



**US Army Corps
of Engineers**

HUNTSVILLE DIVISION

U.S. Department of Defense
Base Realignment and Closure
Ordnance and Explosive Waste

ARCHIVES SEARCH REPORT

FORT ORD, CALIFORNIA

Monterey County, California

DECEMBER 1993

Prepared by
**US ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT**

**ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT**

FORT ORD, CA

MONTEREY COUNTY, CA

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**ORDNANCE AND EXPLOSIVE WASTE
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FORT ORD, CA

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1.0 Introduction

1.1 Authority

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC 9601 et seq. Ordnance and explosive wastes are included in the CERCLA definition of pollutants and contaminants that require a remedial response. In 1992 an amendment was added to CERCLA called the Community Environmental Response Facilitation Act (CERFA) which requires the Army to identify clean parcels (where operations are terminating) and to expedite the remedial investigation, feasibility study, and cleanup of those properties that offer the greatest opportunity for reuse and redevelopment.

Congress has enacted two laws since 1988 that provide for the closure, in part or in whole, of 125 military bases/facilities and the realignment of almost 100 others. The principal mechanism for implementing the policy in both statutes has been an independent, bipartisan commission. Two of the most pressing issues are (1) providing assistance to local communities economically impacted by base closures and (2) establishing a cost-effective program of environmental clean-up at bases prior to their disposition.

During the decade of the 1980s, no major military bases were closed, largely because of procedural requirements established by Congress. After several legislative efforts to break the deadlock failed, Congress introduced a new base closure procedure in P.L. 100-526, enacted Oct. 24, 1988. The statute established a bipartisan commission to make recommendations to Congress and the Secretary of Defense on closures and realignments.

On Dec. 28, 1988, the commission issued its report, recommending closure of 86 installations, partial closure of 5, and realignment of 54 others. The Secretary of Defense approved its recommendation on Jan. 5, 1989. Since the commission approach adopted by Congress was successful, new base closure legislation was introduced (P.L. 101-510) which also relied upon the services of an independent commission. This commission, in accordance with a statutory provision, is to meet in 1991, 1993, and 1995.

The Defense Base Closure and Realignment Act of 1990 (1990 Base Closure Act), Public Law 101-510 established the process by which DOD installations would be closed and/or realigned. On Jul. 1, 1991, the Defense Base Realignment and Closure Commission's 1991 (BRAC 91) report recommended Fort Ord, CA to be closed and the 7th Infantry Division (Light) (IDL) to be relocated to Fort Lewis, WA.

Legislation introduced and being considered in the 102d Congress contains language to increase assistance to individuals and communities affected by base closures as well as to accelerate DOD's environmental restoration activities.

On April 5, 1990, U.S. Army Engineer Division, Huntsville (USAEDH) was designated as the USACE Mandatory Center of Expertise (MCX) and Design Center for Ordnance and

Explosive Waste (OEW). As the MCX and Design Center for OEW, USAEDH is responsible for the design and successful implementation of all Department of the Army OEW remediations required by CERCLA. USAEDH will also design and implement OEW remediation programs for other branches of the Department of Defense when requested. In cooperation with the Huntsville Division and the Sacramento District the U.S. Army Corps of Engineers St. Louis District has been assigned the task of preparing an Archive Search Report for Fort Ord, CA, detailing ordnance contamination, suspected chemical warfare materials and any other warfare materials (i.e. radiological, biological).

1.2 Subject

The subject Army installation has been known by several names during it's history: Gigling Reservation, Camp Ord, United States Field Artillery Range-Presidio of Monterey, Gigling Field Artillery Range, and Fort Ord. It will be referred to in this report as Fort Ord. Fort Ord currently consists of approximately 28,000 acres. Fort Ord is operated as a permanent installation of Headquarters, Department of the Army, Forces Command. The primary mission of Fort Ord is to train troops, but it also provides command, administration, and logistical support and other functions necessary to operate and maintain facilities at Fort Ord and its subinstallations, the Presidio of Monterey and Fort Hunter Liggett. It also supports active Army tenant units and other activities as assigned, attached, or stationed, including satellite activities off the installation.

1.3 Purpose

This Archives Search Report (ASR) compiles information obtained through historical research at various archives and records holding facilities, interviews with individuals associated with the site or its operations, and personal visits to the site. All efforts are directed towards determining types of munitions used at the site, possible disposal areas, and any unknown training areas. Information obtained during this process is to be used in developing recommendations for further actions at the site.

1.4 Scope

The entire installation will be investigated through archives searches for the types, quantities, and probable locations of ordnance items abandoned by DOD prior to relinquishing ownership of Fort Ord, CA. Information contained herein is based on the review of existing documents, interviews, observations, site specific geology, and descriptions of known or suspected contamination.

2.0 Previous site investigations

The U.S. Army Corps of Engineers, Sacramento District, prepared the Environmental Impact Statement, Fort Ord Disposal And Reuse, June 1993, Volumes 1-5.

The company of Harding Lawson Associates is currently performing the Hazardous, Toxic, and Radioactive Waste (HTRW) Remedial Investigation/Feasibility Study under contract to Sacramento District.

The U.S. Army Corps of Engineers, Sacramento District, conducted a Remedial Investigation/Feasibility Study of the Fritzsche Army Airfield (FAAF) fire drill burn pit, 1988.

A report, Installation Assessment of Fort Ord and its Subordinate Installations, February 1983, was prepared by the U.S. Army Chemical Systems Laboratory for the U.S. Army Toxic and Hazardous Materials Agency. Other reports on coastal engineering, beach erosion, shore protection, seismic vulnerability, and water supply have been conducted by Sacramento District, Waterways Experiment Station, and Construction Engineering Research Laboratory.

A report, Task Order 11 Enhanced Preliminary Assessment, Fort Ord, California, was prepared by Weston, Inc for the U.S. Army Toxic and Hazardous Materials Agency in December 1990.

No other engineering or environmental study reports were found for this site other than the historical documents relating to the mission of the installation.

3.0 Site and site area description

3.1 Location

As stated in the Fort Ord Disposal and Reuse Final EIS, Volume I:

Fort Ord is located along the Pacific Ocean in northern Monterey County, California, approximately 100 miles south of San Francisco, shown on figure 3-1. Fort Ord occupies approximately 28,000 acres adjacent to Monterey Bay (a national marine sanctuary) and the cities of Marina, Seaside, Sand City, Del Rey Oaks, and Monterey. The Southern Pacific Railroad and State Highway 1 (also known as State Route 1) cross the western section of Fort Ord, separating the beachfront from the majority of the installation. Fort Ord is bordered on the east by undeveloped land. Of the total Fort Ord acreage, 73% (approximately 20,000 acres) is in unincorporated Monterey County, 15% (approximately 4,100 acres) is within the Seaside city limits, and 12% (approximately 3,400 acres) is within the Marina city limits.

3.2 General History

Fort Ord was established in 1917 when the government purchased 15,809 acres near what is now the East Garrison area. It was used as a maneuver area and field target range for the 11th Cavalry and the 76th Field Artillery, which were then stationed at the Presidio of Monterey. (Note: In 1903 the Presidio of Monterey was called Ord Barracks. By 1904 the name was changed to the Presidio of Monterey.) During summers the 30th Infantry Regiment from San Francisco used the reservation for maneuvers. In 1933 the reservation was designated Camp Ord and except for a well and caretaker's house in the center and a few bivouac sites, no improvements were made until 1938 when permanent buildings were constructed. In August 1940 Camp Ord was designated Fort Ord and the post was expanded to more than 20,000 acres. The 7th Infantry Division was the first major unit to occupy Fort Ord. During World War II, the post was a staging area for many fighting divisions and units. Following World War II the post was the home of the 4th Infantry Division which trained soldiers for the Korean conflict. In 1957 Fort Ord was designated United States Army Training Center, Infantry. During the early 1960's, Fritzsche Army Airfield (FAAF) was completed and became part of the Fort Ord complex. The 52nd Aviation Battalion, the 17th Aviation Company, and the 33rd Transportation Company (Light Helicopter) trained out of this airfield. The post continued as a center instructing basic and advanced infantrymen. In 1974 the training center was deactivated and the 7th Infantry Division occupied the installation. The 7th was converted to a light infantry division in 1983; light infantry division does not use heavy tanks, armor, or artillery. Currently, there are three major developed areas within Fort Ord: the Main Garrison, the East Garrison, and FAAF. Subinstallations of Fort Ord at one time included Fort Hunter Liggett, Camp Roberts, Fort Macarthur (responsible for reserve training), and the Presidio of Monterey. (Locations in relation to Fort Ord shown on figure 3-2). Earlier maps from the 1930's show several camps located on the reservation. The names of these camps are Camp Pacific, Camp

Huffman, and Camp Clayton. Also a Camp Gigling Reservoir was shown on a map, but the site of the Camp was not shown. These sites are shown on map M-1. These Camp names were researched when going through the archives.

3.3 Demographics of the area

3.3.1. Center of activity: Fort Ord is located in the vicinity of Seaside, CA. This city has numerous centers of activity such as the Seaside High School, Laguna Grande Park, Metz Park, Oldemyer Service Center and the Pattula Swim Center. However, Ft. Ord, when active, had a commissary, post exchange with branch stores, service stations, numerous shops, bank, hospital, tennis courts, baseball and softball fields, football stadium, three libraries and three theaters, picnic areas, Officers Club, Non-Commissioned Officers club, craft shops, rod and gun club, flying club and a golf course.

3.3.2. Population density:

City: Seaside	County: Monterey
Area: 3 sq.mi.	Area: 3,303 sq.mi.
POP: 38,901	POP: 355,660
PD: 12,967 persons per sq.mi.	PD: 107 persons per sq.mi.

Population and area are based on the U.S. Department of Commerce, Bureau of the Census, 1990 statistics, and telephone interviews.

3.3.3. Type of businesses: A review of both telephone interviews and County Business Patterns (1990) assisted in developing a business profile of the area. There are numerous businesses in the Ft. Ord and Seaside, California, area. These businesses include light manufacturing and retail and service businesses.

3.3.4. Type of industry: See item #3.

3.3.5. Type of housing: Housing in the vicinity is composed of both multiple and single family housing.

3.3.6. New development in the area: New development of the area will be evident in the future when the base is completely deactivated. Each municipality surrounding Fort Ord is planning future land uses.

3.3.7. Typical cross-section of population: The percent of those under the age of 18 in Seaside, California, is 27%, over 65 years is 5.4%. The median age is 25. Approximately 44.6% of the population is white, 17.4% hispanic, 23.5% black, 1.0% American Indian or Eskimo and 13.5% Asian or Pacific Islander. There are approximately 11,238 housing units with a median

dollar value of \$150,100. The work force of Monterey County, California, is broken down into the following: manufacturing, 3.5%; non-manufacturing, 90.4%; agriculture, 2.8%; and other non-agriculture 3.3%.

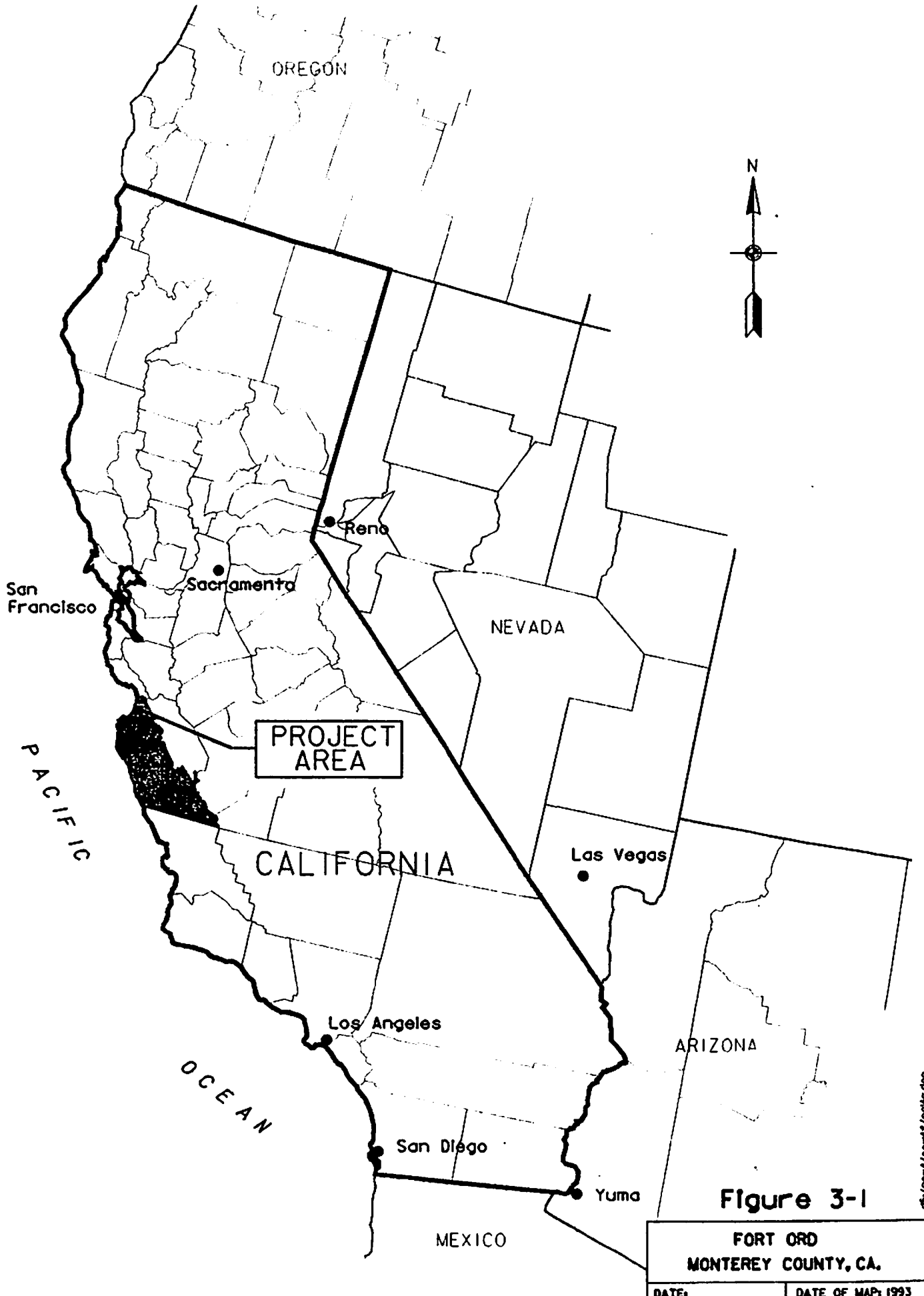


Figure 3-1

**FORT ORD
MONTEREY COUNTY, CA.**

DATE:	DATE OF MAP: 1993
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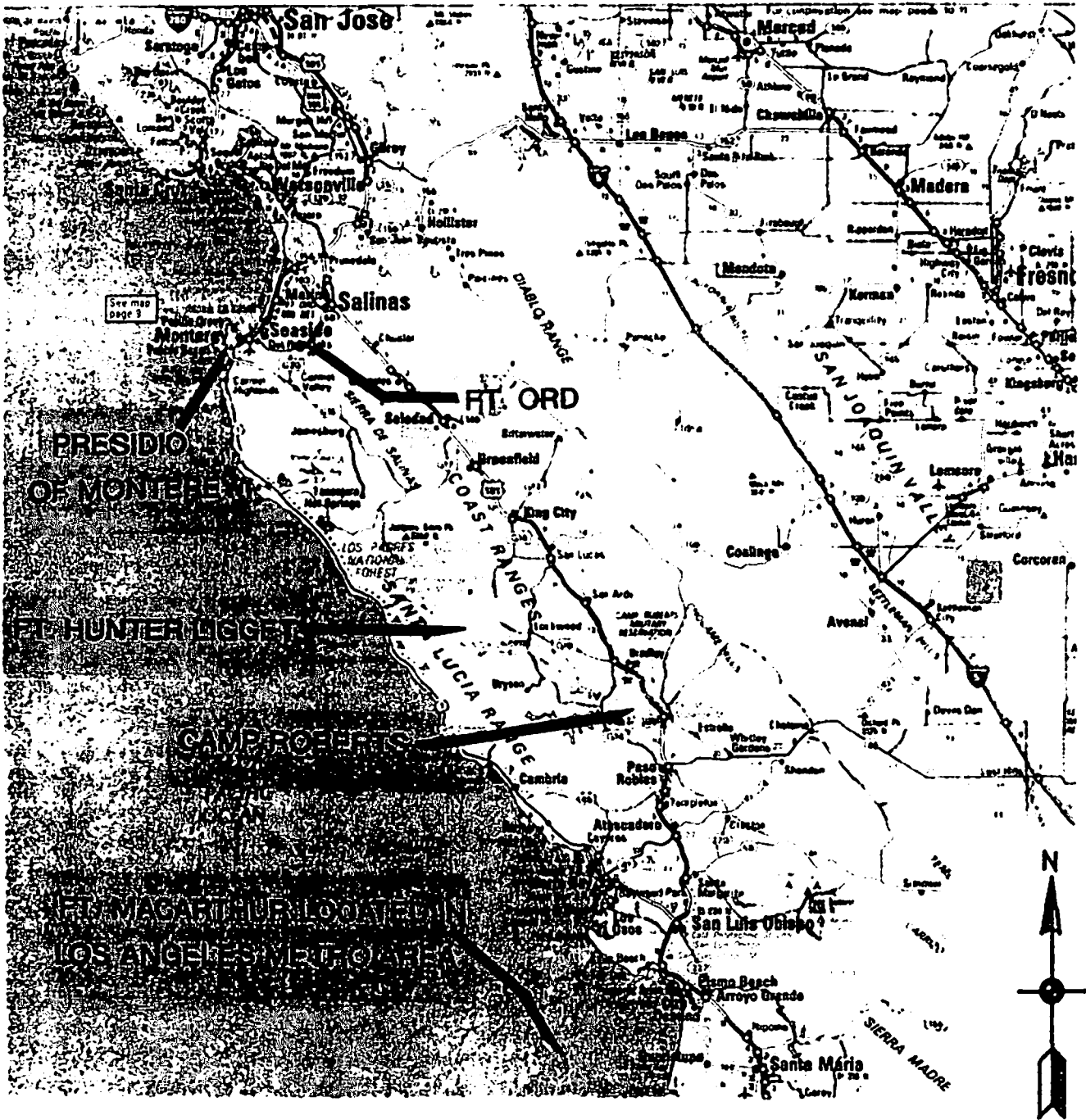


FIG. 3-2

FORT ORD FORT ORD, CA	
PROJ. DATE:	DATE OF PHOTO:
NOT TO SCALE	

4.0 Physical Characteristics of the Site

4.1 Geology/physiography

Fort Ord is located within the California Coast Ranges Section of the Pacific Border physiographic province. The Coast Ranges are characterized by a linear system of neatly parallel ranges. They are generally geosynclinal in structure, with subsequent folding and faulting in late Pliocene.

From the west, Monterey Bay is bordered by outcrops of Pleistocene and Recent coastal beach and dune deposits which are in turn bordered by Pleistocene stabilized dunes inland. The stabilized dunes cover roughly one-half the area of Fort Ord. The Aromas sandstone occasionally outcrops within the stabilized dunes area, as well as underlies the stabilized dunes. The Aromas sandstone is underlain by the Paso Robles Formation. Alluvial deposits occur on Toro Creek and sporadically throughout the area. See Figure 4-1, Surficial Geology and Fault Lines of Fort Ord.

The Paso Robles Formation and the Aromas sandstone have high potential erosion hazard. The Paso Robles and Aromas are even more susceptible to induced erosion under disturbed conditions. The Paso Robles is also prone to piping or internal, subsurface erosion tunnels open to the surface, and to landslides, as evidenced by both recent and geomorphically identifiable past landslides.

There are several inferred or concealed earthquake faults which either cross or are adjacent to Fort Ord. None show activity in the last 10,000 years, but the potential cannot be ruled out. The San Andreas fault, which has been historically active within the past 200 years, is within 25 miles of Fort Ord. The potential of earthquake damage from ground movement is moderate to very high, with the highest potential in the coastal dune zone. High to very high liquefaction potential exists on recent alluvial sediment along Toro Creek, and may exist in other small, localized areas. Landslide potential is present in the Aromas and Paso Robles formations as described above, and the shoreline dune cliffs.

The topography of Fort Ord is dome like; the center of the installation has the greatest elevation, while the boundaries are low-lying areas. The most notable topographical features are the coastal dunes and the steep slopes in the eastern portion of the installation, both of which have high erosion potential (U.S. Army Corps of Engineers, Sacramento District, 1993).

4.2 Soils

Soils which formed on the Aromas formation and on the Paso Robles formation are highly susceptible to water erosion (see Figure 4-2). They are sandy, and drought-affected. Soils formed on the Aromas and the stabilized dunes have very high permeability.

In unvegetated areas, or areas under development, sand blows from the exposed soil surface. Wind erosion at a rate of up to 310 tons per acre per year continues until the source areas are stabilized and revegetated (U.S. Army Corps of Engineers, Sacramento District, 1993).

4.3 Hydrology

4.3.1 Ground Water

As stated in the Fort Ord Disposal and Reuse Final EIS:

For purposes of discussion, geologic conditions on Fort Ord can be divided into three general areas (Figure 4-3). Each area has distinct geologic and hydrologic characteristics.

The northwest part of Fort Ord (Area 1 in Figure 4-3) overlies a small part of the Salinas Valley groundwater basin, which contains several aquifers separated by aquicludes. Area 1 is covered with dune sand deposits that are largely unsaturated. The depth of the water table is typically about 100 feet. An extensive clay layer, known as the Salinas Valley Aquiclude, underlies the dune sand deposits in the Main Garrison area. Beneath the aquiclude is the 180-foot aquifer, which is the shallowest aquifer with substantial pumpage. The aquiclude is absent along a strip near the coast and in an area extending south from East Garrison. In these areas, recharge from the surface can percolate down to the 180-foot aquifer. Beneath the 180-foot aquifer are two deeper aquifer zones referred to as the 400-foot and 900-foot aquifers.

Historically, most pumpage for Fort Ord and Marina was from the 180-foot aquifer. Seawater began intruding into this aquifer as a result of the pumping, and early wells were replaced with wells that were deeper or farther inland. By the early 1980's, seawater had intruded about 2.5 miles into the 180-foot aquifer and 1.2 miles into the 400-foot aquifer in the vicinity of Marina. Around that time, Fort Ord drilled new wells into the 180-foot and 400-foot aquifers near East Garrison and Marina drilled three wells into the 900-foot aquifer.

The southwest part of Fort Ord (Area 2 in Figure 4-3) overlies the Seaside groundwater basin. This basin is structurally complex and divided into several subbasins by faults and folds in the underlying Monterey Shale formation. Fort Ord overlies most of the northern part of the basin and supplies a substantial amount of total recharge to the basin. Except at one shallow well near the shoreline, seawater intrusion has not affected wells in this basin. The existing amount of pumpage appears to be close to the safe yield of the basin.

The eastern part of Fort Ord (Area 3 in Figure 4-3) is hilly and lacks the surficial dune deposits that cover Areas 1 and 2. Because of relatively low infiltration rates and subsurface permeability, this area is not promising for groundwater development and probably does not contribute substantial amounts of groundwater inflow to the western part of Fort Ord.

On Figure 4-3, note areas of known groundwater contamination on Fort Ord - labeled A, B, and C.

U.S. Army Corps of Engineers. Sacramento District. 1993. Fort Ord Disposal and Reuse Environmental Impact Statement, Final, June 1993, Sacramento, CA

4.4 Weather

The sea keeps the temperature of the Monterey Peninsula moderate at all seasons. The days are never extremely hot nor extremely cold. The nights are always cool. The average temperature varies less than ten degrees the year round, ranging usually from about 53 degrees to 70 degrees. Rainfall is heaviest from November to February and averages 17 inches a year. Throughout the spring and summer fog drifts in from the Pacific to cool the coastal area.

4.5 Ecology

The information provided for Fort Ord has been compiled from the U. S. Fish and Wildlife Service and the California Department of Fish and Game Natural Diversity Data Base.

Federally endangered and threatened species found on Fort Ord are the western snowy plover (Charadrius alexandrinus nivosus), American peregrine falcon (Falco peregrinus anatum), southern sea otter (Enhydra lustris nereis), Smith's blue butterfly (Euphilotes enoptes smithi), and the sand gilia (Gilia tenuiflora ssp. arenaria). The California linderiella (Linderiella occidentalis), Monterey spineflower (Chorizanthe pungens var. pungens), and the robust spineflower (Chorizanthe robusta var. robusta) are listed as proposed species for endangered status. The Fort Ord military reservation also has known occurrences of 18 federally-listed candidate species (Table 4-1).

The federal and state government recognizes several sensitive communities on and near Fort Ord. They include: Central Maritime Chaparral, Valley Needlegrass Grassland, Monterey Pine Forest, Central Dune Scrub, and Northern Coastal Salt Marsh.

In addition to the above mentioned species, the state also lists the prairie falcon (Falco mexicanus), Hutchinson's larkspur (Delphinium hutchinsoniae), Monarch butterfly (Danaus plexippus), Santa Cruz microseris (Microseris decipiens), Salinas harvest mouse (Reithrodontomys megalotis distichlis), and tidewater goby (Eucyclogobius newberryi) as sensitive species found in the Fort Ord area.

Additional information may be found in the Environmental Impact Statement, Fort Ord Disposal And Reuse, June 1993, Sacramento District.

LISTED AND CANDIDATE ENDANGERED AND THREATENED SPECIES
 THAT MAY OCCUR IN THE FORT ORD MILITARY RESERVATION,
 MONTEREY COUNTY, CALIFORNIA

Listed Species

Bird

Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	T
American peregrine falcon	<i>Falco peregrinus anatum</i>	E

Mammal

Southern sea otter	<i>Enhydra lutris nereis</i>	T
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Invertebrate

Smith's blue butterfly	<i>Euphilotes enoptes smithi</i>	E
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Plant

Sand gilia	<i>Gilia tenuiflora ssp. arenaria</i>	E
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Proposed Species

Crustacean

California linderiella	<i>Linderiella occidentalis</i>	PE
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Plants

Monterey spineflower	<i>Chorizanthe pungens var. pungens</i>	PE
Robust spineflower	<i>Chorizanthe robusta var. robusta</i>	PE

Candidate Species

Plants

Seaside bird's beak	<i>Cordylanthus rigidus var. littoralis</i>	1
Hickman's onion	<i>Allium hickmanii</i>	1
Toro manzanita	<i>Arctostaphylos montereyensis</i>	2
Sandmat manzanita	<i>Arctostaphylos pumila</i>	2
Monterey ceanothus	<i>Ceanothus rigidus</i>	2
Eastwood's ericameria	<i>Ericameria fasciculata</i>	2
Coast wallflower	<i>Erysimum ammophilum</i>	2
Wedge-leaved horkelia	<i>Horklia cuneata ssp. sericea</i>	2
Yadon's piperia	<i>Piperia yadoni</i>	a

Reptiles

California black legless lizard	<i>Anniella pulchra nigra</i>	2
Southwestern pond turtle	<i>Clemmys marmorata pallida</i>	1

Amphibians

California red-legged frog	<i>Rana aurora draytoni</i>	1
California tiger salamander	<i>Ambystoma tigrinum californiense</i>	2

Monterey County (continued)

Candidates Species

Birds

Loggerhead shrike	<i>Lanius ludovicianus</i>	2
California horned lark	<i>Eremophila alpestris actia</i>	2
Tricolored blackbird	<i>Agelaius tricolor</i>	2

Mammals

Monterey ornate shrew	<i>Sorex ornatus salarius</i>	2
Monterey dusky-footed woodrat	<i>Neotoma fuscipes luciana</i>	2

E=Endangered; T=Threatened; PE=Proposed for Endangered Status

1=Category 1: Taxa for which the Service has sufficient biological information to support a proposal to list as endangered or threatened.

2=Category 2: Taxa which existing information indicates may warrant listing, but for which substantial biological information to support a proposed rule is lacking. a=Listing package is in preparation by the Service.

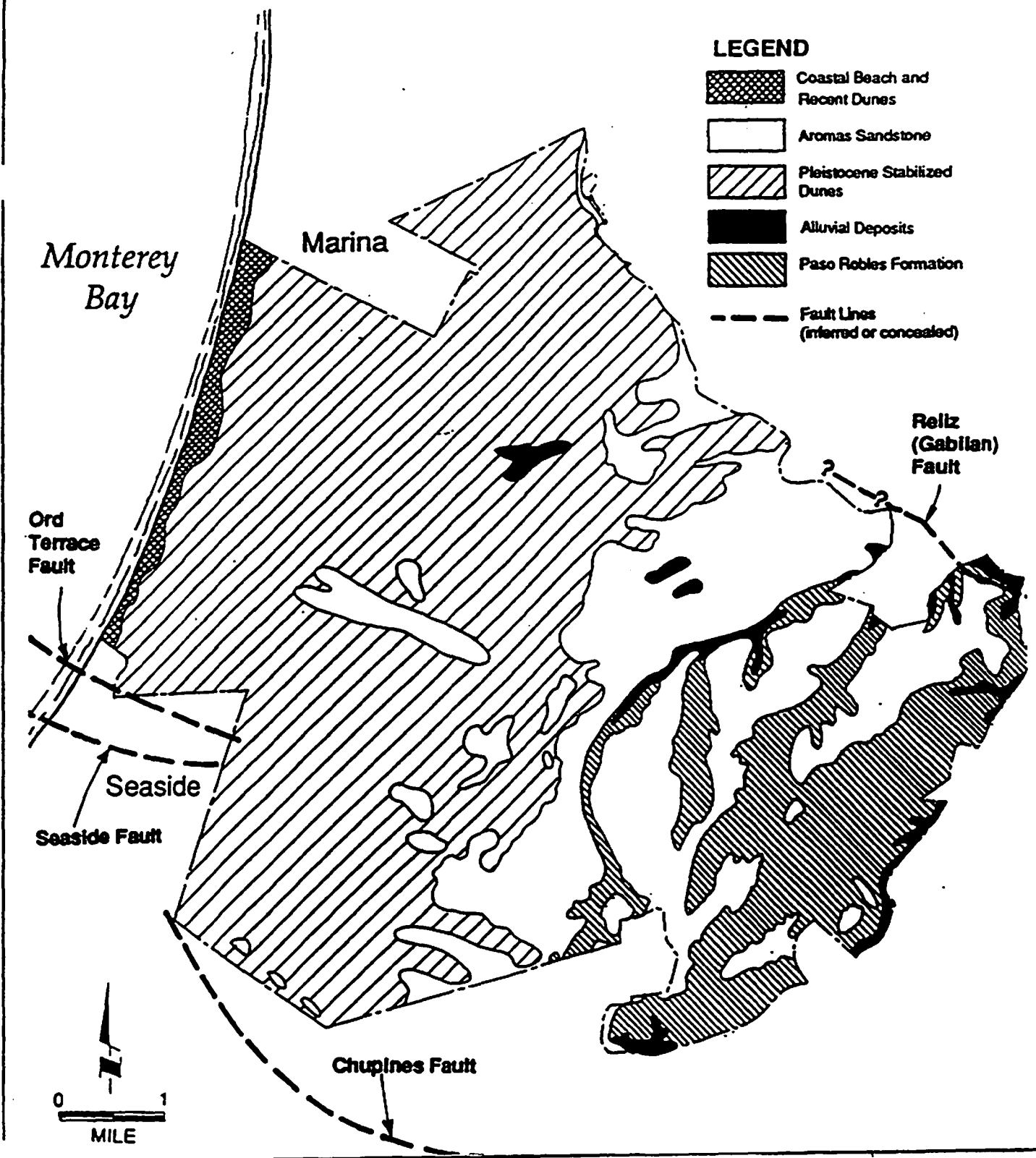


Figure 4-1: Surficial Geology and Fault Lines of Fort Ord.

Source: U.S. Army Corps of Engineers, Sacramento District, 1993.

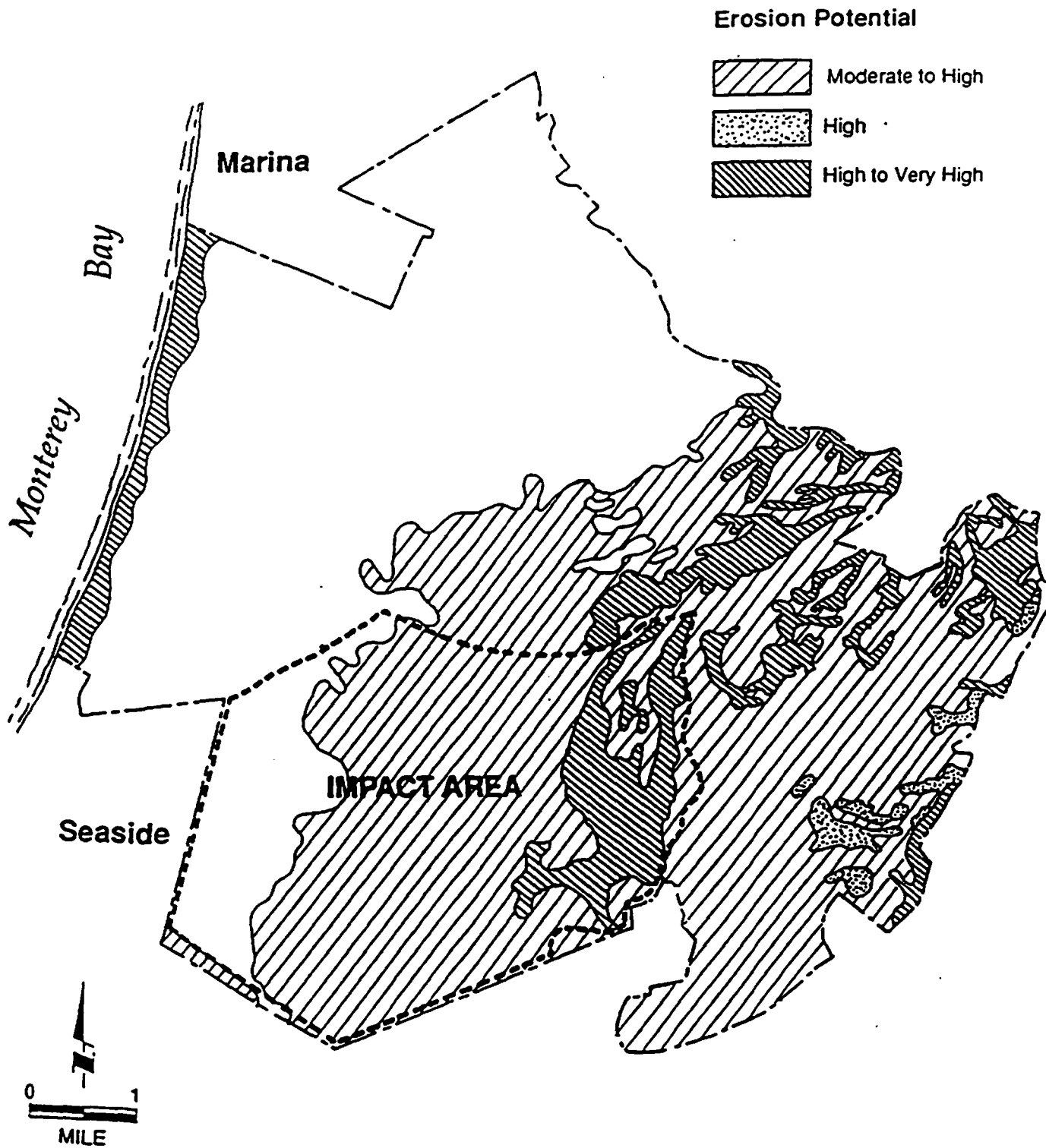


Figure 4-2: Water and Coastal Erosion Potential at Fort Ord.

Source: U.S. Army Corps of Engineers, Sacramento District, 1993.

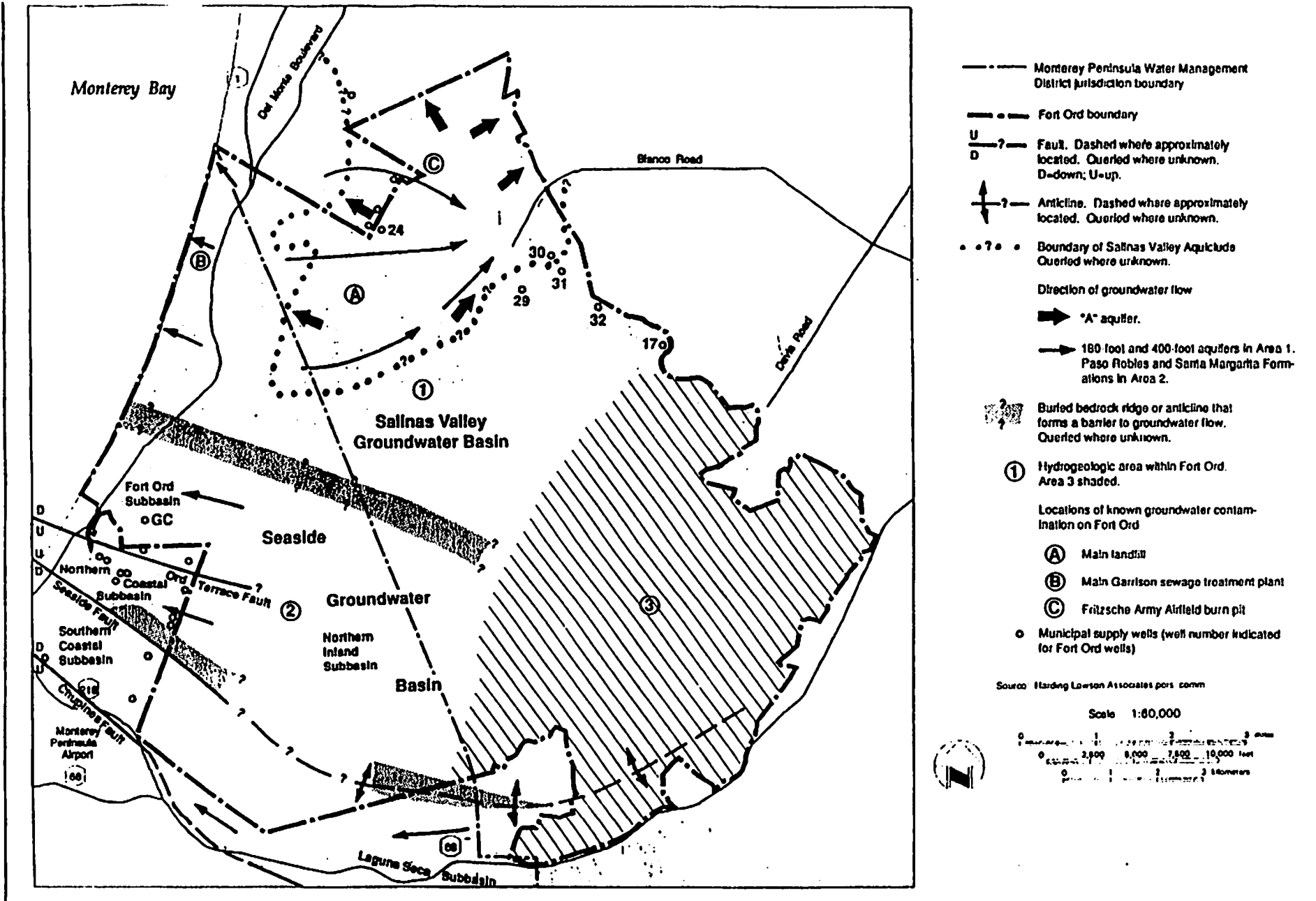


Figure 4-3: Hydrogeologic Conditions in the Fort Ord Vicinity.

Source: U.S. Army Corps of Engineers, Sacramento District, 1993.

5.0 Real Estate

5.1 Ownership

On 4 August 1917, the government purchased 15,809.5 acres from the David Jacks Corporation for the sum of \$162,095.00. The reservation was expanded to 20,000 acres in 1940. During the following two years, the government acquired additional land. The people of Salinas and the Monterey Peninsula bought 274 acres of sand dunes just south of the city of Marina and donated them to the Army for use as firing ranges. The lands for the Fritzsche Army Air Field (FAAF) were added to the reservation in 1960. This brought the total acreage to 28,953.58 acres.

A detailed real estate survey is currently being performed by the Sacramento District. Further information on real estate is also contained in the Fort Ord Environmental Impact Statement.

6.0 OEW site analysis

6.1 Historical summary of OEW activities

6.1.1. Overview

The original lands of Fort Ord, dating back to 1917, were used as a maneuver area and field artillery range for the 11th Cavalry and the 76th Field Artillery which were stationed at the Presidio of Monterey. During summers the 30th Infantry Regiment from San Francisco used the reservation for maneuvers as did other Reserve and National Guard units. The reservation was used in this fashion until 1938 when work started to build a large camp. In 1940 the post became a permanent Army installation.

During the World War II years the installation was a staging and training area for other divisions and units. Chemical training was conducted at Fort Ord starting in 1940. Training consisted of defense against chemical attack, gun drills wearing masks, passing through smoke and gas, chemical agent identification, weapons and tactics, and treatment of gas casualties. However, no conclusive evidence was found of toxic chemical use. During WWII troops assigned to Edgewood Arsenal, Maryland, trained and conducted experiments at Camp Roberts and Fort Hunter Liggett. Chemical agent identification sets (CAIS) were used at Fort Ord. (In 1974 four CAIS were removed from the installation and sent to Edgewood, Maryland. They were subsequently sent to Rocky Mountain Arsenal for destruction.) After WWII the installation continued its rugged phases of combat training until the outbreak of the Korean War.

In 1957 the installation was designated as the U.S. Army Training Center, Infantry. Also at this time the Army Combat Developments Command Experimentation Command was headquartered at Fort Ord. However, its field experimentation was carried out on the Fort Hunter Liggett Reservation. Typical of the experiments conducted are experiments on the ability of the soldier to perform under toxic environment while wearing protective clothing and masks; evaluation of the M114 as a scout vehicle; the Infantry Rifle Unit Study experiments (IRUS). There is reference to Range 32 on Fort Ord as being used for the IRUS experiments. It was used as a defensive range and permitted live-fire evaluation of small infantry units under operational and environmental conditions. The range was equipped with target systems that record hit and near-miss data.

During the early 1960s, Fritzsche Army Airfield (FAAF) was added to the Fort Ord complex. The installation continued as a center instructing basic and advanced infantrymen until 1974 when it was deactivated. It then became the home of the 7th Infantry Division once again. A wide variety of weapons have been fired at Fort Ord. A listing of all ordnance known to have been fired or used is shown in figure 6-1.

Ordnance fired or used on Fort Ord

- Small arms: .22 LR, .38 Special, 9mm P, .45 ACP, .30 carbine, 5.56mm NATO, 7.62mm NATO, .30 Cal (30.06), .50 Cal.; 14.5mm Trainer-spotter. Types identified are ball, tracer, API.
- Projectiles: 20mm; 37mm Gun and anti-aircraft; 40mm Grenade (linked and single) and anti-aircraft; 57mm, 75mm, 90mm, 106mm recoilless rifle; rifle grenades; 75mm, 105mm, 155mm Howitzer; 7" and 8" naval gun; 60mm, 81mm, 4.2" & 4" Stokes mortars. Types identified have been HE, HEAT, APHE, illumination, and smoke (FS, HC, & WP).
- Rockets and guided missiles: 35mm subcaliber, 2.36" bazooka, 3.5" rocket, 66mm LAW, 66mm Flash, SMAW, 84mm AT-4, Dragon, TOW, suspect 2.75" FFAR were used.
- Hand grenades: Fragmentation hand grenades, MkII and M67 series; M18 smoke grenades. It is not known if other types such as WP, illumination, and incendiary were used.
- Landmines: Anti-tank and anti-personnel practice mines are known to have been used. The only high explosive mine on record is the M18 claymore.
- Pyrotechnics: All types of simulators and pyrotechnic signals were used including M21 ATWES, M74 air burst simulator, smoke pots, booby-trap simulators, and flares.
- Bombs: Concrete-filled practice bombs, 250 & 500lb.; M57A1 250lb. GP; a 100lb. GP bomb was also reported.
- Demolition materials: Composition C-4, TNT, Bangalore torpedoes, are known along with initiators like blasting caps, detonating cord, etc.
- Chemicals: Riot control tear gases such as CN and CS were dispensed in capsules, candles and M79 grenade launcher. No other delivery means are known. CAIS were used.

Figure 6-1

6.2 Site specific evaluations/recommendations

Large areas are contaminated with conventional ordnance and explosive waste. There are numerous patches of real estate which warrant further research and testing (shown on Map M-2):

6.2.1. Site 1, Flame thrower range, (vicinity FR 069591).

Discussion: Found on a map dating from 1957, this range no longer exists, and in fact is now located at the southern end of a fenced in drainage area (depression) near Patton Elementary School.

Recommendations: This area should be investigated further. The possibility exists for this range to have been used for other training besides flame thrower training. A surface sweep should be conducted in this area to determine the presence of unexploded explosive ordnance (UXO).

6.2.2. Site 2, Chemical training area, (vicinity FR 075575 to 078577; area between intersection of Fifth and Eighth Streets and intersection of Imjin and Eighth).

Discussion: The area between Imjin Road and the stockade has been described as a chemical training area by Mr. Maurice Macbride, who was a military dependent during 1933-37. He remembers watching soldiers training with protective masks on. He said later the area was used for landmine warfare training. During a terrain walk, no evidence of OEW contamination was found, except for one unidentified item protruding from the ground at FR 07805772. It is not suspected to be ordnance-related.

A Mr. Lee Stickler, who was in the Field Artillery in 1940-41 at Fort Ord, and much later served as Range Control Officer from 1971-89, stated that the area was a horse corral when he was there. This is confirmed by a map from 1943-44. Several 2.36" bazooka rounds have recently been found just east of Pete's Pond. The remains of what appear to be concrete target bunkers can still be seen.

Recently, a 55-gallon drum was unearthed (vicinity FR 074575) during ditching operations east of Pete's Pond adjacent to 5th Avenue Cutoff. It was tentatively identified as a chemical agent container by UXB International (subcontractor to Harding Lawson Associates) personnel who were working in the area. The drum apparently had reinforcing ribs of the kind used on chemical containers. An explosive ordnance disposal team from the 87th Ord Det (EOD), Presidio of San Francisco, was called out. The team responded as if it were a full-blown chemical incident.

The drum turned out to be empty. This drum is the only evidence that toxic chemicals may have been used or stored on Fort Ord.

The EOD team leader, Staff Sergeant Davis, further stated that chemical agent training kits (containing 10% solutions HD) were buried along Imjin Road between the roadway and old stockade.

Recommendations: This area requires further investigation to determine the extent of the hazards present. The area where the drum was unearthed should have further analysis done. Any further excavation should proceed with caution due to the likelihood of uncovering 2.36" rockets.

Further investigation should be made along Imjin Road (southeast and south-southeast of stockade), to ascertain whether any of the buried training kits might be uncovered.

6.2.3. Site 3, Range 49, Old Demolition area, (vicinity FR 095547).

Discussion: This area is labelled as SDA on historical maps. This could mean "safe disposal area" or "squad defense area". However, this area also served as a landmine warfare, anti-armor, and Molotov Cocktail training area. Lee Stickler stated that a whole host of munitions were destroyed here over the years, and is probably heavily contaminated with explosive residue and scrap metal (fragments). Currently, the only visible remains of this range are two blackened areas where armored vehicles sat as targets for Molotov Cocktails. The exact location of the demolition range could not be pinpointed, but is believed to have been in front of the vehicles (between vehicles and entrance road). According to Roy Durham of the current Range Control Office, Range 49 was used for Molotov cocktail training and some demolition training with a maximum 1/4 lb. TNT use limit.

Recommendations: A surface range sweep should be made with magnetometer to determine the presence of unexploded explosive ordnance (UXO).

6.2.4. Site 4, CBR Training areas, (vicinity FR 091552, FR 082557, FR 082545 and 096568).

Discussion: These facilities appear on 1957 and 1958 maps and a report prepared by Weston, Inc titled Task Order 11 Enhanced Preliminary Assessment, Fort Ord, CA prepared for USATHAMA, December 1990. Currently there is a gas chamber where soldiers test their masks for leaks at FR 091552. Tear gas agents like powdered or encapsulated CS and CN are used in these chambers. A U.S. Chemical Systems Laboratory document from 1983 states that classroom training took place in Building 2820. As part of this training, minute quantities of mustard gas were used for familiarization. These were probably part of the Chemical Agent Identification Sets, four of which, according to the document, were transferred to Edgewood Arsenal.

Recommendations: It is possible that powdered tear gas agent was dumped in the area or used capsules were discarded here. A walk through of the area only produced signs

Recommendations: It is possible that powdered tear gas agent was dumped in the area or used capsules were discarded here. A walk through of the area only produced signs of pyrotechnic use and a suspect washout area. Recommend that the area be checked for residue. If other areas shown on maps can be located/identified, then further field investigation is recommended.

6.2.5. Site 5, South of East Garrison, (vicinity FR 133565).

Discussion: Recently, a 3.5" rocket motor was discovered south of East Garrison. It was reportedly found in the branches of the live oak trees growing at the top of the ridgeline just south of the pistol range. The rocket motor was apparently taken from East Garrison to Building 2788 before the item was reported to Fort Ord EOD. A copy of the EOD report is included in Appendix C-3. No known range is or was laid out in this area for firing these rockets. However, a tank subcaliber gunnery range is shown on historical maps to have existed here at one time. According to Mr. Roy Durham of Range Control a tank subcaliber gunnery range was planned for the East Garrison area, but was never constructed.

Recommendations: Area should be surface swept to ascertain extent of ordnance contamination.

6.2.6. Sites 6, 7, 8, & 9, Mine and booby-trap training areas, (vicinity FR 067595, 091570, 098568, 108544 respectively).

Discussion: These sites appear on maps dating from 1956-57. Copies of these maps have been provided to Huntsville Division, Sacramento District and Fort Ord. It is possible that practice landmines and booby-traps may have been left behind, or never uncovered. Since a practice/inert mine that has been buried for many years is nearly impossible to distinguish from a live (HE) mine, any landmines found in these areas should be treated with extreme caution.

Recommendations: These areas should be swept with a magnetometer for indications that mines might still be buried.

6.2.7. Site 10, Leary Hill & Elliot Hill region, (current training areas K2 & K3).

Discussion: During walk-throughs of these areas, 81mm high explosive and 60mm illumination mortar rounds have been observed on the surface. It is not known from where these rounds might have been fired. Also, maps from 1968 and 1972 show an old EOD range called Range 50 (FR 109542) in this same area.

Recommendations: This is a fairly large piece of real estate which is a maneuver training area. However, the possibility exists for an old EOD range in this area. Recommend that random spot sweeps be made to determine the full extent of contamination.

6.2.8. Site 11, Demolition training area, (vicinity FR 133548).

Discussion: Demolition ranges commonly are contaminated with explosive residue and scrap metal (fragments). It is possible that chunks of high explosive which failed to detonate or burn could be found on the surface. These should be identified and destroyed by EOD-trained personnel only.

SFC Grimes, NCOIC of Range Control, stated that the area was an old EOD range. The exact location was unknown (he may have possibly heard about the old Range 50 mentioned in site 10). Large portions of the area were burned off several years ago. During a walk-through, pieces of 40mm training practice tracers were spotted.

Recommendations: Range area should be spot checked with a magnetometer.

6.2.9. Site 12, Picnic Canyon, (vicinity FR 133538 south to 133530).

Discussion: Hand grenades, 37 mm gun, and 40mm anti-aircraft projectiles have been located in this area. It is not known when this area might have been used, but since it is outside of the normal impact area, it can be assumed that it was used during the pre-war or WWII era.

Recommendations: This area will have to be cleared prior to any development. Range sweeps with magnetometer will be necessary.

6.2.10. Site 13, Practice Mortar Ranges: (vicinity grid square FR 089585 called site 13A, and FR 092561 called site 13B).

Discussion: These ranges were used for mortar practice during the 40's and 50's. They are believed to have only used practice ammunition and sabot trainers.

Recommendations: Much of 13A site area is already part of the Abrams housing area and other built-up areas, the probability of uncovering rounds is deemed low. Random spot sweeps of this area should be considered. Recommend spot sweeps of 13B site also.

6.2.11. Site 14, Pilarcitos Canyon & Lookout Ridge: (vicinity grid squares FR 1250 & 1251).

Discussion: This area contains 7" and 8" Naval gun rounds, which obviously overshoot the impact area. A 1957 map shows a mortar position in this area; a 1956 map shows a subcaliber artillery training area P-5 in this same area. According to Mr. Roy Durham, Range P-5 was used from approximately 1972 through 1992 for subcaliber artillery and mortar practice.

Recommendation: This area will have to be cleared along with the inland impact area

based on future land use. Any future development will no doubt uncover subsurface rounds for years to come. Potential for ordnance to be 7' to 10' deep.

6.2.12. Site 15, Impact Area, (inland impact area).

Discussion: This enormous tract of land has been used for a wide variety of weapons firing. It is heavily contaminated with conventional ordnance, and will be manpower intensive to do a surface clearance. Large areas will have to be burned off just to clear the surface. The following pages outline all known weapons and munitions that were fired or used on each range in the impact area.

Range #	Ordnance Found or Utilized
18	Small arms: 5.56mm, 7.62mm & .30 cal
19	Small arms: 5.56mm, 7.62mm & .30 cal
21	Small arms: 5.56mm, 7.62mm & .30 cal, 3.5" Rkt
22	Small arms: 5.56mm, 7.62mm, .30 cal & .50 cal, 106 RR
23	Small arms, 40mm HE (M203), M18A1 Mine (Claymore)
23M	Dragon missiles (practice and HEAT), 4.2" Mortar
24	Small arms, 40mm Prac, 35mm Subcal
25	Small arms, 37mm Gun
26	Small arms, 2.36" Rkt, 3.5" Rkt, 37mm Gun, Mortars
27	Small arms
27A	Small arms, 37mm Gun, 20mm
28	Small arms, 40mm Prac, 60mm & 81mm Smoke
29	Small arms (machine gun), 20mm
30	Small arms up to .50 cal, Demolition charges, 20mm
30A	40mm HE (Mk19), 40mm HEDP, Smoke (M203)
31	Small arms; M72 LAW; Dragon; Hand grenades; Claymore; 75, 105, 155 How; 40mm HE; Mortars; 7" & 8" Naval
32	57, 75, 106mm RR HEAT; 37mm Gun; Mortars; 40mm AAA

Note: Beach ranges are ranges 1 - 17 (listed as site #22).

Range #	Ordnance Found or Utilized
33	Demolition charges, 3.5" Rkt, 81mm Mortar, Bangalores
34	Mortars, Rifle grenades
35	40mm (linked, from helicopter), 3.5" Rkt, Mortars
35A	Small arms, TNT, 3.5" Prac
36	Hand grenades (frag), Claymores
37	2.36" & 3.5" Rkts, Rifle grenades, 57 & 75mm RR
38	Small arms, Rifle grenades
39	Small arms
40	3.5" Rkt, 60mm Mortar, Claymores
41	84mm AT-4 HEAT, 60mm Mortar
42	60, 81, 4.2" Mortars; 106mm RR, 250lb Bombs
43	60 & 81mm Mortars, 40mm HE (M203), Hand grenades (frag), Bangalores, M72 LAW, Dragon
44	M72 LAW, 90mm RR, 84mm AT-4, 35mm Subcal, M202 Flash, Dragon
45	40mm HE (M203), M202 Flash, 60mm Mortars (found deep)
46	Small arms, 40mm Prac
47	40mm (M203)
48	40mm HEDP (M203); M202 Flash; 60, 81, 4.2" & 4" Stokes Mortars (found 10' deep); pyrotechnics, 90mm RR

Mortars and howitzers have fired high explosive, white phosphorus, and illumination rounds. It is doubtful that toxic chemical munitions were ever fired, but cannot be discounted.

An M57A1 250 lb. GP bomb was found in front of Ranges 41-43, FR 087522. The bomb was low ordered. (See EOD Incident Report, Appendix C-3).

Concrete-filled 500 lb. bombs (6 to 8) have been found near Range 31, FR 092506. Final count could not be verified.

It should be noted that 37mm projectiles have been found just inside the reservation boundary to the northeast of Laguna Seca (at Wolf Hill).

Recommendations: It is apparent that ranges used for one type of weapon today may have been used for several different weapons in the past. Some areas are so heavily saturated with UXO that it could be said with some certainty that they would never be cleared of all hazards. Any efforts to develop this impact area will be met with numerous munitions that are extremely dangerous in the dud-fired state.

A surface clearance alone will be done at great expense of manpower, funding, and risk of personal injury. Large areas will need to be burned off to enable clearing personnel to spot the surface ordnance. A subsurface clearance, of course, will require an even greater expense. Some of the munitions are at the 7-10' level.

Recommend that range clearances be programmed out in such a manner that the necessary resources are available, and that land-use restrictions be imposed to reduce the risk of personal injury.

6.2.13. Site 16, 2.36" Rocket Moving Target Range, (vicinity FR 094538 to 100536).

DISCUSSION: Only discovered 18 months ago, this area was saturated with 2.36" rockets, both HEAT and practice. There is a narrow-gauge railroad track where moving targets operated. Mr. Roy Durham stated that over 1000 rockets had already been destroyed and about 400-500 were HEAT warheads. During a terrain walk, nearly a dozen rocket motors and components could still be seen within a small area.

RECOMMENDATION: This area should be burned off again and a range clearance conducted.

6.2.14. Site 17, Anti-tank (AT) Practice Mine area, (vicinity FR 155525, near Bldg. T-3992).

DISCUSSION: SFC Grimes stated that he had been shown an inert training AT mine by an EOD sergeant who pulled it out of the ground in this area. A brief walk through showed no sign of where this type of training took place.

RECOMMENDATION: This area is noted for the record; spot sweeps of the area should be considered.

6.2.15. Site 18, 100lb. Bomb, (vicinity FR 090567, in the confidence course area).

DISCUSSION: In the 1970's this area was a minefield practice area used to teach Trainees methods for locating landmines (mine and booby-trap area #1; see 6.2.6.). Currently there is an obstacle course in the area. A map made by a Sergeant Beardsley, an EOD NCO stationed at Fort Ord for many years, shows a 100lb. bomb found in this area. There are two theories as to how it may have gotten here:

a. It was accidentally jettisoned during bombing practice, or because of aircraft malfunction. The South Parade Ground was used as an airfield in the past. If so, an aircraft approaching from the east could have ejected a bomb in this area. A 1949 aerial photo of the area shows that it was certainly not a bombing range.

b. The bomb was an EOD training aid left in place and forgotten. Mr. Durham stated that the area once contained aircraft fuselages for emergency and EOD training.

According to an EOD Incident Report dated March 1993, the 100 lb. bomb was an unfuzed concrete-filled training device. Three practice mines and a parachute flare were also found in the vicinity. A copy of the EOD report is included in Appendix C-3.

RECOMMENDATION: The sweep of mine and booby-trap area #1 should be widened to include the confidence course area. Any deep ordnance must be excavated with care.

6.2.16. Site 19, Rifle grenade range, (vicinity FR 129547, southern slope of the firing point at the top of the hill).

DISCUSSION: A recent terrain walk uncovered what is believed to be a rifle grenade range. Fragments were found surrounding a target pit on the southern slope of the firing point (FP). Also found were jagged pieces of metal from 55-gallon drums. It is theorized that the area might have been used for flame field expedient (Fougas) training.

RECOMMENDATION: This area should be cleared of any dud munitions. Additionally, magnetometer sweeps are recommended.

6.2.17. Site 20, Recoilless rifle training range, (vicinity FR 059559, north of Gigling Road).

DISCUSSION: A recent site visit showed no evidence of this type of training to have taken place. A 1957 map is the only reference to this type of training in this area.

RECOMMENDATION: This area is noted for the record. Random spot sweeps should be considered.

6.2.18. Site 21, Mudhen Lake, (vicinity FR 135540, south of East Garrison).

DISCUSSION: The fact that this area is a lake forces consideration as a possible dumping ground. The inland impact area ponds and lakes will be addressed along with the inland ranges at a later date.

RECOMMENDATION: The lake should be checked for possible ordnance contamination. If the lake is filled with water, underwater sweeps should be done.

6.2.19. Site 22, Beach ranges, Beachfront area.

DISCUSSION: These ranges are known to be small arms ranges. Conclusive documentation or physical evidence showing these ranges to be used as anything else could not be found. However, it cannot be discounted that the only thing used on these ranges was small arms. Small arms ranges within the inland impact area are known to have had 3.5" rockets and 106 recoilless rifle ordnance utilized. A walk through of this area showed many lead bullets covering the sand dunes. There is also an ammunition storage area located on the beach near range 3. Amphibious training took place at Fort Ord in the early 1940s, which would have occurred at the beach. Also, a 1947 (Appendix H) map shows a much larger range fan extending from the coast out over the ocean than present maps.

RECOMMENDATION: Surface sweeps of the entire beach area should be considered. Future land use may dictate further investigations. Ordnance carried in from the ocean and washing up on the beach may need to be considered.

6.2.20. Notes for record:

*Firing points shown on Sgt. Beardsley's map, FP-1 at FR 10155645, FP-2 at FR 13855365, and FP included in site 19 are shown firing into the main impact area. A remote possibility exists for UXO at these points. Recommend field site visit before further action.

*Fox hole by Officer's Club vicinity FR 071549, mentioned by Harding Lawson Associates. Further information provided by an EOD Incident Report dated 20 February 1993, states that the fox hole by the Officer's club was in the vicinity of coordinates FR 07355450, approximately 50 feet from the base of the water tower. The report also stated that a single rifle smoke grenade and 100 rounds of M-1 ball and tracer ammunition were recovered. A copy of the EOD Incident Report is included in Appendix C-3.

*Machine gun squares and mortar squares shown on 1950's maps. These areas are believed to have been used to conduct crew drills and not believed to have been used as firing points.

*Tank gunnery range near Oil Well Road and other areas in the Southeast sector of the installation should be investigated further. The areas are shown on 1950's maps to be

training areas, possibly tank maneuver areas, but the type of training could not be concluded. Recommend further investigation into these areas.

*The Laguna Seca area was at one time shown to be used as a training area. Clearance records were not found for this area. This area should be considered a Formerly Utilized Defense Site.

*A map provided by Fort Ord DEH has indicated a second flame thrower range on the top of Elliot Hill.

*Chief Fletcher of the Fort Ord Fire Department stated that he discovered a 3.5" rocket east of the intersection of Blanco and Reservation Roads (vicinity FR 12465804) sometime between 1975 and 1978. The item was intact, but it is unknown whether it was live or practice.

*HLA interviewed a Mr. Orville Opaugh, retired Fort Ord personnel, and he said he heard of 75mm Pack Howitzer firing from the area of Patton Elementary School when the cavalry trained at Fort Ord.

*A map provided by Fort Ord DEH indicated two additional mine and booby trap areas in the vicinities of FR 10935470 and FR 070555.

*A map provided by Fort Ord DEH indicated an additional practice mortar range near coordinates FR 09605496.

6.3 Acreage Estimates

Listed below are the acreage estimates for the above mentioned sites.

<u>Site</u>	<u>Approximate acreage</u>
1	7
2	25
3	10
4	20
5	30
6	2
7	4
8	2
9	2
10	275
11	15
12	50
13	225, 30
14	500+
15	7500+
16	50
17	10 - 15
18	15
19	10 - 20
20	6+
21	15 - 20
22	915+

Note: 1 square kilometer = 247 acres

6.4 Air photo interpretation

Series of air photos were obtained for Fort Ord from 1941, 1949, 1956, and 1992. These dates provide a good bracket of coverage during the times of heaviest training at Fort Ord. Detailed comparison of the series shows that the main inland impact area has essentially remained the same throughout the years. The areas outside the impact area are difficult to depict exactly what kind of training might have taken place and where. However, based on maps from the 1940s and 1950s show training areas and these locations have been depicted on the photos (reference Appendix D).

6.5 Summary of interviews

6.5.1. Mr. Roy Durham **(408) 242-4202**

Mr. Durham is the current range control officer and range control employee for the last 20 years. He was the primary guide in taking us to the different sites located outside the impact area. We did not enter the impact area. The details of his interview are contained in Appendix E. A summary of information he provided is as follows:

- * he is aware of the 250 lb. bomb disposed of by the 87th EOD on 28 Apr 93
- * he is aware of 3.5" rockets behind East Garrison, vicinity FR 133565
- * the Picnic Canyon area is littered with 40mm anti-aircraft shells and fragmentation hand grenades
- * range 26 has 3.5" rockets, 37mm anti-aircraft shells and hand grenades
- * HUMRO was a soldier psychology project; no ordnance was involved
- * could not verify live agent training
- * he is aware of 55 gallon drum uncovered by UXB suspected to have contained mustard at one time; also 2.36" rockets in the same area--Pete's Pond.
- * he has been consulted numerous times in preparation of this report and is aware of most items in this report

6.5.2. Mr. Lee Stickler

Mr. Stickler was the range control officer from 1979-89 and also served in the Field Artillery at Fort Ord during 1940-41. He recalled no knowledge of toxic chemical training or use of chemical filled munitions, however, he confirmed the use of 4" Stokes mortars on Range 48 and did not discount the possibility of having fired or disposed of chemical munitions. He verified bombing runs were made out of Salinas Army Airfield during WWII. This airfield was shut down shortly after the war ended.

6.5.3. Mr. Maurice McBride **(408) 633-2347**

Mr. McBride was a military dependent at Fort Ord between 1933-47. He remembered seeing soldiers in masks training in an area between the stockade and Imjin Road (vicinity FR 080579). He stated he didn't believe live agents were being used because the horses present were not masked. He also said the area was later used for landmine warfare training.

6.5.4. Mr. Jerry Stratton
(408) 372-1901

Mr. Stratton was formerly with the Director of Plans, Training, and Mobilization at Fort Ord. He stated that the Navy had boats fire into the inland Impact Area from Monterey Bay a long time ago (WWII era) before base housing was built, and aerial bomb drops were conducted into the Impact Area. He also stated that the inland Impact Area is essentially the same since WWII, not larger or smaller now than before and statically defined over time.

6.6 Records review

Monterey County Historical Society
Monterey, CA

The repository was in the process of renovations and the collection could not be thoroughly reviewed.

Monterey History and Art Association
Monterey, CA

This organization did not have information on Fort Ord.

Seaside Library
550 Harcourt
Seaside, CA 93255

1991 "Community Relations Plan for Fort Ord, Monterey County, California." Seaside Library. September 12.

1990 "Initial Reports on the Defense Issues and Economic Impacts Associated with the Closure of Fort Ord, California." Seaside Library, CA. March 23.

1991 "Ordnance and Explosive Waste at Fort Ord," "Fort Ord Superfund Project Information." Seaside Library, CA. May.

1991 "The Army's Environmental Cleanup at Fort Ord." From Fort Ord Environmental Office. Seaside Library, CA. September.

**Salinas City Library
350 Lincoln Avenue
Salinas, CA**

1946 "Army Plays Important Part in Bay History." Souvenir Program, United States Flag Centennial. Salinas City Library vertical file. July.

"U.S. Army Training Center Infantry, Fort Ord." Salinas City Library vertical file.

"In Camp-In the Field A Word to the Wise..." *Californian*. Salinas City Library, vertical file.

1952 "Fort Ord, Infantry Training Center Dates Back to Land Purchase in 1917." *Californian*. Salinas City Library, vertical file. June.

1967 "Fort Ord Celebrates Its Golden Anniversary." *Californian*. Salinas City Library, vertical file. August 19.

**Monterey Public Library
The California Room
Monterey, CA**

1992 "Fort Ord Tells Why it's been so Noisy." *Monterey Peninsula Herald*. Monterey Public Library, California Room. September 24.

1992 "Low Clouds Halt Nighttime Firing of Bigger Guns." *Monterey Peninsula Herald*. Monterey Public Library, California Room. September 29.

1981 "General Says 7th Division Short of Men, Not Readiness." *Monterey Peninsula Herald*. Monterey Public Library, vertical file. July 31.

1981 "Fort Ord Brigade to Join Maneuvers in West Germany." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file. August 10.

1981 "Live Mortar Practice Being Held by Troops at Fort Ord."

Monterey Peninsula Herald. Monterey Public Library, California Room, vertical file. August 26.

1981 "Helicopter Site Sought for Army." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file. June 5.

1981 "Rocket, Shell Found Near Marina; Bomb Squad Work Diverts Traffic." Monterey Public Library, California Room, vertical file. June 18.

1981 "Residents Ask General to Silence Ord Guns." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file.
June 19.

1981 "Bucking the Big Bang." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file. June 24.

1992 "Fort Ord Unfit for Development." Monterey Public Library, California Room, vertical file. January 24.

1953 "Seaside Boys Awarded \$185,000 by Federal Court for Loss of Limbs in Ord Accident." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file. May 1.

1940 "U.S. Army's New Weapons Demonstrated at Camp Ord Today." *Monterey Peninsula Herald*. Monterey Public Library, California Room, vertical file. April 6.

**National Archives and Records Administration
Pacific Sierra Division
1000 Commodore Drive
San Bruno, CA**

The archives did not have any useful information on Fort Ord. In the record center several real property disposal accessions were reviewed.

Accession #291-71-A-1508, location 59599
-Right-of-Way maps through Ft. Ord
-27 April 1948 map of Fritsche Army Airfield
-Appraisals of Right-of-Way properties

Accession #291-90-0003, location A3489
-1971 Training Facilities Map including ranges
-583 acres of excessed land bordering Laguna Seca

Accession #77-80-0019
-Corps of Engineers contour map of Fort Ord
-Fort Ord map indicating abandoned training aid and oil burning pit areas
-1964 and 1965 Fort Ord maps of firing ranges

**National Personnel Records Center
Military Records
9700 Page Avenue
St. Louis, MO 63132**

Several accessions were reviewed but very little good information was obtained. Most of the accessions contained travel orders, personnel orders, or regulations.

Accession #338-A-62-C-4269, location 06-18-20-9-5
-1956, 1957, 1958 Corps of Engineers maps including ranges and a historical sketch with detailed layout plan of the fort

Accession #338-A-65-A-4103, location 08-41-18-E-5
-Fort Ord Range Regulations

Accession #338-60-A-4080, location 06-21-33-3-3
Accession #338-A-64-C-5007, location 05-30-08-2-3
Accession #338-A-64-A-5007, location 05-30-08-1-5
Accession #338-A-65-B-4103, location 08-41-18-F-1
Accession #338-A-64-D-5007, location 05-30-08-2-5
Accession #338-A-62-D-4269, location 06-18-21-F-1
Accession #338-A-56-A-4051, location 08-38-11-6-1
Accession #338-A-56-D-4050, location 08-38-09-F-5
Accession #338-A-65-D-4103, location 08-41-18-1-1
Accession #338-A-56-40-50, location 08-38-09-F-5
Accession #338-71-B-871, location 06-24-42-6-1
Accession #338-A-56-C-4050, location 08-38-09-F-3
Accession #338-A-65-B-4106
Accession #338-76-B-871, location 06-24-42-6-3

**National Archives and Records Administration
Pacific Southwest Region
24000 Avila Road
Laguna Niguel, CA 92677-6719**

The Record Center section had twenty boxes of Record Group 77, Corps of Engineers, Accession 77-82-0045. Two of the boxes on Fort Ord had been checked out in 1983 and never returned. The other eighteen contained real property title files on several other COE projects in the California, Nevada, and Utah areas.

The Archives section of the facility contained only one box of information on Fort Ord and it was field notebooks. These were of no help in our investigation.

**National Archives and Records Administration
Suitland Branch
4205 Suitland Road
Suitland, MD 21010**

The Record Center section contained several accessions of information on Fort Ord. Most of these records were personnel records of the 7th Infantry. Accession 338-78-0920, location 11-12-23-7-1, boxes 1-20 contained Field Experimentation Files.

1967 "Infantry Rifle Unit Study Field Experimentation." Washington National Records Center, Suitland, MD. August 17.

The Archives section of the facility contained several documents on Fort Ord. Many different record groups were searched for information on Fort Ord, however, not all the record groups contained information.

RG 77 Records of the Office of the Chief of Engineers

Entry 391 Construction Completion Reports-Boxes 74, 237,238
"Buildings and Structures at East Garrison and Adjacent Areas, Showing Old and New Building Numbers"

Entry 393 Historical Buildings at Active Army Posts 1905-1942
Boxes 17, 175, 176
-5 aerial photographs of main garrison dated 1941
-photographs of gas instruction building, ordnance warehouse, magazines, ordnance shop, and range guard cabin

Entry A50-23 Harbor Defense Files, 1918-1945-Boxes 135, 136,
145

RG 92 Records of the Office of the Quartermaster General

Entry 1891 General Correspondence Geographic File 1922-1935 Box 1621

Entry 1892 General Correspondence 1936-1954-Boxes 15, 49

Entry 1974 Construction Completion Reports 1917-1919-Box 211

Entry 1975 Construction Completion Reports 1917-1938

Entry 1998 Real Estate Records 1917-1922

RG 112 Records of the Office of the Surgeon General

Entry 31 Geographic Series 1938-1946-Box 43

RG 156 Records of the Office of the Chief of Ordnance

Entry 41 Correspondence Relating to Inspections 1917-1940

Entry 44 Correspondence Relating to Reports of Operations 1939-1940-Boxes 1
(319.1 Ab-La), 2 (319.1 Lo-Ro), 2 (333.1/Na-Oo), 7 (333.1/Be-Cq)

Entry 646 Histories of Ordnance Installations and Activities 1940-1945-Boxes A131,
A132, A145, A146

RG 159 Records of the Office of the Inspector General

Entry 335 Index to Decimal Correspondence 1917-1954-Box 58

Entry 26E General Correspondence 1939-1947; Decimal 333.9 Camps, Posts, and
Stations; Decimal 333.9 Forts

RG 175 Records of the Chemical Warfare Service

Entry 1 Central Correspondence Files 1918-1942-Boxes 1, 2, 22, 170, 171,
214, 215, 216, 217, 230, 263, 345, 346, 349, 359, 360, 364, 417, 418, 419, 420, 453

Entry 2 Index Briefs 1918-1942-Boxes 242, 243

Entry 41 Assistant Chief for Materiel Technical Division, General Administration
1942-1945-Box 191

Entry 67A4900 Station Files 1946-1954

RG 338 Records of the U.S. Army Commands-Box 1

RG 394 Records of U.S. Army Continental Commands 1920-1942

Entry 296 General Correspondence of the Construction Division 1916-1945
9th Corps Area

Entries 325-626 Field Installations-Looked through site specific finding aid but there
was no information on Fort Ord

**Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, MO 63103**

Roberts, Robert B.

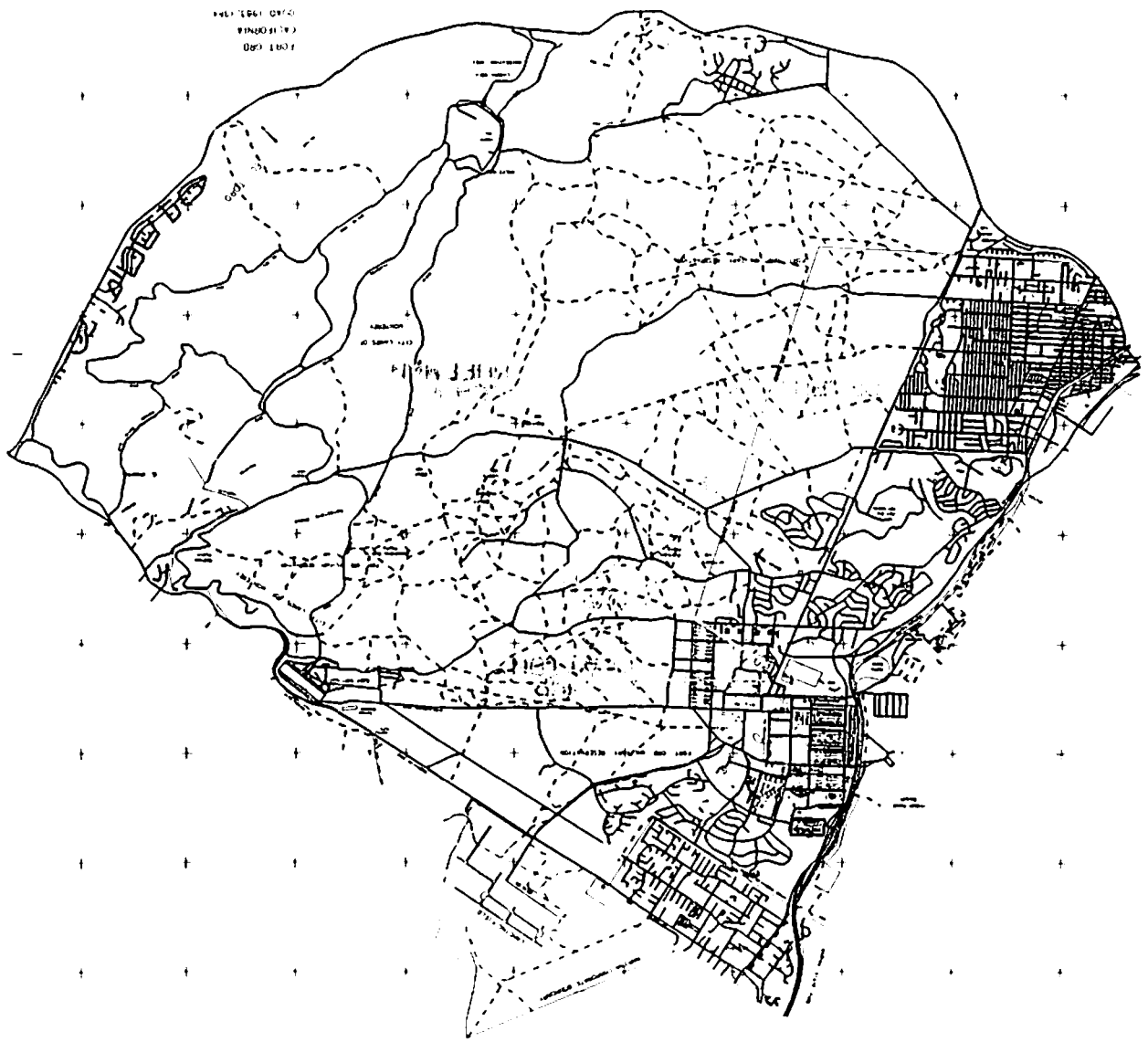
1988 *Encyclopedia of Historic Forts*. Macmillan
Publishing Company, New York.

-Background historical information

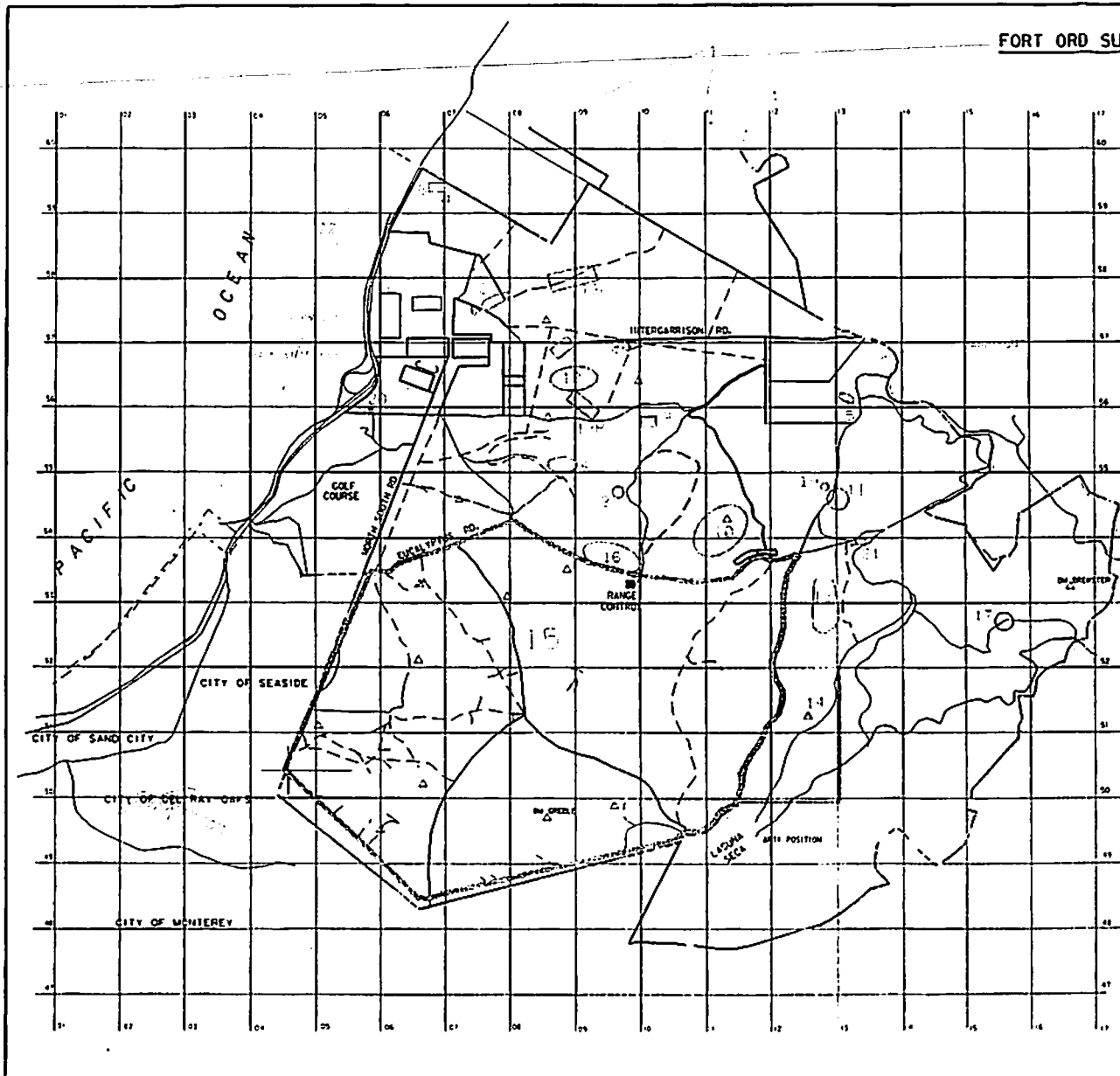
ORIGINAL CAMPS

M-1

FORT COCK
CALIFORNIA
MAY 1951



FORT ORD SUSPECTED ORDNANCE CONTAMINATION



- 1-FLAME THROWER RANGE
- 2-CHEMICAL TRAINING
-SUSPICIOUS ORDN
-2.36" ROCKETS
- 3-DEMOLITION TRAINING AREA
- 4-CHEMICAL/BIOLOGICAL RADILOGICAL TRAINING
- 5-3.5" ROCKETS
- 6, 7, 8, 9-BOOBY TRAPS & LANDMINES
- 10-81mm HIGH EXPLOSIVE MORTAR, OLD RANGE 50
- 11-DEMOLITION TRAINING AREA, GRENADE FRAGMENTS
- 12-40mm ANTI-AIRCRAFT, HAND GRENADES
- 13A-PRACTICE MORTAR RANGE
- 13B-PRACTICE MORTAR RANGE
- 14- 7" & 8" NAVAL GUN ROUNDS, OLD RANGE P-5
- 15-IMPACT AREA
2.36" & 3.5" ROCKETS
HAND GRENADES
37mm ANTI-AIRCRAFT
57, 75, 90, 106mm RECOILLESS RIFLE
40mm GRENADE
- 16-2.36" MOVING TARGET
- 17-AT MINE PRACTICE
- 18-100lb BOMB
- 19-RIFLE GRENADE RANGE
- 20-RECOILLESS RIFLE TRAINING RANGE
- 21-MUDHEN LAKE
- 22-BEACH RANGES

M-2

**FORT ORD
POTENTIALLY
CONTAMINATED AREAS**

PROJ. DATE:	DATE OF PHOTO:
	NOT TO SCALE

APPENDIX A
REFERENCES

REFERENCES

Corps of Engineers

1993 Environmental Impact Statement Fort Ord Disposal and Reuse, Corps of Engineers Sacramento District, dated June 1993

U.S. Army Toxic and Hazardous Materials Agency

1981 Installation Assessment of Fort Ord, CA and Its Subordinate Installations: Camp Roberts, Fort Hunter Liggett, Fort MacArthur, and Presidio of Monterey, Report Nos. 196, 196 A,B,C,D, prepared by Chemical Systems Laboratory, Aberdeen Proving Ground, MD

U.S. Environmental Protection Agency

1992 Aerial Photographic Analysis of Fort Ord Military Reservation, Environmental Monitoring Systems Laboratory, Las Vegas, NV, dated November 1992

APPENDIX B

ACRONYMS

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FORT ORD, CA

APPENDIX B

ACRONYMS

AAF	Army Air Field
APHE	Armor Piercing High Explosive
API	Armor Piercing Incendiary
ASR	Archive Search Report
AT	Anti-Tank
ATWES	Anti-Tank Weapons Effect Simulator
BRAC	Base Realignment And Closure
CAIS	Chemical Agent Identification Sets
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
CEHND	Corps of Engineers, Huntsville Division
COE	Corps of Engineers
CWM	Chemical Warfare Material
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
EIS	Environmental Impact Statement
EOD	Explosives Ordnance Disposal
EPA	Environmental Protection Agency
FFAR	Folding Fin Aerial Rocket (2.75")
FORSCOM	Forces Command
FP	Firing Point
FUDS	Formerly Used Defense Sites
FWS	U. S. Fish and Wildlife
GSA	General Services Administration
HEAT	High Explosive Anti-Tank
HEDP	High Explosive Dual Purpose
HTRW	Hazardous, Toxic and Radioactive Waste
INPR	Inventory Project Report
IRP	Installation Restoration Program
LAW	Light Anti-Tank Weapon
MCX	Mandatory Center of Expertise
OEW	Ordnance and Explosive Waste
RI/FS	Remedial Investigation/Feasibility Study
RRTA	Recoilless Rifle Training Area
SARA	Superfund Amendments and Reauthorization Act

ACRONYMS (Continued)

SLD	St. Louis District Corps of Engineers
SMAW	Shoulder Fired Medium Assault Weapon
SPK	Sacramento District, Corps of Engineers
USACE	U.S. Army Corps of Engineers
USAEDH	U.S. Army Engineer Division, Huntsville, AL
WNRC	Washington National Records Center

**APPENDIX C-1
SITE SPECIFIC SAFETY PLAN**

SAFETY PLAN FOR SITE VISIT: FORT ORD, CA

1. MISSION: Reconnoiter and photograph areas suspected to be contaminated with UXO, and areas where chemical training took place. Areas to be checked within the cantonment area on main post: Pete's Pond, field between stockade and Imjin Road, areas south of East Garrison, and CBR training area. Contact Range Control upon arrival at Fort Ord.

2. SAFETY PRECAUTIONS: The buddy system will be used at all times during this visit. A UXO Safety Specialist will be part of the team. Sturdy clothing will be worn, and a first aid kit will be on hand. The following three basic safety rules will apply at all times:

a. Rule 1 - Do not touch or pick up anything at the site.

b. Rule 2 - Do not step anywhere where you cannot see where you place your foot.

c. Rule 3 - There will be no eating, drinking, or smoking at the site. Hands will be washed after the survey and prior to eating and drinking. The only exception is for emergency actions.

3. SITE COMMUNICATIONS: A cellular telephone will be carried for emergency communications in the event an EMS/rescue team is needed. The primary means of communicating with other team members will be by voice. Team members will always remain within sight of each other; however, universal hand signals will be used over distances too great for voice:

a. Both hands on hips - leave area immediately.

b. Hands on top of head - Help; I need assistance.

c. Thumbs up - I'm all right; I understand.

d. Thumbs down - No; negative.

e. Hand gripping throat - Choking; can't breathe.

4. NATURAL HAZARDS: Fort Ord is largely coastal desert with scrub vegetation. Temperatures are generally mild year round. There are a number of venomous creatures such as rattlesnakes, scorpions, and poisonous spiders. All persons allergic to insect stings and bites will be identified prior to the visit and carry their medication on their person at all times.

5. ORDNANCE HAZARDS: UXO with sensitive fuzing has been identified on Fort Ord. Items such as 40mm grenades, 106mm recoilless rifle rounds, and shoulder-fired rockets are present. UXO will not be jarred, picked up, or stepped on at any time.

Safety Plan for Site Visit: Fort Ord, CA

Only the photographer will approach suspected ordnance for the purpose of obtaining pictures. Other member(s) will remain at a safe distance to act as safety observers. UXO will be clearly marked with bright colored engineer tape.

6. EMERGENCY PROCEDURES: First aid will be rendered for any injuries. Range Control will be contacted by the most expeditious means to arrange for EMS/rescue teams. Hays Army Community Hospital is located on Fort Ord and is staffed for emergency treatment. Important numbers:

- a. Range Control - 242-4201
- b. Hospital - (obtain prior to arrival at site)
- c. Military Police - 242- (obtain prior to arrival at site)
- d. EOD - (415) 561-2524

7. Safety is everyone's business. No unnecessary risks will be taken to obtain photos or other data.

GREGG E. KOCHER
Health and Safety
Specialist

**APPENDIX C-2
SITE VISIT TRIP REPORT**

MEMORANDUM FOR RECORD

SUBJECT: Trip report, Site Survey at Fort Ord, CA

1. PURPOSE: During the period 20 - 22 Sep, Gregg Kocher travelled with Deanne Strauser to Fort Ord, CA to conduct terrain walks and gather data on munitions/UXO contamination on the installation. Areas identified during the first trip to Fort Ord were visited to conduct terrain walks. Photographs were taken of any UXO discovered.

2. FINDINGS:

a. Of particular interest^e were the flame thrower range, 2.36" rocket moving target range, 100 lb. bomb, Pete's Pond area, CBR training area, and old demolition areas. Only the 2.36" range and Pete's Pond produced tangible evidence of contamination.


b. A previously unknown rifle grenade range was discovered on the southern slope of the Firing Point at FR 127549. Fragments were found as well as evidence that flame field expedients were used.

c. I attended an open house community presentation conducted by the Directorate of Engineering and Housing and Harding Lawson associates. It was held in the evening at a downtown hotel. An overview of the work conducted to date and a glimpse of what the future holds was presented. The public had a chance to ask questions and raise concerns.

d. Manuals held at the Naval Postgraduate School were looked at, but produced no information of any use.

3. TRAVEL NOTES: Accommodations at the Holiday Inn, Monterey were excellent.

4. PROBLEMS ENCOUNTERED: No problems surfaced during this trip.


GREGG E. KOCHER
Health and Safety
Specialist

Trip Report

Shelia Thomas and Pat O'Donnell went to the NPRC-MR on Page Avenue on Friday, August 13, 1993. We researched boxes for Fort Ord for about an hour and fifteen minutes when the power went out. After waiting in the dark for twenty minutes with the alarm bell clanging, we left. We returned on Monday, the 16th.

Accession

Location

338-A-56-A-4051 (1/1) 08-38-11-5-1

No help - Detroit Arsenal test reports on R+D for tanks.

338-A-56-D-4050 08-38-09-F-5

No help - Ft. Ord distribution + manpower reports.

338-A-65-D-4103 (2/2) 08-41-18-1-1

No help - Promotions, court martials, citations

338-A-56-40-50 (1/2) 08-38-09-F-5

No help - Comptroller reports and daily work sheets

338-A-65-4103 (1/1) 08-41-18-1-1

No help - SOP's and who passed classes

338-71-B-871 06-24-42-6-1

No help - Travel orders from Ft. Ord to elsewhere

338-76-B-871 (1/4) 06-24-42-5-5

No help - Special travel orders

338-76-B-871 (4/4) 06-24-42-6-5

No help - Special travel orders

338-A-56-C-4050 (1/1) 08-38-09-F-3

No help - Comptrollers inventories

338-A-65-B-4106 (6/42)

No help - Adjutant General records and requirements

338-76-B-871 (3/4) 06-24-42-6-3

No help - Adjutant General requirements

Research for Fort Ord, 8/13/93 NPRC(MR) cont'd

<u>Accession</u>	<u>Location</u>
338-A-62-B-4259 (1/1)	06-18-20-9-3

No help - personnel orders

338-A-64-B-5007 (1/1)	05-30-08-2-1
-----------------------	--------------

No help - personnel orders

8/16/93 Monday

338-60-A-4080 (1/2)	06-21-33-3-3
---------------------	--------------

No help - travel orders, excess equipment

338-A-62-C-4269 (1/1)	06-18-20-9-5
-----------------------	--------------

Maps 1956, 1957, 1958

338-A-64-A-5007 (1/1)	05-30-08-1-5
-----------------------	--------------

No help - court martials

338-A-64-C-5007 (1/1)	05-30-08-2-3
-----------------------	--------------

No help - general orders, personnel orders

338-A-65-A-4103 (1/1)	08-41-18-E-5
-----------------------	--------------

Fort Ord Range Regulations copied

338-A-65-B-4103 (1/2)	08-41-18-F-1
-----------------------	--------------

No help - policy memos

338-A-64-D-5007 (1/1)	05-30-08-2-5
-----------------------	--------------

No help - Organizational charts, policy memos

338-A-62-D-4269 (1/1)	06-18-21-F-1
-----------------------	--------------

Assignment Orders, Wage Rates. Post Ordnance Ammo. Magazine
is building T-920.

Shelia Thomas
Pat O'Donnell

TRIP REPORT

CELMS-PD-AC

10 September 1993

MEMORANDUM FOR RECORD

SUBJECT: TRIP REPORT - LAGUNA NIGUEL ARCHIVES AND RECORDS CENTER

1. On September 8, 1993, Pat O'Donnell and Shelia Thomas arrived at Laguna Niguel to look at Accession 77-82-0045 at the Records Center. Of the 20 boxes in this accession, two boxes (#5 and #16) had been checked out by Susan Cook of CESPL in 1983. The Form 135 describes Box 16 as having information on Fort Ord.

2. Following is a list of the contents of the boxes reviewed from accession 77-82-0045, promarily Real Property Title Files:

- a. Box 1/20: Hansen flood control projects
- b. Box 2/20: Lease on land in AZ.
- c. Box 3/20: Luke Air Force Base and Range
March Air Force Base and Communications Annex #2
Nevada Proving Ground and Las Vegas Aerial Gunnery Range
Sahuarita Air Force Base/Precision Bombing Range
White Point Seacoast Battery (Nike Site 43-L)
Williams Air Force Base
Yuma Proving Ground
Flood Control District Properties
- d. Box 4/20: Flood plain quit claim deeds
- e. Box 6/20: Edwards Air Force Base - real estate maps
- f. Box 7/20: Luke Air Force Range, Yuma Gunnery Range.
- g.Box 8/20: Fort Rosecrans, including maps
Norton Air Force Base, AKA San Bernardino Army Air Depot or Air Force Base
- h. Box 9/20: San Antonio Dam + Reservoir
- i. Box 10/20: Edwards Air Force Base
- j. Box 11/20: Permits for land around L.A.

CELMS-PD-AC

SUBJECT: Trip report for Laguna Niguel

- k. Box 12/20: George Air Force Base
Camp Haan
Hamilton Field
- l. Box 13/20: Camp Haan leases/permits
- m. Box 14/20: Camp Cooke real estate records
- n. Box 15/20: Nellis Air Force Base
USO Building, Monterey
U.S. Naval Missile Facility (Point Arguello)
Vandenburg Air Force Base
Ventura Junction
Victorville Army Airfield
War Defense Plants Corporation
Western Development Division Facility
Lake Mead Base (near Nellis)
Las Vegas Bombing and Gunnery Range (AAF) (AFB)
Las Vegas AFS Project
Las Vegas Atomic Energy Commission Mercury
Project
Las Vegas Flexible Gunnery Range
Las Vegas Army Air Field
* Request slip for DERP, Peggy Mooney, CESPL,
10/19/87 for Van Nuys AAF
- o. Box 17/20: Alhambra Flood Control, Applegate Reservoir,
Bollom Creek Lake
Camp Irwin
Mojave Anti-Aircraft Range
Joshua Tree Gap Filler
Long Beach Municipal Airport (Airfield)
Los Angeles AAF Supply Depot (ASC Depot)
Maywood AAF Specialized Depot
- p. Box 18/20: Carbon Canyon flood control project
- q. Box 19/20: Fullerton flood control project
- r. Box 20/20: Maps including Ft. Ord general drawing of
boundary from 1933(?), Douglas AAF, March
field, Yuma Aerial Flexible Gunnery School.

3. The Archives side had one box of handwritten technical field notes on Fort Ord which were of no consequence.

**APPENDIX C-3
EXPLOSIVE ORDNANCE
INCIDENT REPORT**

EXPLOSIVE ORDNANCE INCIDENT REPORT For use of this form, see FM 9-15; the proponent agency is US Army Training and Doctrine Command.	1. UNIT NUMBER	2. CONTROL NUMBER	3. UNUSUAL <input type="checkbox"/>
	87-144-93		4. ROUTINE <input checked="" type="checkbox"/>

SECTION A: INITIAL INFORMATION

5. DATE/TIME REPORTED 151430A APR 93**	9. INCIDENT LOCATION IMPACT AREA	11. ITEM(S) REPORTED BOMB
6. REPORTED BY MR. DURHAM	10. POINT OF CONTACT SFC GRIMES	
7. PHONE NUMBER 242-6916		
8. ADDRESS RANGE CONTROL, FT ORD, CA		

SECTION B: ACTION BY EOD

12. PERSONNEL DISPATCHED SSG BEARDSLEY PFC SHYRIGHT (15 APR 93) CPL STONEROCK (20, 28 APR)	13. DATE/TIME 151440A APR 93	14. TRAVEL DATA A. AIR: FLYING TIME NA	15. WORK HOURS A. TRAVEL 1+1+1
	B. ARR 151500A APR 93	B. VEH: MILEAGE 20+20+20	B. INCIDENT 6+7+5
	C. COMPT 151800A APR 93		

16. CONFIRMED IDENTIFICATION 1-M57A1 250LB GP BOMB W/M103A1 NOSE FUZE (PARTIALLY ARMED) AND M100A2 TAIL FUZE (ARMED)	17. DISPOSITION UNABLE TO COMPLETE RSP. REQUESTED SEE FROM 14TH ENGR BTN TO BUILD PROTECTIVE WORKS; BUILT ON 20 APR 93, LOW ORDERED BOMB, SUCCESSFULLY, ON 28 APR 93.
---	--

18. INCIDENT NARRATIVE (INCLUDE ALL SIGNIFICANT DETAILS AND PROBLEMS)

M57A1 CONTAINS EITHER 98LBS. AMATOL, 129 LBS OF TNT OR 136 LBS OF TRINITROL ANY WHICH OF EXCEEDS THE RANGE LIMIT BY OVER 75 LBS NEW. THE RANGE CONTROL OFFICER REQUESTED THE ORDNANCE BE LOW ORDERED AND THAT ANY PROTECTIVE WORKS BE BUILT TO MINIMIZE THE SHOCK WAVE OF A HIGH ORDER (IF ORDNANCE HIGH ORDERED) DETONATION.

BLOCKS #12, 14B, 15 A & B, AND 17 REFLECT WORK ACTUALLY DONE ON 3 SUCCESSIVE OCCASSIONS TO ACCOMPLISH MISSION.

BOMB WAS LOW ORDERED WITH THREE M86 SHAPE CHARGES AND BURNED FOR APPROXIMATELY TEN MINUTES BEFORE A SECONDARY EXPLOSION WAS NOTED. (FUZE EXPLODED). BOMB AGAIN BEGAN TO BURN FOR ANOTHER 15-20 MINUTES BEFORE IT BECAME IMPOSSIBLE TO ASCERTAIN IF IT WAS STILL BURNING I.E. SMOKE COULD NOT BE SEEN COMING FROM THE PROTECTIVE WORKS.

PFC SHYRIGHT CONTACTED SGT ANDERSON ON 15 APR 93.

SECTION C: AUTHENTICATION

19. NAME AND GRADE AND SIGNATURE OF UNIT COMMANDER THOMAS D. BACHTTELL, CPT	20. TELEPHONE NO. DSN 586-2437	21. DATE 29 APRIL 1993
--	-----------------------------------	---------------------------

EXPLOSIVE ORONANCE INCIDENT REPORT For use of this form, see FM 9-15; the proponent agency is US Army Training and Doctrine Command.	1. UNIT NUMBER	2. CONTROL NUMBER	3. UNUSUAL <input type="checkbox"/>
	87-104-93		4. ROUTINE <input checked="" type="checkbox"/>

SECTION A: INITIAL INFORMATION		
5. DATE/TIME REPORTED 31555AMAR93	6. INCIDENT LOCATION TRAINING G1	11. ITEMS REPORTED BOMB
7. REPORTED BY OFFICER LUCAS	10. POINT OF CONTACT OFFICER HOBSON	
8. PHONE NUMBER 242-7851		
9. ADDRESS FEDERAL POLICE, FT ORD, CA		

SECTION B: ACTION BY EOD			
12. PERSONNEL DISPATCHED SSG BEARDSLEY SGT VALDEZ	13. DATE/TIME DEPT 31558AMAR93	14. TRAVEL DATA A. AIR: FLYING TIME NA	15. WRECK HOURS A. TRAVEL 1
	AND 31608AMAR93	B. VEH: MILEAGE	B. INCIDENT
	E. COMPL 31645AMAR93	10	2

16. CONTAINED IDENTIFICATION 1-M16 MINE, BOUNDING (EMPTY) 1-M30A1 100LB BOMB (UNFLIZED) (CONCRETE FILLED) 1-M48 FLARE, TRIP PARACHUTE 2-M21 MINE, ANTI-TANK (PRACTICE)	17. DISPOSITION SHA
--	------------------------

18. INCIDENT NARRATIVE INCLUDE ALL SIGNIFICANT DETAILS AND PROBLEMS

SECTION C: AUTHENTICATION		
19. NAME AND GRADE AND SIGNATURE OF UNIT COMMANDER THOMAS D. BACHTELL, CPT	20. TELEPHONE NO. DSN 586-2437	21. DATE 4 MAR 93

APPENDIX D
AERIAL PHOTOGRAPHS

APPENDIX E

INTERVIEWS

DETAILED REPORT
Interviews at Fort Ord, CA
30 AUG-2 SEP 93

TUE, 31 AUG

- Made telephone contact with 1LT Tate, commander of the 87th Ord Det (EOD), Presidio of San Francisco (415) 561-2524; he stated that no team is standing by at Fort Ord this week. A team will return next week to support a Marine Corps hand grenade range. The 87th EOD took over the Fort Ord mission a year ago and has no historical records.

- Met with Roy Durham, current range control officer and range control employee for the last 20 years, (408) 242-4202. Also present was Lee Stickler, former range control officer from 1971-89. Mr. Stickler also served in the Field Artillery at Fort Ord during 1940-41.

- Mr. Stickler recalled no knowledge of toxic chemical training or use of chemical filled munitions. However, he confirmed the use of 4" stokes mortars on Range 48 and did not discount the possibility of having fired or disposed of chemical munitions (Range 49, FR 09445470, was an old demolition area where a wide variety of munitions were disposed of).

- Mr. Durham stated that the DEH had Hardy and Lawson run soil sample tests on a buried drum dug up at FR 07585749 (intersection of Fifth and Eighth streets). Traces of HD were discovered. Conclusion was that the drum had at one time contained mustard agent HD, probably prior to being buried. Mr. Durham told me that a Mr. McBride stated that the area was a chemical training site in 1933. Mr. Stickler stated that later, in 1940-41, the area was a horse corral. Lots of 2.36" rockets are currently being pulled out of the area, so at one time it was also a bazooka range.

- Mr. Durham let me borrow a 1:50,000 scale map of Fort Ord dating from 1947. The most notable difference between this map and present ones, is the much larger range fan extending from the coast out over the ocean. Copies have been made.

- Other comments made by Durham/Stickler:

- An M57A1 250 lb. general purpose bomb (HE filled) was disposed of in place by the 87th EOD on 28 Apr 93. This bomb was in the impact area. Mr. Durham gave me a copy of the incident sheet.

- Bombing runs were made out of Salinas Army Airfield during WWII. This airfield was shut down shortly after the war ended.

- 3.5" rockets have recently been uncovered behind east garrison, vicinity FR 133565.

- Hand grenade fragments, but no duds, have been found south of

- Stopped in at the American Red Cross, bought a new first aid manual.

- Went to the Naval Postgraduate School in Monterey to look for old CMT manuals. At the library, the reference librarian told me they had no Army publications or information on Fort Ord. I looked around and checked the card catalog, but found nothing. I was told there was no museum. Perhaps Mr. McBride was refering to the Maritime Museum at Fisherman's Wharf.

GREGG E. KOCHER
Health and Safety
Specialist

LOG: Fort Ord Telephone Calls, September, 1993.

9/1/93: Numbers recommended by Seaside Library Personnel:

Fort Ord Post library, Building 4275, (408) 242-3421.

California EPA, Dept. of Toxic Substances Control, Ms. Lynn Nakashima (415) 540-3818

U.S. EPA, John Chesnutt (415) 744-2387

9/2/93: Calls

Johnny Gerry, DEH, Env. Branch, Cultural Resources (408) 242-2738, left message.

Mrs. Gee (408) 242-3190. Records holding area , personnel records through 1960's.

G-3, Chief of Training (408) 242-7095, no answer

Fred Meuer, City Manager of Monterey, formerly at Fort Ord, (408) 646-3760, in meeting, left message.

Joe Cavanagh, Fort Ord Reuse Group, (408) 384-0605, in meeting, left message.

Retired Major General Robert Fergusson, former Fort Ord commander, (408) 625-1290, said he can't help us.

Mona Gudgel, Adobe Boronda historical museum of Monterey County, Salinas, CA, (408) 757-8085, construction around records building will prevent access for 5-6 weeks.

September 3, 1993:

Tried Joe Kavanagh again but he was gone for the day.

Tried Fred Meuer again but he was gone for the day after a meeting.

Cindy at Chamberlain Library at Fort Ord (408) 242-4789, suggested Dr. McNaughton.

City of Marina base closure Task force, Gen. Moore and Richard Kuhn, (408) 384-0605. No help.

September 7, 1993:

AMCCOM Historian Office (Kathy Chiolfi) suggested US Ordnance Missile and Munitions Center and School AV 746-8325 or (205) 876-8325, Dr. William Ward

Field Artillery Center, Fort Sill, OK, Dr. Boyd Dastrup, (405) 351-6783. Suggests S-3 7th Inf. Operations

AV 357-3282 Plans + Exercises "G-3", Major Rowling, no help.

Keir Sterling, Ordnance Center and School (410) 278-4482. No help.

Dr. Herb Lepore, AMCCOM Rock Island Historian AV 793-1276 suggests TRADOC

TRADOC History Office, Ft. Monroe, (804) 727-3781, Dr. Ann Chapman or Dr. Susan Kennedy. Person answering phone suggests FORCCOM.

Dr. Jim Stensvaag, FORCCOM Historian, Ft. McPherson, GA AV 670-3781 suggests Mr. William Stacy (404) 752-4224 or Mr. Frank Pew (404) 752-3996, Installation Engineers. No help.

September 9, 1993

Called Toni Walker of CESPL (213) 894-5314, trying to find Fort Ord records recalled by CESPL in 1983. Suggested Debbie Castens (213) 894-2865, who is on long-term full-time training. Tried Jiten Desai (213) 894-6266 who doesn't know about the records.

September 10, 1993

Fred Meurer called and left message while I was gone.

Joe Kavanagh (408) 384-0605, suggests Jerry Stratton (408) 372-1901.

General Jim Moore believes same ranges today as in mid-1970's. Was commander of Fort Ord mid-1982 to start of 1985. He has heard that destroyers fired into inland impact area from Monterey Bay during the WWII era and possibly Korean era before housing was built on base.

Jerry Stratton was Deputy for Plans Training and Mobilization. He thinks that the ranges have remained static, that is, what ranges exist now were ranges before. The East Garrison was small arms and recreational arms. The beach complex never had any high explosives fired there ever. The inland impact area was a consistent 8500 acre range that ships from the bay used to fire into. It was not larger in the past than it is now. Temporary areas other than this were swept immediately after use. High explosives were fired into the center of the impact area and mapped out. After areas were temporarily used, a careful count of the High Explosive munitions was made and the area burned off to detonate duds. UXO is mulched into the ground, and the sand, shifting topography of Fort Ord means that some UXO will sink down and later turn up as the terrain shifts. Mr. Stratton does not believe the impact area could ever be completely cleared without destroying the environment and it would be better to handle UXO on a case-by-case basis after a surface sweep. Aerial bomb drops may have occurred?

Mr. Stratton suggested old range control officer Lee Stickler (408)

APPENDIX F

NEWSPAPERS/JOURNALS

Seaside Boys Awarded \$185,000 by Federal Court for Loss of Limbs in Ord Accident

US Army - Ft. Ord

The U. S. District Court in San Francisco yesterday rendered a verdict in favor of David and Jerry Edgmon, two Seaside boys injured by an Army bazooka shell in 1949, in the amount of \$185,000.

It was the largest judgment ever rendered in a United States federal claims court under a statute allowing suits to be filed against the government for negligence.

David, 22, and Jerry Edgmon, 14, sons of Mr. and Mrs. Simnell Edgmon, walked into the Fort Ord Military reservation on Easter Sunday of 1949, picked up a bazooka shell to take home as a souvenir, and dropped it.

The shell exploded, and David lost both legs. Jerry's skull was fractured and he lost three toes on his right foot. Both received various other bodily injuries.

PREVIOUS DISASTERS

David was then 9, and Jerry was 11. The accident happened almost six years to the day from the time that two other boys, Jimmie and Dickie Reams, walked into the same reservation the day before Easter and picked up a shell which killed Jimmie and blew both legs off of Dickie.

Attorney Fredrick Farr of Seaside and a San Francisco attorney, James Freeman, his associate, used this and other evidence to show that Maj. Gen. Robert T. Frederick, commandant at Fort Ord in 1949, "maintained, supervised and controlled . . . negligently" the target area at the Fort.

Reams, now about 21, testified at the trial that when his brother had been killed and he had lost his legs, the Army had taken him to a hospital and then sent a bill to his mother.

The law did not make provision for a suit against the government at the time of Reams' accident.

NEW FEDERAL LAW

The Federal Claims Act was passed in 1948, and the suit was brought in the district court of Federal Judge Oliver J. Carter in 1950.

Seaside pointing to the Reams

that the Army had continued negligence in failing to construct a proper type of fence, in permitting children to go on the reservation in the "dud" area, and in improper guarding of the area.

They contended also that the Army signs of warning were not sufficient, in that they could not be understood by a small child.

The government claimed the children were trespassers.

"PAIN, SUFFERING"

Judge Carter in handing down his opinion yesterday, said "the pain, suffering, and humiliation of both these boys will be present . . . for the balance of their natural lives."

He awarded David \$125,000 for the loss of both legs and other severe injuries, and \$60,000 to Jerry for the injuries he suffered including brain concussion.

The mother of David and Jerry, Bertie Edgmon, is the mother of 11 children. Her youngest child, one of the 12 boys, has been in military service.

Mrs. Edgmon yesterday told The Herald, "this money will be for the boys' education and living. I want to see it in a trust fund."

"These boys will never be able to do normal work. There will be no cars or anything fancy from this money. I want them to have a chance to get educated, and to live. After they become of age, if they spend every dime, that will be their business."

U. S. CAN APPEAL

Farr said, "It has taken a long time for this decision. I want to follow Mrs. Edgmon's wishes and have the money placed in a trust fund. I want to be sure that it benefits the boys."

He said the Government can pay the amount or appeal the decision to the circuit court of appeals in San Francisco. In the event there is extended litigation and the eventual outcome is for payment of the claim, the \$185,000 judgment will be compounded at 7 per cent interest, Farr said.



(Herald photo) David Edgmon (second from left) who suffered loss of both legs above the knees in a bazooka shell blast at Fort Ord four years ago, and his brother Jerry, who lost a foot, are shown with Attorney Fred Farr looking at the place in the fence where they entered the military reservation in April, 1949. Farr handled the case for the Edgmons. They were looking for grass for their pet rabbit but found a shell which blew up as they carried it out.

He said fees for his services and those of his associate are determined by the court at 10 per cent in the event of a favorable decision. In this case Farr and Freeman will therefore split a \$18,500 fee.

The sign which the Army posted at the scene of the explosion read, "Danger, unauthorized personnel keep out—entrance to heavy artillery impact area." Farr contended that the sign meant nothing to the children.

PICKING FLOWERS

The boys were picking grass for their rabbit and gathering flowers for their mother when they saw the bazooka shell.

They had seen souvenir shells made into ash trays, they testified, and thought what a "great thing" it would be to take this one to school.

The shell was "armed", and when it was dropped near the road, it exploded. It killed the boys' dog instantly when they were injured. They were discovered by a military policeman moments later.

David and Jerry have nothing special to say about the winning of their suit. They returned to the spot of the accident yesterday to have their pictures taken by the three-strand barbed wire fence beside the Fort Ord target area.

"It happened right over there," David said. Jerry pointed and said it might have been just a bit further down.

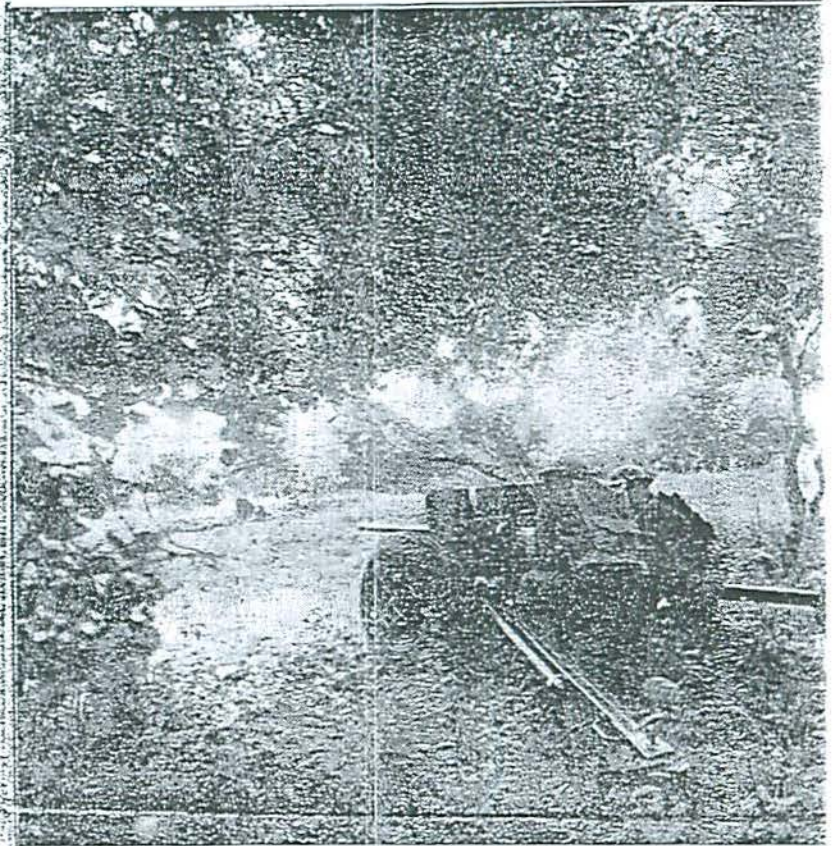
The Army had added new signs, "Dud area."

Everything else looked unchanged.

U.S. Army's New Weapons Demonstrated At Camp Ord



Here is the new semi-automatic Garand rifle, with 4,000 of which the streamlined 3rd Division at Camp Ord has recently been equipped. The weapon was seen in use at Camp Ord ammunition at a sleeve target towed by an airplane, and guests were permitted to inspect the Garands at the display



Here is a 75 mm. gun in action at Camp Ord. The gun is in a 15 pound shell a distance full recoil, having just been fired. It is capable of throwing by spectators during the

Some of the New 81 MM Mortars in Act

monstrated At Camp Ord Today



Here is a 75 mm. gun in action at Camp Ord. The gun is in a 18 pound shell a distance of seven miles, and was seen full recoil, having just been fired. It is capable of throwing by spectators during the Army Day program.

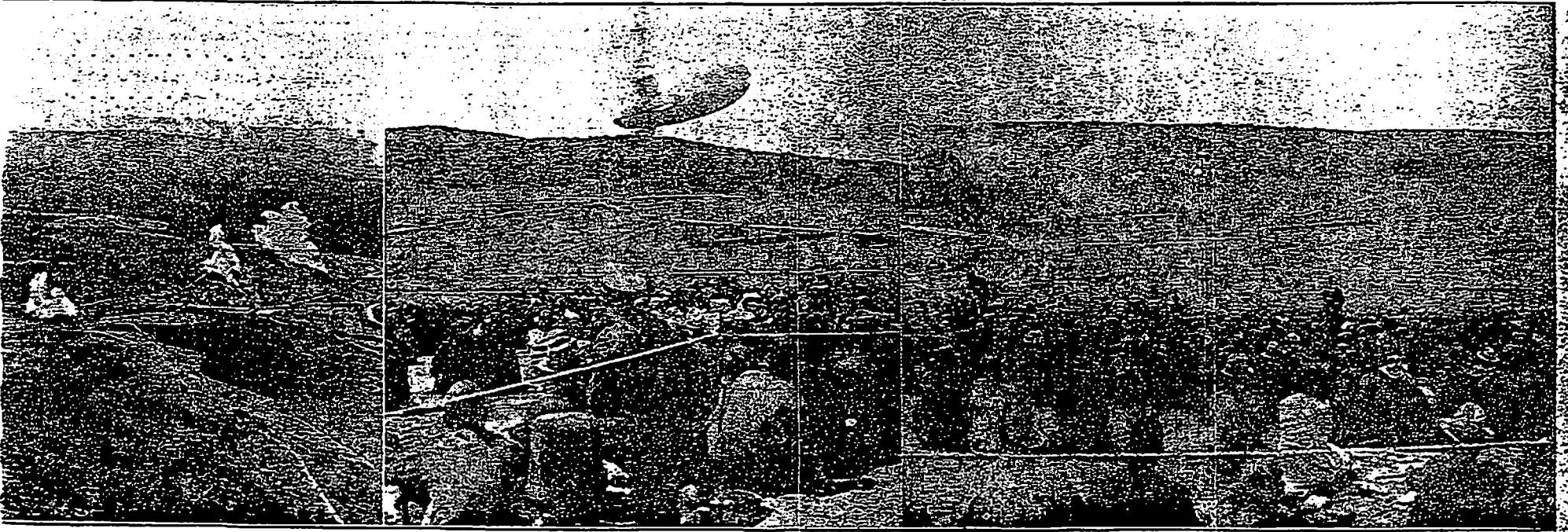
Some of the New 81 MM Mortars in Action

and
phy



There are 18 of the new 81 mm. infantry mortars in the new streamlined 3rd Division at Camp Ord, and visitors saw this new weapon actually firing during the Army Day demonstration. Some of the mortars were also on display for close inspection.

ision and other units. General Walter C. Sweeney, commanding, just as the 11th Cavalry, Monterey's Own, passed in review, boot-to-boot at a brisk trot. Upper left in the picture, can be seen a part of the huge crowd which witnessed the spectacle and a few of the more than 7,000 cars which were parked on the reservation. Left center are troops who have already passed in review while below at right are the motorized units waiting their turn as the 76th Field Artillery swings into line. At top are the 16 tanks of the 68th Infantry on the alert for the signal to begin their dash past the reviewing stand to climax the huge parade of strength. This aerial photograph was taken by Capt. George Northrup of the 91st Observation Squadron. (Official Army Air Corps photo)



lined" division was in full view. A boy, was thankful by the officers in cal warfare service swings into action is graphically shown, left, where the boys lay down two types of smoke screens. At top are the white puffs of smoke resulting from the explosion of projectiles from 4.2 chemical mortars while right is the beginning of a smoke screen tossed by Livens projectors. Scene stealer of the whole show was "Becky," the blimp, center, pictured just as she rose in front of the crowd as a kite balloon to carry observers aloft to direct fire from the 155mm howitzer battery of the 9th Field Artillery. In unbridled silence, the crowd, right, watches while a platoon of tanks from the 68th Infantry attack a hill through a simulated artillery barrage. The steel juggernauts were not even slightly jolted by the heavy dynamite explosions which can be plainly seen. The aerial photograph was taken by Capt. George Northrup, while others were taken by Sgt. Jack Guss, both of the 91st

COMBAT DEVELOPMENTS COMMAND EXPERIMENTATION COMMAND

How the Army of the future will fight, how it will be equipped and how it will be organized in order to assure victory and survival in the field are questions examined by experimentation conducted by the U.S. Army Combat Developments Command Experimentation Command which is headquartered at Fort Ord.

Its experimentation is carried out on its vast and rugged field laboratory on the Hunter Liggett Military Reservation, 55 air miles south of the Fort Ord headquarters.

There, a wide variety of experimentation takes place, utilizing the finest military and scientific minds together with the most modern equipment and sophisticated instrumentation, to determine the ability of the Army to carry out its missions in the future.

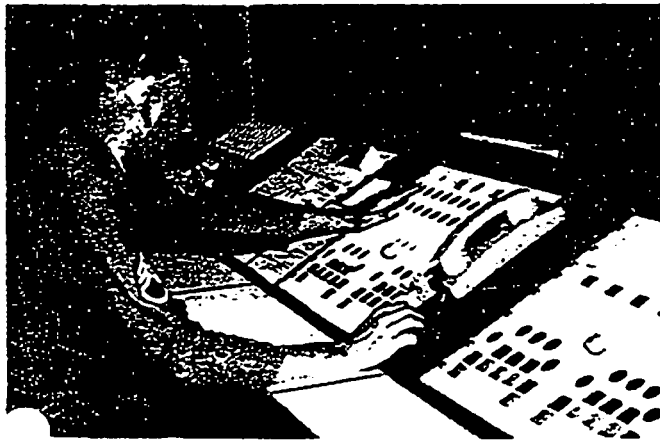
Typical of the experimentation conducted during its ten years of existence are these: experimentation on the ability of the soldier to perform under toxic environment while wearing protective clothing and masks; evaluation of the hip pack in guerilla, jungle and mountain warfare; the anti-tank experiment; evaluation of the M114 as a scout vehicle; Army aircraft experiments to examine the probable survivability of such aircraft operating in forward battle areas; the Infantry Rifle Unit Study experiments (IRUS) and examination of the vulnerability of fighter

and bomber aircraft of all services, to engagement and destruction by ground defense weapons, when the aircraft attack at low altitudes.

CDCEC operates in a long-time frame. Field data, computer simulations, findings, conclusions and recommendations gained from experimentation are furnished to CDCEC's parent unit, the Combat Developments Command at Fort Belvoir, Virginia, to be translated into recommendations to the Department of Army for future military planning.

CDCEC, established in November of 1956, is commanded by a general officer with general and special staff and has approximately 4,000 military personnel. On contract to the command are 160 civilian scientists who serve as advisors on the military-scientific team in experimentation. CDCEC's units represent all branches of the service and include five Project Teams, a General Support Group, an Instrumentation Support Group and two Experimentation Battalions—one Armor, one Infantry.

The mission of USACDCEC is to serve as a field laboratory for the evaluation, by objective experimentation, of those concepts of tactical and administrative organization and operations, directed by Headquarters, US Army Combat Developments Command.



FOUR VIEWS OF CDCEC EXPERIMENTS. Night Operations Experiment (upper left), with two CDCEC soldiers plotting the action as they receive data from field-located "reporters." (Upper right) A CDCEC soldier wearing protective clothing during the Toxic Experiment, shooting an M79 Grenade Launcher in simulated warfare. (Lower left) CDCEC Sergeant operates a target control console during the IRUS Experiment. (Lower right) A Tanker's view of the blast of his powerful 165mm gun, as heavy M60 tanks roll forward at CDCEC's field laboratory on Hunter Liggett.

ing area for other divisions and units, including the 3d, 27th, 35th and 43d Divisions, as well as many smaller units. At one time more than 50,000 troops were on the installation, although the average was about 35,000.

The 4th Replacement Training Center was organized here in 1947. That was the framework for the reactivated

September 1950 the 4th moved to Fort Benning, Georgia, being replaced by the 6th Infantry Division which remained until January 1956 when the 5th Division arrived from Germany. On 5 June 1957 the 5th Division was inactivated and Fort Ord was designated as a United States Army Training Center, Infantry.



This tent city was Fort Ord's East Garrison in 1940.

FORT ORD COMMANDERS

Major General Joseph W. Stilwell.....Aug. 40-Feb. 41
 Colonel Roger S. Fitch.....Feb. 41-Sep. 43
 Brigadier General H. D. Chamberlin.....Oct. 43-May 44
 Colonel D. R. Alfante.....May 44-May 46
 Colonel Charles D. Calley.....May 45-Sep. 45
 Colonel Max W. Sullivan.....Sep. 45-Jun. 46
 Brigadier General D. A. D. Ogden.....Jun. 46-Jun. 46
 Brigadier General James R. N. Weaver.....Jun. 46-Sep. 46
 Brigadier General D. A. D. Ogden.....Sep. 46-Mar. 47
 Major General Jens A. Doe.....Mar. 47-Feb. 49
 Major General Robert T. Frederick.....Mar. 49-Sep. 51

Major General Robert McClure.....Oct. 51-Apr. 54
 Major General E. K. Wright.....May 54-Sep. 55
 Major General Gilman C. Mudgett.....Sep. 55-Feb. 57
 Major General William M. Breckinridge.....Feb. 57-Oct. 58
 Major General Carl F. Fritzsche.....Oct. 58-Sep. 60
 Brigadier General Charles S. D'Orsa.....Oct. 60-Oct. 60
 Brigadier General Stanley R. Larsen.....Oct. 60-Jan. 61
 Major General Orlando C. Troxel, Jr.....Jan. 61-Apr. 63
 Major General Edwin H. J. Carns.....Apr. 63-Jun. 65
 Major General Robert G. Fergusson.....Jul. 65-May 67
 Brigadier General Charles R. Meyer.....May 67-Jun. 67
 Major General Thomas A. Kenan.....Jan. 67-



POSSIBLE PLAN OF FORT MEVINE

BASED ON VARIOUS DRAWINGS OF U.S. FORTIFICATIONS

FROM THE
 OFFICE OF THE
 MILITARY ENGINEER
 AND ARCHITECT
 GENERAL'S REFERENCE
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DRAWN BY
 WILLIAM W. RAYSON
 POST ENGINEER
 FORT ORD, CALIF.

U.S. Army Training Center, Infantry

The United States Army Training Center, Infantry, located in the main garrison of Fort Ord, is organized for training with four training brigades and one Committee Group. The training brigades have a weekly programmed input of 880 Basic Combat, 600 Advanced Individual (Infantry), and 470 Combat Support trainees.

The 1st and 3d Brigades conduct Basic Combat Training (8 weeks). They are organized for this training with 4 battalions each—20 companies per brigade for an overall total of 40 Basic Combat Training companies.

The 2d Brigade conducts Advanced Individual Infantry Training (8 weeks) in three specialties: Light Weapons Infantryman (Rifleman), Infantry Indirect Fire Crewman (Mortarman), and Infantry Direct Fire Crewman (Anti-

tank Gunner). The 2d Brigade consists of 5 battalions with a total of 27 companies. Organic to the 2d Brigade is an Advanced Individual Training Committee Group which provides support in weapons and tactical training.

Combat Support Training is conducted by the 4th Brigade in the following Military Occupational Specialties: Clerk, Clerk-Typist, Personnel Specialist, Food Service, General Supply Clerk, Radio Operator, Field Wireman, Light Vehicle Driver and Wheel Vehicle Repairman. The brigade also operates the Drill Sergeants School.

The Committee Group conducts training primarily in weapons and tactical training in support of the 1st and 3d Brigades.

OTHER SUPPORT MISSIONS

Training and readiness of the several Strategic Army Force (STRAF) units stationed within the Fort Ord Complex are responsibilities of Fort Ord. Support is provided for the Army Reserve and National Guard units during the Annual Active Duty for Training (ANACDUTRA) periods.

Other supported activities include the Combat Developments Command Experimentation Command, West Coast Branch of the Defense Language Institute, and the Training Center Human Resources Research Unit. These missions, together with the Reserve components, represent a supported strength of approximately 42,000 personnel.

There are more than 22,000 military dependents and an estimated 16,500 retired military and their dependents (all Services) supported by Fort Ord facilities. There are over 2200 Civil Service workers employed at Fort Ord.

Recreational facilities on the complex include four service clubs, six libraries (including a bookmobile), six theaters, eight craft shops, 33 exchanges, and six indoor and 46 outdoor sports facilities. The post has a beautiful 18-hole golf course with a driving range and putting greens, and the construction of an additional 18-hole course is presently in progress. There are 11 chapels on the complex with 21 chaplains conducting about 40 services each week.

4TH BRIGADE COMBAT SUPPORT SCHOOLS

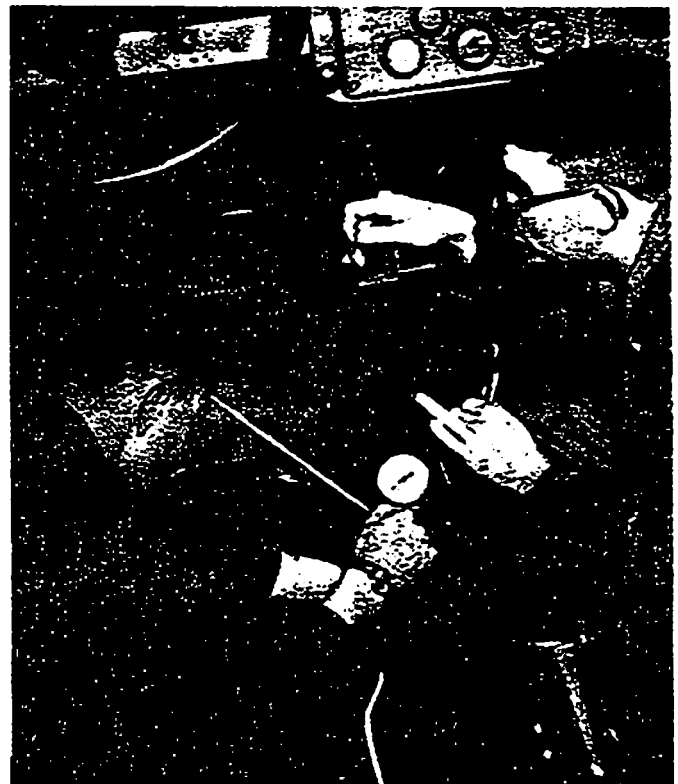
The Fourth Combat Support Training Brigade conducts combat support training courses in Basic Army Administration, General Supply, Food Service, Light Vehicle Driver, Field Wireman, Wheel Vehicle Repairman and Radio Operator. The Fourth Combat Support Training Brigade also operates the Ford Ord Drill Sergeant School which includes the Drill Sergeant Courses, Officer Orientation Course and Leader Preparation Course.

The GENERAL SUPPLY COURSE trains personnel in use of supply publications and to prepare and type supply forms and records necessary to request, receive, store, account for and ship or issue military supplies and equipment. During the six (6) weeks of training, students review basic mathematics, become familiar with supply manuals and learn organizational and installation supply systems and principles of storage and packaging.

The FOOD SERVICE COURSE trains personnel to prepare and serve a wide variety of foods in small or large quantities, using standard Army Recipes to include principles of meat cutting. The eight (8) week course includes training in small quantity preparation of food and baked items, field kitchen operation, and service in the Garrison Mess.

The BASIC ARMY ADMINISTRATION COURSE trains personnel as general clerks, clerk typists and personnel specialists. The objectives of these courses are to make proficient typists of the students, to acquaint them with maintenance of office machines, teach preparation of correspondence and to review basic fundamentals of English grammar.

The RADIO OPERATOR COURSE trains personnel to transmit and receive International Morse Code messages, to operate and maintain basic field radio sets, to use correct radio telephone and radio telegraph procedures, and to construct, orient and erect antenna systems. A field radio net exercise is conducted during the tenth (10th) week to test individual proficiency and demonstrate tactical signal requirements and systems.



Students of the Wheel Vehicle Mechanics Course learn maintenance service and inspection techniques in this seven-week combat support school.

Helicopter Site Sought For Army

MPN June 5, 1981 p. 23

Fort Ord is seeking a 5,000- to 10,000-acre helicopter training site for its pilots within 40 miles of the post.

The Army Corps of Engineers in Sacramento will accept bids from landowners until June 19, according to Don Osman, a real estate agent for the corps' Sacramento office.

Osman said the Army wants a site closer to Fort Ord than Camp Roberts or Fort Hunter Liggett in order to save the fuel costs of getting to and from those bases from Fritzsche Army Airfield at Fort Ord.

"We're looking for some undulating land with not too many trees and no population," he said. "Any improvements that are already on the land would be kept outside the flying area."

The Army would not need exclusive use of the land, and very little activity would take place on the ground. A site "smaller than one acre" for rehearsals and emergency landings would be needed; the rest would involve short touch-downs and some limited loading and unloading of small groups of soldiers in the field, he said.

Osman added that so far, there aren't many takers.

"We tried to make a survey and didn't find all that much available out there," he said, adding that the Army wants the land to be made available on a voluntary basis. "I don't think the government would use its condemnation power" to acquire the land.

Most flying would be done during the daytime and during weekdays, he said, with some night and weekend flying.

Osman said the site is to be used for training pilots in nighttime nap-of-the-earth (low level) flying and navigating, including the use of night-vision devices and blind navigation devices.

That's why mountainous terrain or areas with trees, power lines or other obstacles wouldn't be suitable, he said.

Aviation officers at Fort Ord said the 7th Infantry Division at Fort Ord has 185 helicopters and its pilots have become familiar with the training area near Salinas near East Garrison, so its training value is limited.

Bids, Osman said, can be submitted to the Corps of Engineers' District Engineer office in Sacramento. "We are looking for fair market rental value on non-exclusive land use."

Rocket, Shell Found Near Marina; Bomb Squad Work Diverts Traffic

MPN June 18, 1981 p. 25

A practice rocket and part of a mortar shell, neither containing live explosives, were found lying on Davis Road, between Reservation Road and the Salinas River near Marina Wednesday night.

It was apparently a prank because a metal road sign reading, "Danger Impact Area," was also found in the roadway.

A California Highway Patrol officer

made the discovery at about 9 p.m. and the 49th Explosive Ordnance Detachment from Fort Ord was called in.

Davis Road was closed to traffic until about 10:15 p.m.

A spokesman for Fort Ord said that the 3.5-inch practice rocket and rear section of an old style 81mm mortar shell had already been exploded before being placed in the roadway along the fence outside the Army's Fritzsche Field.

10 Friday, June 19, 1981, Monterey Peninsula Herald

Residents Ask General To Silence Ord Guns

Residents of the Tierra Grande area of Carmel Valley are firing a retaliatory salvo of letters in an effort to silence the cannons of Fort Ord.

Stanford Roberts, president of the Rancho Tierra Grande Association, has written to Maj. Gen. Thomas D. Ayers, commander of Fort Ord and the 7th Infantry Division, to complain about the noise coming from Fort Ord's East Garrison, where mortar and artillery practices have been expanded in large practices since last March.

Roberts said his association represents 170 homes and approximately 400 residents of the Tierra Grande subdivision in the hills on the north side of Carmel Valley.

"What we realize is that the purpose of this firing practice is to reduce the expense of transporting troops between Fort Ord and Fort Hunter Liggett," he

wrote, "we believe that there are other savings which could be made without harassing the citizens whose taxes support the military."

Roberts said that "because in this area have been rocked on their foundations and the inevitable result will be costly structural damage," the firing continues to be intolerable.

"We find this is a particularly bad time for us because we have a family and friends in Carmel Valley."

Roberts said that "because of the noise, we have been forced to move out of our homes because it was far away from civilian settlements and tourist areas. A copy of the letter has also been sent to Rep. Tom Proulx, D-Monterey."

An Army spokesman said that the firing on its impact, uses of 81mm and 4.2-inch mortars, as well as 105mm howitzers using reduced charges.

Shooting of these artillery pieces is conducted within Army guidelines, spokesman said.

20 Monterey, California, Wednesday, June 24, 1981

Bucking the Big Bang

BACK IN THE old days, when a person bought a house close to the railroad tracks, there was one thing he could expect. He would hear trains. That was one reason that, in most instances, people didn't normally seek residential locations near the tracks, but if they did, they usually didn't try to stop the trains from running.

Times have changed, however. Now people build homes close to airports, then want the planes to stop flying, or buy near a freeway and want the traffic rerouted. In the most recent case, a group of residents of Tierra Grande want Maj. Gen. Thomas Ayers to do something about the guns firing on Fort Ord's East Garrison.

Fort Ord, of course, has been situated on the Monterey Peninsula for nearly four decades now, and most people living in the area have come to expect that it involves a certain amount of noise at certain times, with the amount more or less as training schedules and atmospheric conditions vary.

But it is obvious to most resi-

dents that if we are to have an effective military force, it is going to require training, and if there is training, there will be firing, and if there is firing there will be some noise.

This is not to say that the military should not take whatever steps are practicable to minimize the disturbance to their civilian neighbors. There may well be measures such as changing schedules or locations that can reduce the complaints, and if so, then these should be implemented.

But there are questions of precedence and priorities involved here that have to be taken into consideration. While none of us like to be disturbed by the sound of gunfire, it is better to listen to our own rather than someone else's.

And it is well to consider that the army forces involved are not out playing some kind of game but rather preparing themselves to strengthen the country's security against those who are not interested in our philosophy of government nor — very likely — in our ideas on noise abatement.

113

Fort Ord unfit for development

January 24, 1992 1B

Coveted areas need cleanup

By Marty Bureson
The Californian

An examination of Fort Ord's 28,000 acres shows that its most coveted areas, including sites sought for low-income housing and a possible university campus, require significant environmental attention.

The areas scored poorly on a map created Thursday by the Fort Ord Community Task Force's environmental cleanup committee. Members divided the post into 12 sections and ranked each according to its level of contamination.

The members, using a guilty-until-proven-innocent formula, gave high scores where information was scarce. As a result, none of the 12 sections is now considered safe for development.

"There's not much that can be used right away," said Walter Wong, the county's environmental health director.

A zero rating indicates that a site has been cleared of all environmental contamination and then tested. The higher the ranking, the more left to be done.

The highest score, 145, went to an urban-industrial area containing numerous toxic areas that have been designated Environmental Protection Agency Superfund sites. These must be cleaned up before Fort Ord's 7th Infantry Division (Light) abandons the post, a process that could be completed as early as 1994.

The artillery impact area at the

post's southern end did not receive a score because officials "wouldn't know where to begin," Wong said. Its potential for short-term development is considered nonexistent.

The areas with the lowest scores were three family housing complexes, Abrams Park, Schoonover Park and Patton Park. Each received a score of 20 because soil and water contamination, in keeping with the guilty-until-proven-innocent philosophy, are suspected but have not been identified.

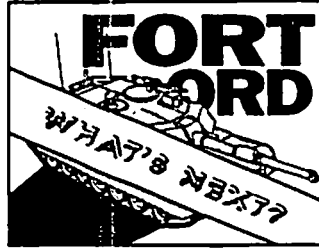
Wong suggested at the meeting that no section with a score greater than five should be developed.

Targeted for low-income housing is the post's East Garrison, an area of rolling hills next to Reservation Road near Fritzsche Army Airfield. The East Garrison received a score of 88 because of the presence of four Superfund sites.

The toxic sites include a former dump site and a sewage treatment plant.

Wong said San Jose State University officials are eager to claim "Area 7," an L-shaped area just north of Silas B. Hays Army Hospital. That area received a score of 78 due in part to a pair of motor pools and a maintenance building.

The environmental cleanup group will be the first of seven committees to report back to the full task force, which is made up of city and community leaders and intends to release a Fort Ord reuse plan in May. The other committees, which are studying such topics as education, housing and economic development, will depend



HOUSING PRIORITY

Planners for Fort Ord's future were told Thursday by Salinas residents to make housing for migrant farm workers and the poor their top priority. Page 3B.

heavily on the environmental cleanup committee's findings.

The environmental report, which will include the map created Thursday, is scheduled to be presented Feb. 28. The task force as a whole will decide which sections of Fort Ord deserve priority cleanup.

Ret. Gen. James Moore, chairman of the task force, said officials should know within two weeks what property the Army plans to keep after the 7th Division's departure. Expected to be claimed are the main gate area off Highway 1, the hospital and nearby barracks, 1,590 sets of housing units, a chapel, a library, a football stadium, an officer's club, a bowling alley and a pair of golf courses.

Moore said the golf courses and a hotel, both of which should be available to the public, could generate an estimated \$4 million a year.

Post division into sectors zeroes in on trouble areas

Members of a Fort Ord Task Force subcommittee Thursday divided the post into 12 sectors, giving each a score based on known or suspected environmental contamination.

A score greater than six is considered too high for immediate development. The lowest score given Thursday was 20.

The results are:

■ Area 1, an area that includes the post's main gate off Highway 1, Silas B. Hays Army Hospital, housing subdivisions and golf courses. Score: 116. Problem areas: fueling station, trailer park maintenance shop, burn pit, motor pools, golf courses that may be pesticide-contaminated.

Possible use: Army enclave following departure of 7th Infantry Division (Light).

■ Area 2, large artillery impact area located at post's southern end. Score: TNC — too numerous to count. Possible use: none being considered.

■ Area 3, beach artillery ranges. Score: 59. Problem areas: three Superfund sites, including a pair of sewage plants. Metals are in the soil. Possible use: undetermined.

■ Area 4, a huge inland training area as large as all the other sections combined. It dominates the heart of the post and forms much of its eastern and southern borders. Score: 30. Problem area: a Molotov cocktail range. Possible use: undetermined.

■ Area 5, the East Gamson, located alongside Reservation Road near Fritzsche Army Airfield. Score: 88. Problem areas: four Superfund sites, including a former dump and a sewage treatment plant. Possible use: housing subdivision for low-income Monterey County residents. Federal law demands that housing be given a priority when disbursing federal lands.

■ Area 6, Fritzsche Army Airfield located in the post's northeast corner,

adjacent to the city of Marina. Score: 70. Problem areas: fueling station, sewage treatment plant, aircraft cannibalization yard. Possible use: commercial airport catering to the agriculture industry.

■ Area 7, a small section of land just north of the hospital and deep in the post's interior. Score: 78. Problem areas: two motor pools and a maintenance building. Possible use: site of a proposed San Jose State University campus.

■ Area 8, a horseshoe-shaped industrial area that surrounds Area 7 to the west, north and east. Score: 145. Problem areas: Fort Ord landfill, automotive yard, dry cleaners, motor pools, pond, parade grounds. Possible use: uncertain. Despite numerous environmental trouble spots, the area is considered attractive because of the existing infrastructure.

■ Area 9, Abrams Park, a housing subdivision at the post's north end. Score: 20. Problem areas: suspected soil and groundwater contamination that must be investigated. Possible use: uncertain.

■ Area 10, Fredricks Park, a housing subdivision at the post's north end. Score: 30. Problem areas: sewage pumping station, suspected soil and groundwater contamination that must be investigated. Possible use: uncertain.

■ Area 11, Schoonover Park, a housing subdivision at the post's north end. Score: 20. Problem areas: suspected soil and groundwater contamination that must be investigated. Possible use: uncertain.

■ Area 12, Patton Park, a housing subdivision at the post's north end. Score: 20. Problem areas: suspected soil and groundwater contamination that must be investigated. Possible use: uncertain.

— Marty Bureson

General Says 7th Division Short of Men, Not Readiness

MPH July 31, 1981 p. 4

Gen. Edward C. Meyer, chief of staff of the Army, today told The Herald that the 7th Infantry Division at Fort Ord is indeed fit and lacks only enough sergeants to make it fully combat ready.

"I owe it to your readers and to the soldiers of the 7th Infantry Division to comment on your headline in the July 23 edition of The Herald which portrays the 7th Infantry Division as 'unfit,'" he said in a message from Washington.

"It is not unfit and comments to that effect are a disservice to the men and women serving in that proud division."

Meyer was quoted in a July 23 Associated Press story as saying that only one of 10 stateside Army divisions was not

combat ready, and the AP said that while Meyer didn't single out any unit, it was known that the 7th Division was the only such outfit still rated as unready.

Meyer said the division "is short in manpower and particularly in non-commissioned officers, a situation which I am responsible for, not the 7th Division."

"He added that he was impressed with the division's readiness during his last visit to Fort Ord and had been told by its commander, Maj. Gen. Thomas D. Ayers, that the 7th "pound for pound can lick any enemy division."

Fort Ord Brigade to Join Maneuvers in West Germany

MPH August 21, 1981 p. 4

The 7th Infantry Division's 2nd Brigade at Fort Ord, 3,000 strong, will take part in autumn maneuvers with troops of the North Atlantic Treaty Organization in West Germany, beginning this month.

The brigade, along with a battalion of the 7th Division's artillery and other support units, will move by sea and air as part of the annual REFORGER (Return of U.S. Forces to West Germany) exercise.

Commanded by Col. Don Chum Jr., the 2nd Brigade will be one of the major elements taking part in this year's exercise, which is designed to demonstrate the ability of U.S. ground forces to be deployed to Europe in the event of a Soviet invasion.

The exercise also gives Army, Navy and Air Force units an opportunity to

train in the most demanding of theater and equipment conditions. Most of the 2nd Brigade's equipment will be moved by train and ship to West Germany, while most of the troops will come by air. The exercise will be a major test of the REFORGER operation, which is the Army's and Air Force's annual program to return U.S. troops and equipment to the United States.

Other units taking part in REFORGER, in addition to the 7th Division, are the 4th and 1st mechanized infantry divisions from Fort Carson, Colo., and Fort Riley, Kan., respectively, for a total of 33 active Army units and 32 Army Reserve and National Guard units.

Troops at Fort Ord have spent nearly six months training and preparing for REFORGER, spokesmen said.

Fisherman At Fort Ord Lake Drowns

MPH August 12, 1981 p. 4

A Seaside man was found drowned at Mud Hen Lake in the west central portion of Fort Ord Tuesday afternoon after he and another man went fishing there.

The Fort Ord Public Affairs Office said John Henry Gordon, 33, was pronounced dead at Silas B. Hays Hospital at 6:40 p.m.

An Army spokesman said Gordon had been seen at the shallow lake with another man by a game warden at about 4:30 p.m. The warden talked to them for a few minutes, and then left.

At 5:10 p.m., spokesmen said, the Fort Ord Fire Department was called to the lake, where Gordon was found, apparently drowned. He was rushed to the hospital, where efforts to revive him were unsuccessful.

Gordon's companion has been questioned by the Fort Ord Criminal Investigation Division, spokesmen said. The name of the other man was not released by Army authorities.

Gordon's body was taken to the Farlinger Funeral Home, where services are pending.

Born Feb. 27, 1948, in Corde, Ala., he came to the Peninsula 17 years ago.

He was a veteran of the U.S. Air Force and saw service in World War II.

He was a member of the Victory Temple Church of God in Christ of Seaside.

He is survived by sons Jerome and David of Seaside, John L. of Salinas, Robert of Colorado and Larry of Richmond; a daughter, Shirley Gordon, of Washington, D.C.; brothers James of Monterey and Freeman of Seaside; sisters Iberia Gordon, Ollie Mae Gordon, and Nattie Pearl Peterson, all of Detroit, and Marie Walker of Cincinnati.

His wife, Mary, and another daughter, Gloria, died in a traffic accident in San Benito County in 1972.

Live Mortar Practice Being Held by Troops at Fort Ord

MPH August 26, 1981 p. 5

The distant booming of exploding shells coming from Fort Ord this week has been due to mortar practice, Army spokesmen said.

The Fort Ord Public Affairs Office said troops are training in live firing of 4.2-inch mortars on post ranges, using high-explosive shells, smoke and illumination rounds.

Practice is expected to continue intermittently through this month and September, spokesmen said.

In addition to the 4.2-inch mortar, soldiers at Fort Ord get live-firing practice with various small arms, the smaller 81mm mortar, grenade launchers, and 106mm howitzers.

The artillery practice has been responsible for a number of brush fires on the ranges. The fires have raised large, visible clouds of smoke but have caused no measurable property damage, according to a Fort Ord spokesman.

Fort Ord Troops Ready For Fight to War Games

MPH August 29, 1981 p. 4

With much of its heavy equipment already enroute by sea to Europe, troops of the 7th Infantry Division will begin heading up for their flights to airfields in Belgium and West Germany to take part in the annual REFORGER (Return of Forces to Germany) exercise.

Troops of the 3rd Battalion, 32nd Infantry of the division will be processed through customs at Fort Ord on Sunday and Monday, loaded in truck convoys and taken to Travis Air Force Base, where they will board Air Force C-141 Star-lifter transports to Belgium. From there, spokesmen said, the soldiers will be flown by C-130 Hercules planes to West Germany, where they will take part in two months of field maneuvers with British, German and other NATO alliance units.

Fort Ord is fielding approximately 2,500 men and women in the exercise, designed to test its ability to deploy overseas, including its entire 2nd Brigade and support units.

Fort Ord tells why it's been so noisy

HERALD SEP 24 1992
BY KEVIN HOWE

Herald Staff Writer

The usual mutter of gunfire from Fort Ord has built up to something like a crescendo in recent weeks as troops of the 7th Light Infantry Division have begun doing more practice with live ammunition.

Army spokeswoman Reyola Carlisle said the division has been conducting a brigade-size training exercise on the post. A lot of the firing that was once done at Fort Hunter Liggett, including night firing, is now being done at Fort Ord in order to save money, she said.

The current exercise, she said, will continue through the end of this month.

In addition, Mrs. Carlisle said, the sound of rifle and machine-gun fire and the thud of grenades and mortar shells is sometimes intensified by the autumn weather.

The 7th Division, like other military units, has been feeling the pinch of defense budget cuts, she said, and one economy measure has been to conduct more weapons firing locally.

That saves the cost of transporting troops 80 miles to the South County firing ranges, Mrs. Carlisle said, as well as saving time spent on the road in convoys and setting up and taking down the Fort Hunter Liggett ranges.

While there is normally no limit on how late at night troops may fire their weapons, she said, unit commanders have agreed to try to curtail night firing as much as possible, beginning this week.

See FORT ORD PAGE 12A

Fort Ord explains the noise

HERALD SEP 24 1992

FORT ORD FROM PAGE 1A

A variety of weapons can be fired at Fort Ord, including small arms of all types; hand-thrown and tube-launched grenades; and mortars up to 81mm, Mrs. Carlisle said.

She noted that low clouds and fog during the fall months often create an inversion layer that traps sound waves from the firing ranges and reflects them back down to the ground, rather than allowing the noise to dissipate upward.

The result, she said, is that firing sometimes sounds louder on some days than others.

Low clouds halt nighttime firing of bigger guns

HERALD SEP 29 1992

The Army has temporarily halted nighttime firing of large-caliber weapons at Fort Ord because of low clouds, which heighten the sound of target practice that can be heard nearby. Training with large-caliber weapons will be held only during normal business hours through Friday, Fort Ord officials said.

Training with small-caliber weapons will be held through Friday, although the firing on beach ranges will conclude a day earlier.

Army patrol boats will be stationed off beach ranges to warn boaters away from the impact area, and the live-firing flag will be flown from the Coast Guard pier in Monterey.

Because of budget cuts, the 7th Light Infantry Division has cut back on weapons firing at Fort Hunter Liggett in South County. Instead of sending troops 80 miles south to Fort Hunter Liggett for weapons training, the firing is being held at Fort Ord to save money, the Army said.

A brigade-size training exercise on the post is scheduled to conclude by the end of the week.

The increased shooting at Fort Ord recently prompted some speculation that the Army was trying to reduce its ammunition to save the expense of transporting it north when the 7th Division begins its move in the spring to Fort Lewis, Wash. But Army officials have denied that rumor.

She added that there is no truth to the rumor that the 7th Division is trying to expend its ammunition to save the trouble of moving it to Fort Lewis, Wash., when the division is relocated.

Units are required to prepare and plan for training at least five weeks in advance, Mrs. Carlisle said, and they request ammunition for training through the Army supply system. In some cases, she said, such requests are made as long as a year in advance.

She noted that the Army publishes firing notices each week to let the public know when soldiers will be shooting.

Fort Ord Celebrates Its Golden Anniversary

Our History and Heritage

By Dorothy H. Vera

August is "acquisition" month at Fort Ord. And this August of 1967 holds a special connotation . . . It is the 50th anniversary. Once this vast stretch of land between Salinas and Monterey was the home of sage brush, sand dunes and its wild "residents." Today it is the home of some 30,000 military personnel and dependents.

The area now comprising Fort Ord was purchased (10,000 acres of it) by the government from the David Jacks Corporation for \$162,005. Date it was signed, sealed and delivered was Aug. 4, 1917, when World War I was nearing its close.

Immediately after the purchase the Army used the area primarily as a maneuver area and field artillery target range for the 11th Cavalry and the 78th Field Artillery. Both then were stationed at the Presidio of Monterey. Under the hoofs of hundreds of cavalry and the heavy barrages of artillery blasts the area soon lost some of its jungle-like atmosphere. It then was named Gigling Reservation.

It was many years before substantial improvements were made at the present garrison site, with the exception of target ranges and maneuver areas used by old Troop C of Salinas and the then-old Tank Company of this city. The 30th Infantry Regiment of San Francisco also utilized the facilities.

Camp Ord

By 1939, the Reservation . . . which had been renamed Camp Ord . . . still was a stark stretch of rolling sands with a

few barracks and tents standing in the midst of scrub oak and sagebrush. It was tabbed by many of the "old soldiers" as "the only spot on earth where a man could stand up to his knees in mud and still get sand in his eyes."

Stillwell's Fort

A year later, as more war clouds started gathering over Europe and Asia, the modern history of the reservation started. It was officially re-named, and now is Fort Ord, thus becoming a permanent Army installation. Temporary barracks and buildings sprung up almost over night to house the men of the 7th Infantry Division. They were commanded by Gen. Joseph W. Stillwell, the first major unit to occupy the fort. Throughout the war years the installation was alive with the explosion of mortar rounds, artillery shells and simulators, rifles and hand grenades, Springfield '03 rifle fire and automatic weapons.

Among these first pioneering units were the 3rd, 27th, 35th and 43rd divisions, as well as many smaller ones. At one time the troop output reached a total of 50,000 men. Many were housed in tents, which earned



TENT CITY—Picture of Camp Ord, taken from the water tower, shows the camp during the latter part of 1940—Salinas can be seen in the background against the Gabilans. Foreground is a view of the temporary "tent city" constructed to house the 7th Division and other units during the period.

the fort the name "tent city" during its early history. All were being trained for combat duty on foreign shores. Average troop strength, however, was maintained at about 35,000.

After World War II years the installation was designated as the home of the 4th Infantry Division. It carried on its rugged phases of combat training until it was replaced by the 6th Infantry Division at the outbreak of the Korean War.

FOR REFERENCE

Do Not Take From This Room



8-19-69

monthly payroll of \$2 million. The monthly military payroll for the 30,000 military personnel averages \$4.5 million. In addition, it handles multi-million dollars worth of commercial accounts.

Inside "Ord City" one finds the same activities and facilities as those prevalent in other cities. It has its own churches, cafeterias, bowling alleys, entertainment centers for adults and youths, parks and playgrounds, sports arena and stadium, golf course, swimming pool and library facilities.

It has its own modern style apartments in the form of troop barracks, family quarters, bachelor officers quarters, guest houses and temporary quarters for visiting and incoming personnel.

In addition, the installation still carries on its traditional mission of training combat and support troops. Among its major units are the 1st, 2nd, 3rd and 4th Brigades, the Troop Com-

mand, and several smaller units. It also is headquarters for the Combat Developments Command Experimentation Command. The latter conducts experiments in its field laboratories on the rugged terrain at Hunter Liggett Military Reservation about 70 miles south of Fort Ord Headquarters and near beautiful San Antonio de Padua Mission.

As the installation marks its 50th anniversary, it can reflect back on its past record. This lists 22 commanding generals, including the current one . . . Maj. Gen. Thomas A. Kenan.

And, as for the installation's name. It came from one of America's most distinguished soldiers . . . Maj. Gen. Otho Cresap Ord. He was an 1839 graduate of the Military Academy at West Point, and served in California during the Mexican War. He also was commanding general of the Presidio of San Francisco from 1867 until 1871.

"Golden" City

In 1957 it was designated as the U.S. Army Training Center, Infantry.

Today this largest training center on the West Coast marks its golden anniversary. It no longer is a vast sand dune. Instead it is a mighty fortress supporting a city within itself.

The entire Fort Ord complex includes Camp Roberts, Hunter Liggett Military Reservation and the Presidio of Monterey, it employs some 3,400 civilians from local communities, with a



DAYS GONE BY—Maj. Gen. Joseph W. Stilwell reviewed horsedrawn artillery of the 76th Field Artillery Battalion, with some 5,000 trainees at Fort Ord. This was about 25 years ago. He was commanding general of Fort Ord from August of 1940 until February, 1942. At one time caisson demonstrations by men and equipment from the Fort were an interesting and much-enjoyed part of the California Rodeo.



GENERAL ORD—This old engraving is a likeness of Maj. Gen. Otho Cresap Ord, for whom Fort Ord was named. General Ord was born in 1818 and died in 1883. As a lieutenant he served in California during the Mexican War and is identified with the early history of this region. During the Civil War he commanded the Army of the James.

Army Plays Important Part In Bay History

By Jack Morris

FORT ORD, the Army post lying but a few miles north-east of Monterey, is one of the wartime construction miracles. In the incredibly short time of five months—September 1940, to January 1941—a desolate area of mud, brush, weeds, and poison oak, was converted into a modern Army post capable of caring for more than 60,000 men. Originally a summer camp handling about 10,000 men, it now a permanent post, one of the Western defense chain the Fourth Army, and certainly the largest and one of the east on the Pacific Coast.

From the time of conception, it was General Joseph W. Stilwell's baby. The home of "California's Own," the savagely fighting Seventh Division. Re-activated in the summer of 40, the Seventh went on to become one of the most bone-tired outfits in United States Army forces.

But, except for the astuteness, statesmanship, and courage of a Spaniard, there would be no Fort Ord today. California was invaded and Monterey captured by a foreign power in the early 1800's. An assault force from South America made a successful landing and occupation on November 20, 1818, and the flag of Argentina flew over the cble de Monterey.

The clearing mists that fateful morning revealed the evilly armed frigate ARGENTINA under command of a Frenchman Hypollite Bouchard, with a crew of 260 men and the SANTA ROSA, with a motley array of 100 freebooters. The expedition had been commissioned at Buenos Aires and outfitted in the Hawaiian Islands.

The invaders far outnumbered the little garrison of the royal Presidio de Monterey but when Bouchard sent word Governor Pablo Vicente de Sola that he had but one choice—"unconditional surrender," Governor Sola replied—"we will fight to the last man in the province."

His reply was couched in different language but he meant the same as one of our boys in the Battle of the Bulge answered "Nuts," to a similar query from the Germans.

The Presidio de Monterey, established in 1770 by Don Gaspar de Portola and Frey Junipero Serra, and the oldest established army post in the United States, was the scene of battle. Governor Sola did not hesitate. He assembled his force of 100 men and six light field pieces and attacked but they were outnumbered more than three to one. The power-invaders crushed their meager opposition and, within a short time, had driven them back and were sacking the town.

But Governor Sola was not yet through. After retreating up into the Salinas Valley, he gathered the shattered remnants of his forces, re-grouped and sent runners out for reinforcements. Then prepared to storm and retake the capital of California. A heterogeneous army but grim and determined, they covered the wide expanse of the Salinas Valley as they pressed slowly onward to avenge the desecration of Monterey.

It was not until July 7, 1846, almost 30 years later, that Commodore Sloat made his peaceful landing in the name of the United States. A landing that joined West and East and brought territory covering seven states under the Stars and stripes.

If Governor Pablo Vicente de Sola had agreed to the army's demands or found common cause with them, a Spanish-American Republic would have been formed on that spot and there might not be a Fort Ord today. If our boys in the "Bulge" had not said "Nuts" to the German matron, there might have been a different story there too.

Work was started on Fort Ord in September 1940 when Ford J. Twait's Construction Company, of Los Angeles, Morris-Knudsen, Incorporated, of Boise, Idaho, were awarded the blueprints as low bidders and told to get going the task of building a 16 million dollar home for General Joseph W. (Uncle Joe) Stilwell's Seventh Division—the Army division the proudest U.S. Marine Corps has ever used.

Originally an artillery range and sub-post of the Monterey

terey Presidio, Fort Ord now stretches over 23,000 acres and contains approximately 1,250 buildings including a 1,500 bed hospital—a hospital one-and-one-half times larger than Letterman General Hospital in San Francisco.

When the Washington brass hats inspected Fort Ord in 1941, they were more than delighted and pronounced it the best all-around training center in the land. Drainage afforded by the sandy soil made maneuvers possible during even the heaviest of rainfalls and its tremendous size permitted the training of infantry and artillery units at the same time.

The construction miracle lies in the fact that a permanent post could be erected within such a short space of time while we were sending desperately needed materials to those countries struggling with the Nazi scourge in Europe. And in spite of the haste and flurry, there was not one fatal or even serious accident on the job.

It was in September 1941, that the first man was released under the one-year training program then in effect. He was no more bewildered nor happy to get out than the average G.I. Joe of today. At that time it was estimated that he was merely the first of three thousand to be released from the Seventh because of age or dependency by December 10, 1941. But they were destined to remain. Three days before that time and ten days after Secretary of War Stimson had announced that the Seventh Division would be motorized, the black, fire-ridden shroud of Pearl Harbor descended throwing the country into a feverish swirl of activity.

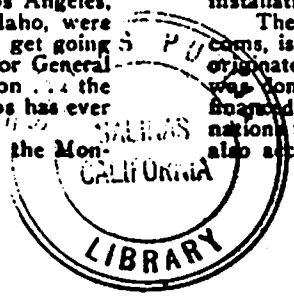
All of the boys had been wishing each other a premature Merry Christmas. . . . Uncle Sugar had jumped the gun by ordering the issue of 700,000 to 800,000 furloughs and had advanced the December payday to December 20th so that the many thousands of draftees might spend the holidays at home. Men were to be released upon two dates, December 12th and 20th. Routine troop movements had been suspended between December 12th and January 12, 1942, to allow for these furloughs. But with the whole country in general, and the Pacific Coast specifically, threatened by the lightning-like stabs from Nippon, they all buckled down and really went to work.

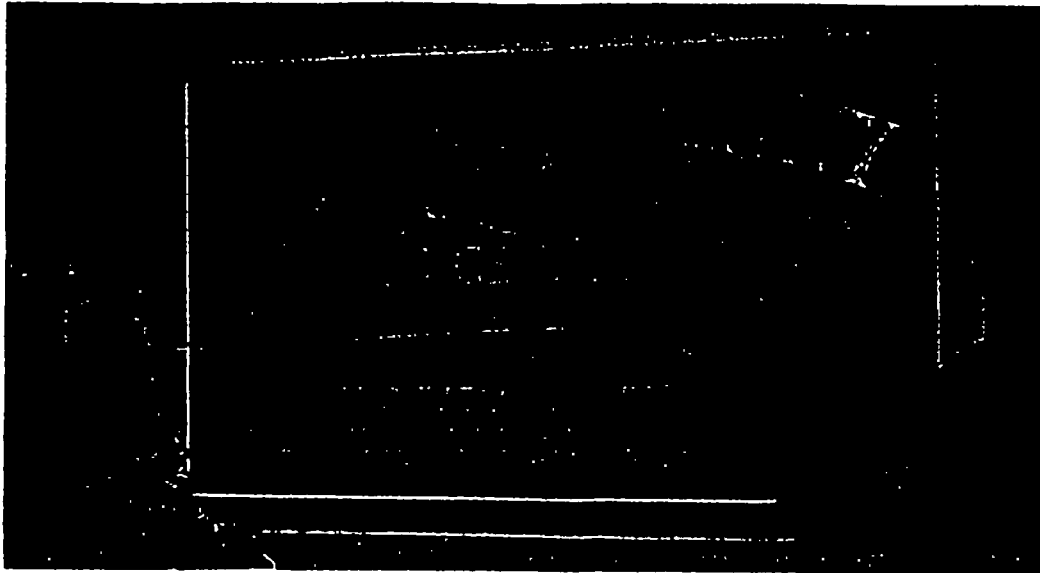
The islands of the Pacific called for a new type of warfare and Fort Ord was the place to school our men. For, in addition to the facilities for training ground and artillery troops, the particularly rugged coastline afforded opportunity for the training of large amphibious tank and tractor units. It was here, too, that the mighty Third Division, the outfit which boasts more decorations and continuous days on the line than any other infantry division in World War II, learned how to do it. They hit the beach at Anzio and later went tearing through Southern France with General Patton. Fort Ord was also the temporary training center for the 43d and 27th Divisions, each of which fought and won many bitter battles in the Pacific Theatre.

Fort Ord trainees practiced landings from Santa Cruz to San Diego. They bucked and scaled the towering cliffs below the Big Sur—fought the smashing Pacific rollers off San Luis Obispo and Morro Bay and foundered on the shifting contours and sand-bars that line the changing sandy beaches of Monterey Bay. But it taught them invaluable lessons. A self-reliance that never was stopped by natural hazards in either the Pacific or European war zones.

But there were other things than hard work at Fort Ord. The Soldiers' Club, unofficially termed the "House that Popcorn Built," is undoubtedly the finest Army recreation installation anywhere. And that includes Officers' Clubs.

The Soldiers' Club, for enlisted men only, including non-coms, is a monument to General "Uncle Joe" Stilwell who originated the idea and, more important, saw that the job was done. A \$1,000,000 permanent structure, it was partly financed by \$70,000 collected from the sale of popcorn. Donations from the enlisted personnel of the Seventh Division also accounted for a substantial amount.





FORT ORD

Fort Ord was named after Major General Edward Otho Cresap Ord, a famed Indian fighter who was with Fremont in the early California days as a lieutenant, and who commanded the first U. S. Army Garrison at the present site of the Presidio and later distinguished himself as a combat leader in the Civil War. Fort Ord covers more than 28,500 acres and the terrain which ranges from rolling plains to rugged hills makes it ideal for the Infantry training mission. It is located five miles from the city of Monterey, which is bordered by the towns of Seaside, Carmel and Pacific Grove. The post is only 14 miles from Salinas, the hub of the agriculturally rich Salinas Valley. San Francisco is 115 miles north of Fort Ord and Los Angeles is 340 miles to the south.

Fort Ord's beginning goes back to 1917 when the Government acquired 15,324 acres near what is now the East Garrison area. It was known originally as the Gigling Reservation, named after a German family that once lived in the area. It was purchased primarily for use as a maneuver area and field artillery target range for the 11th Cavalry and the 76th Field Artillery, which were then stationed at the Presidio of Monterey. During summers the

30th Infantry Regiment from San Francisco used the reservation for maneuvers.

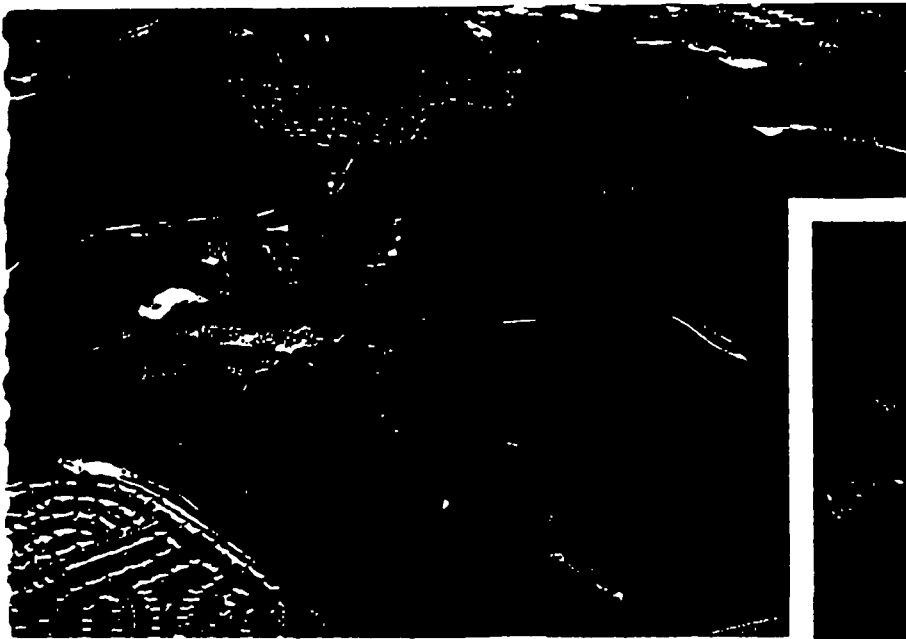
For many years few improvements were made until 1938 when work was begun on the reservation by Colonel (later Major General) Groninger, Commanding Officer of the 11th Cavalry. In 1939 the reservation was known as Camp Ord, and in 1940 it was expanded to more than 20,000 acres. In the following two years, additional land was acquired to reach the present size of 28,500 acres. On 15 August 1940, Camp Ord was renamed Fort Ord and became a permanent Army installation.

The 7th Infantry Division was the first major unit to occupy Camp Ord, being activated on 1 July 1940. It was here at the opening of World War II. The division was redesignated the 7th Motorized Division in April 1942 at San Luis Obispo, California. At this time it was engaged in extensive desert training and maneuvers in Southern California.

In January 1943 it returned to Fort Ord and was redesignated the 7th Infantry Division. After receiving amphibious training here it departed in April 1943 for the Aleutian Islands (Attu), being the first and only unit to leave Fort Ord directly to combat.



Post Headquarters and the Fort Ord Officers Club Open Mess.



HISTORY OF FORT ORD

Fort Ord, located on the shores of the historically rich and scenic Monterey Bay, is one of the nation's permanent Army posts. It covers more than 28,600 acres, ranging from rolling plains to rugged hills that make it ideal for the post's primary mission, Infantry training.

The post was named after Major General Edward Cresap Ord. It is only a few miles from the communities of Monterey, Pacific Grove and Carmel, and 14 miles from Salinas, hub of a rich agricultural valley. San Francisco is 115 miles north and Los Angeles is 340 miles southward.

General Ord achieved fame as an Indian fighter and Civil War commander. He served with Fremont's Army and was a lieutenant when the present site of the nearby Presidio of Monterey was developed. He distinguished himself during the Civil War in the Battle of Iuka, operations against St. Petersburg and the capture of Fort Harrison.

Fort Ord's beginning dates back to 1917 when the government bought 15,324.5 acres near what is now the post's East Garrison and was known as the Gigling Reservation. The name Gigling was that of a German family that once lived in the area. It was primarily used as a maneuver area and field artillery target range for the 11th Cavalry and the 76th Field Artillery which were then stationed at the Presidio of Monterey. During summers, the 30th Infantry Regiment from San Francisco used the reservation for maneuvers as did other Reserve and National Guard units.

Except for a well and caretaker's house in the center and a few bivouac sites, no improvements were made on the Gigling Reservation until 1938. The lands were brush-covered and almost impenetrable in many places. A rough dirt road connected the East Garrison and Gigling railroad spur on Highway No. 1.

The first real work on the reservation started in 1938 under the direction of Colonel (later Major General) Homer M. Groninger. With the aid of the WPA, he built a

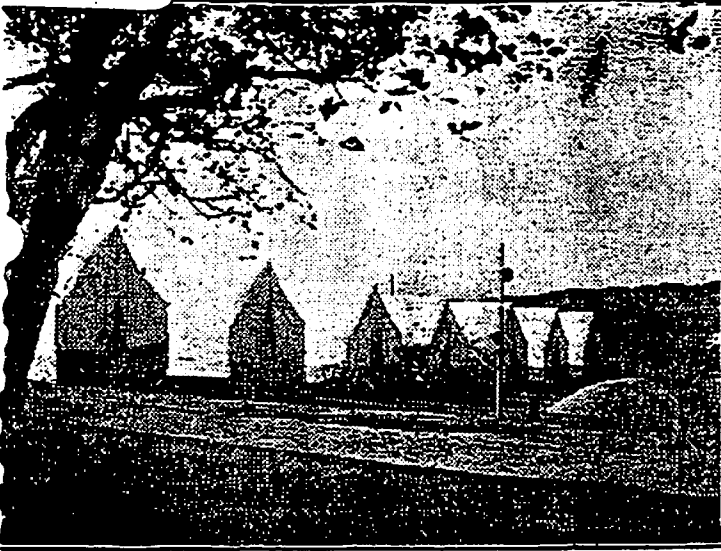
large camp about a mile east of the Gigling railroad spur and cleared brush areas for future construction. Colonel Groninger was working with an original WPA appropriation of \$800,000. Eventually, the WPA received more than \$6,000,000 for construction work at the post, which became known as Camp Ord, in 1939.

In 1940, the WPA, still under Groninger's direction, built concrete mess halls and wooden barracks and tent platforms in the East Garrison. During that same year, work began on the million-dollar Soldiers Club. It was a project that had been conceived by General Joseph W. Stilwell, then commanding the 7th Infantry Division. Donations from soldiers and WPA grants helped finance the building which was completed in September 1943.

Size of the post was expanded to more than 20,000 acres in 1940, the year that Camp Ord was renamed Fort Ord, becoming a permanent Army installation. By the end of 1941, more than \$12,000,000 worth of improvements had been contracted for.

During World War II, the post was a staging area for many famous fighting divisions and units. Fort Ord was visited by the 35th, 43rd, 3rd, and 27th Divisions as well as many smaller units. At one time, more than 50,000 troops were on the installation, although the average was about 35,000.

Following World War II, activity at Fort Ord assumed a slower pace. It became the home of the 4th Replacement Training Center in 1947. That was the framework for the re-activated 4th Infantry Division organized shortly after. Soon the 4th found itself in the role of training soldiers for the Korean conflict. In September, 1950, however, the 4th moved to Fort Benning, Ga., replaced by the 6th Infantry Division which remained until January 1956, when the 5th Division gyroscoped here from Germany. On June 5, 1957, the 5th Division was deactivated and Fort Ord was designated United States Army Training Center, Infantry.



When the two camps are complete at Camp Ord reservation they will accommodate 6,000 men in tents like those shown above, each with concrete floor and electric lights. Mess halls, administrative offices, theater, and post exchange will be permanent concrete block buildings. Modern waste disposal plants are being installed. Two 150,000 gallon tanks supply water pumped from wells with 150-gallon per minute capacity. Part of the cavalry now feeds on gasoline, and motor pools will provide for scout cars and tanks like the one shown above, part of the 11th Cavalry, Monterey Presidio. (Herald photos)



LOCAL HISTORY

A Word to the Wise



Danger arising out of a new plan to make the Camp Ord reservation one of the finest military training areas in the United States has Presidio authorities worried. Yielding in the future to that desire, to browse through the reservation or to sneak in for a little shooting may mean death. Effective range of the artillery is about six miles, that of the 50 caliber machine guns four miles, while rifle ranges will be in use nine months of the year. Every precaution is being taken to prevent other than military personnel from entering the reservation. New signs will replace these old ones. Arrangements are being made so that visitors may tour the reservation on Sundays, a guard explaining the area open to the public and markers at road junctions indicating where turns should be made. (Herald photo)

Wares Back to Land Purchase in 1917

Fort Ord, located in the historically rich and scenic Monterey Peninsula area, is one of the nation's important infantry training centers. It covers more than 28,800 acres, ranging from rolling plains to rugged hills that make it ideal for the post's infantry training mission.

The post, named after Major General Edward Cresap Ord, is on the edge of the Monterey bay, a few miles from the communities of Monterey, Pacific Grove and Carmel on the peninsula, and 14 miles from Salinas, hub of a rich agricultural valley. San Francisco is 115 miles north of Fort Ord and Los Angeles is 340 miles southward.

General Ord achieved fame as an Indian fighter and Civil War commander. He served with Fremont's Army and was a lieutenant when the present site of the near-by Presidio of Monterey was developed. He distinguished himself during the Civil War in the

Battle of Buena Vista, operations against St. Petersburg and the capture of Fort Harrison.

Beginning in 1917

Fort Ord's beginning dates back to 1917 when the government bought 15,324.5 acres for about \$160,000 from the David Jacks corporation. The land lay mostly near what is now the post's East Garrison and was known as the Gigling reservation. The name Gigling apparently was that of a German family that once lived in the area, according to Col. Roger S. Fitch, USA (ret.), former Fort Ord commander. It was bought primarily for use as a maneuver area and field artillery target range for the 11th Cavalry and the 10th field artillery which were then stationed at the Presidio of Monterey. During summers the 30th Infantry regiment from San Francisco used the reservation for

maneuvers as did ROTC, ORG, National Guard and OMTG units. The post commander of the Presidio of Monterey was in command of the Gigling reservation. No improvements

Except for a well and caretaker's house in the center and a few camp sites, no improvements were made on the Gigling reservation until 1938. Troops found the land brush-covered and almost impenetrable in many places. A rough dirt road connected the East Garrison and Gigling railroad spur to Highway No. 1.

The first real work on the reservation started in 1938 under the direction of Colonel (later Major General) Homer M. Groninger. With the aid of the WPA he built a large camp about a mile east of the Gigling railroad spur and cleared brush areas for future construction. Colonel Groninger was working with an original WPA appropriation of \$800,000. Eventually the WPA received more than \$6,000,000 for construction work at the post, which became known as Camp Ord in 1939.

In 1940, the WPA, still under Groninger's direction, built concrete messhalls and wooden barracks and tent platforms in the East Garrison. During that same year, work began on the million dollar Soldiers' club. It was another WPA project that had been conceived by Gen. Joseph Stilwell then commanding the 7th Infantry division here. When the WPA went out of existence the club was unfinished. But Col. Roger S. Fitch, post commander, guided it to completion in September, 1943, with the aid of federal funds, Army engineers and money poured through soldier activities.



Maj. Gen. Robert B. McClure
Fort Ord Commander

Size of the post was expanded more than 20,000 acres in 1940. The Army first bought an additional 9,777 acres from Jacks. That acreage was located between Marina and the ocean shore of the existing camp. Later in 1940 an additional 2,000 acres lying east of the highway and north of Seaside to Gigling spur (including the present site of Ord Village) was bought from T. A. Work. A Monterey county bond issue to buy, and then present that land to the army had narrowly been defeated in 1940. But after the people of Salinas and Monterey peninsula bought 274.6 acres in the sand dunes just south of Marina and west of the railroad. They then gave the tract to the army which used it for firing ranges. Other lands north and east of Marina and along the Salinas road and toward the Salinas river were bought or leased in 1941. On August 15, 1940, Camp Ord was renamed Fort Ord, becoming a Army garrison.

By January, 1942, Fort Ord consisted of 29,000 acres, 21,438 owned by the army.

Building Contract
A building contract for almost \$3,000,000 was awarded Morrison-Knudsen and Ford J. Twaits company in August, 1940, to construct barracks for the newly activated 7th Infantry division which began training in July at Camp Ord.

While the new building for the 7th division were being constructed, General Stilwell maintained headquarters at the Presidio of Monterey. Earlier that year the WPA had started work on permanent buildings for the post but was forced to abandon the project with only three buildings completed. Those were converted by Colonel Fitch into what is now post headquarters and the officers mess. Stilwell's headquarters were in buildings near the present Division I&E Section. By the end of 1941, more than \$12,000,000 worth of improvements had been contracted for. During World War II, the post was host to many famous fighting divisions and units. Fort Ord, as a staging area, was visited by

the 35th, 43rd, 3rd, 5th and 27th Divisions as well as many other smaller units. At one time more than 60,000 troops were on the installation, although the average strength was about 45,000.

Training for Korea

Following World War II, activity at Fort Ord assumed a slower pace. It became the home of the 4th Replacement Training center in 1947. That was the framework for the re-activated 4th Infantry division organized shortly afterward. Soon the 4th found itself in the role of training soldiers for the Korean conflict. In September, 1950, however, the 4th moved to Fort Benning, Ga., and the 6th Infantry division was re-activated here. That division participated in 308 days of continuous combat in the South Pacific during World War II, fighting its

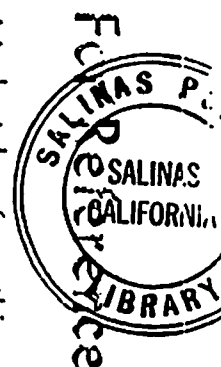
way from New Guinea to the Philippines.

In 1951 congress appropriated more than \$26,000,000 in funds to provide the post with permanent buildings in place of temporary ones built during the war years. The building program got under way toward the latter part of the year and is expected to take at least five years to complete.

Maj. Gen. Robert B. McClure, a veteran of both World Wars and the Korean conflict, is present post and 6th Infantry division commander.

While the post's primary mission is training infantrymen, it also operates several specialist schools. They are in such subjects as food service, leadership, supply, administration, auto mechanics and military vehicle operation.

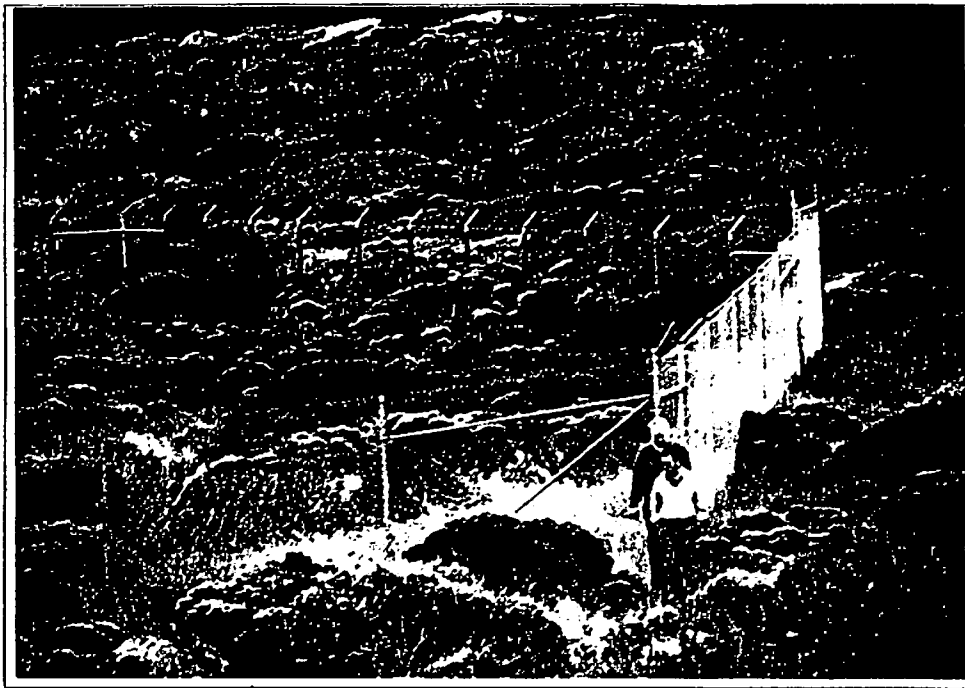
Not to be taken from this room



CAL HISTORY

APPENDIX G

PRESENT SITE PHOTOGRAPHS



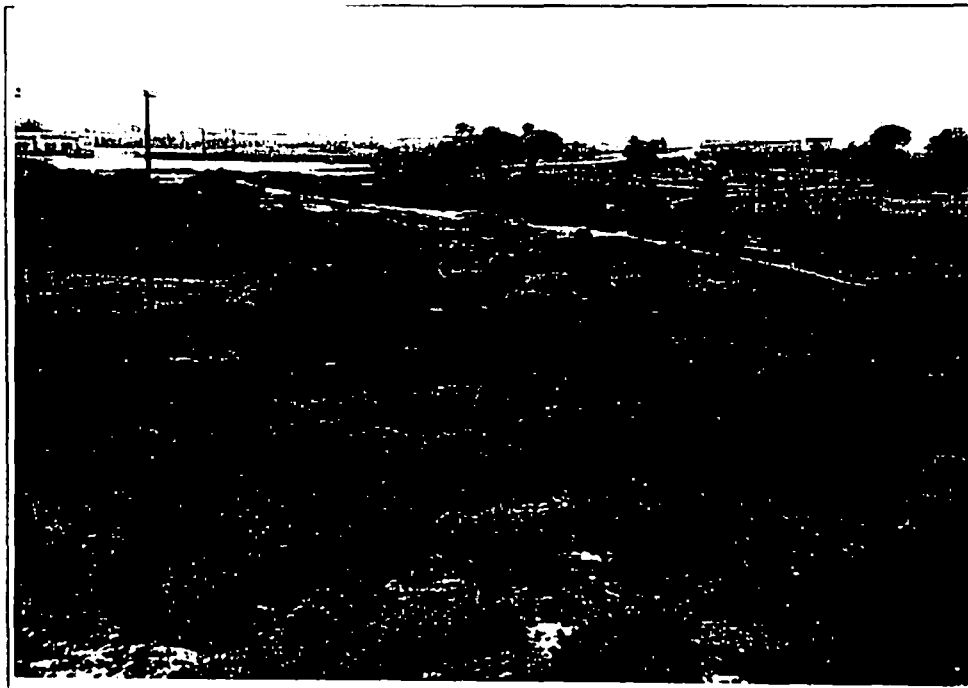
GATE WHERE SIGN WAS FOUND
(SITE 1)



'KEEP AWAY, CONTAMINATED WASTE' SIGN AT FLAME THROWER RANGE.



CHEMICAL TRAINING AREA BETWEEN STOCKADE
AND IMJIN RD.
(SITE 2)

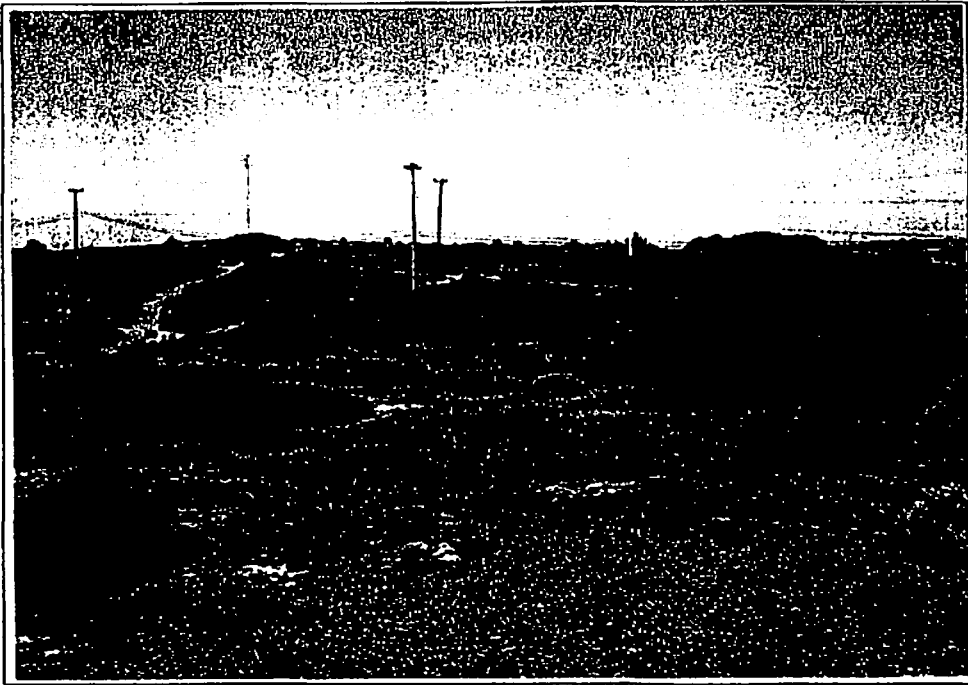


CHEMICAL TRAINING AREA BETWEEN STOCKADE
AND IMJIN RD.
(SITE 2)

G-2

NOT TO SCALE

1993 PHOTO OF SITE	
FORT ORD, CA	
DATE:	DATE OF PHOTO: 1993



SITE 2



MANHOLE FOUND BETWEEN STOCKADE AND IMJIN RD.
(SITE 2)

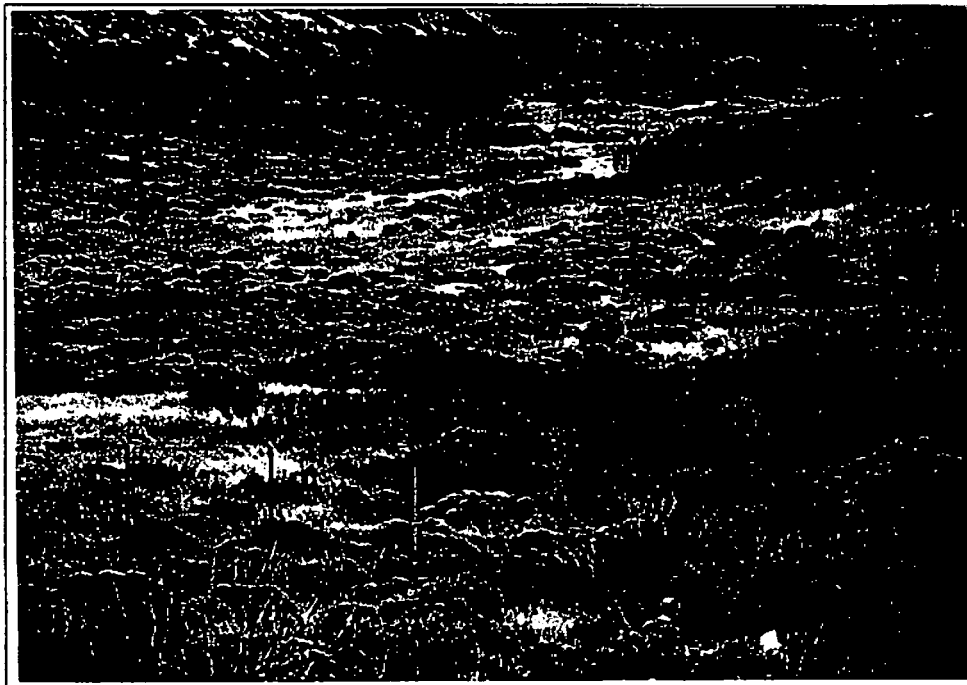
G-3

NOT TO SCALE

1993 PHOTO OF SITE	
FORT ORD, CA	
DATE:	DATE OF PHOTO: 1993



FLAME THROWER RANGE
(SITE 1)



SITE 1

G-4

NOT TO SCALE

1993 PHOTO OF SITE

FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



SUSPECT 55 GALLON DRUM
(SITE 2)



SUSPECT 55 GALLON DRUM
PLUS SECOND DRUM, NATURE UNKNOWN.
(SITE 2)

G-5

1993 PHOTO OF SITE

FORT ORD, CA

NOT TO SCALE

DATE:

DATE OF PHOTO: 1993



EAST OF PETE'S POND
(SITE 2)



EAST OF PETE'S POND, NUMEROUS RUSTED METAL FRAGMENTS
(SITE 2)

G-6

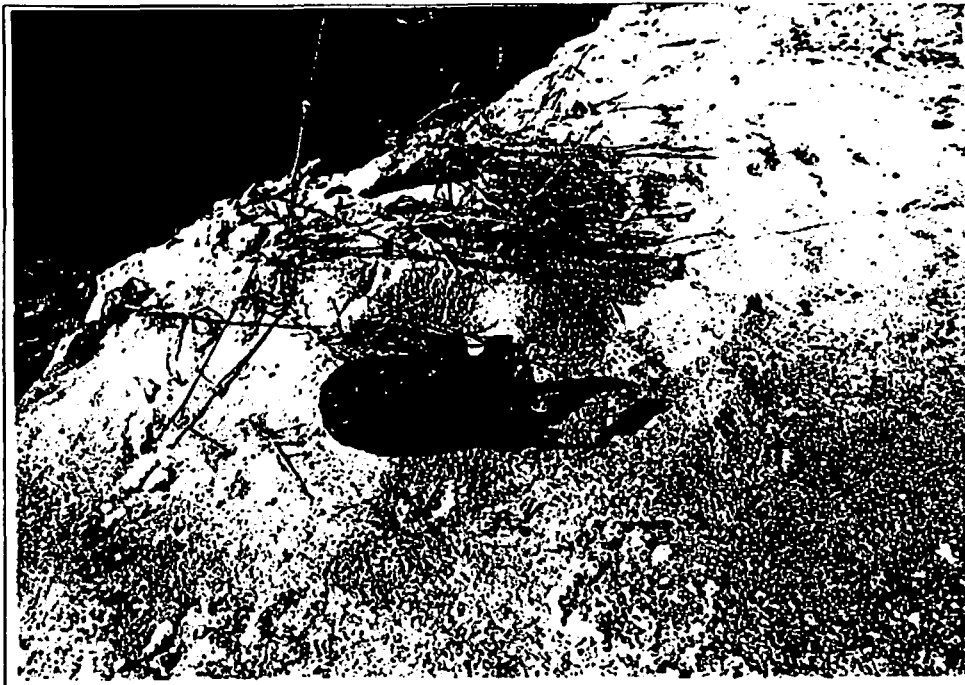
NOT TO SCALE

1993 PHOTO OF SITE

FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



OGIVE FROM 2.36" RKT. NEAR TARGET
BUNKER EAST OF PETE'S POND
(SITE 2)



UNIDENTIFIED METAL OBJECT EAST OF
PETE'S POND
(SITE 2)

G-7

NOT TO SCALE

1993 PHOTO OF SITE

FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



PETE'S POND



POSSIBLE TARGET BUNKER FOR 2.36' RKTS.
(SITE 2)

G-8

NOT TO SCALE

1993 PHOTO OF SITE

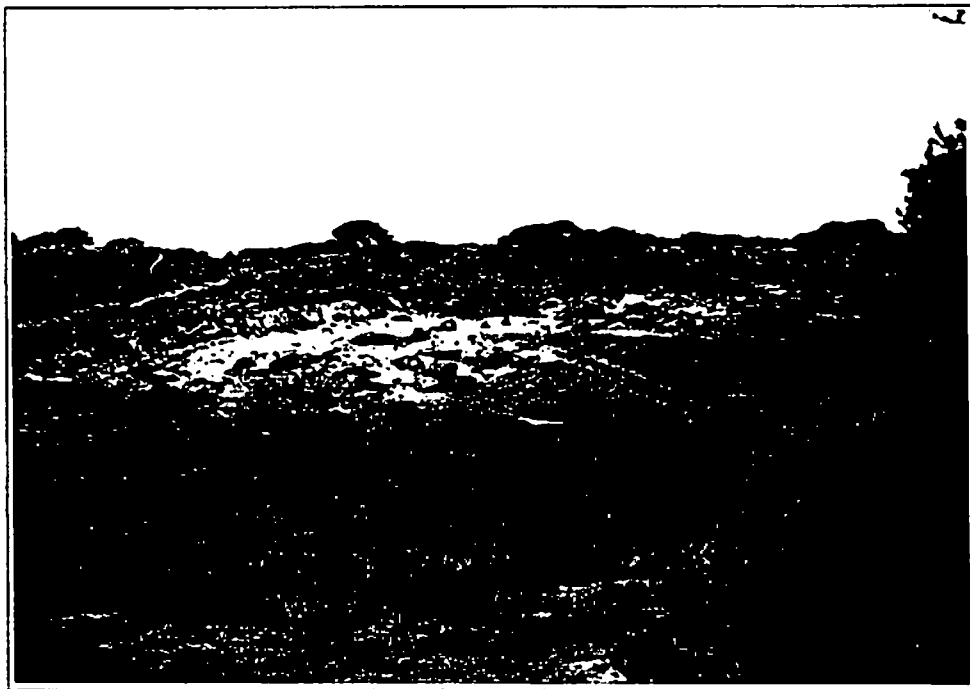
FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



RANGE 49 - MOLOTOV COCKTAIL TRAINING AREA
(SITE 3)



RANGE 49
(SITE 3)

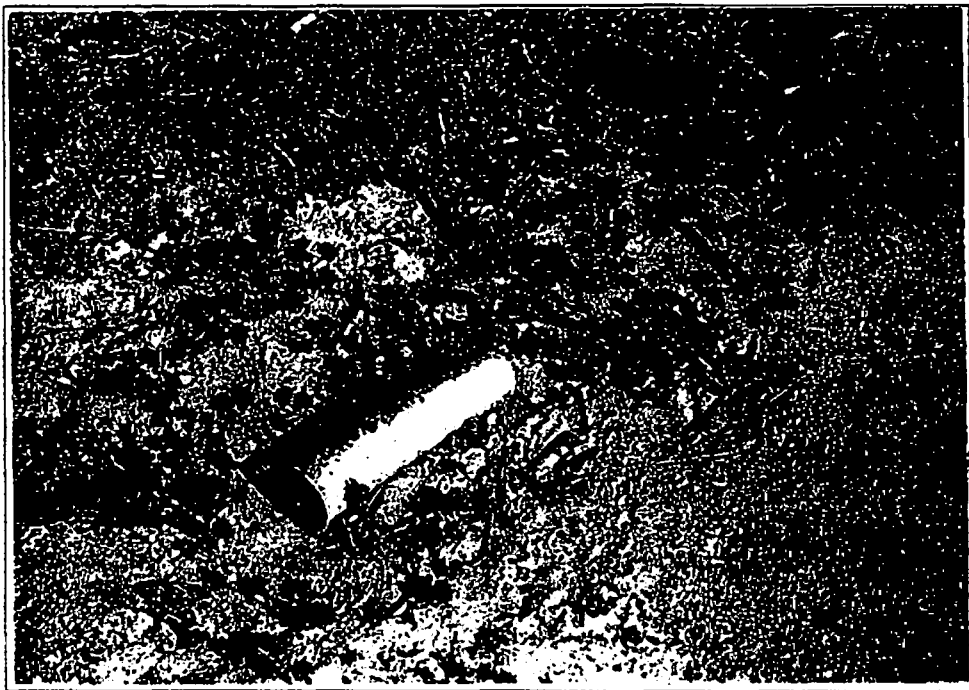
G-9

NOT TO SCALE

1993 PHOTO OF SITE	
FORT ORD, CA	
DATE:	DATE OF PHOTO: 1993



YELLOW SMOKE GRENADE (EXPENDED)
(SITE 4)



SIMULATOR, PROJECTILE, AIR BURST M74A1
(SITE 4)

G-10

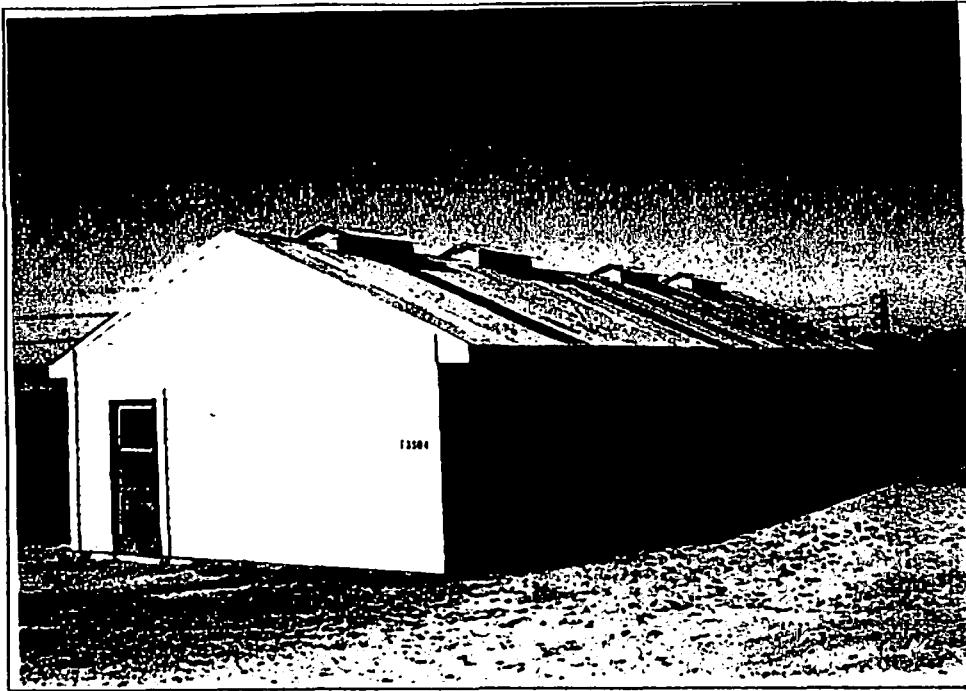
NOT TO SCALE

1993 PHOTO OF SITE

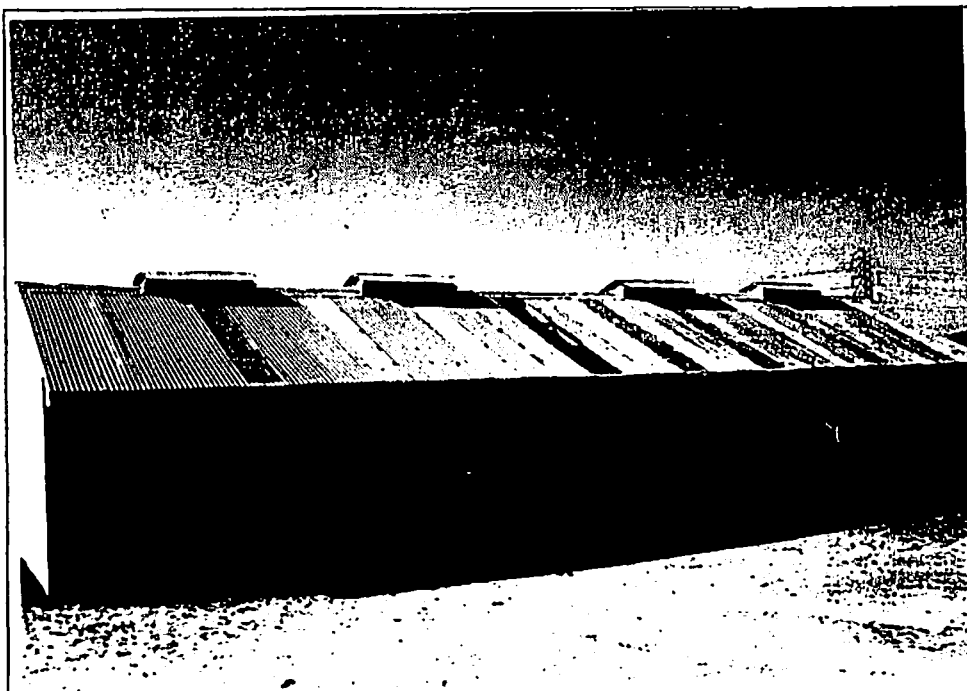
FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



CURRENT GAS CHAMBER IN NBC TRAINING AREA
(SITE 4)



GAS CHAMBER

G-11

NOT TO SCALE

1993 PHOTO OF SITE

FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



UNIDENTIFIED CULVERT IN SUSPECT WASH-OUT AREA
(SITE 4)



SUSPECT WASH-OUT AREA IN CBR TRAINING AREA
(SITE 4)

G-12

NOT TO SCALE

1993 PHOTO OF SITE

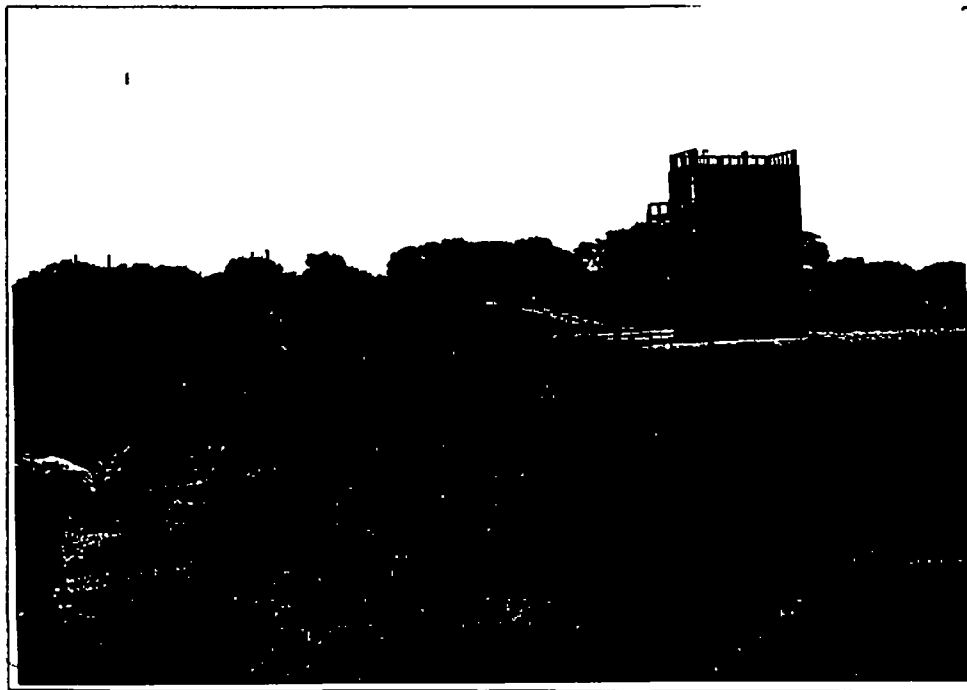
FORT ORD, CA

DATE:

DATE OF PHOTO: 1993



CBR TRAINING AREA
(SITE 4)



VEHICLE DECON. AREA IN CBR TRAINING AREA
RAPPEL TOWER
(SITE 4)

G-13

NOT TO SCALE

1993 PHOTO OF SITE

FORT ORD, CA

DATE:

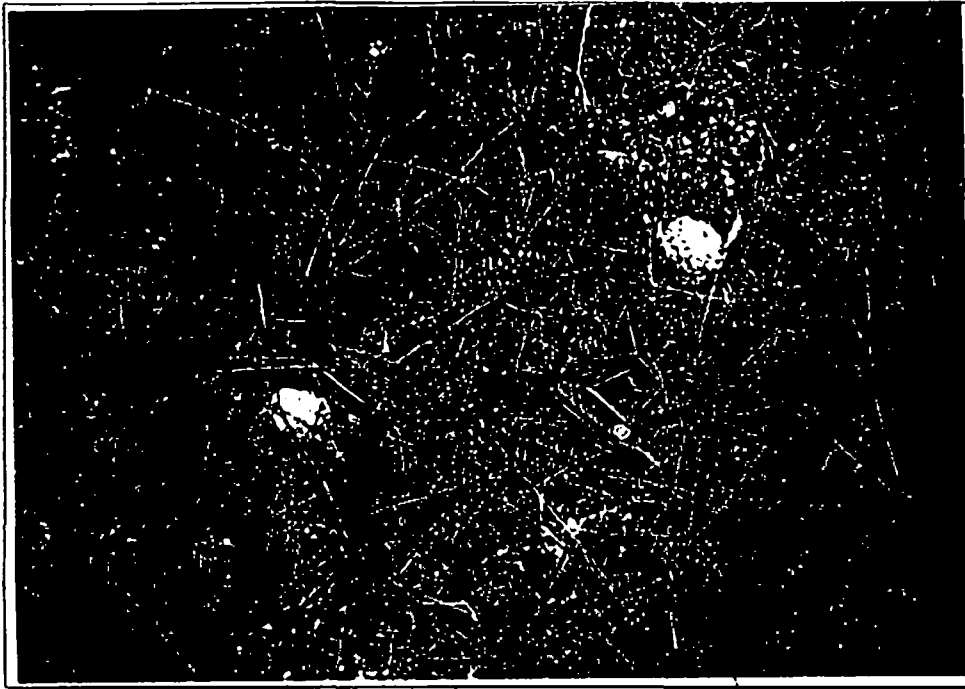
DATE OF PHOTO: 1993



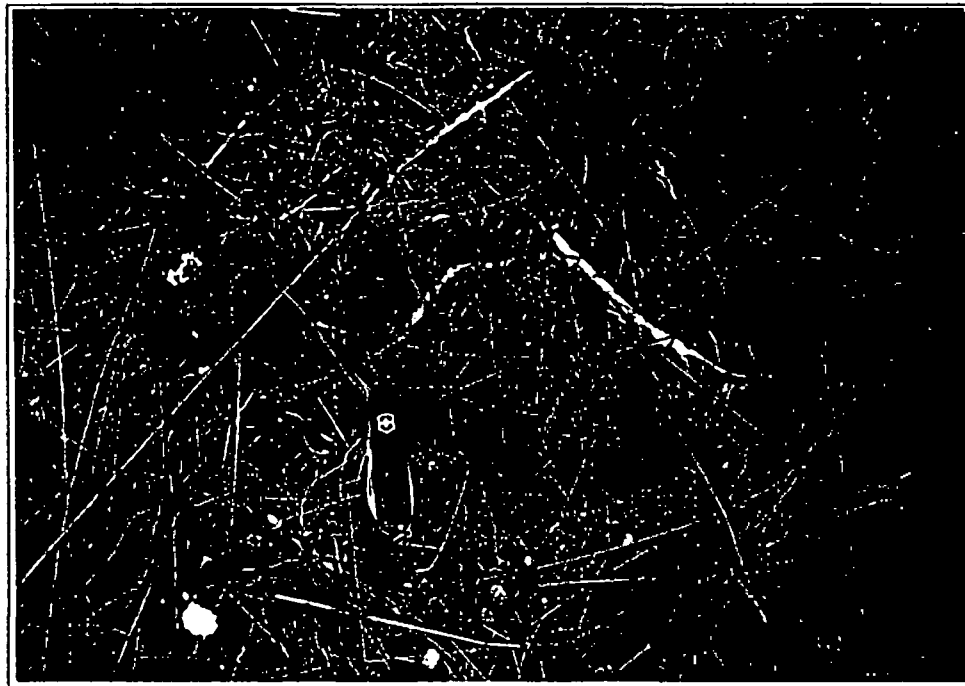
WATER MAIN BETWEEN STOCKADE AND IMJIN RD.
(SITE 2)



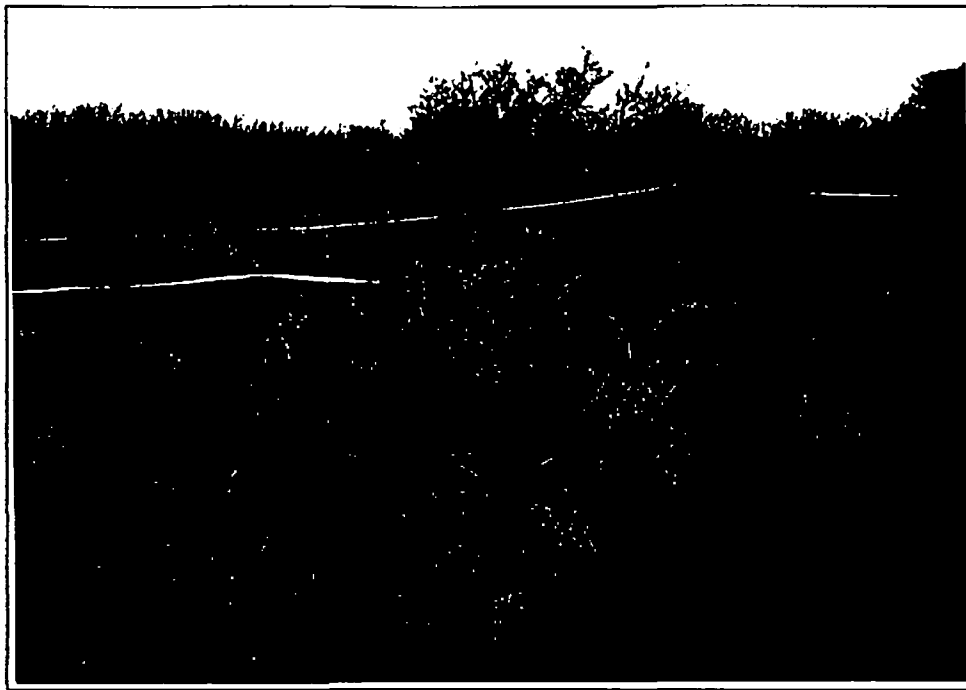
GENERAL VIEW OF CBR TRAINING AREA
(SITE 4)



2.36" RKT. MOTORS (EXPENDED)
(SITE 16)



2.36" RKT. MOTOR
(SITE 16)



IMPACT TARGET AREA FOR 2.36° RKTS.
(SITE 16)

G-16

NOT TO SCALE

1993 PHOTO OF SITE	
FORT ORD, CA	
DATE:	DATE OF PHOTO: 1993

APPENDIX H

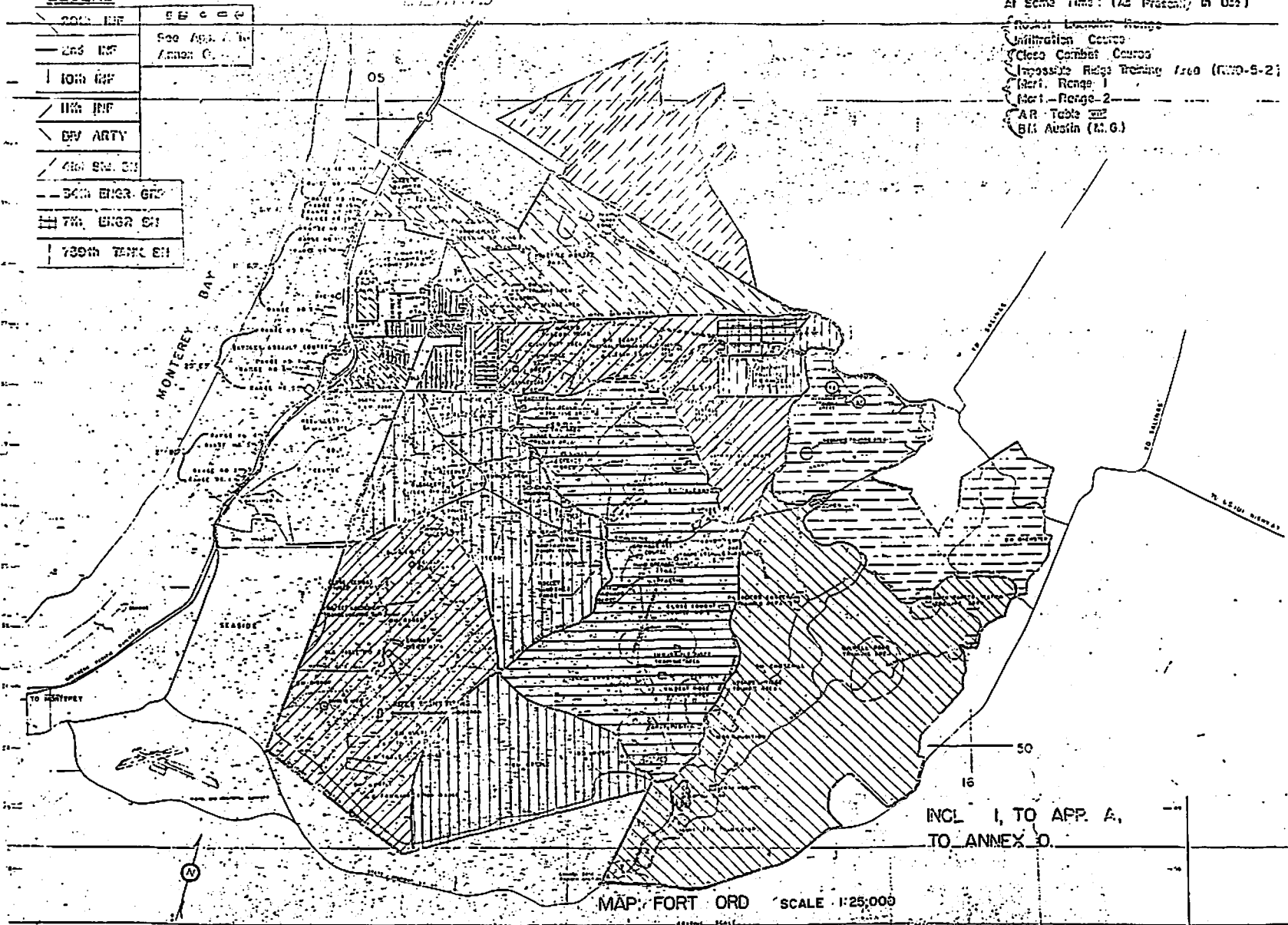
HISTORICAL MAPS/DRAWINGS

LEGEND

20th INF	SE C = ⊕
2nd INF	See App. A, Annex C.
10th INF	
11th INF	
8th ARTY	
4th ENR BN	
34th ENGR GTO	
7th ENGR BN	
739th TANK BN	

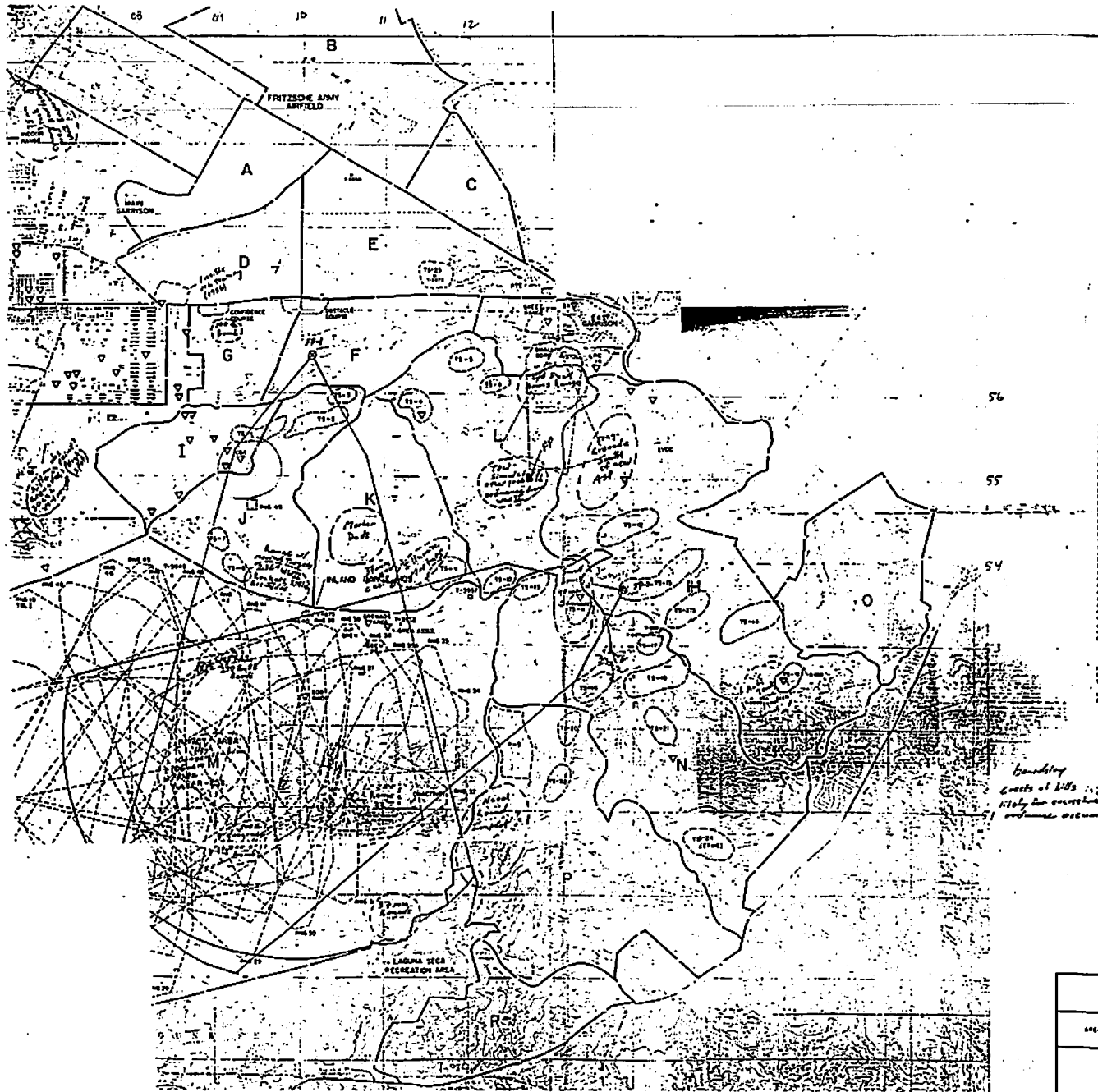
Training Areas Which Cannot Be Used
At Same Time: (As Presently in Use)

- Frontal Launcher Range
- Infantry Course
- Crew Combat Course
- Opposite Ridge Training Area (RWD-5-2)
- Art. Range 1
- Art. Range 2
- AR Table
- BT: Austin (M.G.)

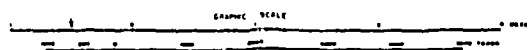
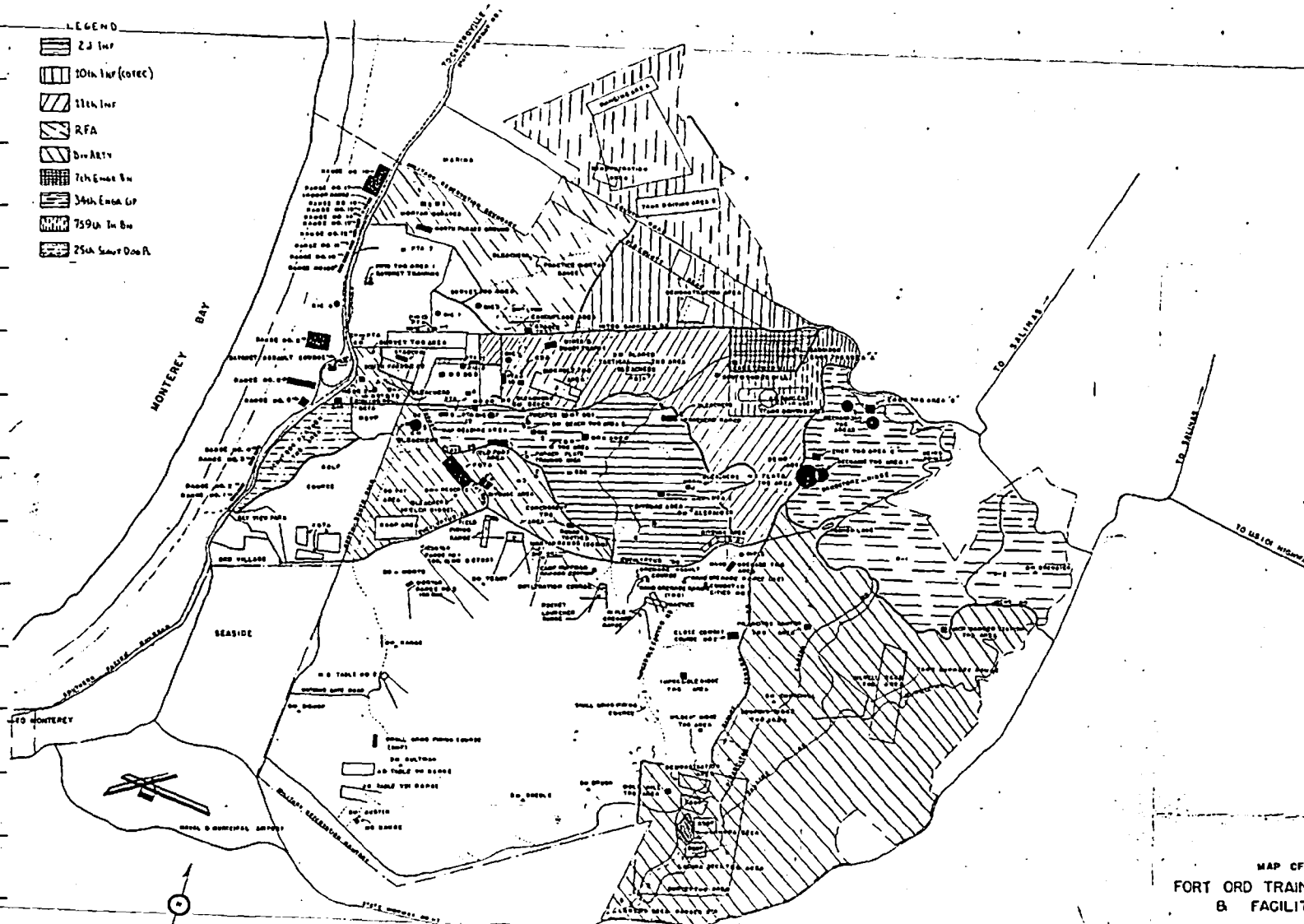


INCL I, TO APP. A,
TO ANNEX C.

MAP FORT ORD SCALE 1:25,000



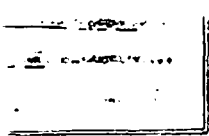
- LEGEND
- 2d Inf
 - 10th Inf (AECF)
 - 11th Inf
 - RFA
 - Div ARTY
 - 7th Engr Bn
 - 34th Engr GP
 - 759th Tr Bn
 - 25th S&W Det



MAP OF
 FORT ORD TRAINING AREAS
 & FACILITIES
 INCLOSURE I TO ANNEX "O"
 1:25,000
 REVISED 20 DEC 56

APPENDIX H-1

Early Release Parcels



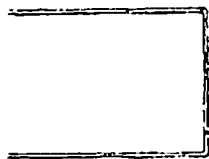
PUM Annex
(Presidio of Monterey)

Fort Ord BRAC
AFZW-DBRAC

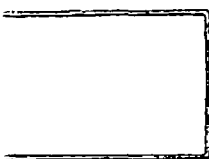


Housing Areas
Neighborhoods Labeled

(408) 242-8010



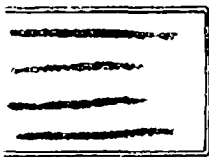
Schools/School Properties



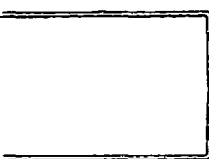
Ca. Dept Parks/Recreation



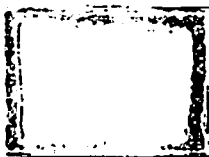
U.S. Bureau of Land Management



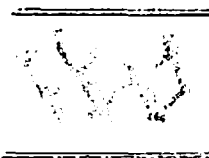
Cal State University



University of California

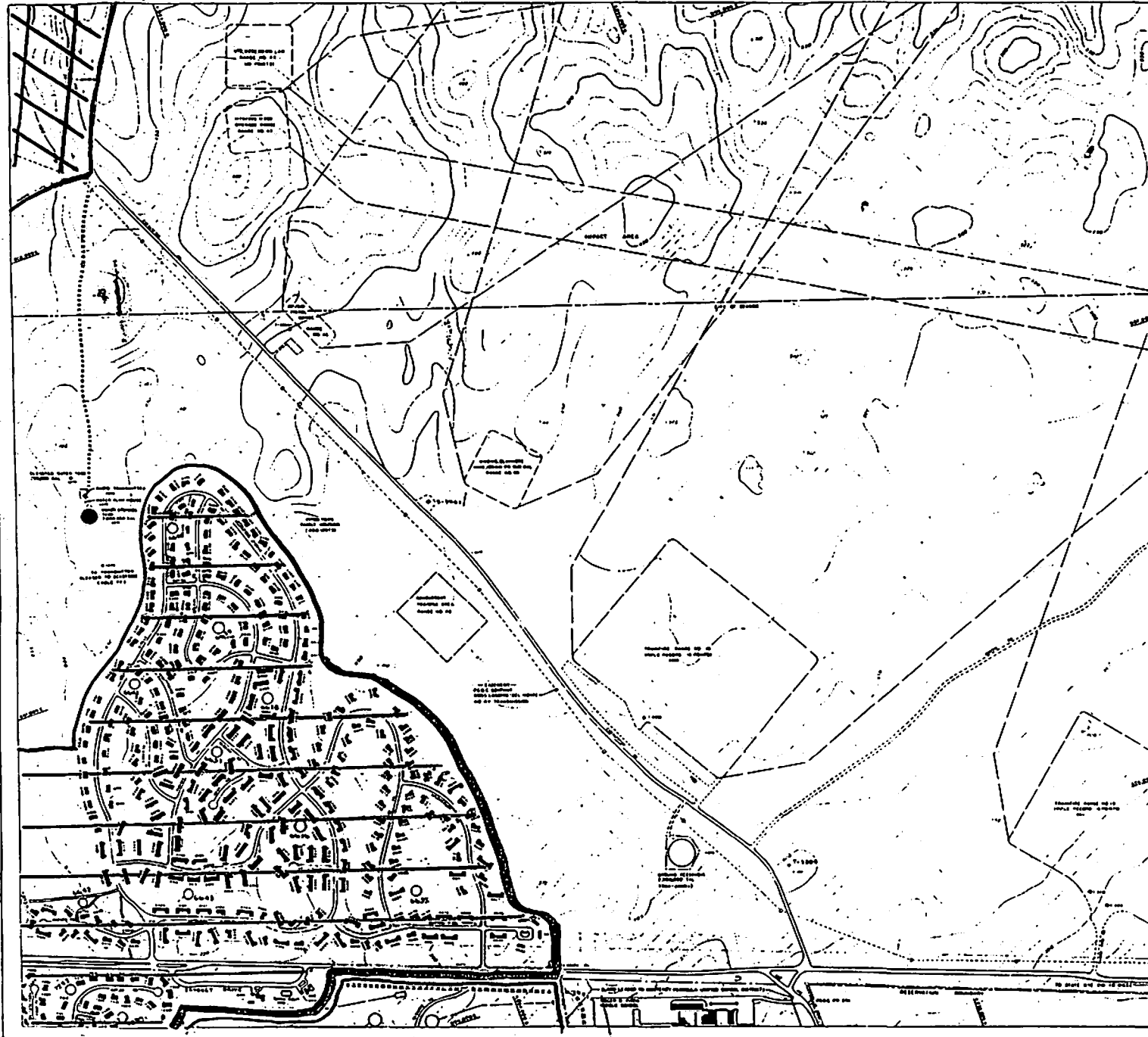


Golf Courses



Stillwell Kidney

Note: Fritsche
Army Airfield is a
parcel in its entire
Mapsheet 7 shows
most, but not all of
the airfield.



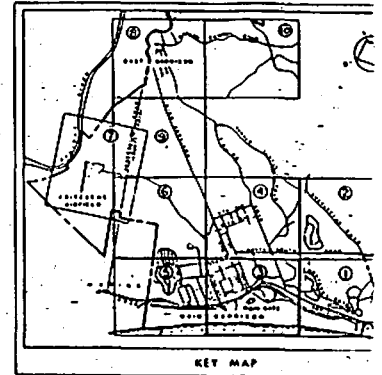
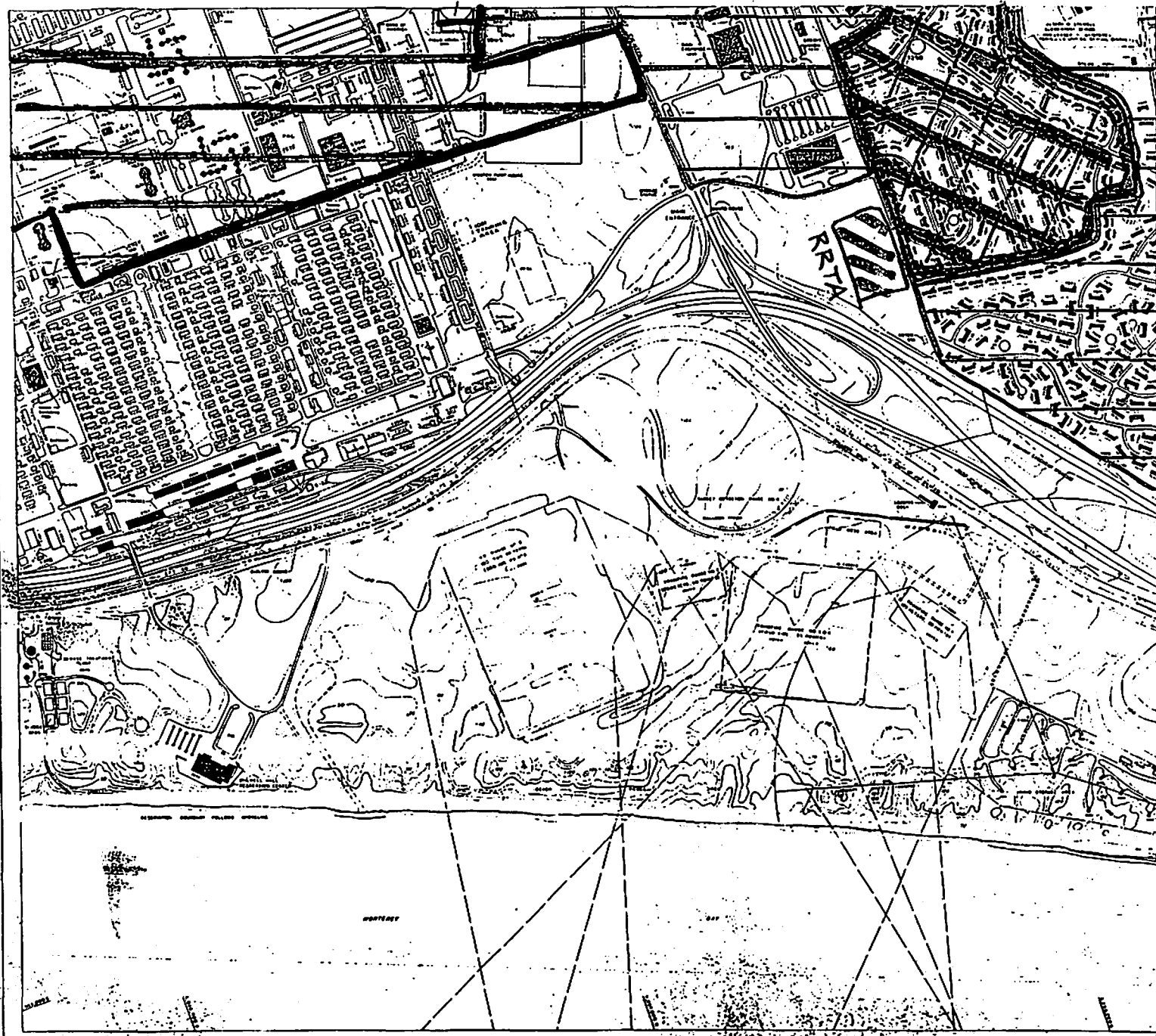
NOTES:
 1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.
 2. ALL DISTANCES ARE MEASURED FROM THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.
 3. ALL DISTANCES ARE MEASURED FROM THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.

LEGEND

- Playground
- Building
- Street
- Utility Line
- Proposed Improvement
- Impact Area
- Center Line
- Grid
- Lot
- Block
- Block Boundary
- Block Center
- Block Corner
- Block Edge
- Block Face
- Block Side
- Block Back
- Block Front
- Block Rear
- Block Left
- Block Right
- Block Top
- Block Bottom
- Block North
- Block South
- Block East
- Block West
- Block Southeast
- Block Southwest
- Block Northeast
- Block Northwest
- Block Diagonal
- Block Perimeter
- Block Area
- Block Volume
- Block Weight
- Block Density
- Block Intensity
- Block Brightness
- Block Contrast
- Block Saturation
- Block Hue
- Block Color
- Block Texture
- Block Pattern
- Block Shape
- Block Size
- Block Orientation
- Block Position
- Block Location
- Block Direction
- Block Distance
- Block Time
- Block Date
- Block Time of Day
- Block Date of Year
- Block Time of Year
- Block Date of Month
- Block Time of Month
- Block Date of Week
- Block Time of Week
- Block Date of Day
- Block Time of Day
- Block Date of Hour
- Block Time of Hour
- Block Date of Minute
- Block Time of Minute
- Block Date of Second
- Block Time of Second
- Block Date of Millisecond
- Block Time of Millisecond
- Block Date of Microsecond
- Block Time of Microsecond
- Block Date of Nanosecond
- Block Time of Nanosecond
- Block Date of Picosecond
- Block Time of Picosecond
- Block Date of Femtosecond
- Block Time of Femtosecond
- Block Date of Attosecond
- Block Time of Attosecond
- Block Date of Zeptosecond
- Block Time of Zeptosecond
- Block Date of Yoctosecond
- Block Time of Yoctosecond



B	1955	ADDED PLAYGROUNDS
A	1954	GENERAL UPDATE
1953	DATE	DESCRIPTION
FORT ORD		
(C-2000)		
ALL DATA FROM THIS MAP IS THE PROPERTY OF THE U.S. ARMY AND SHOULD NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.		U.S. ARMY ENGINEERING CENTER FORT BELLEVILLE, ILLINOIS 62205
GENERAL SITE MAP		
PREPARED BY: [Signature] CHECKED BY: [Signature] DATE: [Date]		
Scale:	1" = 100'	Sheet No. 1 of 1

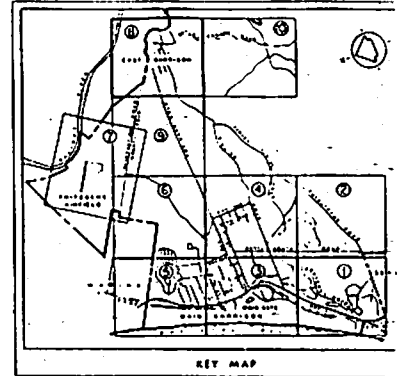
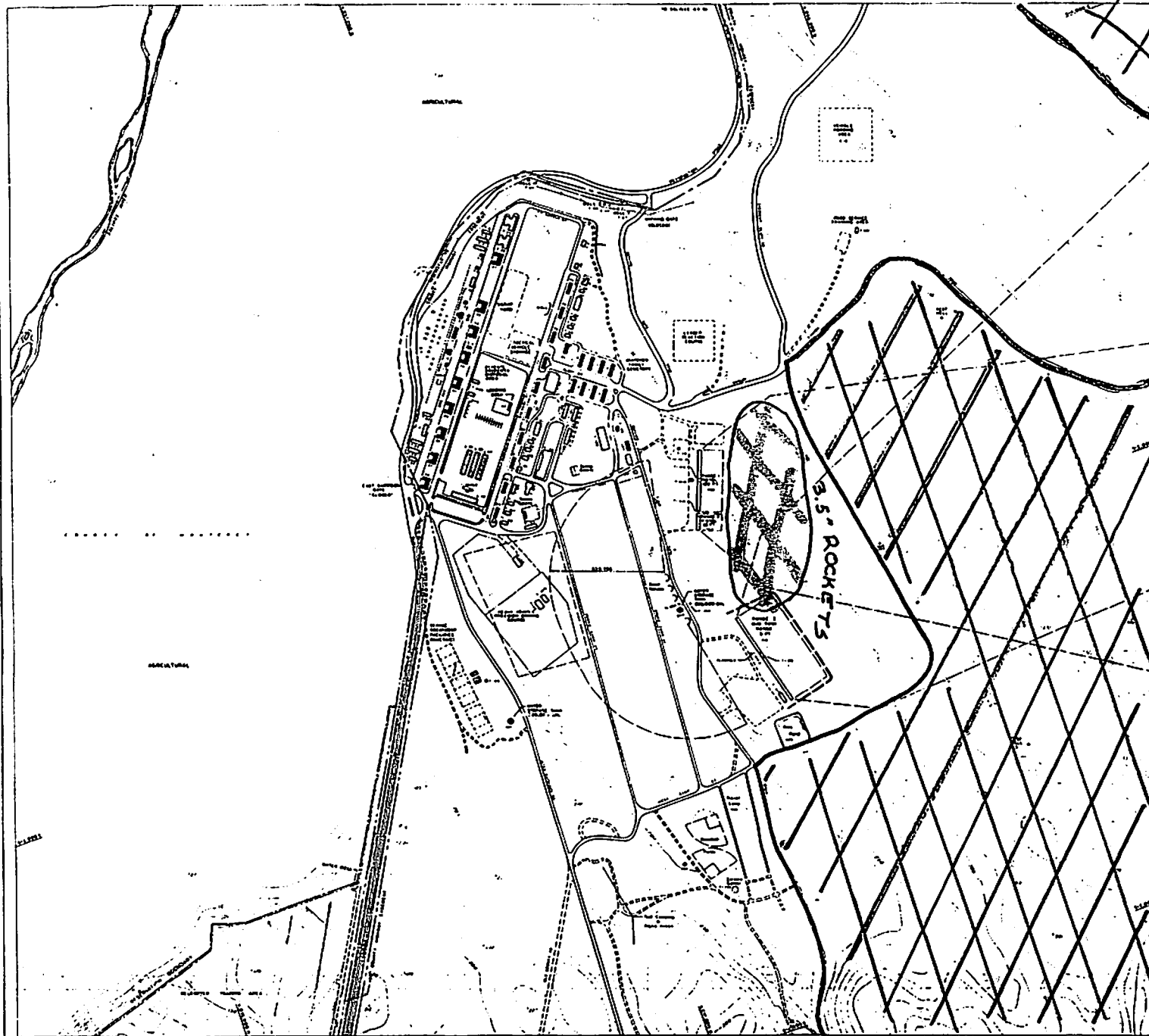


LEGEND

- ROADS
- RAILROADS
- WATER
- PLANTATIONS
- ...

SCALE IN FEET
 0 100 200
 CUSTOM INTERVAL IN FEET

B	DELETED: FAC NOS 2010 & 2060
A	GENERAL UPDATE
FORT ORD	
BASIC INFORMATION MAPS	
GENERAL SITE MAP	
<i>[Signature]</i>	



NOTES:
 1. THIS MAP IS A GENERAL SITE MAP AND DOES NOT SHOW THE EXACT LOCATION OF THE STRUCTURES AND UTILITIES SHOWN ON THE MAIN MAP.
 2. THE MAIN MAP IS A DETAILED SITE PLAN AND SHOULD BE REFERRED TO FOR THE EXACT LOCATION OF THE STRUCTURES AND UTILITIES SHOWN ON THIS MAP.

LEGEND

- ROADS
- RAILROADS
- WATER
- UTILITIES
- STRUCTURES
- ...



NO.	DATE	DESCRIPTION
FORT ORD		
CAMP		
DRAWN BY: [Name] CHECKED BY: [Name]		DATE: [Date] SCALE: [Scale]
GENERAL SITE MAP		
[Signature] [Title]		
SHEET NO. [Number] OF [Total] SHEETS		DATE: [Date] SCALE: [Scale]

APPENDIX I

OEW RISK ASSESSMENT CODE FORM

RISK ASSESSMENT PROCEDURES FOR
 ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name FT. ORD, CA Rater's Name DEANNE M. STRAUSSER
 Site Location MONTEREY CTY Phone No. 314 331-8047
 DERP Project # _____ Organization CEHMS-PM-M
 Date Completed 29 SEP 93 RAC Score _____

OEW RISK ASSESSMENT:

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

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

TYPE OF ORDNANCE
 (Circle all values that apply)

A. Conventional Ordnance and Ammunition

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

What evidence do you have regarding conventional OEW?
EXISTING IMPACT AREA. 2.36" ROCKETS FOUND OUTSIDE IMPACT AREA; 3.5" ROCKETS SOUTH OF EAST GARRISON; REFER TO ASR.

B. Pyrotechnics (For munitions not described above.)

VALUE

Munition (Container) Containing
White Phosphorus or other
Pyrophoric Material (i.e.,
Spontaneously Flammable)

10

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

6

Flares, Signals, Simulators

4

Pyrotechnics (Select the largest single value)

10

What evidence do you have regarding pyrotechnics?

PYROTECHNIC
CANNISTER FOUND IN CBR TRAINING AREA; REFER TO ASR

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

VALUE

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

10

Demolition Charges

10

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

8

Military Dynamite

6

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

3

High Explosives (Select the largest single value)

8

What evidence do you have regarding bulk explosives?

Demolition areas exist; refer to ASR. KNOWN

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

VALUE

Solid or Liquid Propellants

6

Propellants

0

What evidence do you have regarding bulk propellants?

NONE

E. Radiological/Chemical Agent/Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	(20)
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear, incendiary and smoke)	(5)
Radiological/Chemical Agent (Select the largest single value)	20

What evidence do you have of chemical/radiological OEW? CATS HAVE BEEN USED FOR TRAINING: GAS CHAMBER EXISTS - TEAR GAS USED 55 GAL DRUM WITH REINFORCING BANDS FOUND. REPORTED TESTS FOUND TRACES OF MUSTARD. REPORT COULD NOT BE VERIFIED.

Total Hazard Severity Value 48
 (Sum of Largest Values for A through E--Maximum of 61).
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Value
CATASTROPHIC	(I)	≥21
CRITICAL	II	≥10 <21
MARGINAL	III	≥5 <10
NEGLIGIBLE	IV	≥1 <5
**NONE		0

* Apply Hazard Severity Category to Table 3.

**If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC Score of 5 to determine your appropriate action.

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

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

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations.	4
Inside walls, ceilings, or other parts of Buildings or Structures.	3
Subsurface	2
Location (Select the single largest value)	5

What evidence do you have regarding location of OEW? EDD Incident report;
Site inspection - locations referenced in ASR.

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	4
0.5 miles to 1.0 mile	3
1.0 mile to 2.0 miles	2
Over 2 miles	1
Distance (Select the single largest value)	5

What are the nearest inhabited structures? Maintenance yard,
office buildings.

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

	VALUE
26 and over	5
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value)

5

Narrative Several contaminated sites are in the main cantonment area.

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

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	5
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value)

5

Describe types of buildings in the area. _____

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

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

Accessibility (Select the single largest value)

3

Describe the site accessibility. Fence in good shape. HUNTING & FISHING STILL OCCURRING.

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

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

Describe the site dynamics. MUCH POSSIBLE FUTURE LAND DEVELOPMENT.

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

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TABLE 2

HAZARD PROBABILITY

Description	Level	Value
FREQUENT	A	≥27
PROBABLE	B	≥21 <27
OCCASIONAL	C	≥15 <21
REMOTE	D	≥ 8 <15
IMPROBABLE	E	<8

* Apply Hazard Probability Level to Table 3.

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

TABLE 3

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

RISK ASSESSMENT CODE (RAC)

- RAC 1 Imminent Hazard - Expedite INPR - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.
- RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5 Recommend no further action. Submit NOFA and RAC to CEHND.

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

SEE ATTACHED ASR