelude, The Ninety-Fifth Infantry
Division Prepares for Combat (B-55).

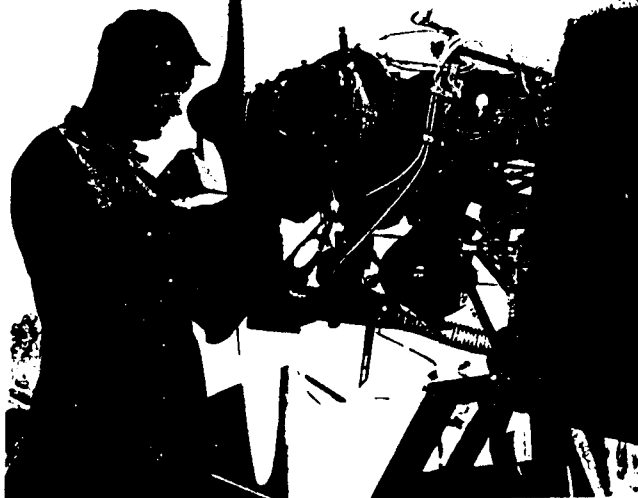
PRELUDE



THE NINETY-FIFTH INFANTRY DIVISION PREPARES FOR COMBAT

H-1

DECLASSIFIED PER EXECUTIVE ORDER 12356, SECTION 3.3, MND PROJECT
NUMBER MND 73507, BY RMJ / RLB, DATE 10/20/95



DECLASSIFIED PER EXECUTIVE ORDER 12356, SECTION 3.3, MND PROJECT
NUMBER NND 735017, BY SMJ / RJB, DATE 10/20/95



The Desert

A big buff moon swelled up behind a barren California rock-veined mountain. Rows of tents were shadowed against the desert sand. A kid was singing "All Or Nothing At All" as he sewed corporal stripes on his fatigues. The monotonous grind of convoy trucks filtered through the new corporal's song. The 95th Division was training in the California desert.

The toughest training task yet, the 95th thought the desert. Twenty-five mile marches through foot-yielding sand, a close kinship with canvas water bags and canned rations, five-mile-distant mountains that were actually thirty miles away. Movie stars at the Desert Victory Bowl and dances with Betty Grable and fellow tradeswomen highlighting furloughs to Los Angeles.

The desert's contrasting temperatures, which effected a near strip-to-the-waist policy in the daytime, a cry for more blankets at night, were a strange enigma of seasons. The Herculean gusts of desert wind seemed to be pushing the 95th toward its eventual combat mission. The sand-camouflaged vehicles and the week-end convoys to nearby resort cities are two more reminders of the desert for 95th troops.

DECLASSIFIED PER EXECUTIVE ORDER 12356, SECTION 3.3, NND PROJECT NUMBER NND 735017, BY Rmg / RLB, DATE 10/29/95



359th Field Artillery Battalion

Like all of the divisional units, the 359th Field Artillery Battalion was activated at Camp Swift, Texas, in mid-July of 1942, has seen three permanent changes of station, successfully completed the "Battle of Bullis" and the Louisiana maneuvers, came to the California desert to polish off its combat training.

There is little that concerns one battalion of the 95th's artillery that does not concern them all. They all went through the rigors of the A.G.F. battalion tests at Bullis and Camp Bowie, they all went through the norm of an artillery battalion's pre-combat training.

Mid-way in the division stay at Camp Polk, Lt. Col. Roy A. Carter, 359th commander since activation, left the division, was followed by Maj. Edward W. Watkins as commanding officer.



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APPENDIX I

INTERVIEWS

Interviews

Table of Contents

I-1 Conversation with Mr. William T. Wiley, HAZMAT Specialist, BLM, Needles, CA.

I-2 Conversation with Mr. Robert Lyons, San Bernadino Sheriff's Department, San Bernadino, CA.

I-3 Conversation with Mr. Butch Gates, Idaho Falls, Idaho.

I-4 Conversation with Mr. John Lynch, Historian, Council on Americas Military Past, Phoenix, AZ.

I-5 Conversation with Mr. Stanley Ragsdale, Sr, Desert Center, CA.

I-6 Conversation with Mr. Jim Capp, Desert Center, CA.

CONVERSATION RECORD

TIME
1400

DATE
20 April 1996

TYPE			ROUTINE	
<input type="checkbox"/> VISIT	<input type="checkbox"/> CONFERENCE	<input checked="" type="checkbox"/> TELEPHONE	NAME/SYMBOL	INI
Location of Visit/			<input type="checkbox"/> INCOMING	
			<input type="checkbox"/> OUTGOING	
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. William T. Wiley		ORGANIZATION (Office, dept., bureau, etc.) HAZMAT Specialists, BLM	TELEPHONE NO: (619) 326-3896	
SUBJECT Former Camp Coxcomb				

SUMMARY

Mr. William Wiley has been employed with the Bureau of Land Management (BLM) for the past ten years with duties at the Needles, CA office. Mr. Wiley worked as a ranger with the Portland, OR District of the Corps of Engineers before assuming his present position. He provided site related information and maps from the BLM files that defined areas of possible ordnance contamination around Camp Coxcomb. Mr. Wiley stated that the site has been picked over by scavenger and souvenir hunters over the past fifty years. Mr. Wiley was concerned that dumps located within the Desert Training Center may contain unexploded ordnance similar to the dumpsite near Goeff, California. The Needles BLM Office has had no incidents involving unexploded ordnance for the past several years. Operation Desert Strike took place around the former CAMA in the early 60's, and evidence remains from that operation in the form of spent cartridge cases that litter the desert where the exercise took place.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE <i>N. Heleg-Greza</i>	DATE 20 April 1996
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ACTION TAKEN

NATURE	TITLE	DATE
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CONVERSATION RECORD

OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

CONVERSATION RECORD		TIME 1900	DATE 20 April 1996
TYPE <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input checked="" type="checkbox"/> TELEPHONE			ROUTINE NAME/SYMBOL INI
Location of Visit/ NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. Robert Lyons		ORGANIZATION (Office, dept., bureau, etc.) San Bernadino Sherriff's Dept.	TELEPHONE NO: (619) 326-9200
SUBJECT Former Camp Coxcomb		<input type="checkbox"/> INCOMING <input type="checkbox"/> OUTGOING	

SUMMARY

Mr. Robert Lyons is a deputy with 12 years experience in the San Bernardino County Sheriff's Office. A life long resident of the area, he is actively involved with their search and rescue missions. Mr. Lyons stated that ordnance has been found throughout the desert area (especially Ward Valley) over these past fifty years. Several months ago the Fort Irwin Army EOD was called to destroy an item somewhere in the former CAMA, but he wasn't certain of the exact location. He knows of Operation Desert Strike that took place around the former CAMA in the early 60's because evidence in the form of spent cartridge cases litter the desert where the exercise took place.

(NOTE) The EOD incident occurred outside the Camp Coxcomb area near the Dead Mountains.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE 	DATE 20 April 1996
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ACTION TAKEN

SIGNATURE	TITLE	DATE
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CONVERSATION RECORD

OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

CONVERSATION RECORD		TIME 1600	DATE 26 April 1996
TYPE <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input checked="" type="checkbox"/> TELEPHONE			ROUTINE <input type="checkbox"/> INCOMING <input type="checkbox"/> OUTGOING
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. Butch Gates		ORGANIZATION (Office, dept., bureau, etc.)	TELEPHONE NO: (208) 529-5313
SUBJECT Former Camp Coxcomb			

SUMMARY

Mr. Butch Gates was employed with the San Bernardino County Sheriff's office from 1972 and is described as the "expert" on the California/Arizona Maneuver Area (CAMA). He has recently relocated to Idaho Falls, Idaho. Mr. Gates is referred to as the "map man", because he has extensively documented the area while working with the search and rescue missions. These documents consist of maps, photos, and personal knowledge of ordnance debris throughout the CAMA. He stated that the Ward Valley and Palen Pass areas are where the Army conducted extensive live fire exercises and he has personally seen ordnance items there. Camp Coxcomb had it's areas just to the west of the main camp area. There is a strong rumor that the Army buried items that they couldn't take whenever the Army departed. He is afraid that ordnance items may be some of the items that were buried. He knows of Operation Desert Strike that took place around the former CAMA in the May 1964. The debris left behind in the form of spent cartridge cases, illuminating flares, "slap flares", and expended smoke grenades litter the desert from that exercise. Mr. Gates mentioned the area to the north of Camp Coxcomb has being littered with spent artillery shells.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE <i>N. Heleg-Greza</i>	DATE 20 April 1996
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ACTION TAKEN

SIGNATURE	TITLE	DATE
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CONVERSATION RECORD


OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

CONVERSATION RECORD			TIME 1400	DATE 24 April 1996
TYPE <input checked="" type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input type="checkbox"/> TELEPHONE			ROUTINE	
Location of Visit/			<input type="checkbox"/> INCOMING	<input type="checkbox"/> OUTGOING
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. John Lynch		ORGANIZATION (Office, dept., bureau, etc.) Council on Americas Military Past	TELEPHONE NO: (800) 398-4693	
SUBJECT Former Camp Coxcomb				

SUMMARY

Mr. John Lynch, a retired Air Force Officer and military historian from Phoenix, Arizona, accompanied the inspection team on an earlier site visit to the camps in and around Freda, CA. He provided maps and photographs showing the location of each camp and their documented firing ranges. Mr. Lynch explained the training procedures and general military maneuvers that were conducted at Camp Coxcomb. During his extensive personal travels in and around the various camps, Mr. Lynch has had no personal contact with live ordnance or explosives. Being an historian, he is familiar with any military exercises such as Operation Desert Strike that took place around the former CAMA in the May 1964. Mr. Lynch pointed out the area to the northwest of Camp Coxcomb that was a major impact area.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE 	DATE 24 April 1996
---	--	-----------------------

ACTION TAKEN

SIGNATURE	TITLE	DATE
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CONVERSATION RECORD

OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

CONVERSATION RECORD		TIME 1500	DATE 13 September 1996
TYPE <input checked="" type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input type="checkbox"/> TELEPHONE			ROUTINE
Location of Visit/			<input type="checkbox"/> INCOMING <input type="checkbox"/> OUTGOING
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. Stanley Ragsdale Sr		ORGANIZATION (Office, dept., bureau, etc.)	TELEPHONE NO: (619) 227-0022
SUBJECT Former Camp Coxcomb			

SUMMARY

Mr. Stanley Ragsdale Sr, in his eighties, is a life long resident of Desert Center. He has personally located ordnance items throughout the former DTC/CAMA. The main areas of ordnance contamination near Camp Coxcomb was against the mountains to the west and south side of the main camp. He has personally recovered military items including spent ordnance from the Coxcomb area. His personal museum, located next door to the Desert Center Cafe, contains a variety of ordnance items from, landmines, expended illumination projectiles, 105MM through 155MM, 2.36 inch rockets, grenade components and other ordnance related items. He is very proud of his 1943 Military Harley Davison. Mr. Ragsdale states that the Army buried whatever they didn't take or sell. Many of the military items in his museum came from landfills where the Army buried their excess items. He is an avid collector and does not miss any opportunity to collect any items of interest from the former DTC/CAMA. He is familiar with military exercises such as Operation Desert Strike, that took place around the former CAMA in the May 1964. After that exercise, Mr. Ragsdale added more military items to his museum. He pointed out the area to the northwest of Camp Coxcomb that was used as a major impact area. He states that many "duds" still lie out there.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE 	DATE 13 September 1996
---	--	---------------------------

ACTION TAKEN

SIGNATURE	TITLE	DATE
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CONVERSATION RECORD		TIME 1530	DATE 13 September 1996
TYPE <input checked="" type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input type="checkbox"/> TELEPHONE			ROUTINE
			NAME/SYMBOL INI
Direction of Visit/ <input type="checkbox"/> INCOMING <input type="checkbox"/> OUTGOING			
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Mr. Jim Capp		ORGANIZATION (Office, dept., bureau, etc.)	TELEPHONE NO: (619) 227-3432
SUBJECT Former Camp Coxcomb			

SUMMARY

Mr. Jim Capp, a twenty-five resident, owns a farm located between the former Camp Coxcomb and Desert Center. He has a mine adjacent to the southern boundary of Camp Coxcomb and has located many ordnance items around this mine. He states that there are more of these items present in an area on the northwest side of the former Camp Coxcomb with "mortar tubes" still sticking out of the ground. In his own words, "If you want to find duds? You have to go no further than that area." He pointed out the ordnance locations on a topographic map of the Coxcomb area. These areas correspond to area 9 on plate 5 and section 33 on plate 6. Mr. Capp added that Palen Pass is still littered with ordnance. He can't tell if they are live or practice, but the items are definitely there.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Nickolas Heleg-Greza, CENCR-ED-DO	SIGNATURE 	DATE 13 September 1996
---	--	---------------------------

ACTION TAKEN

SIGNATURE	TITLE	DATE
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CONVERSATION RECORD

OPTIONAL FORM 271 (12-76)
DEPARTMENT OF DEFENSE

ORDNANCE AND EXPLOSIVES
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APPENDIX J

PRESENT SITE PHOTOGRAPHS

APPENDIX J

PRESENT SITE PHOTOGRAPHS

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- J-1 Panoramic view of Camp Coxcomb area looking south on California Highway 177. Dirt roads on the right lead to Coxcomb.
- J-2 Panoramic view of Altar, view from south to east.
- J-3 Aerial of Camp Coxcomb, view is west to east with Palen Pass road extending to the east.
- J-4 Close-up of Headquarters area Camp Coxcomb. The circular layout invited several unknown pilots to use this as a bomb target.
- J-5 Close-up of rock sidewalk in Headquarters area facing east.
- J-6 View of rock lined street at Camp Coxcomb
- J-7 One gallon container, one of many found in Camp Coxcomb.
- J-8 Former dump located at Camp Coxcomb.
- J-9 Expended grenade fuze.
- J-10 Fins from a 2.36 inch Rocket one of several.
- J-11 Range 2 small arms impact scars at base of mountain.
- J-12 Discarded MK II Grenade container lids.
- J-13 Rifle grenade fins.
- J-14 MK II Grenade fuze components.
- J-15 M38A1 Practice Bomb, 1 of 4 that impacted on Headquarters Circle

J-16 Thick case practice bomb with bomb in Photo J-12 lying in the background.

J-17 Close-up of thick case practice bomb with residual concrete filler.

J-18 Target holders on range 4.

J-19 Concertina wire in Range 6 area.

J-20 Expended cal .45 cartridge cases on range 5.

J-21 Target remains in Area C.

J-22 Sample of 60MM mortar debris uncovered in Areas C and E.

J-23 81MM mortar debris with fragment from a large caliber artillery shell in Area C.

J-24 ½ or 1 pound TNT Demo block debris on Range 6.

J-25 Small arms debris uncovered in every area

J-26 Bunker remains adjacent to Range 2.

J-27 One of several rifle grenade fins.

J-28 Typical terrain west of main campsite.

J-29 Anti-tank ditch in Area G.

J-30 Target stand with caliber .30 holes on Range 7.

J-31 Entrance monument to Cp Coxcomb along California Highway 177.

J-32 Close-up of monument plaque, note damage caused by gunfire.



J-1 Panoramic view of Camp Coxcomb area looking south on California Highway 177. Dirt roads on the right lead to Coxcomb. The Palen Mountains are on the left



J-2 Panoramic view of Altar, view from south to north



J-3 Aerial of Camp Coxcomb, view is west to east with Palen Pass road extending to the east



J-4 Close-up of Headquarters area Camp Coxcomb



J-5 Close-up of rock sidewalk in Headquarters area



J-6 View of rock lined street on Camp Coxcomb facing north



J-7 One gallon container, one of many found on Camp Coxcomb



J-8 Former dump located on Camp Coxcomb



J-9 Expended grenade fuze, one of many found to the east of the campsite



J-10 Fins from a 2.36 inch Rocket found on the Bunker Assault Range



J-11 Range 2 small arms impact scars at base of mountain



J-12 Discarded MKII Grenade container lids



J-13 Rifle grenade fins



J-14 MK II Grenade Fuze components



J-15 M38A1 Practice Bomb, 1 of 4 that impacted on Headquarters Circle



J-16 Thick case practice bomb with bomb from J-15 in background



J-17 Close-up of thick case bomb with residual concrete filler



J-18 Target holders on Range 4



J-19 Concertina wire in Range area 6



J-20 Expended cal .45 cartridge cases on Range 5



J-21 Target debris on Live Fire Range Area (LFR)



J-22 Sample of 60MM mortar debris uncovered on LFR



J-23 81MM mortar debris and fragment from a large caliber artillery projectile on LFR



J-24 1/2 or 1 lb TNT Demo block debris on Engineer Assault Range 6



J-25 Small arms debris uncovered in every area



J-26 Bunker remains adjacent to Range 2



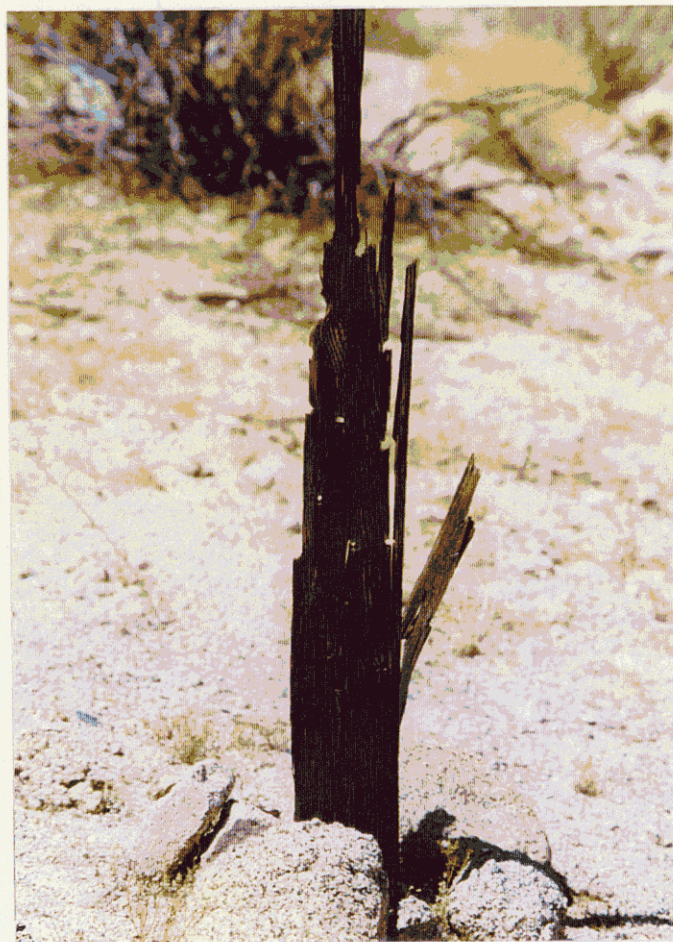
J-27 One of several rifle grenade fins



J-28 Typical terrain west of the main campsite



J-29 Anti-tank ditch in Area 12
The ditch is 5ft wide.



J-30 Target Stand with caliber .30
holes on tank machine gun range,
Range 7.



J-31 Entrance monument along California Highway 177



J-32 Close-up of monument plaque

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APPENDIX K

HISTORICAL PHOTOGRAPHS

APPENDIX K

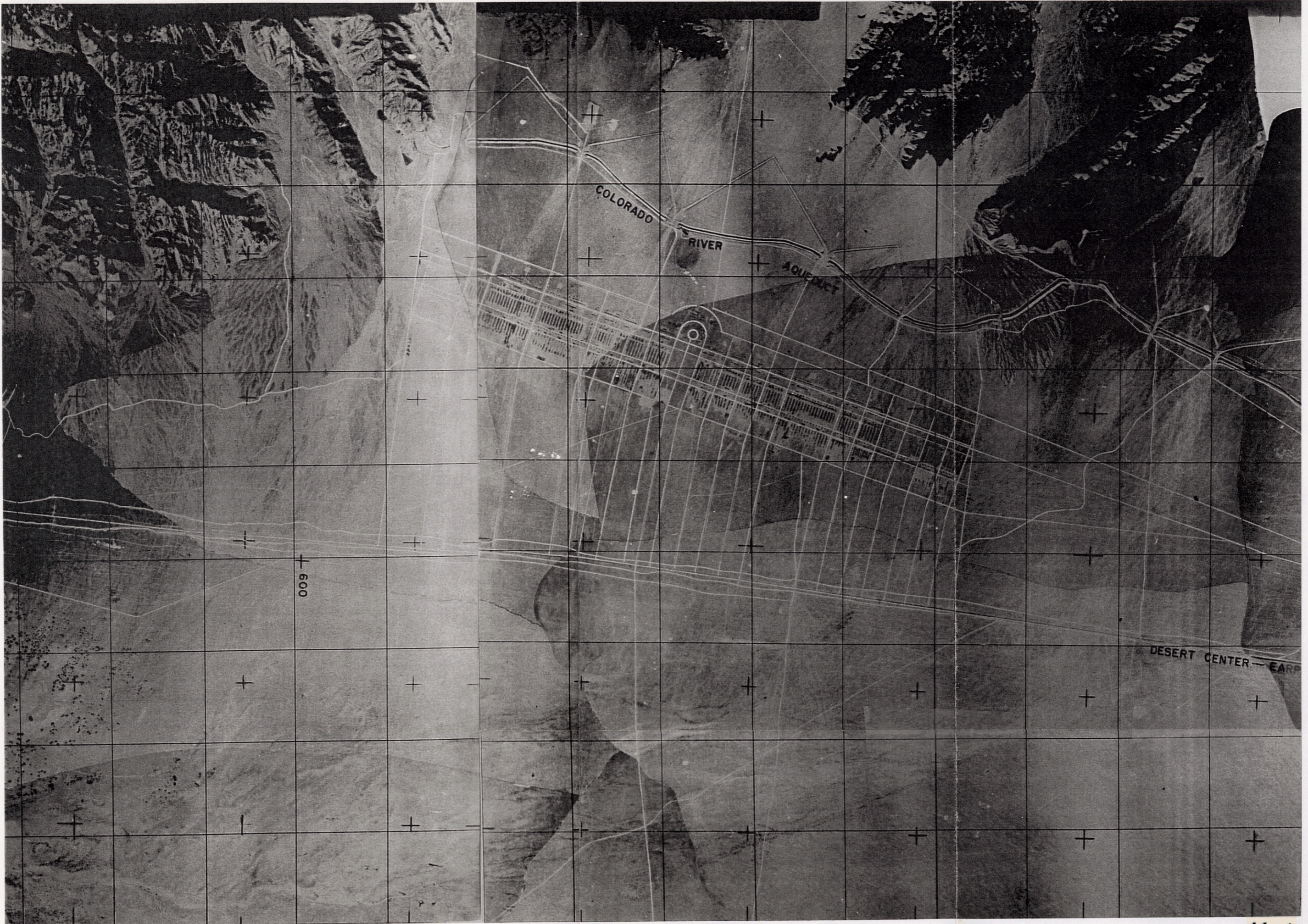
Historical Photographs

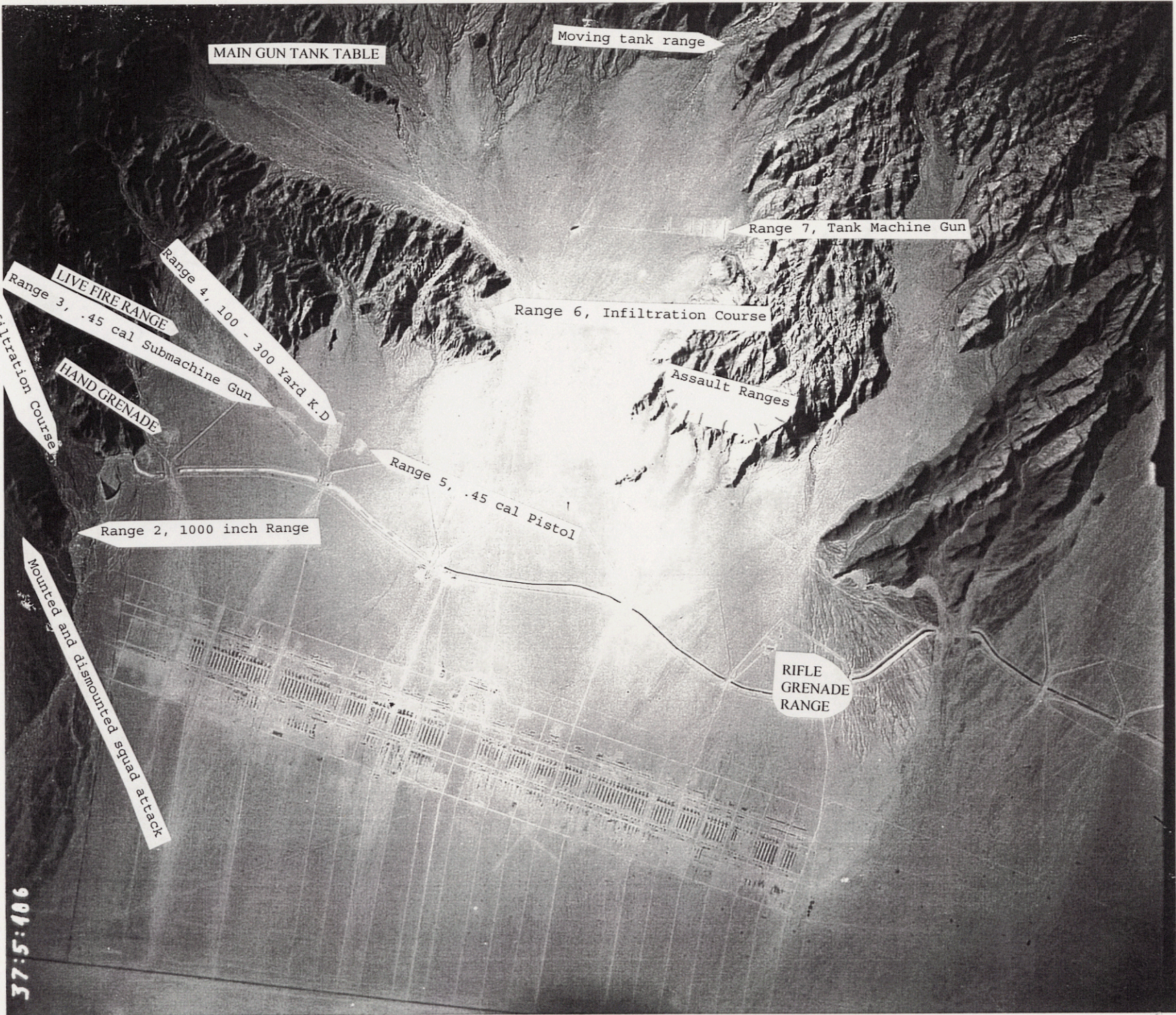
Table of Contents

K-1 Historical aerial photo, compilation of two aerials,
(B-56).

K-2 Historical aerial photo with range locations (B-57).

K-3 Historical DTC photographs off the internet (B-58).





MAIN GUN TANK TABLE

Moving tank range

Range 7, Tank Machine Gun

Range 6, Infiltration Course

Assault Ranges

Range 5, .45 cal Pistol

Range 4, 100 - 300 Yard K.D

LIVE FIRE RANGE

Range 3, .45 cal Submachine Gun

HAND GRENADE

Range 2, 1000 inch Range

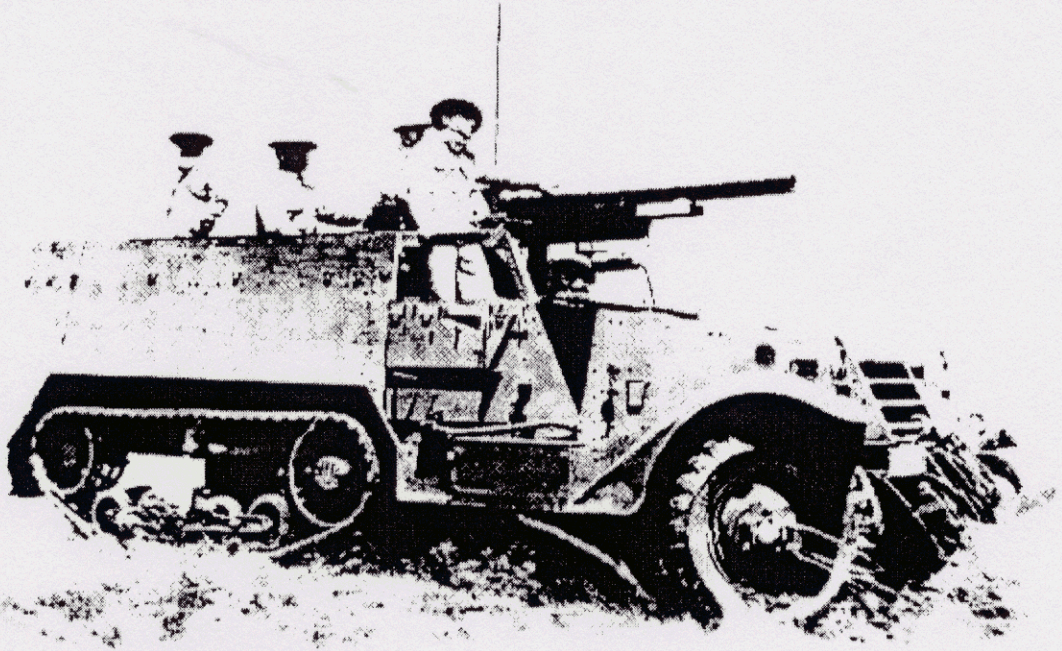
RIFLE GRENADE RANGE

Range 1, Infiltration Course

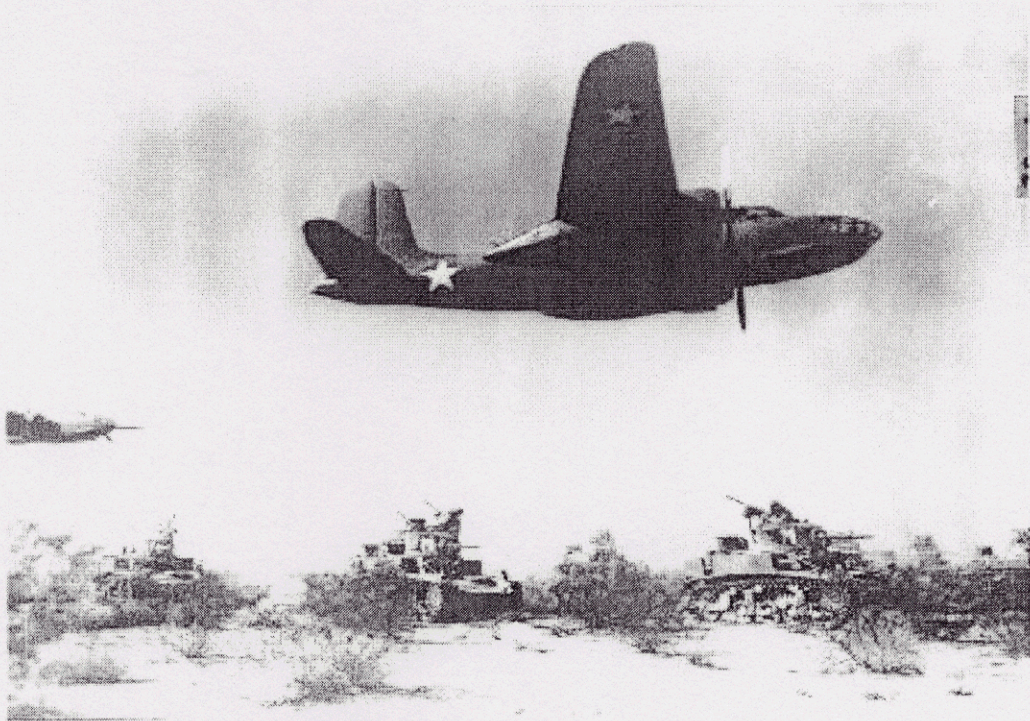
Mounted and dismounted squad attack

37:5:406

Historical photographs off the Internet @
<http://www.ca.blm.gov/cdd/dtc.html>



½ Track modified as a tank destroyer, one of many mods made to existing combat vehicles



Aircraft training with armor troops in close air support

ORDNANCE AND EXPLOSIVES
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APPENDIX L

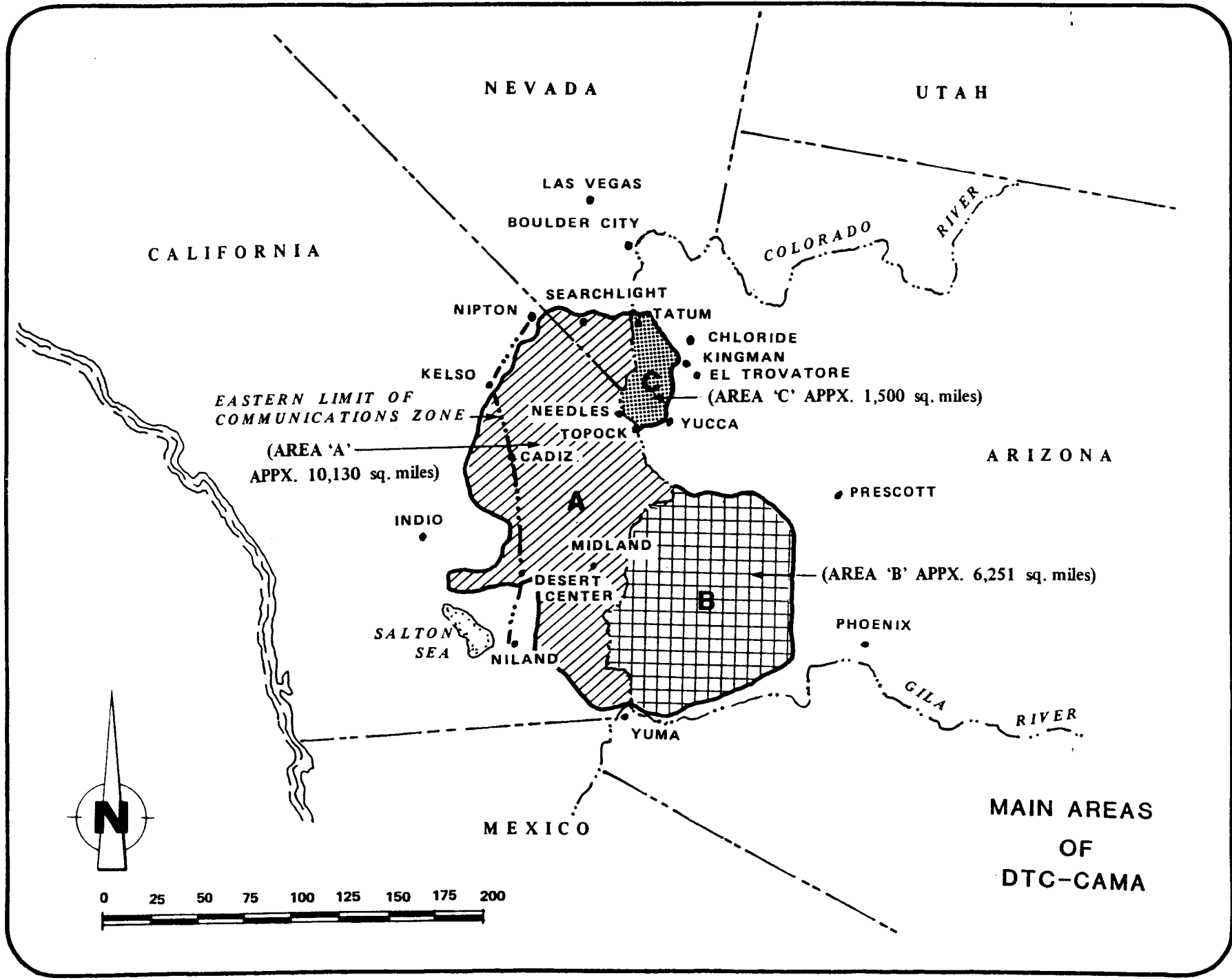
REFERENCE MAPS/DRAWINGS

APPENDIX L

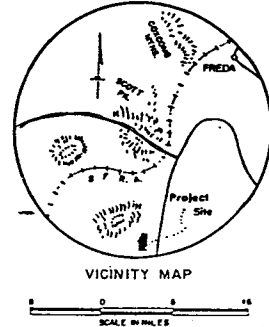
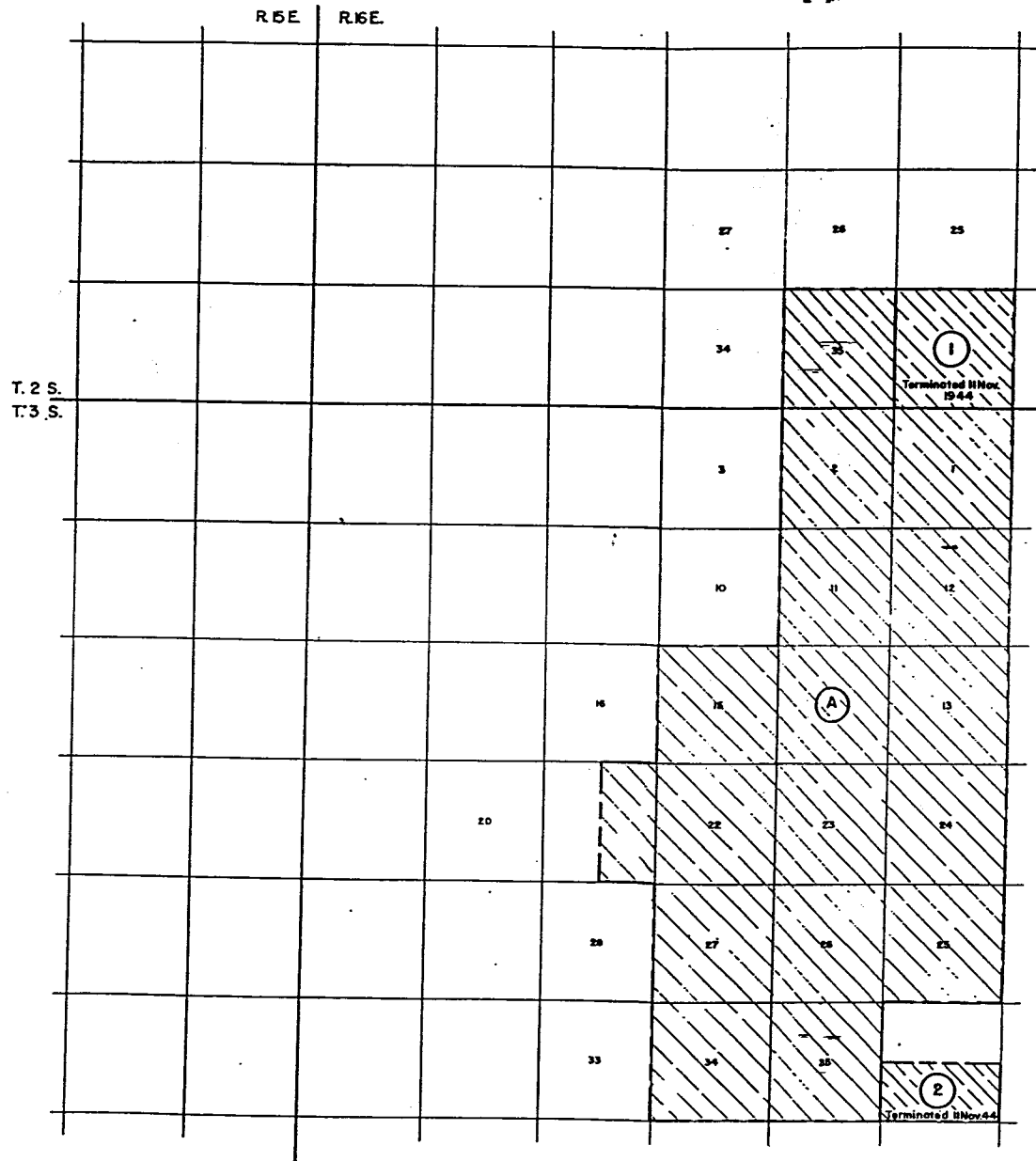
REFERENCE MAPS/DRAWINGS

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- L-1 Map of Main Areas of DTC-CAMA (B-59).
- L-2 COE Real Estate Map of Camp Coxcomb, 1943 (B-60).
- L-3 Map of DTC-CAMA Off-limit and Firing/Bombing Areas (B-61).
- L-4 Map of DTC, Evacuation schedule, (B-62).
- L-5 COE CAMA Map of Dedduding Program (B-63).



MAP 3



TYPE: FINAL

PROJECT OWNERSHIP MAP

STATE: CALIFORNIA

COUNTY: SAN BERNARDINO

DIVISION: SOUTH PACIFIC

DISTRICT: LOS ANGELES

SIXTH ARMY AREA

LOCATION OF PROJECT

2.5 MILES S.W. OF FREDA

MILES OF _____

TRANSPORTATION FACILITIES

RAILROADS: S.F.S.R.

STATE ROADS: _____

FEDERAL ROADS: _____

AIRLINES: _____

ACQUISITION

TOTAL ACRES ACQUIRED: 10,560.00

ACRES FEE: _____

ACRES TRANSFER TO WAR DEPT.: 10,560.00

ACRES LEASED TO WAR DEPT.: _____

ACRES LESSER INTERESTS: 1 PERMIT, 960.00

DISPOSAL

TOTAL ACRES DISPOSED OF: 11,520.00

ACRES SOLD BY WAR DEPT.: _____

ACRES TRANSFERRED BY WAR DEPT.: _____

ACRES RETRANSFERRED TO GOVT. AGCY: 10,560.00

ACRES LEASES TERMINATED: _____

ACRES LESSER INT'S TERM.: 1 PERMIT, 960.00

ACQUISITION TRACT REGISTER				
TRACT NO.	LAND OWNER	ACREAGE		REMARKS
		TRANS.	LESSER INTERESTS	
A	DEPARTMENT OF INTERIOR	10,560.0		Implied Transfer
1	STATE OF CALIFORNIA		640.0	Revocable Permit No. 12, 24 Mar. 42
2	STATE OF CALIFORNIA		320.0	Revocable Permit No. 12, 24 Mar. 42

ACQUISITION AUTHORIZATION

RE-D959 Dated 13 May 1942

LEGEND

NOTE: USE SYMBOLS FROM FM-31-30 (WAR DEPT. BASIC FIELD MANUAL) PAGES 21 TO 27 INCL. EXCEPT

RESERVATION LINE: _____

RESERVATION LINE (Actual Survey): _____

DAM SITE (Taking Line): _____

RESERVOIR SITE (Taking Line): _____

CONTOUR LINES: _____

AVIGATION EASEMENTS: _____

TRACT NUMBER: 99

REVISIONS

NO.	DATE	BY

CORPS OF ENGINEERS, U.S. ARMY
OFFICE OF THE DIVISION ENGINEER
SOUTH PACIFIC DIVISION

REAL ESTATE

CAMP COXCOMB
(C. A. M. A.)

APPROVED BY: *Merial G. Cappel* DATE: 19 AUG 42

CHIEF, DIVISION REAL ESTATE OFFICE

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D. C.

AUDITED

2276

SCALE IN FEET

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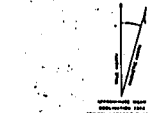
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INFORMAL PERMIT FOR USE OF 10,560 ACRES RELINQUISHED TO THE DEPARTMENT OF INTERIOR ON 2 SEPT. '49

CALIFORNIA-ARIZONA MANEUVER AREA



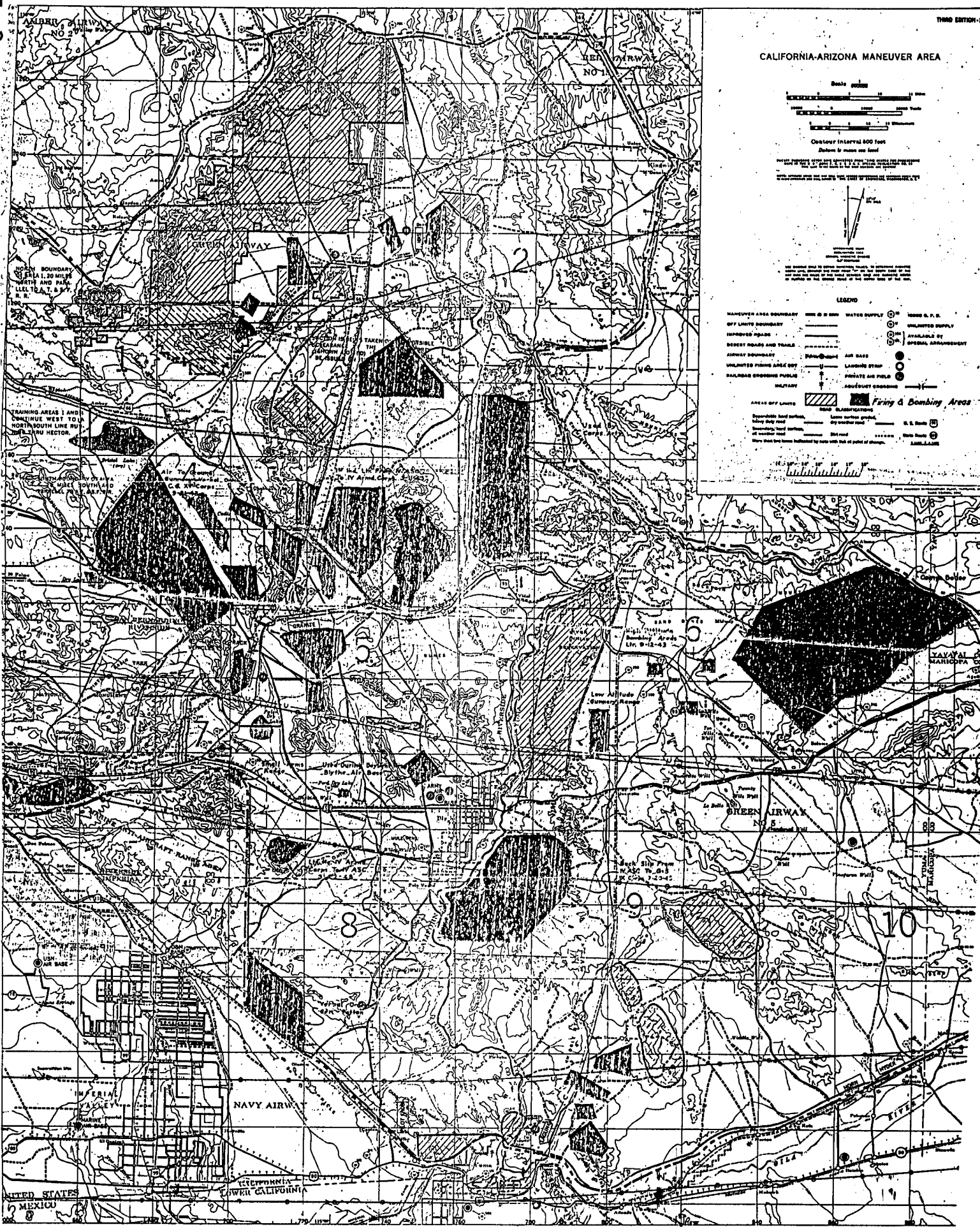
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Datum is mean sea level

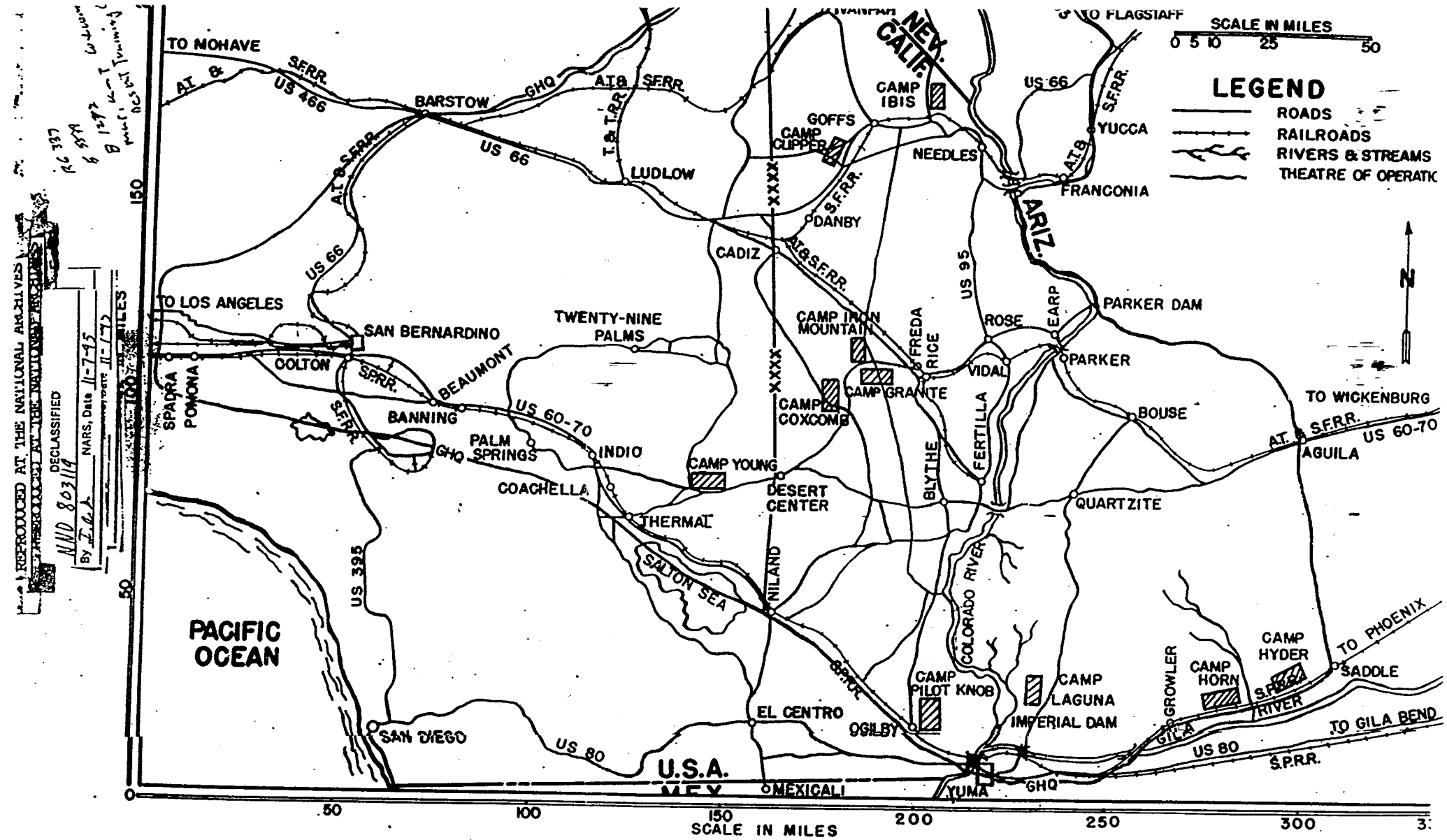


LEGEND

- MANEUVER AREA BOUNDARY: Solid line
- OFF LIMITS BOUNDARY: Dashed line
- IMPROVED ROAD: Solid line with double dashes
- DESERT ROAD AND TRAIL: Dashed line with single dashes
- AIRWAY BOUNDARY: Solid line with cross-hatches
- UNLIMITED FLYING AREA ONLY: Solid line with diagonal hatching
- HALLMARKS SHOWING PUBLIC: Solid line with dots
- MILITARY: Solid line with squares
- WATER SUPPLY: Circle with a dot
- UNLIMITED SUPPLY AVAILABLE BY SPECIAL ARRANGEMENT: Circle with a dot and a line
- AIR BASE: Circle with a dot and a line
- LANDING STRIP: Circle with a dot and a line
- PRIVATE AIR FIELD: Circle with a dot and a line
- ADULTERY ENDORSEMENT: Circle with a dot and a line
- AREAS OFF LIMITS: Hatched areas
- Specialized land surface: Circle with a dot and a line
- Low surface ground: Circle with a dot and a line
- Secondary land surface: Circle with a dot and a line
- Highway: Circle with a dot and a line
- More than two years influenced by rain with 100 ft peak of ground: Circle with a dot and a line
- ROAD CLASSIFICATIONS: Circle with a dot and a line
- U.S. Bank: Circle with a dot and a line
- State Road: Circle with a dot and a line
- Army Base: Circle with a dot and a line

Firing & Bombing Areas





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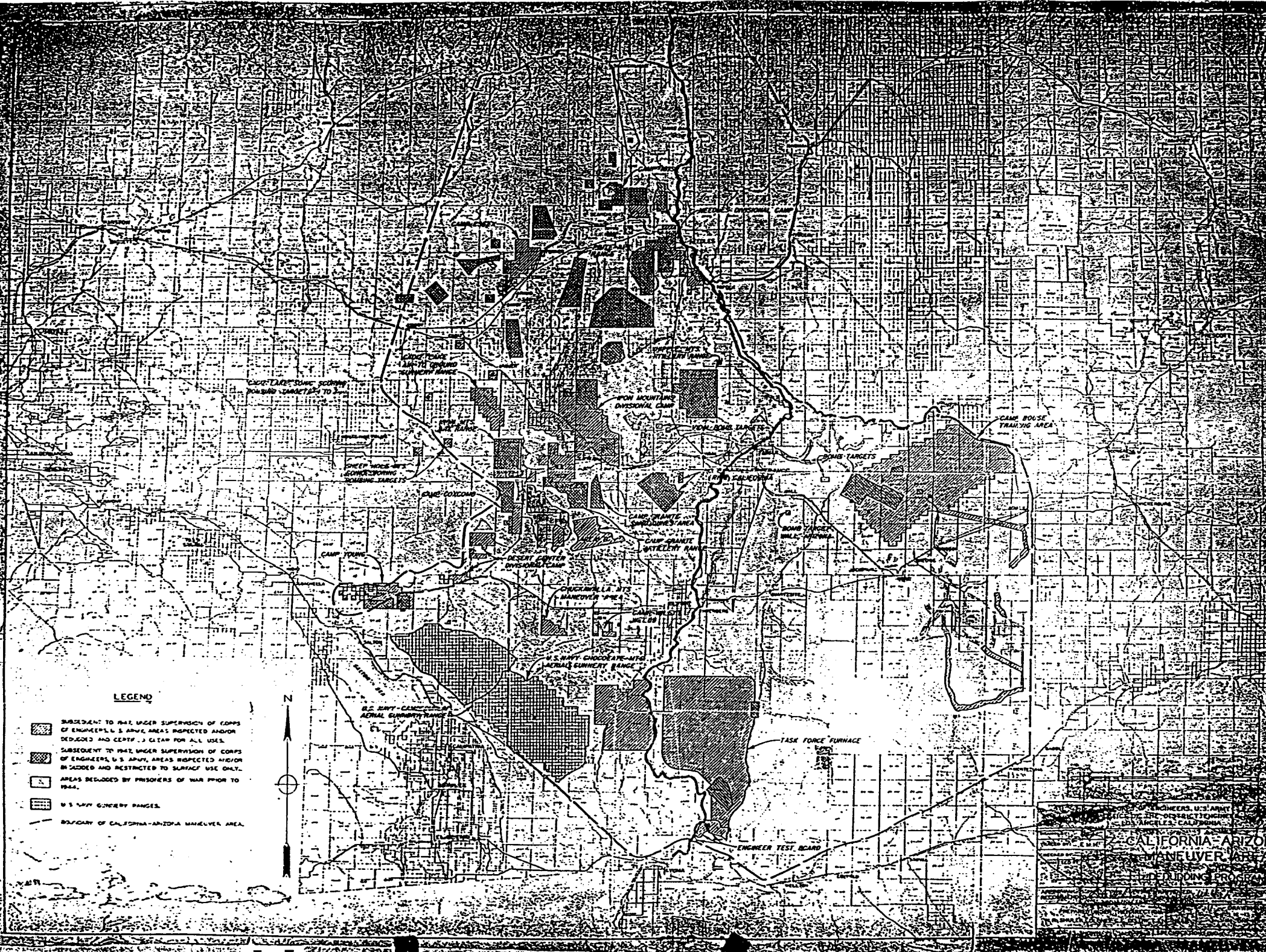
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 By JJA
 NARS, Date 11-7-95
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REPRODUCED AT THE NATIONAL ARCHIVES
 DECLASSIFIED
 NND 803119
 By JJA
 NARS, Date 11-7-95
 100 MILES
 50






EVACUATION OF CAMPS AND INSTALLATIONS

REPRODUCED BY 671ST ENGR. CO. (TOPC)

CAMPS	PLANNED	ACTUAL	CAMPS	PLANNED	ACTUAL
BFAUMCNT	1 Apr	22 Mar	HORN	12 Feb	8 Feb
BANNING	1 Apr	22 Mar	HYDER	(IV Corps)	(IV Corps)
PALM VILLAGE	29 Apr	18 Mar	ESSEX (CLIPPER)	10 Mar	9 Mar
INDIO	29 Apr	8 Apr	GOFFS	1 Apr	20 Mar
COACHELLA	29 Apr	3 Apr	IRON MT	1 Apr	25 Mar
YOUNG	1 May	1 May	IBIS	1 Mar	29 Mar
DESERT CENTER	1 Apr	7 Apr	NEEDLES	20 Mar	31 Mar
PILOT KNOB	18 Mar	19 Mar	GRANITE	29 Mar	26 Mar
YUMA	17 Apr	15 Apr	FREDA	17 Apr	6 Apr
LAGUNA	2 Apr	5 Apr	COXCUMB	2 Apr	10 Apr



LEGEND

-  SUBSEQUENT TO 1942 UNDER SUPERVISION OF CORPS OF ENGINEERS U.S. ARMY AREAS RESERVED AND/OR DEDICATED AND CERTAIN CLEAR FOR ALL USES.
-  SUBSEQUENT TO 1942 UNDER SUPERVISION OF CORPS OF ENGINEERS U.S. ARMY AREAS RESERVED AND/OR DEDICATED AND RESTRICTED TO SURFACE USE ONLY.
-  AREAS SEIZED BY PRISONERS OF WAR PRIOR TO 1944.
-  U.S. NAVY GUNNERY RANGES.
-  BOUNDARY OF CALIFORNIA-ARIZONA MANEUVER AREA.



ENGINEERS, U.S. ARMY
 3RD DISTRICT ENGINEER CENTER
 LOS ANGELES, CALIFORNIA

CALIFORNIA-ARIZONA
MANEUVER AREA

DEVELOPED FROM
 1:250,000
 1954

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX M

ARCHIVES SEARCH REPORT CORRESPONDENCE

(This Section Not Used For This Report)

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

APPENDIX N

REPORT DISTRIBUTION LIST

APPENDIX N

REPORT DISTRIBUTION LIST

<u>EXTERNAL</u>	No. Copies		
	I	II	III
Commander, U.S. Army Corps of Engineers Engineering Support Center ATTN: CEHNC-OE-AI (Mardis) P.O. Box 1600 Huntsville, Alabama 35807-4301	2	-	-
Commander, U.S. Army Corps of Engineers North Central Division ATTN: CENCD-PP-PM 111 N. Canal Street, 12th Floor Chicago, Illinois 60606-7205	1	-	-
Commander, U.S. Army Defense Ammunition Center and School, ATTN: SIOAC-ESL Savanna, Illinois 61074-9639	3	-	-
Commander, U.S. Army Engineer District, Los Angeles, ATTN: CESPL-ED-MI (Greg Boghossian) P.O. Box 2711 Los Angeles, California 90053-2325	2	-	-
Bureau of Land Management California Desert District Needles Resource Area ATTN: William T. Wiley 101 West Spike's Road P.O. Box 888 Needles, CA. 92363	-	1	-

I - Final Report
 II - Finding Report
 III - Routed Final Report

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California Desert District
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6221 Box Springs Blvd.
Riverside, CA. 92507-0714

- 1 -

Patton Museum
ATTN: Margit Rusche
NO. 2
Chiriaco Summit, CA. 92201

- 1 -

INTERNAL

Commander, U.S. Army Corps of Engineers
Rock Island District
P.O. Box 2004
Rock Island, Illinois 61201

ATTN: CENCR-

ED	-	-	1
ED-D	-	-	1
ED-DO	3	-	-
SO	-	-	1
ED-G	-	-	1
ED-H	-	-	1
PD	-	-	1
RE	-	-	1

I - Final Report
II - Findings Report
III - Routed Final Report

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP COXCOMB
FREDA, CALIFORNIA
PROJECT NUMBER J09CA027401

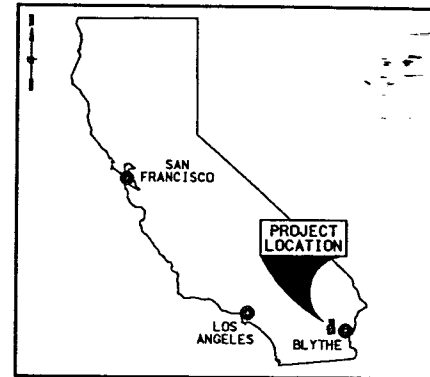
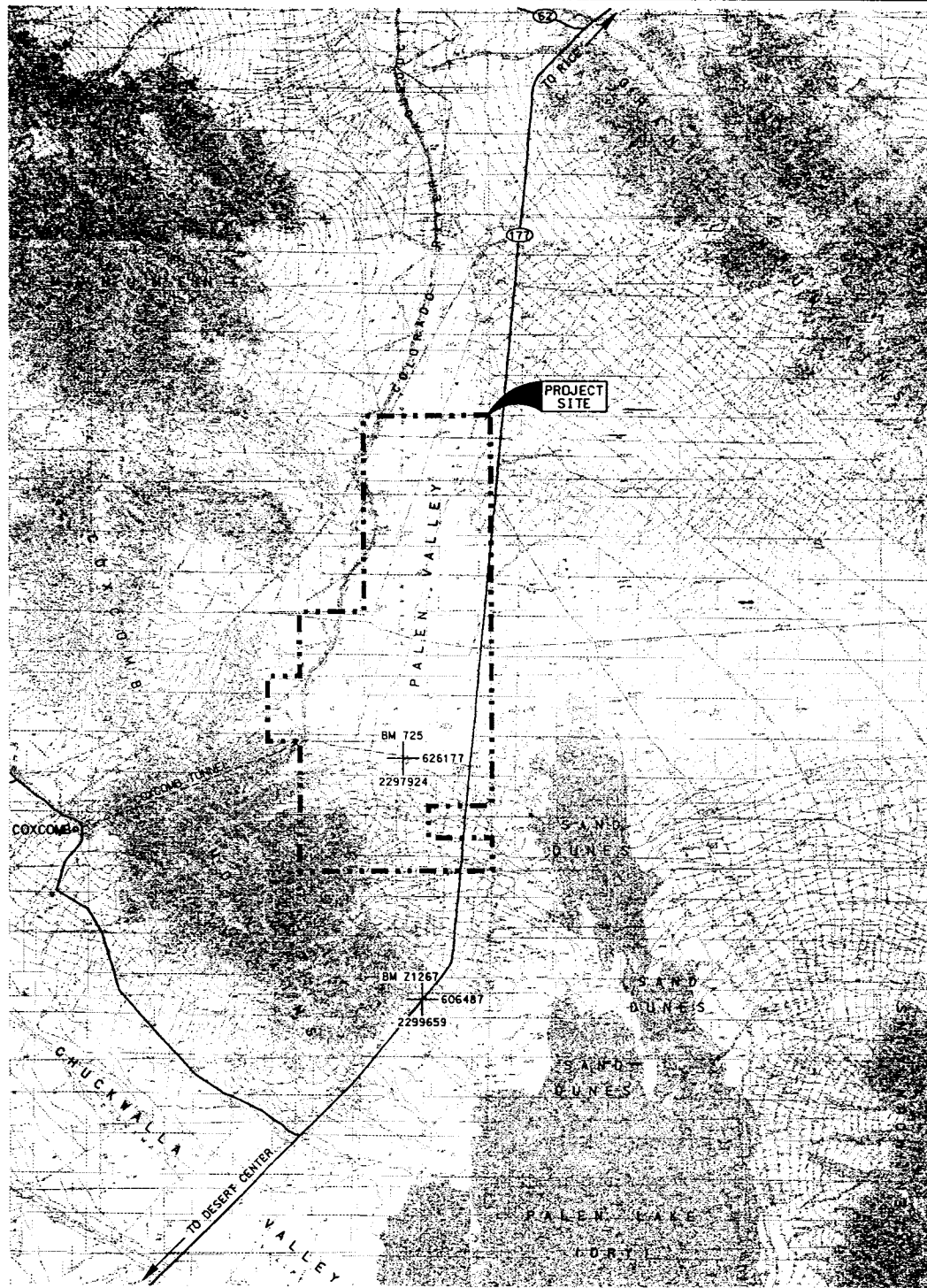
REPORT PLATES

REPORT PLATES

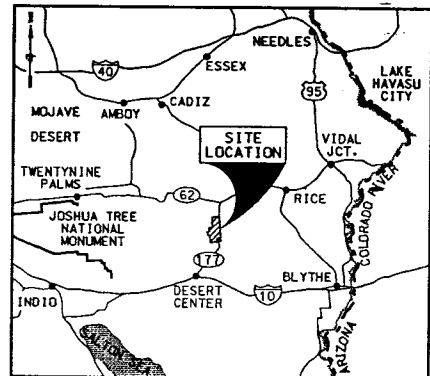
Table of Contents

1. SITE MAP
2. DOCUMENTED FACILITY LAYOUT (CIRCA 1943)
3. PROJECT AREAS
4. POTENTIAL FUDS SITES
5. DEDUDED AREAS (CIRCA 1956)
6. PHOTO LOCATIONS AND CURRENT OWNERSHIP
7. DESERT STRIKE CONTAMINATION AREAS (CIRCA 1964)

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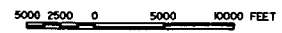
STATE MAP OF CALIFORNIA



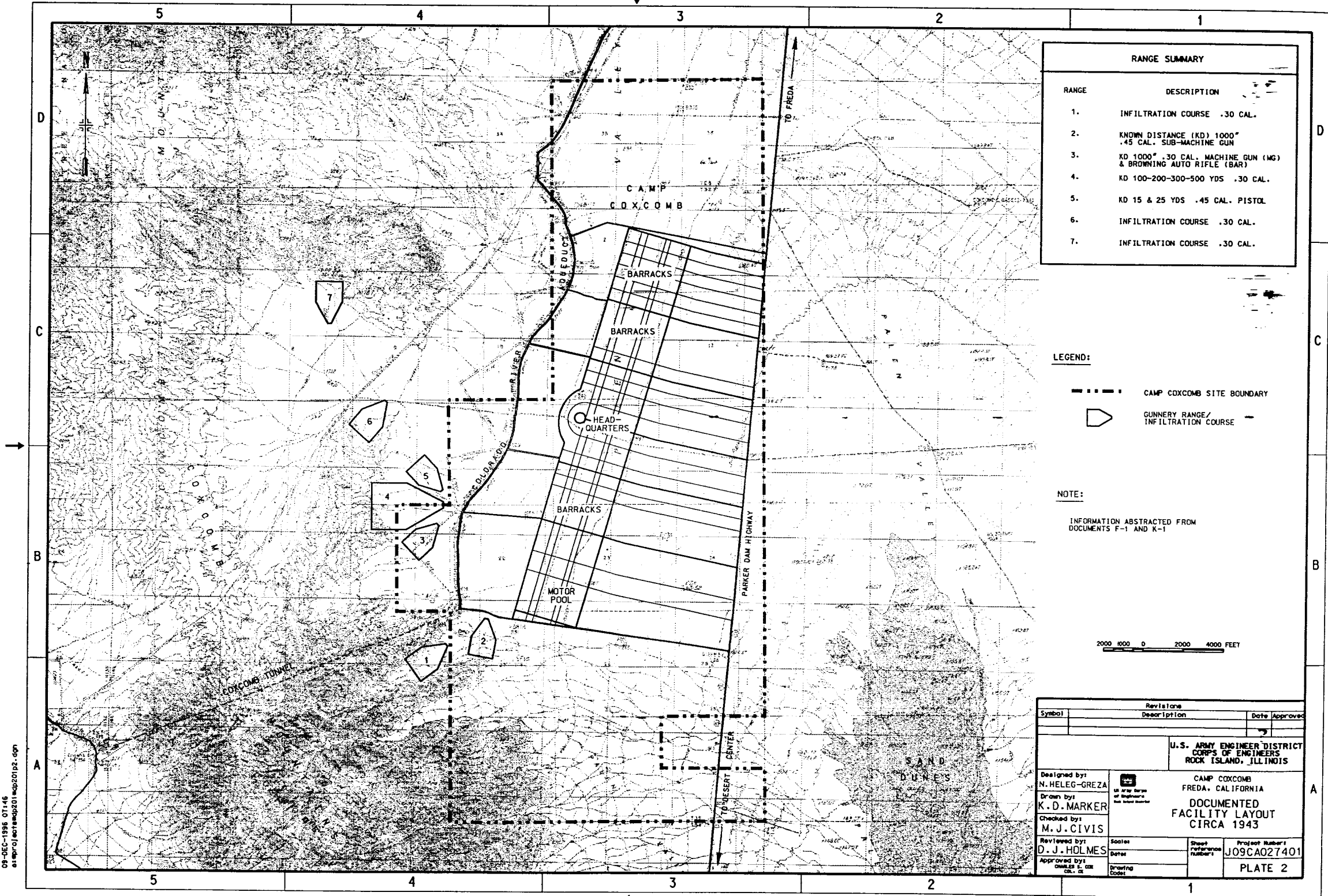
VICINITY MAP

- LEGEND:**
- CAMP COXCOMB SITE BOUNDARY
 - ⤴ INTERSTATE HIGHWAY
 - ⤵ U.S. HIGHWAY
 - STATE HIGHWAY
 - + STATE PLANE COORDINATE

NOTE:
 STATE PLANE COORDINATES
 LOCATED AT BENCHMARKS
 725 & 21267.



Revisions		Date	Approved
Symbol	Description		
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS			
Designed by: N. HELEG-GREZA	 U.S. Army Corps of Engineers Rock Island District	CAMP COXCOMB FREDA, CALIFORNIA	
Drawn by: K. D. MARKER		SITE MAP	
Checked by: M. J. CIVIS	Scale:	Sheet reference number:	Project Number J09CA027401
Reviewed by: D. J. HOLMES	Date:		PLATE 1
Approved by: CHARLES E. COE COL., USA	Drawing Code:		

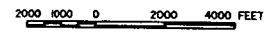


RANGE SUMMARY	
RANGE	DESCRIPTION
1.	INFILTRATION COURSE .30 CAL.
2.	KNOWN DISTANCE (KD) 1000" .45 CAL. SUB-MACHINE GUN
3.	KD 1000" .30 CAL. MACHINE GUN (MG) & BROWNING AUTO RIFLE (BAR)
4.	KD 100-200-300-500 YDS .30 CAL.
5.	KD 15 & 25 YDS .45 CAL. PISTOL
6.	INFILTRATION COURSE .30 CAL.
7.	INFILTRATION COURSE .30 CAL.

LEGEND:

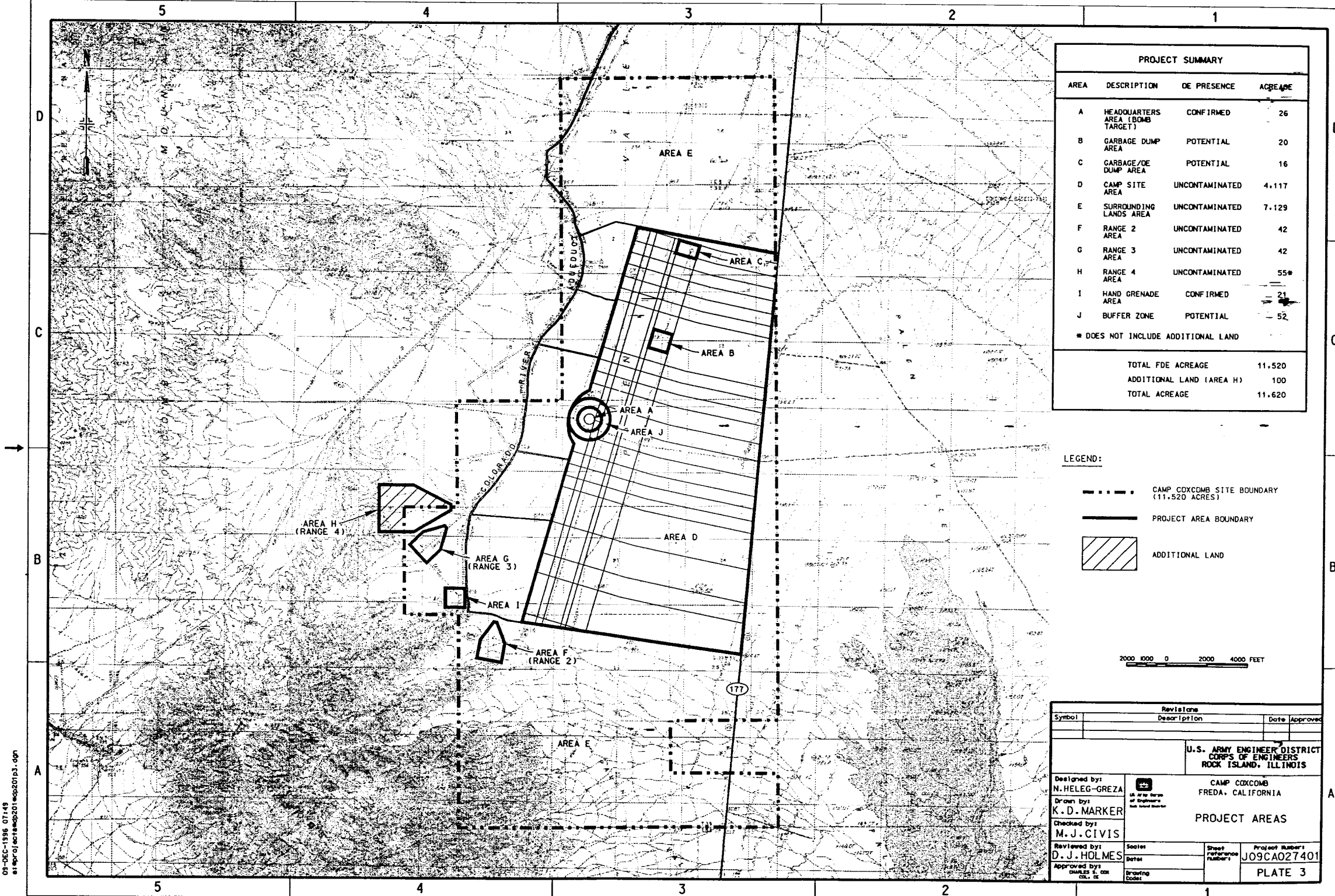
	CAMP COXCOMB SITE BOUNDARY
	GUNNERY RANGE/ INFILTRATION COURSE

NOTE:
INFORMATION ABSTRACTED FROM DOCUMENTS F-1 AND K-1



Revisions		Date		Approved	
Symbol	Description				
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS					
Designed by: N. HELEG-GREZA		CAMP COXCOMB FREDA, CALIFORNIA DOCUMENTED FACILITY LAYOUT CIRCA 1943			
Drawn by: K. D. MARKER					
Checked by: M. J. CIVIS		Project Number: JO9CA027401			
Reviewed by: D. J. HOLMES		Sheet reference number:		Drawing Code:	
Approved by: OWLES E. Cox		PLATE 2			

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PROJECT SUMMARY			
AREA	DESCRIPTION	OE PRESENCE	ACREAGE
A	HEADQUARTERS AREA (BOMB TARGET)	CONFIRMED	26
B	GARBAGE DUMP AREA	POTENTIAL	20
C	GARBAGE/OE DUMP AREA	POTENTIAL	16
D	CAMP SITE AREA	UNCONTAMINATED	4.117
E	SURROUNDING LANDS AREA	UNCONTAMINATED	7.129
F	RANGE 2 AREA	UNCONTAMINATED	42
G	RANGE 3 AREA	UNCONTAMINATED	42
H	RANGE 4 AREA	UNCONTAMINATED	55*
I	HAND GRENADE AREA	CONFIRMED	21
J	BUFFER ZONE	POTENTIAL	52
* DOES NOT INCLUDE ADDITIONAL LAND			
TOTAL FDE ACREAGE			11.520
ADDITIONAL LAND (AREA H)			100
TOTAL ACREAGE			11.620

LEGEND:

	CAMP CDXCOMB SITE BOUNDARY (11.520 ACRES)
	PROJECT AREA BOUNDARY
	ADDITIONAL LAND

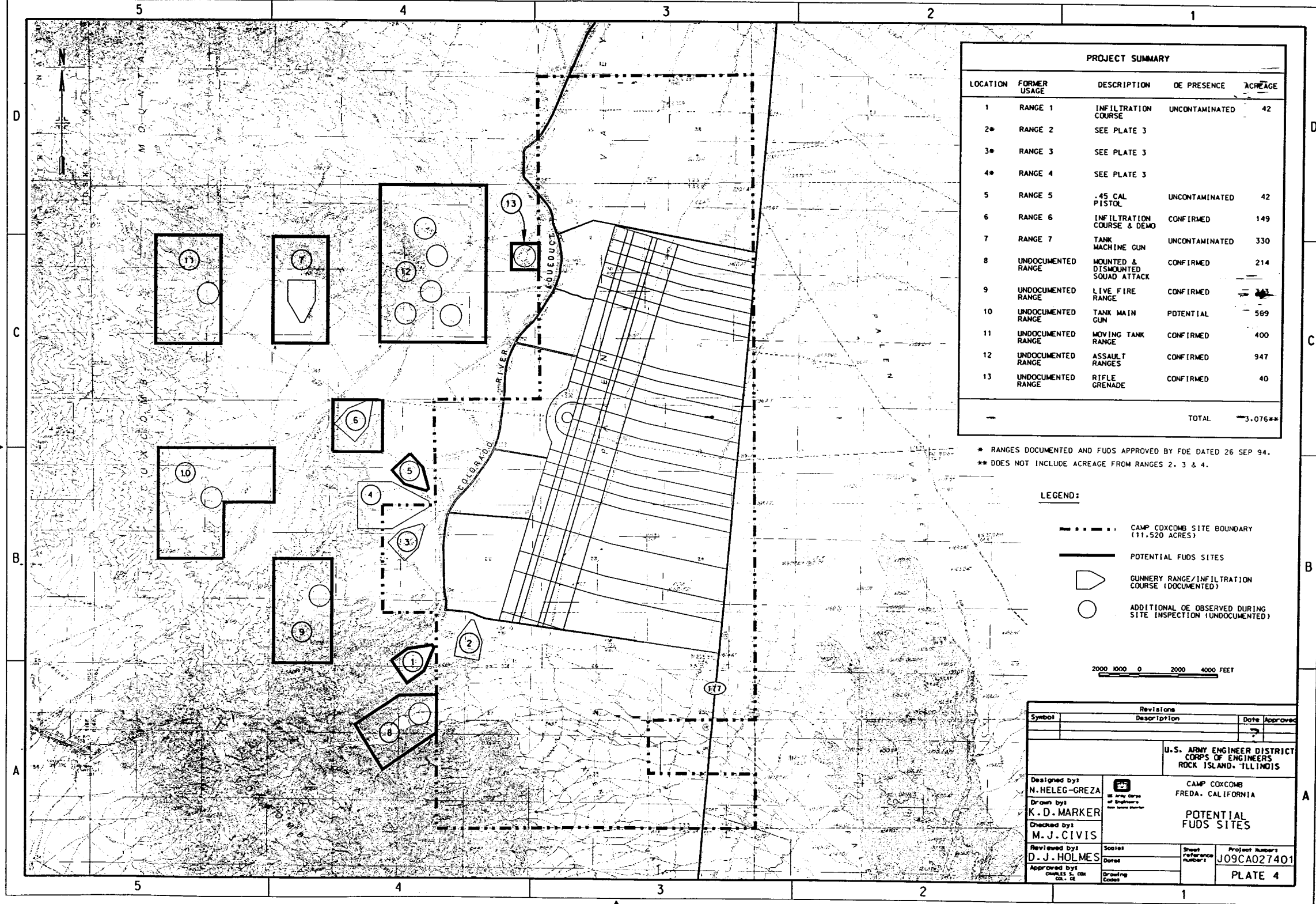


Revisions		Date		Approved	
Symbol	Description				

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS		CAMP CDXCOMB FREDA, CALIFORNIA	
PROJECT AREAS			
Designed by: N. HELEG-GREZA		Project Number: J09CA027401	
Drawn by: K. D. MARKER	Checked by: M. J. CIVIS	Sheet reference number: PLATE 3	Drawing Code:
Reviewed by: D. J. HOLMES	Approved by: CHARLES S. COX COL., USACE		

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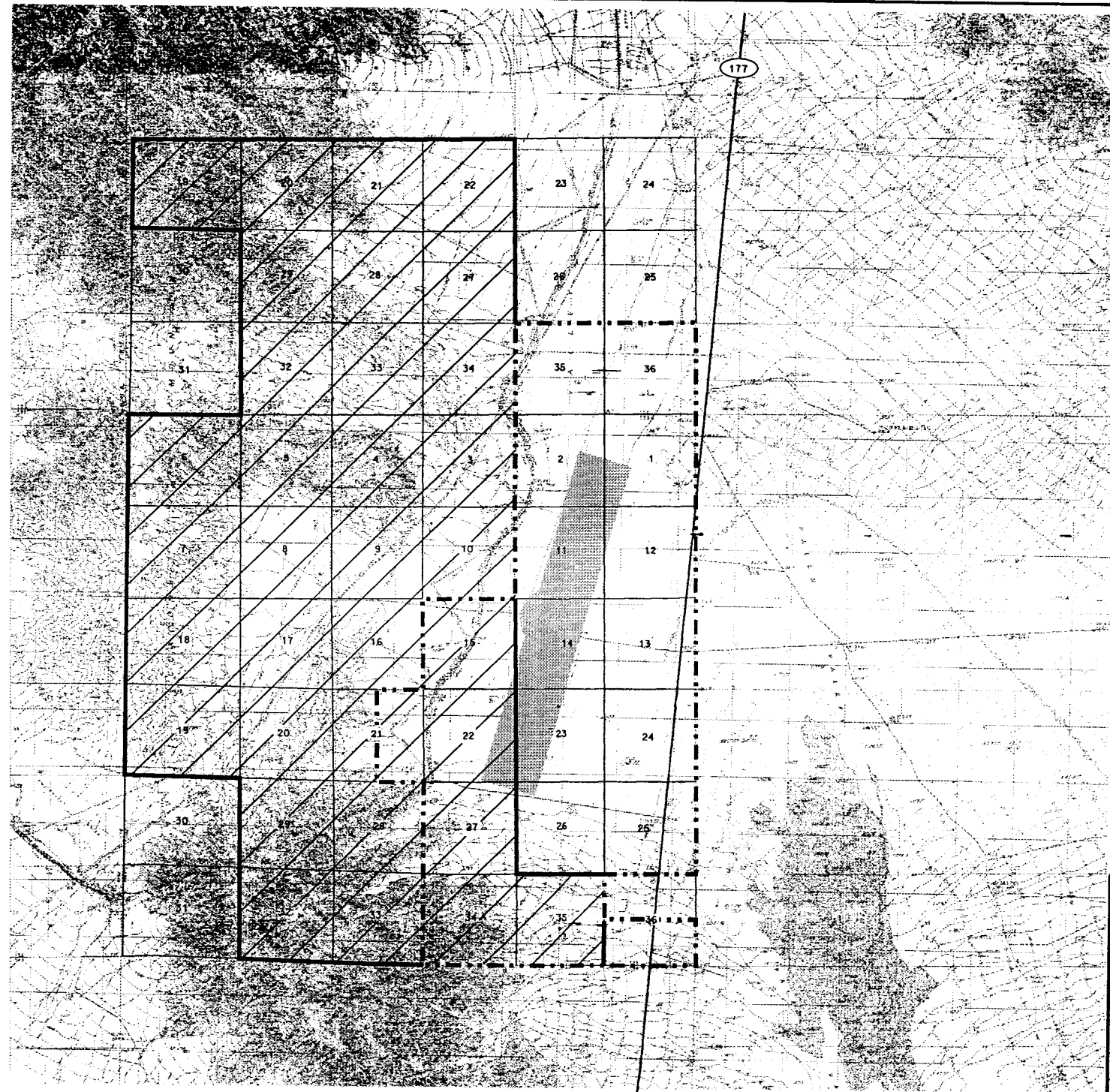
PROJECT SUMMARY				
LOCATION	FORMER USAGE	DESCRIPTION	OE PRESENCE	ACREAGE
1	RANGE 1	INFILTRATION COURSE	UNCONTAMINATED	42
2*	RANGE 2	SEE PLATE 3		
3*	RANGE 3	SEE PLATE 3		
4*	RANGE 4	SEE PLATE 3		
5	RANGE 5	.45 CAL PISTOL	UNCONTAMINATED	42
6	RANGE 6	INFILTRATION COURSE & DEMO	CONFIRMED	149
7	RANGE 7	TANK MACHINE GUN	UNCONTAMINATED	330
8	UNDOCUMENTED RANGE	MOUNTED & DISMOUNTED SQUAD ATTACK	CONFIRMED	214
9	UNDOCUMENTED RANGE	LIVE FIRE RANGE	CONFIRMED	343
10	UNDOCUMENTED RANGE	TANK MAIN GUN	POTENTIAL	569
11	UNDOCUMENTED RANGE	MOVING TANK RANGE	CONFIRMED	400
12	UNDOCUMENTED RANGE	ASSAULT RANGES	CONFIRMED	947
13	UNDOCUMENTED RANGE	RIFLE GRENADE	CONFIRMED	40
			TOTAL	3,076**

* RANGES DOCUMENTED AND FUDS APPROVED BY FDE DATED 26 SEP 94.
 ** DOES NOT INCLUDE ACREAGE FROM RANGES 2, 3 & 4.


- LEGEND:**
- CAMP COXCOMB SITE BOUNDARY (11,520 ACRES)
 - POTENTIAL FUDS SITES
 - GUNNERY RANGE/INFILTRATION COURSE (DOCUMENTED)
 - ADDITIONAL OE OBSERVED DURING SITE INSPECTION (UNDOCUMENTED)



Revisions		Date	Approved
Symbol	Description		
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS			
Designed by N. HELEG-GREZA		CAMP COXCOMB FREDA, CALIFORNIA	
Drawn by K. D. MARKER			
Checked by M. J. CIVIS		POTENTIAL FUDS SITES	
Reviewed by D. J. HOLMES			
Approved by D. J. HOLMES	Scale Date	Sheet Reference Number	Project Number J09CA027401
		PLATE 4	

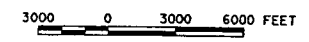



LEGEND:

- CAMP COXCOMB SITE BOUNDARY
-  AREA DEDUDED BY L.A. DISTRICT CORPS OF ENGINEERS (1956)

NOTE:

INFORMATION ABSTRACTED FROM DOCUMENT F-19.



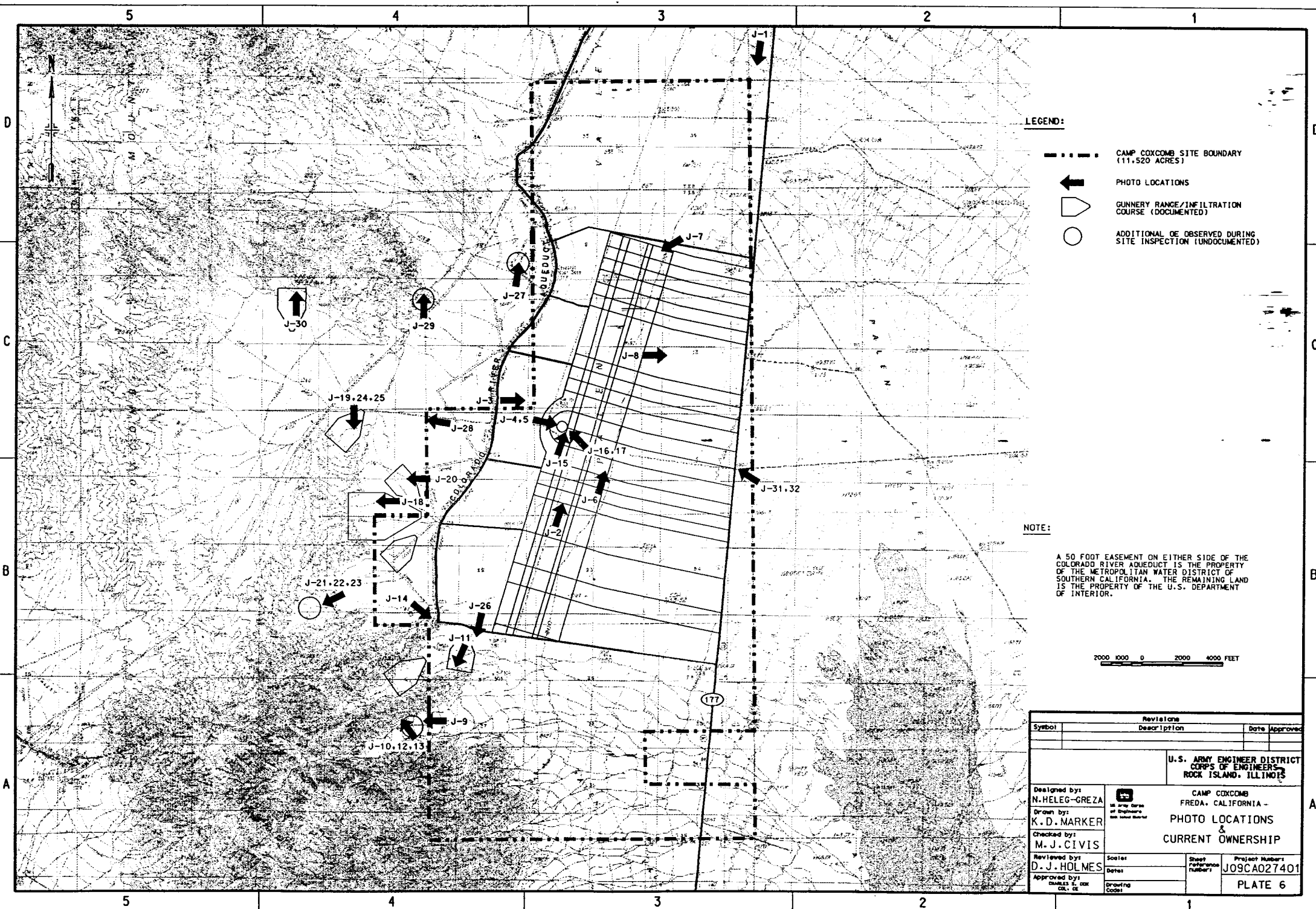
Revisions		Date Approved	
Symbol	Description		
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS			
Designed by: N. HELEG-GREZA	 U.S. Army Corps of Engineers Rock Island District	CAMP COXCOMB FREDA, CALIFORNIA	
Drawn by: K. D. MARKER		SURFACE DEDUDED AREAS 1956	
Checked by: M. J. CIVIS	Scale:	Sheet Reference Number:	Project Number: J09CA027401
Reviewed by: D. J. HOLMES	Date:	PLATE 5	
Approved by: C. S. S. Cox C. L. G.	Drawing Code:		

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LEGEND:

- CAMP COXCOMB SITE BOUNDARY (11,520 ACRES)
- ← PHOTO LOCATIONS
- ◁ GUNNERY RANGE/INFILTRATION COURSE (DOCUMENTED)
- ADDITIONAL DE OBSERVED DURING SITE INSPECTION (UNDOCUMENTED)

NOTE:

A 50 FOOT EASEMENT ON EITHER SIDE OF THE COLORADO RIVER AQUEDUCT IS THE PROPERTY OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA. THE REMAINING LAND IS THE PROPERTY OF THE U.S. DEPARTMENT OF INTERIOR.



Revisions		Date		Approved	
Symbol	Description				
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS					
Designed by: N. HELEG-GREZA		CAMP COXCOMB FREDA, CALIFORNIA - PHOTO LOCATIONS & CURRENT OWNERSHIP			
Drawn by: K. D. MARKER		PROJECT NUMBER: J09CA027401			
Checked by: M. J. CIVIS					
Reviewed by: D. J. HOLMES		Scales: Date:		Sheet Reference Number: 	
Approved by: 		Drawing Code:		PLATE 6	

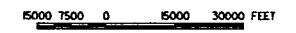
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LEGEND:

- CAMP COXCOMB SITE BOUNDARY
- DESERT STRIKE CONTAMINATION AREAS

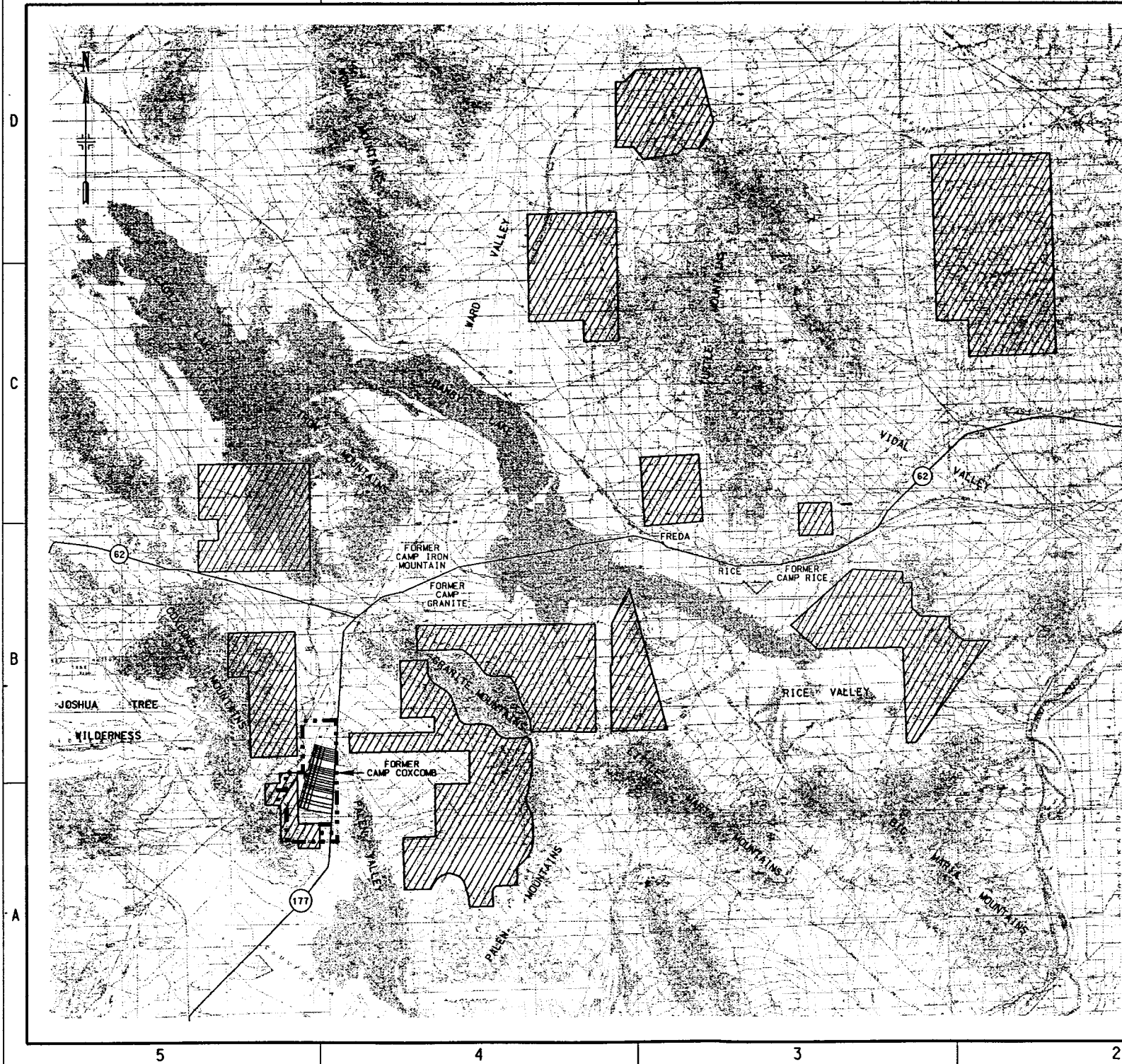
NOTE:

INFORMATION ABSTRACTED FROM
DOCUMENTS F-23 & F-24.



Revisions		Date		Approved	
Symbol	Description				
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS					
Designed by: N. HELEG-GREZA	 CAMP COXCOMB FREDA, CALIFORNIA	DESERT STRIKE CONTAMINATION AREAS CIRCA 1964			
Drawn by: K. D. MARKER					
Checked by: M. J. CIVIS					
Reviewed by: D. J. HOLMES	Scale:	Sheet Reference Number:	Project Number:	J09CA027401	
Approved by:	Date:	Drawing Code:	PLATE 7		

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