



US Army Corps
of Engineers
Rock Island District



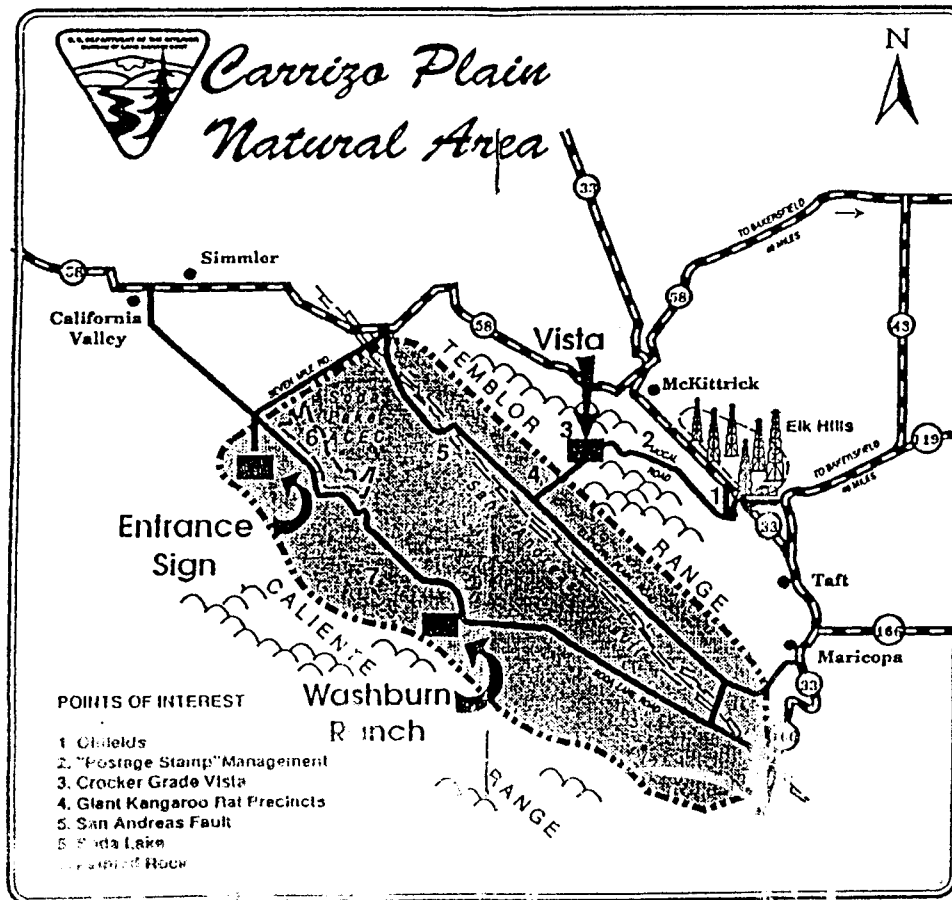
Defense Environmental Restoration Program
for
Formerly Used Defense Sites
Ordnance and Explosive

Archives Search Report

Findings
for the former

SODA LAKE AIR TO GROUND GUNNERY RANGE

TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201
AUGUST 1996



FINDINGS

ORDNANCE AND EXPLOSIVE
ARCHIVES SEARCH REPORT
FOR
FORMER SODA LAKE AIR TO
GROUND GUNNERY RANGE,
TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201

August 1996

Prepared For

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

Prepared By

U.S. Army Corps of Engineers
Rock Island District
ATTN: CENCR-ED-DO
P.O. Box 2004
Rock Island, Illinois 61204-2004

and

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

ORDNANCE AND EXPLOSIVE
 ARCHIVE SEARCH REPORT
 FOR
 FORMER SODA LAKE AIR TO
 GROUND GUNNERY RANGE,
 TAFT, CALIFORNIA
 PROJECT NUMBER J09CA063201

ACKNOWLEDGMENTS

The following persons provided support, as indicated.

Function	Name	Title	Organization	Telephone
Assessment Team	Jodi L. Bausman	Ammunition Specialist	CENCR-ED-DO	(309)794-6157
	Charlie Gillett	UXO Safety Specialist	CENCR-ED-DO	(309)794-6007
Engineering Support	Daniel J. Holmes	Professional Engineer	CENCR-ED-DO	(309)794-6080
Technical Library Search	Shirley Daniels	Information Specialist	SIOAC-ESL	(815)273-8739
Geographic District	Greg Boghossian	Project Manager	CESPL-ED-MI	(213)452-3722
Industrial Hygiene	Robert Platt	Industrial Hygienist	MCXP-RIA	(309)782-0806
CADD Support	Jim Turner	Technician	CENCR-ED-DO	(309)794-6072

ORDNANCE AND EXPLOSIVE
ARCHIVE SEARCH REPORT
FOR
FORMER SODA LAKE AIR TO
GROUND GUNNERY RANGE,
TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201

FINDINGS

TABLE OF CONTENTS

Section	Page
1. INTRODUCTION	1
a. Subject and Purpose	
b. Scope	
2. PREVIOUS INVESTIGATIONS	2
a. 1993 Preliminary Assessment	
b. Other Investigations	
3. SITE DESCRIPTION	3
a. Existing Land Usage	
b. Climatic Data	
c. Topography	
d. Geology and Soil	
e. Hydrology	
f. Natural Resources	
g. Historical/Cultural Resources	
4. HISTORICAL ORDNANCE USAGE ON-SITE	5
a. Chronological Summary of Site	
b. Ordnance Related Records Review	
c. Interviews with Site Related Personnel	
5. REAL ESTATE	7
a. Confirmed Formerly Used Defense Sites	
b. Potential Formerly Used Defense Sites	

6.	SITE INSPECTION	7
	a. General Procedures and Safety	
	b. Area A: Dive Bomb Range	
	c. Area B: Air to Ground Target Range	
	d. Area C: Strafing and Skip Bomb Target Range	
	e. Area D: Remaining Lands	
7.	EVALUATION OF ORDNANCE PRESENCE	10
	a. General Procedures	
	b. Area A: Dive Bomb Range	
	c. Area B: Air to Ground Target Range	
	d. Area C: Strafing and Skip Bomb Target Range	
	e. Area D: Remaining Lands	
8.	TECHNICAL DATA OF ORDNANCE	12
	a. End Item Technical Data	
	b. Chemical Data of Ordnance Filler	
9.	EVALUATION OF OTHER SITE HAZARDS	13
	a. Hazardous, Toxic, and Radiological Waste	
	b. Building Demolition/Debris Removal	

TABLES

2-1	1993 PRELIMINARY ASSESSMENT	
3-1	LAND USAGE	
3-2	NATURAL AND CULTURAL RESOURCES	
8-1	AMMUNITION USED AND EXPLOSIVE CHEMICAL FILLER .	
8-2	SUMMARY OF SITE ORDNANCE FILLER	

APPENDICES

- A. REFERENCE SOURCES
- B. REFERENCES AND ABSTRACTS
- C. GLOSSARY
- D. TEXTS/MANUAL
- E. REPORTS/STUDIES
- F. LETTERS/MEMORANDUMS/Misc.
- G. REAL ESTATE DOCUMENTS
- H. NEWSPAPER/JOURNALS
- I. INTERVIEWS
- J. PHOTOGRAPHS
- K. HISTORICAL PHOTOGRAPHS
- L. REFERENCE MAPS/DRAWINGS
- M. ARCHIVES SEARCH REPORT CORRESPONDENCE ...
- N. REPORT DISTRIBUTION

REPORT PLATES

- 1. SITE MAP
- 2. RANGE LAYOUT (1944)
- 3. DIVE BOMBING RANGE LAYOUT
- 4. AIR TO GROUND TARGET RANGE
- 5. STRAFING/SKIP BOMBING TARGET RANGE
- 6. OE PROJECT AREA
- 7. CURRENT OWNERSHIP
- 8. PHOTO LOCATIONS

ORDNANCE AND EXPLOSIVE
ARCHIVES SEARCH REPORT
FOR
FORMER SODA LAKE AIR TO
GROUND GUNNERY RANGE,
TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201

1. INTRODUCTION

a. **Subject and Purpose**

(1) This report presents the findings of a historical records search and site inspection for ordnance and explosives (OE) presence located at the former Soda Lake Air to Ground Gunnery Range (AGGR), Taft, California (see plate 1 for general location map). The investigation was performed under the authority of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP FUDS).

(2) The investigation focused on approximately 9,600 acres that were used by the Army Air Force as an air to ground gunnery range for training from 1944 until 1946 (see plate 1).

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

b. **Scope**

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

(2) For the purpose of this report, OE contamination consists of live ammunition, live ammunition components, CWM or explosives which have been lost, abandoned, discarded, buried, fired, or thrown from demolition pits or burning pads. These items were either

manufactured, purchased, stored, used, and/or disposed of by the War Department/Department of Defense. Such ammunition/components are no longer under accountable record control of any DOD organization or activity.

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

2. PREVIOUS INVESTIGATIONS

a. 1994 Preliminary Assessment

(1) A preliminary assessment was performed at the former Soda Lake AGGR which consisted of 9,600 acres of land, located approximately 45 miles west of Taft, CA. The site was assessed in 1994 by Los Angeles District Corps of Engineers with the Findings and Determination of Eligibility signed 30 June 1995(see document E-1). The 9,600 acres that made up the former site was found to be eligible under the Defense Environmental Restoration Program for Formerly Used Defense Sites. The following projects were purposed at the former site (see table 2-1 and see document E-1).

TABLE 2-1 1994 PRELIMINARY ASSESSMENT				
Project Number	DERP Category	Present Phase	Comments	Location
J09CA063201	OE	SI	OE Contamination	Entire Site 9,600 Acres See Plate 1
	CON/HTRW		NONE	
	HTRW		NONE	
	BD/DR		NONE	

b. Other Investigations

There were no other investigation that were brought to the attention of the inspection team during this investigation.

3. SITE DESCRIPTION

a. **Existing Land Usage**

The land that makes up the former Soda Lake AGGR is basically used as a natural wildlife area. There was some cattle grazing in the area in the past. The land is mostly owned by the United States of America with some private owners (see table 3-1 below), however, all lands are managed by the U.S. Bureau of Land Management (BLM).

TABLE 3-1 LAND USAGE					
AREA	FORMER USAGE	PRESENT OWNER	PRESENT USAGE	SIZE/ ACRES	COMMENTS
A	Dive Bombing Target Range	United States of America	Open Range	40	See Plate 2, 6, and 7
B	Air to Ground Target Range	United States of America	Open Range	433	See Plate 2, 6, and 7
C	Strafing & Skip Bomb Target Range	United States of America	Open Range	167	See Plate 2, 6, and 7
D	Remaining Land	United States, and 4 private owners.	Open Range	8,460	See plate 6 and 7
			TOTAL	9,600	

b. **Climatic Data**

(1) The area is characterized by a Mediterranean climate of cool, wet winters and warm dry summers. Air temperatures range from lows around 45 degrees Fahrenheit in January to an average high of 75 degrees Fahrenheit in October. In the summer months the temperature will often exceed 100 degrees Fahrenheit

(2) Approximately ninety five percent of the annual precipitation falls between the months of November through April. Annual precipitation averages 8 to 10 inches. Generally, the months of May through September remain very dry.

c. Topography

(1) Soda Lake lies in the middle of the Carrizo Plain Area bounded by the Temblor Range on the east and the Caliente Range on the west. The Carrizo Plains are a gently sloping land with an elevation of 1,920 to 1,970 feet above mean sea level. The former Soda Lake AGGR is situated right over top of the San Andreas fault (see plate 1).

(2) The Carrizo Plain Preserve protects one of the largest remaining examples of Great Valley habitats: Alkali Wetland, Alkali Sink, Saltbrush Scrub and Annual Grassland. The area nurtures a narrow band of salt-tolerant plants, such as Alkali Heath, Iodine Bush and Saltbush Scrub. The annual grasslands supports a mixture of native wild flowers and alien grasses.

d. Geology and Soil

The geology of the Carrizo Plain Area is primarily Miocene marine sandstone and shale and the soil consists of clay loams around the margins of rock outcrops. Most of the soils in the area have a moderate to high alkalinity.

e. Hydrology

No rivers are in the Carrizo Plain area. Runoff from the adjacent slopes collects and revitalizes the water supply of Soda Lake and White Soda Lake. With no inlets or outlets, the water that makes up Soda Lake slowly evaporates during the summer time leaving behind a glistening expanse of sulphate and carbonate salts.

f. Natural Resources

Table 3-2, on the following page lists the various endangered and threatened wildlife and plant species that may be found in the Carrizo plain area. Document E-2 is a listed, proposed, and candidate species of wildlife and plants in this area.

g. Historical/Cultural Resources

To date there have been three archeological surveys conducted in the general area of the former Soda Lake Gunnery Range with no significant finds. However, there have been no archaeological surveys performed within this project area. It is recommended, that an archaeological resource survey be conducted within this project area to determine if there are any prehistoric sites existing that may impact any outcome of this project (see document F-2 and table 3-2).

TABLE 3-2 Natural and Cultural Resources		
Resource Classification	Type	Comments
Wildlife	MAMMALS	
	Giant Kangaroo Rat	Endangered, Doc E-2
	San Joaquin Kit Fox	Endangered, Doc E-2
	BIRDS	
	American Peregrine Falcon	Endangered, Doc E-2
	Bald Eagle	Threatened, Doc E-2
	REPTILES	
	Blunt-Nosed Leopard Lizard	Endangered, Doc E-2
	INVERTEBRATES	
	Longhorn Fairy Shrimp	Endangered, Doc E-2
Vernal Pool Fairy Shrimp	Threatened, Doc E-2	
Vegetation	California Jewelflower	Endangered, Doc E-2
	San Joaquin Woolly-Thread	Endangered, Doc E-2
Historical	None known at this time.	Survey Recommended See document F-2
Cultural	None known at this time.	Survey Recommended See document F-2

4. HISTORICAL ORDNANCE USAGE ON-SITE.

a. **Chronological Site Summary**

(1) In 1944, the Department of Defense (DOD) acquired 9,600 acres of land by lease for the use by the Army Air Force as an air to ground gunnery range. The range was acquired to support training for both Hammer Field, Fresno, CA. and Santa Maria Army Airfield (see documents G-1, G-2, and G-3).

(2) Two short years after the DOD leased the land the site was declared excess. All leases were canceled and the land reverted back to the original owners (see documents F-3 and F-4).

b. Ordnance Records Review

(1) A historical documents search was conducted by the site inspection (SI) team to obtain ordnance related records relevant to the Soda Lake Air to Ground Gunnery Range, Taft, California. Research sites included, but were not limited to, the National and State Archives, state, county, and local libraries, historical centers and societies, local newspapers, state, county, and local law enforcement agencies, and current owners of the former site (see appendix A for a complete listing of contacts).

(2) As shown in appendix B very little historical information was found on the Soda Lake Air to Ground Gunnery Range. There were no facility drawings found of the actual layout of the facility other than the hand drawn layout shown in document D-1.

(3) Document D-1 is a Base Regulation dated July 1944 from Headquarters Army Air Base, Hammer Field, Fresno, California. This regulation covered operational rules and regulations governing Soda Lake Air to Ground Gunnery Range.

(a) This regulation described the range as having two air to ground target ranges with six targets each, one strafing range, and one dive bombing range. Also, it gave the flight direction of 45 degrees north for the ranges.

(b) The regulation covered general range safety rules to include that there would be no tracer or high explosive shells used upon this range.

(c) The regulation gave specific rules and regulations for each range. Drawings were included to show the general layout of the Soda Lake range.

(4) Document F-1 is a letter dated 21 May 1947, from the Corps of Engineers to the Bureau of Land Management. This letter described the location of the site and explained that the site was inspected by a bomb disposal team and certified to be free of harmful elements.

(5) Documents F-3 and F-4 are documents relinquishing the land that made up the former site back to the original owners.

(6) Documents G-1, G-2, and G-3 are all real estate type documents that are used in this report to verify that Soda Lake Gunnery Range was used for training by Santa Maria Army Air Field and Hammer Field.

(7) Documents K-1 and K-2 are aerial photos dated 1953 and 1986 basically showing that there has been very little change in this area over many years. As seen on these two photos there is no indication where the ranges were located or signs of cratering.

(8) Document L-1 is a real estate drawing for Soda Lake Air to Ground Gunnery Range (Auxiliary to Hammer Field) dated 1 January 1948. This was the only drawing found of the former range, it verified the War Department ownership and site boundaries.

c. Interviews With Site-Related Personnel

(1) Efforts to locate individuals who had first hand knowledge of the former Soda Lake Air to Ground Gunnery Range were unsuccessful. The inspection team compiled information from personnel from the agencies that oversee and manage the land within the area.

(2) Contact was made with the 87th EOD Unit and the local sheriffs department as shown in Appendix A. Both of these offices have never been called to this area to retrieve any ordnance or explosives.

(3) Interview I-1 was with Johna Cochran, ranger with the Bureau of Land Management. Johna has overseen the Carrizo Plains area for approximately 7 years, where the former site was located. She said that to her knowledge there has never been any incidents of anybody finding OE on the former site. She did tell the inspection team that as a child her father had shown her a small bomb (described as a Mk23) that he found in the area of the former site. She was not sure of the actual location where he had found it.

5. REAL ESTATE

a. Confirmed Formerly Used Defense Sites

In June 1995, the Los Angeles District Corps of Engineers found that in 1944 the DOD acquired by lease and transfer approximately 9,600 to use and air to ground gunnery range to support training for both Santa Maria Army Air Field and Hammer Field in California. Based on the forgoing facts the site was determined to be eligible under the DERP program.

b. Potential Formerly Used Defense Sites

There were no additional acreage's found during this investigation that were owned or utilized by the Army Air Force to support this facility.

6. SITE INSPECTION

a. **General Procedures and Safety**

(1) During the period 15 through 19 April 1996 the members of the SI Team assessed the former Soda Lake AGGR located approximately 45 miles west of Taft, CA. The land that made up the former Soda Lake AGGR is currently a natural wildlife area. The primary task of the inspection team was to assess the former site for OE presence. The site inspection was limited to non-intrusive methods, subsurface sampling was not authorized nor performed.

(2) Real Estate rights-of-entry were not obtained by the SI team due to the willingness and cooperation from the agencies that oversee this land to authorize access on the acreage that made up the former site. Control of the former site therefore remained in control of these personnel with safety oversight from the inspection team.

(3) A site safety plan (see reference B-3) was developed and utilized by the SI team to assure safety from injury during the site inspection of this facility. A briefing prior to the inspection was conducted which stressed that OE should only be handled by military EOD personnel.

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

(5) The inspection of the former Soda Lake AGGR started with authorization from BLM to access the land and general conversation if they had any knowledge of the former gunnery range. Personnel were aware that there was a former range that existed and the general location of the former site. They had no knowledge of ordnance or explosives being found in the area of the former site. Photo J-1 is looking east from the Carrizo Plain Nature Area lookout point on Soda Lake Road. This photo is looking across Soda Lake toward the area that made up the former Soda Lake Air to ground Gunnery Range.

b. **Area A: Dive Bomb Range**

(1) Starting with the general location of the ranges as describe in document D-1, the inspection of this site started in the general area where the dive bombing target was to be located (see plate 2 and plate 6).

(2) The inspection started by trying to find the center of the target or any type of markings that may have marked the bullseye (see plate 3). There were no markings of any kind left to actually show where the target was located. Photos J-2 and J-3 (see plate 8) are looking east and south in the general area of the target.

(3) After a day of combing this area and down to the other ranges the only residue found was a tail fin with an expended spotting charge from an M38A2, 100lb practice bomb (see photo J-4 and plate 8). This was found on the very south center part of the target as shown on plate 6 and 8.

c. Area B: Air to Ground Target Range

(1) During the second day on the range, the inspection team started to walk east from Simmler Road toward White Soda Lake to try to define the air to ground gunnery range (see plate 2 and plate 6).

(2) The inspection team proceeded to the edge of White Soda Lake where the drawing in document D-1 showed the location of the target stands for this range. Photo J-5 (see Plate 8) is a picture of one of the wood target stands found in the general location that the above document had depicted. As shown in photos J-6, J-7, and J-8 (see Plate 8) there was an abundant amount of 20mm projectiles, and .50 caliber bullets located along the lake edge in the location of the target stands. There were no tracer type bullets or projectiles found during the investigation.

(3) To verify the flight patterns and further define this range as depicted on plate 4, the inspection team proceeded westward away from White Soda Lake. As the team proceeded westward there were 20mm and .50 caliber cartridge cases and links (see photos J-9, J-10, J-11, and Plate 8). There were no remnants of the former range house found on this site.

d. Area C: Strafing and Skip Bomb Target Range

(1) The inspection continued south of White Soda Lake where the strafing range was depicted in document D-1, plate 5, and plate 6. As explained in document D-1, the range had six dummy tank targets. One target was still partially intact (see photo J-12 and plate 8). All six targets were found, but, they were broken apart as shown in photo J-13 (see plate 8). Around all the targets there were 20mm projectiles and .50 caliber bullets found by the inspection team.

(2) Around the partially intact tank target (see photo J-12) the inspection team found 20mm projectiles, .50 caliber bullets, and parts from MK23 practice bombs (see

photo J-14 and plate 8). There were no tracer type bullets or projectiles found in the area during this investigation.

(3) Throughout this area there were also four M38A2, 100lb. practice bomb parts found (see photo J-15, J-16, J-17 and plate 8). On the way out of this area the inspection team also found three, MK23, 3lbs. practice bombs (see photo J-18 and plate 8).

e. Area D: Remaining Lands

(1) There were no records found during this investigation to indicate any other range locations on this former site

(2) There were no other ranges or OE found on any of remaining lands during this investigation (see plate 6).

7. EVALUATION OF ORDNANCE PRESENCE

a. General

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

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

(3) Uncontaminated ordnance subsites are based on a lack of confirmed or potential ordnance evidence. All historical records evidence and present day site inspections do not indicate confirmed or potential ordnance contamination. There is no reasonable evidence, either

direct or inferred, to suggest present day ordnance contamination. Additional field data is not needed to assess uncontaminated ordnance site.

b. Area A: Dive Bomb Range

(1) During the inspection of this area the team found a tail fin from a M38A2 100lb. practice bomb with an expended spotting charge (see document D-2). This was located on the south part of the area designated as a dive bombing range.

(2) Records found during this investigation indicate that there was no HE or tracer type ammunition to be used on this range. There was no other ordnance or visual indicators (craters indentation) found on the surface in this area by the inspection team.

(3) The possibility does exist that ordnance items could be found subsurface and this area should be considered an area with **confirmed** OE contamination at this time.

c. Area B: Air to Ground Target Range

(1) During the inspection of this area there was an abundant amount of 20mm projectiles and .50 caliber bullets (see document D-3 and D-4) and links found. It was very hard to find very many cartridge cases, indicating to the inspection team that this site had been cleaned to reclaim the brass, prior to or after closure.

(2) Once again, records indicated that no HE or tracer type ammunition was to be used on this range. The inspection team found only ball type .50 caliber bullets and target practice (TP) 20mm projectiles on this range.

(3) Area B should be considered an area with **confirmed** OE contamination (20mm) and is also contaminated with heavy metals from the expended small arms.

d. Area C: Strafing and Skip Bomb Target Range

(1) During the inspection of this there was .50 caliber bullets and 20mm projectiles, cartridge case and links found by the inspection team. There were also M38A2 100lb. practice bomb parts (no complete M38A2 found) and Mk23 practice bombs found and all had the spotting charges expended (see documents D-2 and D-5).

(2) Once again records indicated no HE or tracer type ammunition was to be used on this range. There was no HE type ammunition or visual indicators (craters indentation) found by the inspection team on this range.

(3) The possibility does exist that ordnance items could be found subsurface and this area should be considered an area with **confirmed** OE contaminated at this time. This area should also be consider contaminated with heavy metals from the expended small arms.

e. **Area D: Remaining Lands**

There were no records found indicating any other ranges and no OE was found by the inspection team during this investigation. Therefore, the remaining acreage should be considered **uncontaminated**.

8. TECHNICAL DATA OF ORDNANCE AND EXPLOSIVE

Table 8-1 is a listing the ordnance items that were used at the former site while it was active (see Document D-2 and D-5). Table 8-2 is a listing of the explosive fillers for the ordnance used at the former Soda Lake Air to Ground Gunnery Range.

TABLE 8-1 End Item Technical Data			
ITEM	TYPE/MODEL	FILLER/WEIGHT	FUZE TYPE/COMMENTS
Practice Bomb	3lbs., Mk23	Use Mk 4 Signal Cartridge Filled w/2.1 Ounces of Black Pwdr and Zinc Oxide or Red Phosphorus	See document D-5
Practice Bomb	100 lbs. M38A2	Spotting Charge M1A1, 3 Pounds Black Powder	See document D-2
50 Cal	Ball, M2	Inert Projectile 235 Grains WC860 Propellant	See document D-3
20MM	TP, M55	Inert Projectile 585 Grains WC870 or 605 Grains WC872	See Document D-4

TABLE 8-2
SUMMARY OF SITE ORDNANCE FILLERS

Explosive Material	Synonyms	Chemical Compounds
Black Powder 74% Potassium Nitrate 11% Sulfur 16% Charcoal	Salt Peter; Niter	KNO ₃ S C
Red Phosphorous	RP; Red (DOT)	Red P ₄
Zinc Oxide	Chinese White	ZnO
Smokeless Powder WC870 and WC872 Various %s of: Nitrocellulose Dinitrotolulene Dibutyphalate Diphenylamine	Nitrocotton DNT Gelling Agent DPA, Stabilizer	C ₆ H ₅ (OHO ₂) ₃ C ₆ H ₂ CH ₃ (NO ₂) ₂ C ₆ H ₄ (CO ₂ C ₄ H ₉) ₂ (C ₆ H ₅) ₂ NH

9. EVALUATION OF OTHER SITE HAZARDS

(a) Hazardous, Toxic, and Radiological Waste (HTRW)

With the amount of 20mm (TP) projectiles and .50 caliber bullets found in Area B shown on plate 4, it is recommended that a study be performed for heavy metal contamination.

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

There were no other BD/DR projects recognized during this investigation.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE,
TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201

APPENDIX A

REFERENCE SOURCES

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of Defense			
Headquarters			
Historical Accident Data Base (DDESB) 2461 Eisenhower Avenue Alexandria, VA 22331-0600	Computer Search	(703) 325-8624	No Information.
Defense Library On Disk (DLOD) Pentagon Lib, Room 1A518 Washington, DC 20301-6000	Computer Search	(703) 697-4658	No Information.
Defense Log Studies Info Exchange (DLSIE) U.S. Army Logistics Mgmt College Ft. Lee, VA 23801	Computer Search	(804) 734-4007	No Information.
Defense Tech Info Center (DTIC) Cameron Station Alexandria, VA 22304-6145	Computer Search	(202) 274-7633 (312) 922-6571	No Information.
Defense Mapping Agency ATTN: PMSC 6001 McArthur Blvd Bethesda, MD 20816	Jimmy Thompsen	(301) 227-2495	Source of topographical and nautical charts.
Department of the Army			
Army Safety Management (ASMIS) Information System Fort Rucker, AL 36322	Computer Search	(205) 255-6485	No Information.
Aberdeen Proving Ground Ordnance Museum Aberdeen Proving Ground, MD 21005	Roger Godin	(410) 671-3602	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of the Army (cont)			
Center of Military History ATTN: DAMH-RAS 1099 14th Street N.W. Washington, DC 20536	Contractor	(202) 761-5416	See Appendix B, Section II, Parts A and B
Office of History ATTN: AMSIO-EAH Rock Island Arsenal Rock Island, IL 61299-5000	Tom Slattery	(309) 794-1450	No Information.
Rock Island Arsenal Museum Rock Island, IL 61299-6000	Kris Gayman Leinicke	(309) 794-5021	No Information.
U.S. Army Chemical & Biological Defense Command Historical Division Aberdeen Proving Ground, MD 21010	Kathleen Ciolfi	(410) 671-4430	Negative Report
U.S. Army Chemical Corps Museum ATTN: ATZN-CM-MM Bldg 2299 Fort McClellan, AL 35205	Sgt Maj Murray	(205) 848-6555	Negative Report
U.S. Army Chemical School Fisher Library, Building 1081 Ft. McClellan, AL 36205-5000	Dick Pastorett	(205) 848-4414	No Information.
U.S. Army Technical Center for Explosives Safety ATTN: SIOAC-ESL Savanna, IL 61074-9639	Reference Center	(815) 273-8749	No Information.
U.S. Army Technical Center for Explosives Safety ATTN: SIOAC-ESM Savanna, IL 61074-9639	Technical Library	(815) 273-8771	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of the Army (cont)			
U.S. Army 259th Explosive Ordnance Disposal Ft. Irwin, CA 92310-5051	Sgt. Base	(619) 386-4092 DSN 470-4092	Referral
U.S. Army 87th EOD Unit 385 Bushnell Moffett Federal Airfield, CA 94035	SSGT Kremeans	(415) 603-8302	Negative Report
U.S. Military History Institute Photo Archives Carlisle Barracks Carlisle, PA 17013	Mike Winey	(717) 245-3434	No Information.
U.S. Military History Institute Textual Archives Carlisle Barracks Carlisle, PA 17013	Pam Cheney	(717) 245-3601	No Information.
U.S. Military History Institute Carlisle Barracks, Bldg 22 Carlisle, PA 17013-5003	Dennis Vetock John Slonaker	(717) 245-3611	No Information.
USACE, Los Angeles District 300 North Los Angeles St. Room 6003 Los Angeles, CA 90024	Debra Castens	(213) 894-2865	No Information.
USACE, Los Angeles District 300 North Los Angeles St. Room 6003 Los Angeles, CA 90024	Greg Boghossian	(213) 894-3760	INPR, see documents E-1 and F-1.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of the Army (cont)			
USACE, Los Angeles District 360 East 2nd Street Room 501 Los Angeles, CA 90012	Richard Nagle	(213) 894-2951	No Information.
USACE, Los Angeles District Real Estate Div P.O. Box 2711 Los Angeles, CA 90053-2325	Deloris Henderson	(213) 894-5583	Real Estate Information see documents G-1, G-2 and G-3.
USACE Office of History 7701 Telegraph Road Alexandria, VA 22310-3865	Contractor	(703) 355-3558	See Appendix B, Section II, Parts A and B.
Department of the Air Force			
AFHRA/Air University Library 600 Chennault Circle Maxwell AFB, AL 36112-6424	Leroy Bell	(205) 953-2888 DSN 493-2888	No Information.
U.S. Air Force History Research Agency 600 Chennault Drive Maxwell AFB, AL 36112-6424	IRIS System	DSN 493-2439 (205) 953-2439	Microfilm. See document D-1.
U.S. Air Force History Research Agency 600 Chennault Drive Maxwell AFB, AL 36112-6424	CPT. Petters	(205) 953-2437 DSM 493-2437	No Information.
U.S. Air Force Museum P.O. Box 1903 Wright-Patterson AFB, OH 45433	Reference	(513) 555-3286 DSN 785-3286	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of the Air Force (cont)			
U.S. Air Force, 1ST Camera Squadron DET9, 1CTCS/DOV 3720 Fetchet Ave Andrews AFB, MD 20331	James Ferguson	(301) 981-2257	No Information.
Department of the Navy			
Marine Corps Historical Center Building 58 Washington Navy Yard Washington, DC 20374	Contractor	(202) 433-3483	See Appendix B, Section II, Parts A and B
Naval Construction Battalion Cntr 621 Pleasant Valley Road Port Hueneme, CA 93032	Vince Transano	(805) 982-5913	No Information.
Naval Historical Center Building 57 Washington Navy Yard Washington, DC 20374	Contractor	(202) 433-3171	See Appendix B, Section II, Parts A and B.
National Archives and Records Administration			
National Archives Records Center ATTN: Military Records 9700 Page Avenue St. Louis, MO 63132	Bill Siebert Wilson Sullivan	(314) 538-4085	See Appendix B, Section III, Parts A and B.
National Archives Archives I (Modern Military) Pennsylvania Ave & 7th Washington, DC 20408	Contractor	(202) 501-5385	See Appendix B, Section II, Parts A and B.
National Archives Archives I (Old Military) Pennsylvania Avenue & 7th Washington, DC 20408	Contractor	(202) 501-5385	See Appendix B, Section II, Parts A and B.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
National Archives and Records Administration (cont)			
National Archives Archives I (Navy) Pennsylvania Avenue & 7th Washington, DC 20408	Contractor	(202) 501-5385	See Appendix B, Section II, Parts A and B.
National Archives Archives II (Civil Reference Br) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7250	See Appendix B, Section II, Parts A and B.
National Archives Archives II (Cartographic/Architect) 8601 Adelphi Rd College Park, MD 20740	Contractor	(301) 713-7040	See Appendix B, Section II, Parts A and B.
National Archives Archives II (Textual Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7250	See Appendix B, Section II, Parts A and B.
National Archives Archives II (Still Picture Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-6660	See Appendix B, Section II, Parts A and B.
National Archives Archives II (Motion Picture Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7060	See Appendix B, Section II, Parts A and B.
National Archives Suitland Branch, (Civil/Military) 4205 Suitland Road Suitland, MD 20409	Contractor	(301) 457-7190	See Appendix B, Section II, Parts A and B.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
National Archives and Records Administration (cont)			
National Archives Federal Records Center 1000 Commodore Drive San Bruno, CA 04966	Barbara Bepler	(415) 876-9001	See Appendix B, Section III, Parts A and B.
National Archives Federal Records Center 2400 Avila Road Laguna Niguel, CA 92656	Greg Pearman	(714) 643-4220	See Appendix B, Section III, Parts A and B.
National Archives Pacific Sierra Region 1000 Commodore Drive San Bruno, CA 94066	Kathy O'Connor	(415) 876-9009	See Appendix B, Section III, Parts A and B.
National Archives Pacific Southwest Region 2400 Avila Road Laguna Niguel, CA 92656	Suzanne Dewberry	(714) 360-2641	See Appendix B, Section III, Parts A and B.
Congress Library of Congress Washington, DC 20536	Contractor	(202) 707-5522	See Appendix B, Section II, Parts A and B.
Smithsonian Smithsonian Institution Historical Research Division Washington, DC 20560	Contractor	(202) 357-3133	See Appendix B, Section II, Parts A and B.
Department of Agriculture Aerial Photography Field Office P.O. Box 30010 Salt Lake City, UT 84131-0010	Sherrie Holyoak	(801) 975-3503	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of Agriculture (cont)			
Natural Resources Conservation Service San Luis Obispo County 65 Main Street Templeton, CA 93465	Margie Lindquist	(805) 434-0396	Soil Survey for San Luis Obispo County.
Department of Congress			
NOAA, Air Force Weather Service 151 Patton Ave, Room 120 Asheville, NC 28801	Janet Wall	(704) 271-4404	Local Climatological Data.
NOAA, National Climatic Data Center Federal Building Asheville, NC 28801	Yolanda Goosch Sam McCowan	(704) 271-4272	Referral.
NOAA, NESDIS/NODC 1825 Connecticut Avenue NW Mail Stop OC21 Washington, DC 20235	Patricia Kirk	(202) 606-4549	Referral.
Department fo Interior			
Bureau of Land Management Bakersfield District Office 3801 Pegasus Drive Bakersfield, CA 93301	Kent Varvel	(805) 391-6000	No Information.
Bureau of Land Management Bakersfield District Office 3801 Pegasus Drive Bakersfield, CA 93301	Steve Larson	(805) 391-6000	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of Interior (cont)			
Bureau of Land Management Washburn Ranch, Box 3021 California Valley, CA 93453	Steve Czapla Jackie Czapla	(805) 475-2026	No Information.
Bureau of Land Management Washburn Ranch, Box 3021 California Valley, CA 93453	Mary Lou Young	(805) 475-2026	No Information.
Bureau of Land Management Caliente Resource Area 4301 Rosedale Highway Bakersfield, CA 93308	Johna Cochran	(805) 391-6000	Assisted the inspection team with on-site inspection.
Bureau of Land Management Bakersfield District Office 3801 Pegasus Drive Bakersfield, CA 93301	Jim Abbott	(805) 391-6000	No Information.
U.S. Fish and Wildlife Service Ecological Services 2800 Cottage Way Sacramento, CA 95825	Joel Medlin Cary Goude	(619) 969-2725	Listing of threatened and endangered species.
U.S. Geological Survey, (ESIC) Box 25046, Bldg 810 Denver Federal Center Denver, CO 80225	Tim Hannon Vivian Tarver	(303) 202-4200 FAX: 202-4188	No Information.
U.S.G.S. (DISTRIBUTION) Box 25286, Bldg 810 Denver Federal Center Denver, CO 80225	Customer Service	(303) 202-4700 FAX: 202-4693	No Information.
U.S.G.S. EROS Data Center Sioux Falls, SD 57198	Customer Service	(605) 594-6151 FAX: 594-6589	Aerial photos.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
FEDERAL			
Department of Interior (cont)			
U.S.G.S. (ESIC) 1400 Independence Road Rolla, MO 65401	Customer Service	(307) 358-3644	No Information.
U.S.G.S. (ESIC) 507 National Center Reston, VA 22092	Customer Service	(703) 860-6045	No Information.
STATE			
State Agencies			
California Department of Fish & Game Region 3 P.O. Box 47 Yountville, CA 94599	Ken Maher	(707) 944-5500	No Information.
California Department of Fish & Game P.O. Box 6360 Los Osos, CA 93412	Jim Ledberg	(805) 528-0782	No Information.
California Division of Forestry 460 High Mountain Road Arroyo Grande, CA 93420	Ranger	(805) 925-9538	Referral.
California Division of Forestry California Valley, CA 93453	Lisa Marone	(805) 475-2222	No Information.
California Natural Heritage Division Natural Diversity Database 1220 S Street Sacramento, CA 95814	Karen Bates	(916) 324-3812 FAX: 324-0475	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
STATE			
State Agencies (cont)			
California SHPO Central Coast Information Center U. of California Santa Barbara, CA 93106	Chris Williams/ Georgianne Hawley	(805) 893-2474 FAX: 434-0396	Archeological Report see document F-2.
California State Archives 1020 East O Street Sacramento, CA 92415-0795	Staff	(916) 653-2246	No Information.
California State University Library 5500 University Parkway San Bernardino, CA 92407-2397	Reference Librarian	(909) 880-5084	No Information.
LOCAL			
San Luis Obispo County Assessor Monterey & Osas, Room 100 San Luis Obispo, CA 93408	Margot Duart	(805) 549-5643	Plat Maps
San Luis Obispo County Historical Society 696 Monterey San Luis Obispo, CA 93406	Linda Field	(805) 543-0638	No Information.
San Luis Obispo County Planning Dept 976 Osos Street San Luis Obispo, CA 93408	Nancy Robinson	(805) 781-5600	Referral.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
GOVERNMENT AGENCIES			
LOCAL (cont) San Luis Obispo County County Sheriff P.O. Box 32 San Luis Obispo, CA 93406	Lt. Hedges	(805) 781-4550	Negative Report.
NON-GOVERNMENT AGENCIES			
NATIONAL Northern Illinois Library System (NILS) 4034 East State Street Rockford, IL 61108	Computer Search	(815) 229-0330	No Information.
Online Computer Library Center (OCLC) 6565 Franz Road Dublin, OH 43017-3395	Computer Search	(800) 848-1878 (614) 764-6000	No Information.
Scientific & Technical Information Library Automation System (STILAS) Huntsville, AL 35806	Computer Search	(205) 922-9820	No Information.
Council On America's Past (CAMP) 518 Why Worry Lane Phoenix, AZ 85021	John Lynch Retired Air Force	(602) 249-3974	No Information.
LOCAL Cal State University, Fresno Henry Madden Library Shaw & Cedar Ave Fresno, CA 93704	Ronald Mahoney	(209) 278-2595	No Information.
California Polytechnic State University Robert F. Kennedy Lib San Louis Obispo, CA 93407	Special Collections	(805) 756-2305	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
NON-GOVERNMENT AGENCIES			
LOCAL (cont)			
City-County Library San Luis Obispo Branch 995 Palm San Luis Obispo, CA 93403	Virginia Crook Reference branch	(805) 781-5991	No Information.
Goodwin Education Center P.O. Box 3087 California Valley, CA 93453	Elizabeth Barrett	(805) 475-2131	No Information.
Parsons Engineering-Science Inc. Pasadena, CA	Elvira Gaddi	(818) 585-6000	No Information.
Personal Contact Simi Valley, CA 93063	Jerry Theaker	(805) 527-7586 (818) 592-1061 (pager)	Desert ordnance hunter who had no information on this site.
Riverside Press Enterprise Library 3612 14th Street Riverside, CA 92502	Tom Patterson	(909) 782-7556	He writes historical articles for the paper. No information.
San Luis Obispo Chamber of Commerce 1039 Chorro Street San Luis Obispo, CA 93401	Sylvia Emmons	(805) 781-2777	No Information.
Santa Maria Public Library 420 South Broadway Santa Maria, CA 93454-5199	Linda Martin	(805) 925-0994	No Information.
Santa Maria Valley Historical Society 616 South Broadway Santa Maria, CA 93454	Richard Chenoweth	(805) 922-3130	No Information.
Sinsheimer Bros. Trust P.O. Box 31 San Luis Obispo, CA 93406	Warren Sinshaimer	(805) 544-0497 544-7195 543-2468	No Information.

APPENDIX A
REFERENCE SOURCES

Organization	Name	Telephone	Nature of Support
NON-GOVERNMENT AGENCIES			
LOCAL (cont)			
Taft College Library P.O. Box 1437 29 Emmons Park Drive Taft, CA 93268	Nancy Doss	(805) 763-4282	No Information.
The Nature Conservancy P.O. Box 15810 San Luis Obispo, CA 93406	Chuck Warner Interview	(805) 546-8378	No Information.
The Nature Conservancy P.O. Box 3098 California Valley, CA 93453	Tony Nelson Interview	(805) 475-2360	No Information.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX B
REFERENCES AND ABSTRACTS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX B
REFERENCES AND ABSTRACTS

TABLE OF CONTENTS

SECTION I: BIBLIOGRAPHY

SECTION II: NATIONAL CAPITAL REGION ARCHIVES RECORDS

PART A: POSITIVE FINDINGS

PART B: NEGATIVE FINDINGS

SECTION III: REGIONAL NATIONAL ARCHIVES FINDINGS

PART A: POSITIVE FINDINGS

PART B: NEGATIVE FINDINGS

APPENDIX B

REFERENCES AND ABSTRACTS

SECTION I

BIBLIOGRAPHY

Table of Contents

B-1 Soil Survey of San Luis Obispo County California U.S.
Department of Agriculture, September 1984

B-2 Site Safety Plan For OEW Investigations, U.S. Army Corps of
Engineers, Rock Island District, dated 25 June 1992. W/Appendix
A-128, dated 8 January 1996.

B-3 Mandatory Plan For Ordnance and Explosive Waste (OEW)
Mandatory Center of Expertise (MCX) and Design Center,
CEHND 1105-3-9, U.S. Army Corps of Engineers, Huntsville
Division, dated 10 August 1992.

B-4 Defense Environmental Restoration Program for Formerly Used
Defense Sites Ordnance and Explosive Waste ARCHIVES SEARCH REPORT
MANUAL, Version 2.1, U.S. Army Corps of Engineers, Rock Island
District, dated 28 February 1994.

B-5 Santa Maria Base Regulations 55-6, Operations Rules and
Regulations Governing Use Of Soda Lake Air-Ground Gunnery Range
Santa Maria Army Air Base, dated 8 July 1944. Extracted from
micro-film located at Maxwell Air Force Base (D-1).

B-6 TM 9-1980 Bombs For Aircraft, War Department, dated
November 1944, Bomb, Practice 100-LB., M38A-2 (D-2).

B-7 TM 9-2200, Small Arms, Light Field Mortars and 20-mm
Aircraft Guns, War Department, dated 11 October 1943, Cartridge,
Caliber .50, Ball M2 (D-3) and Cartridge, 20MM, Target Practice
(TP), M55A2 (D-4)

B-8 OP 1280 Aircraft Bombs, Bureau of Ordnance, dated
February 1945, Bomb, Practice 3-LB., Mk23 (D-5).

B-9 Inventory Project Report, Los Angeles District Corps of
Engineers, dated 30 June 1995 (E-1).

Table of Contents (cont.)

- B-10 Listed and Proposed Endangered and Threatened Species, U.S. Department of the Interior Fish and Wildlife Services, Ecological Services, Sacramento Field Office, Sacramento, California, dated February 1996 (E-2).
- B-11 Letter, from the Corps of Engineers, South Pacific Division to Bureau of Land Management, dated 21 May 1947 (F-1)
- B-12 Cultural Resource Inventory Reports, Department of Anthropology, Santa Barbara, California, (F-2).
- B-13 Letter, Acquisition land for air to ground gunnery range for Santa Maria Army Airfield, The Secretary of the Interior, dated 31 March 1944 (F-3).
- B-14 Letter, Excess land for air to ground gunnery range for Santa Maria Army Air Field, The Secretary of the Interior, dated 24 September 1947 (F-4)
- B-15 Document, Acquisition of Land - Air to Ground Gunnery Range, dated January 1944, USACE Los Angeles District, Real Estate Division, Los Angeles, California, (G-1).
- B-16 Realty Control File, dated 1980, USACE Los Angeles District, Real Estate Division, Los Angeles, California (G-2).
- B-17 Military Acquisition Report, dated 1980, USACE Los Angeles District, Real Estate Division, Los Angeles, California (G-3).
- B-18 Drawing, Real Estate Soda Lake Air to Ground Gunnery Range (Auxiliary to Hammer Field), dated January 1948 (L-1).
- B-19 "CENCR Management Plan for Ordnance and Explosive Waste Investigations", U.S. Army Corps of Engineers, Rock Island District, dated 20 July 1992, with revisions dated 10 March 1995 and 23 June 1995.
- B-20 Environmental Protection and Enhancement Department of the Army, AR 200-1, dated 23 April 1990.

SECTION II

NATIONAL CAPITOL REGION ARCHIVES FINDINGS

PART A

POSITIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA

SECTION II
NATIONAL CAPITOL REGION ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA

***CENTER FOR AIR FORCE HISTORY
WASHINGTON, DC***

Microfilm Roll # B2260

Hammer Field
Rules and Regulations Governing Use of Soda Lake Air to Ground
Gunnery Range

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

RG 18 (Records of the Army Air Corps)

Entry 1: Security Classified Decimal File, 1944 - 1948
Box 558

Rolled Map, "Army Air Forces Bombing & Gunnery Ranges Within the
Continental United States," 1 May 1945

Entry 2: Air Adjutant General's Unclassified Decimal File, 1944 -1948
Box 2256

Correspondence Relative to Status, Soda Lake Air to Ground Gunnery
Range, November 1945 - August 1946

Entry 292: Air Adjutant General's Central Decimal File, October 1942 - May
1944

Box 1514

Memoranda Relative to Ordnance Material Storage, Hammer Field, Soda
Lake Air to Ground Gunnery Range, October - November 1942

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

Entry 1023: General Correspondence Relating to Airfields, 1940 - 1945, Part II,
Progress Reports

Box 104

Construction Progress Report, Soda Lake Air to Ground Gunnery Range,
Hammer Field, 16 - 31 January 1942

Entry 1023: General Correspondence Relating to Airfields, 1940 - 1945, Part II,
Progress Reports

Box 112

Construction Progress Report, Hammer Field, Soda Lake Air to Ground
Gunnery Range, 16 - 28 February 1942

RG 107 (Records of the Secretary of War)

Entry 211: Assistant Secretary of War, Establishment of Airfields and Airbases,
1940 - 1945

Box 203

Memorandum Relative to Real Estate Acquisition, Soda Lake Air to
Ground Gunnery Range, November 1943

Entry 211: Assistant Secretary of War, Establishment of Airfields and Airbases,
1940 - 1945

Box 203

Synopsis of Correspondence Relative to Real Estate Acquisition, Soda
Lake Air to Ground Gunnery Range, 29 November 1943

Entry 211: Assistant Secretary of War, Establishment of Airfields and Airbases,
1940 - 1945

Box 203

Correspondence Relative to Danger Areas, Including Map, Soda Lake Air
to Ground Gunnery Range, 1 - 8 March 1944

***USACE, OFFICE OF HISTORY
ALEXANDRIA, VA***

Real Estate Records

Real Estate Audit Sheet

Soda Lake Air to Ground Gunnery Range

SECTION II

NATIONAL CAPITOL REGION ARCHIVES FINDINGS

PART B

NEGATIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA

SECTION II
NATIONAL CAPITOL REGION ARCHIVES FINDINGS
PART B
NEGATIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA

***CENTER OF MILITARY HISTORY - HISTORICAL RESEARCH
BRANCH
WASHINGTON, DC***

Pertinent Collections

***LIBRARY OF CONGRESS - GEOGRAPHY AND MAP DIVISION
WASHINGTON, DC***

Pertinent Collections

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

RG 18 (Records of the Army Air Corps)

Entry: Central Decimal File, 1939-1942

Entry: Project Files - Airfields, 1939-1942

Entry 293: Central Decimal File, Bulkies, 1939-1942

RG 49 (Records of the Bureau of Land Management)

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

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

RG 69 (Records of the Work Progress Administration)

Entry: Central Files, 1935 - 1944

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

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

Entry 391: Construction Completion Reports, 1917-1943

RG 135 (Records of the Public Works Administration)

Entry: Project Files

RG 153 (Records of the Judge Advocate General)

Entry: Reservation File, 1800 - 1950

RG 162 (Records of the Federal Works Agency)
Entry 7: Central Decimal Files, 1941 - 1949
Entry 21: Records of the War Public Works Program, 1941 - 1949

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

RG 18 (Records of the Army Air Corps)
Entry 46: The Air Inspection Decimal File, 1945 - 1947
Entry 294: Air Adjutant General's Security Classified Decimal File, October 1942
- 1944

RG 22 (Records of the Bureau of Fish and Wildlife)
Entry 243: Cooperative Agreements with the Corps of Engineers, 1943 - 1962

RG 30 (Records of the Bureau of Public Roads)
Entry 54: Correspondence, 1941 - 1945

RG 48 (Records of the Department of the Interior)
Entry 749: Central Classified Correspondence, 1937 - 1953

RG 57 (Records of US Geological Survey)
Entry 27: Correspondence and Related Records, 1906 - 1948

RG 70 (Records of the Bureau of Mines)
Entry 66: General Classified Files, General Correspondence, 1926 - 1952

RG 77 (Records of the Office of the Chief of Engineers)
Accession 51A-277: District Files, 1945
Accession 52A-40: Division Files, 1945
Accession 58A-1076: Real Estate Files
Entry 106B: General Correspondence, 1918 - 1945
Entry 1011: Security Classified Subject File, 1940 - 1945
Entry 1019: General Correspondence with Service Commands, 1918 - 1949

RG 92 (Records of the Office of the Quartermaster General)
Entry 1892: General Correspondence (Geographic File), 1936 - 1954

- RG 107 (Records of the Secretary of War)
Entry 102: Administrative Assistant to the Secretary of War, Project Decimal File, 1943 - January 1946
Entry 155: Under Secretary of War, Special Assistant for Construction M J Madigan, Projects, 1940 - 1945
Entry 158: Under Secretary of War, Special Assistant for Construction M J Madigan, General Correspondence, 1940 - 1945
- RG 111 (Records of the Office of the Chief Signal Officer)
Entry: Unclassified Central Decimal Files, 1941 - 1957
- RG 112 (Records of the Surgeon General)
Entry 31: Geographic Series, 1938 - 1946
Entry 32: Geographic Series (Formerly Security Classified), 1938 - 1946
- RG 115 (Records of the Bureau of Reclamation)
Entry 7: General Administrative and Program Records, 1919 - 1945
- RG 160 (Records of the Army Service Forces)
Entry 25: Director of Plans and Operations, Liaison and Control Branch, Subject File, 1942 - 1944
Entry 27: Mobilization Division, Command Installations Branch, Correspondence File, 1942 - 1946
Entry 138: Readjustment Division, Central Decimal Files, 1943 - 1944
Entry 139: Readjustment Division, Central Decimal Files, 1943 - 1946
- RG 165 (Records of War Department General and Special Staffs)
Entry 258: Installations Branch, Reports and Correspondence Relating to Construction, Utilization, and Disposal of Army Installations, 1944 - 1947
Entry 484D: Federal Works Agency, Project Files, 1940 - 1946
- RG 175 (Records of the Chemical Warfare Service)
Entry 2A: General Correspondence (Subject Series), 1942 - 1945
- RG 218 (Records of the U.S. Joint Chiefs of Staff)
Entry: Series, 1942 - 1959, Geographic File
- RG 269 (Records of the General Services Administration)
Entry 62: Real Property Case Files, 1945 - 1952
- RG 270 (Records of the War Assets Administration)
Entry 8: Records of the Real Property Review Board, 1946 - 1948

RG 291 (Records of the Federal Property Resources Service)

Entry: Real Property Disposal Case Files, 1962

RG 319 (Records of the Army Staff)

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

RG 340 (Records of the Office of the Secretary of the Air Force)

Entry 53: Air Coordinating Committee, General File, 1944 - 1950

RG 341 (Records of the Headquarters, U.S. Air Force)

Entry 336: Plans, Central Decimal File, 1942 - 1954

Entry 346A: Operations, General Decimal File, 1952

RG 342 (Records of US Air Force Commands)

Entry "Sarah Clarke" Decimal Correspondence File

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

Pertinent Record Groups

***NARA - ARCHIVES II - MOTION PICTURE, SOUND AND VIDEO
BRANCH
COLLEGE PARK, MD***

Pertinent Record Groups

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

Pertinent Record Groups

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

RG 338 (Records of U.S. Army Commands, 1942-)

Entry: 9th Service Command

Engineer and Ordnance Offices

Entry: Posts, Camps and Stations

Entry: Western Defense Command

Engineer and Ordnance Offices

RG 394 (Records of U.S. Army Commands, 1920-1942)

Entry 84: General Correspondence Relating to Camps, Posts and Stations, 1927-1941

Entry 120: Historical Records of Buildings at Posts, 1925-1942

RG 407 (Records of the Adjutant General)

Entry 427: WW II Operations Reports

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

Pertinent Collections

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

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

Accession A52-434

Accession 62A-1472

Accession 67A-4792

Accession 68A-1932

Accession 69A-2580

SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA
SAN LUIS OBISPO COUNTY

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

Accession Number 342-48A5046, Box 04-41-42-6-5
Santa Maria AAF, 686 Aviation Fields, Memo, Runway Trouble,
dtd 17 March 1944

Map, Santa Maria AAF, 686 Aviation Fields, Ordnance Storage,
Drawing Number 924/17, File 213.2, dtd 5-23-44. Santa
Maria Army Air Field, General Layout Plan

Santa Maria AAF, 684 Target Ranges, Memos regarding Soda
Lake Target Range

Santa Maria AAF, 630 Post Buildings, Sheds

Santa Maria AAF, 618 Grounds, Soil Inventory

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

No files available. Checked out by Los Angeles Corps of
Engineers.

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART B
NEGATIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA
SAN LUIS OBISPO COUNTY

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

Accession Number 342-46A3006, Box Marked 334-76A21)
Box 04-13-08-2-5
Nothing of value to this ASR found

Accession Number 342-46A3006, Box Marked 334-76A21)
Box 04-13-08-3-1
Nothing of value to this ASR found

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule change. Files were checked out by Los Angeles Corps of Engineers.

SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART A
POSITIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA
SAN LUIS OBISPO COUNTY

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

Accession Number 342-48A5046, Box 04-41-42-6-5
Santa Maria AAF, 686 Aviation Fields, Memo, Runway Trouble,
dtd 17 March 1944

Map, Santa Maria AAF, 686 Aviation Fields, Ordnance Storage,
Drawing Number 924/17, File 213.2, dtd 5-23-44. Santa
Maria Army Air Field, General Layout Plan

Santa Maria AAF, 684 Target Ranges, Memos regarding Soda
Lake Target Range

Santa Maria AAF, 630 Post Buildings, Sheds

Santa Maria Aaf, 618 Grounds, Soil Inventory

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

No files available. Checked out by Los Angeles Corps of
Engineers.

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

SECTION III
REGIONAL NATIONAL ARCHIVES FINDINGS
PART B
NEGATIVE FINDINGS

SODA LAKE AIR TO GROUND GUNNERY RANGE, CA
SAN LUIS OBISPO COUNTY

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

Accession Number 342-46A3006, Box Marked 334-76A21)
Box 04-13-08-2-5
Nothing of value to this ASR found

Accession Number 342-46A3006, Box Marked 334-76A21)
Box 04-13-08-3-1
Nothing of value to this ASR found

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule
change

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

No onsite visit to this regional archives due to schedule change. Files were checked out by Los Angeles Corps of Engineers.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX C

GLOSSARY

APPENDIX C

GLOSSARY

AR	Army Regulation
AUS	Army of the United States
AGGR	Air to Ground Gunnery Range
BD/DR	Building Demolition/Debris Removal
BLM	Bureau of Land Management
CAL	Caliber
CEHNC	U.S. Army Engineer, Engineering and Support Center
CENCD	U.S. Army Engineer, North Central Division
CENCR	U.S. Army Engineer, Rock Island District
CESPL	U.S. Army Engineer, Los Angeles District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CON/HTW	Containerized Hazardous and Toxic Waste
CWM	Chemical Warfare Material
DA	Department of Army
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DOD	Department of Defense
DOI	Department of Interior
EE/CA	Engineering Evaluation Cost Analysis
EOD	Explosive Ordnance Disposal
FDE	Findings and Determination of Eligibility
FM	Field Manual
FUDS	Formerly Used Defense Site(s)
GSA	General Services Administration
HE	High Explosive
HTRW	Hazardous, Toxic and Radiological Waste
HTW	Hazardous and Toxic Waste
INPR	Inventory Project Report
IRP	Installation Restoration Program
Mk	Mark
MT	Mechanical Time
NARA	National Archives Records Administration
OE	Ordnance and Explosives
PA	Preliminary Assessment
PD	Point Detonating
PN	Project Number
PRP	Privately Responsible Party
QASAS	Quality Assurance Specialist Ammunition Surveillance

GLOSSARY (cont)

RA	Remedial Action
RAC	Risk Assessment Code
RD	Remedial Design
RD/RA	Remedial Design/Remedial Action
SAA	Small Arms Ammunition
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
TP	Target Practice
SIOAC-ES	Army Material Command Ammunition Center for Explosive Safety
USA	U.S. Army
USACE	U.S. Army Corps of Engineers
USADACS	U.S. Army Defense Ammunition Center and School
USATCES	U.S. Army Technical Center for Explosives Safety
UXO	Unexploded Ordnance

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX D
TEXTS/MANUALS

APPENDIX D

TEXTS/MANUALS

Table of Contents

- D-1 Operations Rules and Regulations Governing use of Soda Lake Air-Ground Gunnery Range, dated 8 July 1944 (B-5).
- D-2 Bomb, Practice 100-LB., M38A-2 (B-6).
- D-3 Cartridge, Caliber .50, Ball M2 (B-7).
- D-4 Cartridge, 20MM, Target Practice (TP), M55A2 (B-7).
- D-5 Bomb, Practice 3-LB., Mk23 (B-8).

HEADQUARTERS ARMY AIR BASE
Office of the Commanding Officer
Hammer Field - Fresno, California

BASE REGULATIONS)
 :
55-6)

(OT)
8 July 1944

OPERATIONS

RULES AND REGULATIONS GOVERNING USE OF
SODA LAKE AIR-GROUND GUNNERY RANGE

(This Base Regulation supersedes Base Regulation 55-6,
dated 26 May 1944).

1. Soda Lake Gunnery Range is under the control of the
Commanding Officer, 450th AF BW, Hammer Field, per teletype
4 AFOW3293 Fourth Air Force, dated 29 April 1944. All units
requiring use of this range must coordinate their schedules
through the office of the Supervisor of Ground Training,
Attention, Range Officer -- Lt. Koniskien, phone 3274. The
above office will be contacted at least 24 hours in advance
of the proposed desired firing time.

2. Soda Lake Gunnery Range facilities that are available
are:

- a. Two (2) air-to-ground target ranges, six (6) targets
per range.
- b. One (1) strafing range.
- c. One (1) dive bombing range.

3. Safety rules:

a. All flights using Soda Lake Gunnery Range will
strictly adhere to the rules and regulations set forth in
this directive. Existing safety rules and regulations as
set forth in TM 1-270 and Fourth Air Force Orders 55-21 and
55-22 will be observed. The minimum altitude of 75 feet
will be strictly adhered to.

b. All flights will make radio contact with the range
operator requesting permission to make target run and giving
the following information:

- (1) Organization.
- (2) Name of flight leader.
- (3) Type and number of ships in flight.
- (4) Type of mission and range desired to fire upon.

c. All firing, air-to-ground range or strafing range, will be done while flying on a heading of 45° N. This range is small in size and quite narrow in width, requiring that this safety rule be followed with extreme care so that civilian lives and property will not be endangered.

d. Flight leaders will remain in contact with ground radio station at all times and will transmit messages to their flights. It will be the responsibility of the flight leader that all safety rules and regulations are strictly adhered to by his flight.

e. No trace or high explosive shells will be used on Soda Lake Gunnery Range.

f. Care will be taken to see that guns will not be pointed towards the range house located between the two ground gunnery ranges, or in the direction of the range camp area, which is located north of the road and approximately 1/2 mile west of the range house.

4. Regulations Concerning Individual Ranges: As stated above, firing will be done only upon a heading of 45° N.

a. Air-to-ground ranges:

(1) The air-to-ground range status, as to its availability for firing, (open or closed) can be obtained, first, through air-to-ground communications, and, second, with reference to the visual panel system. Air-to-ground communication, utilizing SCR-522, will be on "N" channel for night fighters and on "O" channel for day fighters. In conjunction with VIT, visual panel will be used, red panel indicating closed; white indicating open. No passes or dry runs will be made on a range displaying a red panel.

(2) Altitude of the flight pattern will be a minimum of 1,000 feet above the terrain, excepting on the "target-run" leg of the pattern.

(3) Right or Left hand traffic will be governed by the range on which the firing is being conducted. Left hand pattern will be flown when the right hand range is being used. Right hand pattern will be flown when the left hand range is being used.

b. Strafing Range: As stated above, firing will be done only on a heading of 45° M.

- (1) Unless closed by a general directive from this headquarters, this range will remain open at all times for those units properly scheduled to use the range.
- (2) This range is also available for night firing. It consists of six (6) dummy tanks enclosed within a partial circle of red lights, each tank having a flare pot beside it. After careful study of the night firing layout, the following special procedure will be followed for ships firing at night:
 - (a) Contact ground radio and get clearance to make the run.
 - (b) The run on the target will be directly through the open end of the lighted, inverted "V".
 - (c) Firing will not be done until the plane is over or past the green lights.
 - (d) The firing run will be made only by a single ship, no formations will fire at night.
 - (e) Extreme caution will be exercised so that the camp area nor surrounding farm houses, which will be lighted, are not mistaken for the night targets.

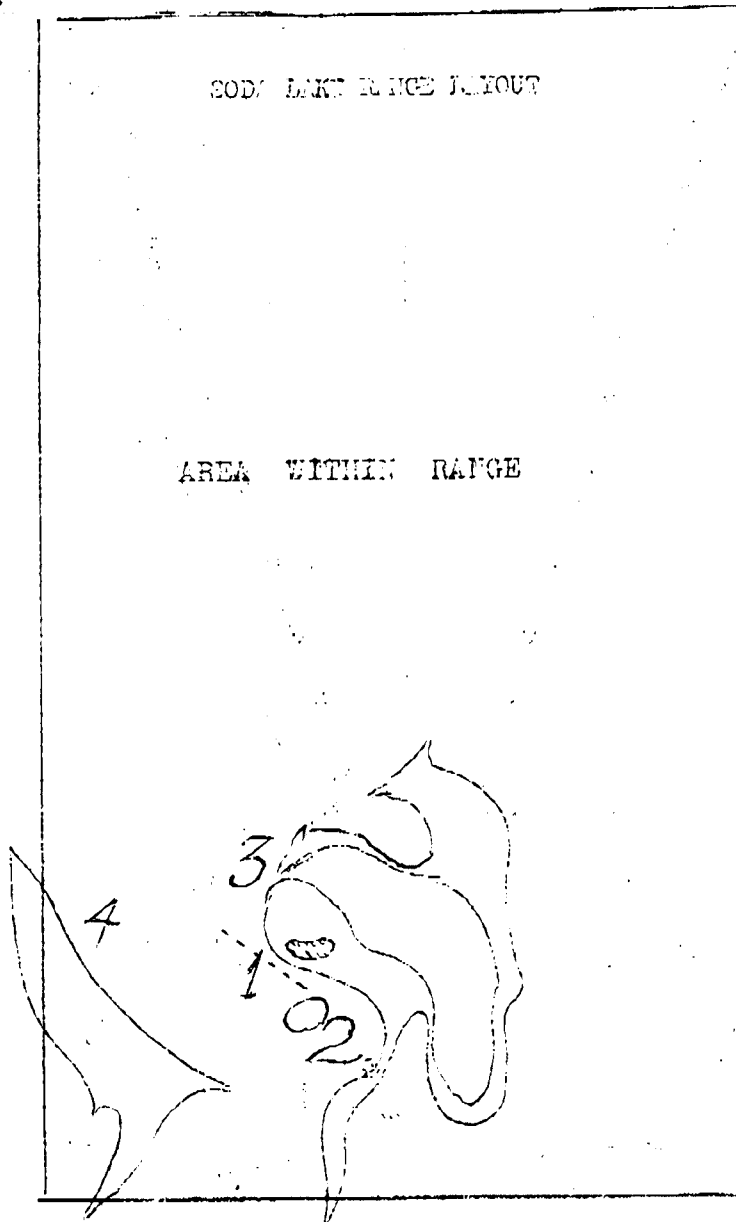
c. Dive Bombing Range:

- (1) Unless closed by a general directive from this headquarters, this range will remain open at all times for those units properly scheduled to use the range.

5. Attention is directed to the three diagrams inclosed and made a portion of this regulation, which should be studied carefully by all individuals before they use Soda Lake Gunnery Range.

6. All violations of flying or safety rules and regulations will be reported directly to the Director of Operations, 450th AAF Base Unit, Hammer Field, Fresno, California.

266



☒ Ranch House

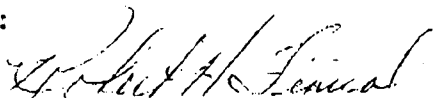
- 1 Air to Ground Gunnery Range
- 2 Strafing & Night Firing Range
- 3 Dive Bombing Range
- 4 Camp Area for Range Detail

55-6
7 Pages
Page 7

By order of Colonel SNAVELY:

ROBERT H. FINICAL,
1st Lt., Air Corps,
Adjutant.

OFFICIAL:


ROBERT H. FINICAL,
1st Lt., Air Corps,
Adjutant.

DISTRIBUTION: "A", "B", "C", plus five copies to 4AF.

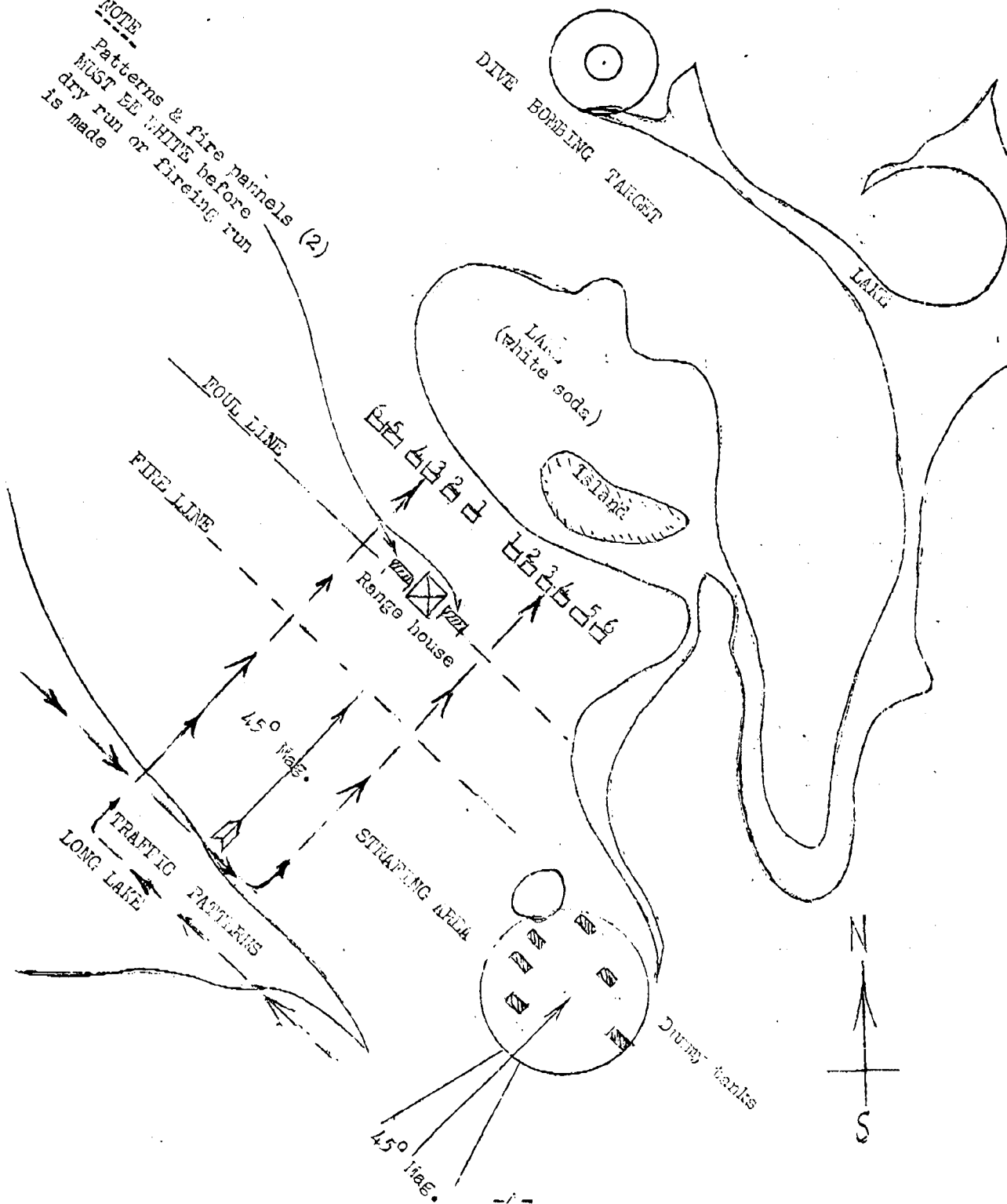
- 7 -

26 d

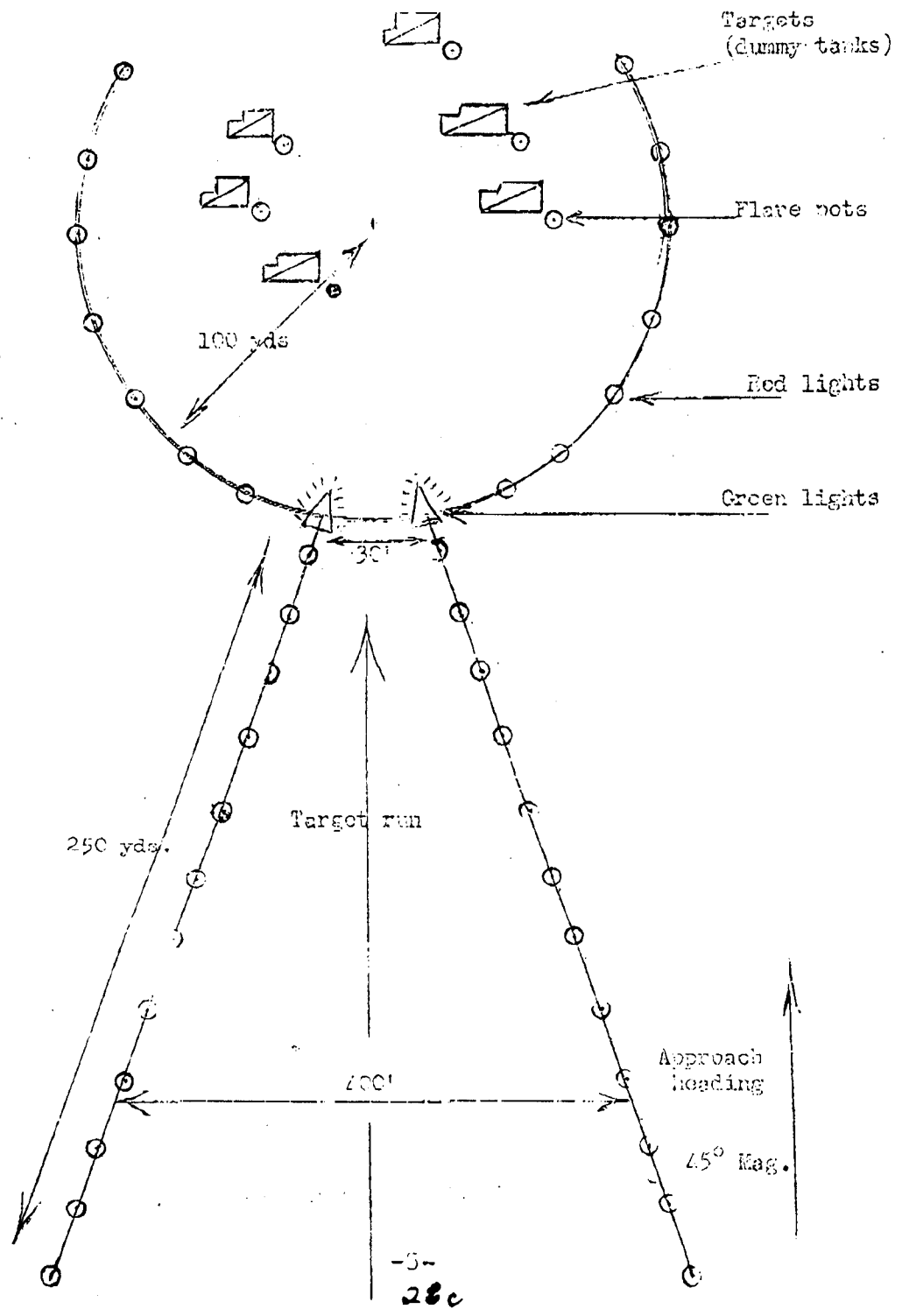
SODA LAKE GUNNERY RANGE

5-6
7 pages
Page 4

NOTE
Patterns & fire panels (2)
MUST BE WHITE before
dry run or firing run
is made



SODA LAKE STRAFING RANGE
(Night Firing Layout)



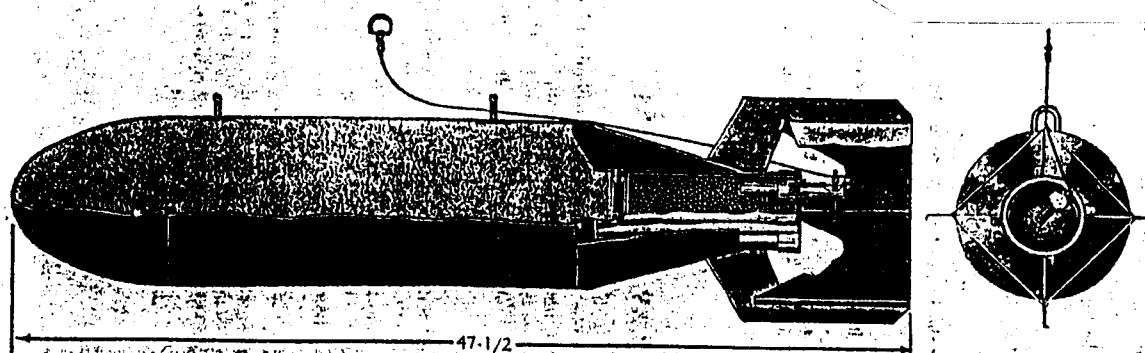
124. **BOMB, PRACTICE, 100-LB., M38A2.** *a. Data.* BOMB, practice, 100-lb., M38A2, is a round-nosed cylindrical bomb designed to simulate general-purpose bombs. (See fig. 117.) It is 47.5 inches long and 8.13 inches in diameter. As issued, the fins are assembled to the bomb body which is empty for sand loading in the field. The empty bomb weighs 15.7 pounds, sand filled; with spotting charge assembled, it weighs 100 pounds. The spotting charge is assembled in a sleeve at the base of the bomb, within the fin box.

b. Spotting charge. The authorized spotting charges are CHARGE, spotting, assembly, M1A1, M3, and M4. These assemblies consist of a 3-pound charge and an integral fuze consisting of an inertia type firing pin restrained by an arming pin, with a blank loaded shotgun shell for a primer. The M3 produces a large amount of black smoke and is authorized for use over ranges completely covered with snow. The M4 is authorized for use on ranges equipped with sonic spotting devices. The M1A1 is authorized for all other uses.

c. Assembly. To assemble the complete round, the following procedure may be used:

(1) *Load with sand to weight:* Remove the bomb from the carton and inspect for serviceability. Remove the closing cover from its place in the sleeve. Place the bomb upright and fill completely with a uniform sand mixture. Shake the load down well so that there will be no room for it to shift. If a lighter loading is desired, mix sawdust or sifted ashes with the sand. The bomb must be filled, and the loading material must be uniform. Press the closing cap into place.

(2) *Assembly spotting charge:* Insert spotting charge assembly and seat firmly with arming pin pointing away from bomb suspension lugs. Pass arming wire through rear suspension lug and then through eyelet in arming pin. Adjust to protrude 2 to 3 inches.



RA PD 26798

Figure 117. BOMB, practice, 100-lb., M38A2.

Dated 11 October 1943

AMMUNITION

117. CARTRIDGE, BALL, CAL. .50, M2.

	Grains (Average)
a. Weight:	
Complete round	1776
Bullet: Complete	698
Jacket	250
Core	392
Filler	55.5
Case	825
Primer	18.5
Propellant	(Approx.) 235
	Inches (Average)
b. Length:	
Complete round	5.42
Bullet: Complete	2.28
Core	1.87
Case: Over-all	3.90
Headspace	3.000
Head thickness	0.310
	Inches (Average)
c. Diameter:	
Bullet	0.510
Core	0.428
Jacket wall thickness	0.040
Case:	
Wall thickness at head	0.050
Wall thickness at shoulder	0.020
Head	0.800
d. Miscellaneous:	
Powder space	1.03 cu in.
Ballistic coefficient	0.467 lb per sq in.
Boat-tailing of base	9-deg taper
Length of ogive	(Average) 1.345 in.
Base of bullet to origin of rifling	1.31 in.
Muzzle velocity (45-inch barrel)	2,935 ft per sec
Muzzle velocity (36-inch barrel)	2,845 ft per sec
Normal pressure	52,000 lb per sq in.
Maximum range (45-inch barrel)	7,600 yd

References

SNL T-1
Drawing No. C77960 (complete round)
Drawing No. B171990 (bullet)
Specification No. 50-4-8
TM 9-1900; TM 9-1990

203

202

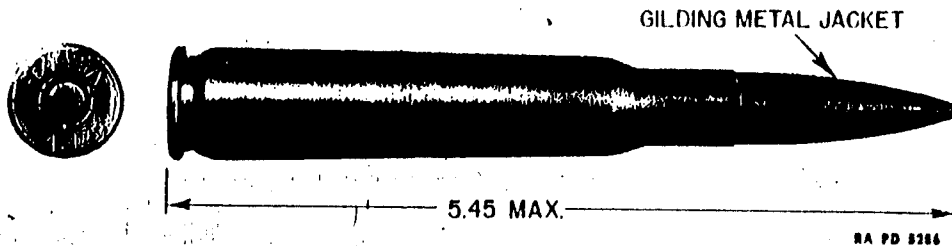


Figure 110—CARTRIDGE, Ball, Cal. .50, M2

TM 9-2200
124

Small Arms, Light
Field Mortars and
20-mm Aircraft Guns

Dated 11 October 1943

AMMUNITION

124. CARTRIDGE, BALL, 20-MM GUNS, M1, AN-M2, AND BR. H.S./A/.

a. Weight:		Grains
Complete round	.....	3,920
Projectile: complete	..... (Max.)	2,030
Case	.....	1,435
Primer	.....	25.65
Propellant	.....	507
b. Length:		Inches
Complete round	.....	7.23
Projectile: complete	.....	2.73
Case:		
Over-all	.....	4.342
Headspace	.....	3.732
Head thickness	.....	0.378
c. Diameter:		Inches
Projectile	.....	0.784
Case:		
Wall thickness at head	.....	0.049
Wall thickness at shoulder	.....	0.034
Head	.....	0.976
d. Miscellaneous:		
Powder space	.....	2.20 cu in.
Ballistic coefficient	.....	0.457 lb per sq in.
Boat-tailing of base	.....	None
Length of ogive	.....	1.089
Velocity at 90 feet	.....	2,770 ft. per sec
Normal pressure	.....	45,100 lb per sq in.
Maximum range	.....	5,300 yd

References

- SNL R-1
- Drawing No. 75-1-125 (complete round)
- Drawing No. 75-2-299 (projectile)
- Specification No. PXS-884
- TM 9-227
- TM 9-1900

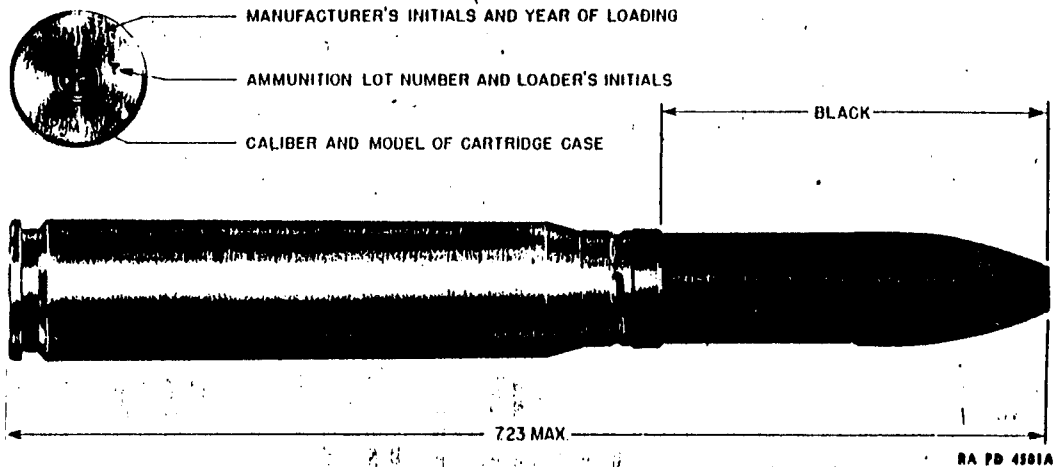


Figure 117—CARTRIDGE, Ball, 20-mm Guns, M1, AN-M2, and Br. H.S./A/

Chapter 5 PRACTICE BOMBS

**3.0-Pound Miniature Practice Bomb
AN-Mk 23**

**4.5-Pound Miniature Practice Bomb
AN-Mk 43**

**13-Pound Miniature Practice Bomb
Mk 19 Mod 1**

**Miniature Practice Bomb Signal
AN-Mk 4**

**100-Pound Practice Bomb Mk 15
Mod 2**

**500-Pound Practice Bomb Mk 21
1,000-Pound Practice Bomb Mk 22**

What They Are

Practice bombs are bombs which are used to simulate the ballistic properties of service-type bombs for target practice. There are two general types of practice bombs: miniature bombs, which vary in weight from three to thirteen pounds, and large water-sand-fillable bombs which are of the approximate size of the 100-, 500-, and 1000-pound service bombs. The miniature practice bombs are castings made of a zinc base alloy, cast iron, or lead antimony. The larger bombs are of welded sheet-metal construction and are shipped without their filler of water or wet sand.

Where They Are Used

Practice bombs are used for intermediate, operational, and fleet training purposes in VF, VP, VT, VOS, VSB and VTB types of aircraft, as well as aboard airships.

Appropriate types of practice bombs may be used for either horizontal, glide, or dive bombing practices.

The large bombs (100-, 500-, and 1000-lb. types) may be suspended from standard bomb racks and shackles. Special types of racks are used for carrying and releasing miniature practice bombs.

Special Features

A signal, similar to a 10-gauge shotgun shell, is inserted in miniature practice bombs. Upon detonation, this signal pro-

duces a large puff of white smoke that is visible under favorable conditions, from altitudes up to approximately 14,000 feet. The construction of the firing pin assembly in these miniature bombs is such that the bomb signal may be initiated upon impact of the bomb with either a solid object or water. Miniature bombs are shipped without the bomb signal installed, the bomb and signal being assembled just prior to use.

The large bombs (100-, 500-, and 1000-lb. types) are complete as shipped, except for the loading of the inert charge of water or wet sand. Neither fuzes nor spotting charges are provided with these bombs. If an arming wire is desired for use with these bombs for training purposes, a small washer may be soldered to the bomb nose: the end of the arming wire which is normally inserted in the fuze of service-type bombs is then secured to the washer. For "armed" releases, the washer is torn free of the bomb by the arming wire, while for "safe" releases the arming wire is retained on the bomb by the washer. See Fig. 155.

A filler hole is provided at or near the nose for loading the 100-, 500-, and 1000-pound practice bombs. The 500- and 1000-pound practice bombs are equipped with trunnions for dive bombing and may be suspended only from double-hook bomb racks or shackles, or in slings. The 100-pound bomb does not have trunnions but is equipped with removable suspension bands which may be used with either single- or double-hook bomb racks and shackles.

AIRCRAFT BOMBS

OP 1280
AIRCRAFT
BOMBS

THE THREE-FOUND MINIATURE

PRACTICE BOMB AN-MK 23

ORDNANCE PAMPHLET 1280
NAVY DEPARTMENT
BUREAU OF
ORDNANCE
DATE
FEBRUARY 1945

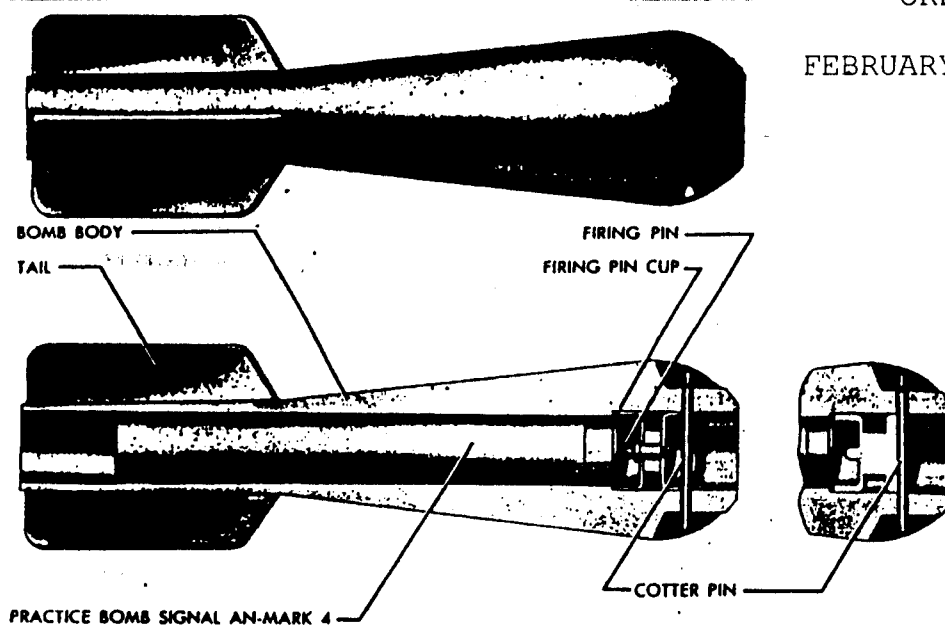


Figure 148.—3.0-Lb. Miniature Practice Bomb AN-Mk 23

This bomb has the following characteristics:

Weight, without signal
but with firing pin
assembly and cotter
pin 2 lb. 14 oz. \pm 2 oz.

Overall length 8.25 in.

Body diameter—
maximum 2.18 in.

Material—
body and pins Cast iron

Total weight, with fir-
ing pin assembly and
signal installed,
ready for dropping. 3 lb. \pm 2 oz.

Auxiliary Equipment

Firing pin assembly and cotter pin

Miniature Practice Bomb Signal AN-
Mk 4

Use

This bomb may be used for low-altitude horizontal or dive bombing practice. It cannot be used against armored-deck target boats.

Note: These cast-iron miniature practice bombs must be used on all applicable practices other than those involving armored-deck target boats, since the alternate three-pound and 4.5-pound bombs are made of critical materials and their supply is limited.

Suspension

Five bombs can be carried in the Bomb Rack Mk 43 series and eight bombs in the Bomb Rack Mk 47.

Note: Bomb Rack Adapter Mk 1 (BuOrd Dwg. 328826) enables the bomb racks of the Mk 43 series to be suspended from bomb racks of the Mk 41 or the Mk 50 series.

AIRCRAFT BOMBS

OP 1280

blies, or substandard quality and misfitting signals.

The Miniature Practice Bomb Signal AN-Mk 4 is a "blank" No. 10 gauge shotgun shell (extra length). The signal has a metal base and base flange fitted to a cardboard shell. The components of the signal are: a No. 7 U.M.C. primer with an expelling charge of black powder separated from a charge of pyrotechnic (red phosphorous pyrotechnic

tion depot or turned over to a Bomb Disposal Officer for proper disposal.

Signals are packed 25 to a cardboard carton. The outside dimensions of the carton are approximately 4.4 inches long, 4.4 inches wide, and 6.125 inches deep. Twenty filled cartons are packed in a wooden packing box of the type used for packing commercial No. 10 gauge shotgun shells. The outside dimensions of the packing box are approx.

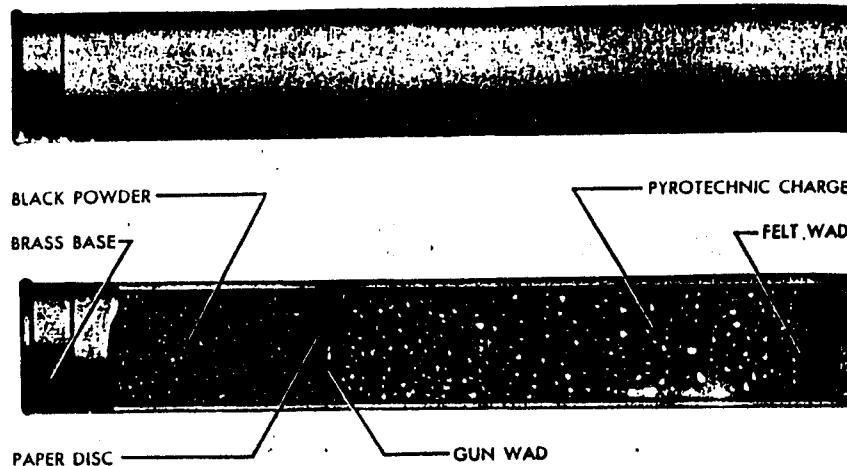


Figure 151.—Miniature Practice Bomb Signal AN-Mk 4

mixture No. 7) by a kraft paper disc glued to a No. 10 gauge gun wad. The charges are sealed by a No. 10 gauge paraffined-edge felt gun wad and secured by crimping over the paper shell casing. The weight of the loaded signal is 2.1 ounces.

Note: Under no condition are these signals to be opened or tampered with. Defective signals will be returned to an ammuni-

imately 25.5 inches long, 14.25 inches wide, and 10.75 inches deep. Miniature Practice Bomb Signals AN-Mk 4 will be stowed in approved storage facilities. The temperature of the storage facility shall not exceed 100F., and the signals shall be protected from direct sunlight, spray, or moisture and shall not be subject to excessive motion or vibration.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX E
REPORTS/STUDIES

APPENDIX E

REPORTS/STUDIES

Table of Contents

- E-1 FDE, Site Survey Summary Sheet, and Project Summary Sheet
(B-9).
- E-2 Listed and Proposed Endangered and Threatened Species
(B-10).

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR FORMERLY USED SITES
FINDINGS AND DETERMINATION OF ELIGIBILITY
SODA LAKE AIR TO GROUND GUNNERY RANGE
SAN LUIS OBISPO COUNTY, CALIFORNIA
PROJECT NO. J09CA063200

FINDINGS OF FACT

1. The former Soda Lake Air to Ground Gunnery Range is located in San Luis Obispo County, 22 miles northwest of Taft, California.
2. The Department of Defense (DOD) acquired a total of 9,600 acres in 1944. A tract of 160 acres of Public Domain was transferred from the Department of Interior (DOI) to DOD on March 31, 1944. A tract of 320 acres was obtained under condemnation for lease hold interest from a G. Mearns (Case No. 3437-BH filed January 31, 1944). The remaining 9,120 acres were leased from private landowners on January 19, 1944.
3. The U.S. Army Air Force used the Soda Lake Air to Ground Gunnery Range as an auxiliary to both Hammer Field in Fresno, California, and Santa Maria Army Airfield in Santa Maria, California. The U.S. Army constructed the following facilities: (1) one prefabricated hutment, (2) one range house, (3) 12 bulls-eye gunnery targets, (4) two dive-bombing targets, (5) six dummy tanks for strafing, and (6) two skip bombing targets.
4. On October 23, 1946, DOD declared the entire 9,600-acre site as surplus to the War Assets Administration. The 160-acre tract was relinquished by letter to DOI on May 21, 1947, and custody was assumed by that department on September 24, 1947. The lease for the 320-acre parcel was terminated when a U.S. District Court judgement filed on April 21, 1948 found that (1) the U.S. Government had not made any improvements or changes that were detrimental to the parcel, (2) there was no restoration to be made therein, (3) the U.S. was not indebted to the defendants, and (4) all rental costs had been fully paid and satisfied. The leases for the 9,120 acres were cancelled on or between December 31, 1946, and July 1, 1947, and the land was returned to the landowners. The property is currently owned by several private parties, the Nature Conservancy (a nonprofit organization) and the DOI Bureau of Land Management (BLM).
5. On May 21, 1947, the U.S. Army Corps of Engineers verified in a letter to the BLM that the gunnery range had been inspected by a bomb disposal team and had been certified to be free from harmful elements. Currently, there are several items of ordnance residue such as spent machine gun bullets, training rockets, and practice bombs scattered about the site; none of this debris constitutes a hazard or an unsafe condition. There is no evidence of unsafe debris, hazardous or toxic waste, or unexploded ordnance resulting from DOD use of the site. Most of the site is managed as an ecological preserve; the eastern quarter is used for grazing livestock. State, county, and local agencies were contacted and have no records of any hazardous or toxic waste sites that are co-located or adjacent to the Soda Lake Air to Ground Gunnery Range site.

DETERMINATION

Based on the foregoing findings of fact, the site has been determined to have been formerly used by DOD. However, there is no evidence of unsafe conditions resulting from DOD use. Therefore, it is determined that an environmental restoration project is not an appropriate

undertaking within the purview of the Defense Environmental Restoration Program, established under 10 U.S.C. 2701 et seq., for the reasons stated above.

Date

6/30/95

John F. Sobke
Brigadier General, U.S. Army
Commanding

Original was signed & dated
on the above date. Was not
made available to the inspection
team at the time of this report.

SITE SURVEY SUMMARY SHEET
FOR
DERP-FUDS SITE NO. J09CA063200
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
8 JULY 1994

SITE NAME: Soda Lake Air To Ground Gunnery Range, Taft. California.

LOCATION: The Soda Lake Air to Ground Gunnery Range is located within the Carrizo Plain Natural Area, adjacent to Soda Lake and southeast of the town of California Valley. The site is accessible through State Route 58 and Soda Lake Road.

SITE HISTORY: Prior to its acquisition as a gunnery and bombing practice range, the site was used for grazing cattle. In 1944, it was acquired by the War Department for an air to ground gunnery range for the Santa Maria Army Airfield. It was eventually jointly used as such by Santa Maria Army Airfield and Hammer Field.

Facilities constructed at the site during its use included a prefabricated hutment, a range house, twelve bulls eye gunnery targets, two dive bombing targets, six dummy tanks for strafing, and two skip bombing targets. They were reported in fair condition at the time the site was declared surplus. None of these facilities are in existence.

In a letter to the Director of the Bureau of Land Management dated 21 May 1947, the Corps of Engineers indicated that "the land has been inspected by a bomb disposal team and has been certified to be free from harmful elements."

Today, majority of the site is part of the 200,000-acre Carrizo Plain Natural Area which is jointly managed by the Bureau of Land Management, the California Department of Fish and Game, and The Nature Conservancy. The nature preserve is the largest remaining example of the San Joaquin Valley grasslands as they existed in California 300 years ago. It is a habitat to a number of threatened and endangered species of plants and animals. Parcels of the former gunnery range that are privately held are used for grazing cattle.

SITE VISIT: The site was visited on 20 April 1994 by Elvira Gaddi and Mito Nicdao of Engineering-Science, Inc. of Pasadena, California. The team held a brief informational meeting with Ms. Judith Hildinger, the Outreach Manager for The Nature Conservancy at the Goodwin Education Center (805-475-2131). Artifacts on display at the Center included a bullet shell.

PROJECT SUMMARY SHEET
FOR
DERP-FUDS OEW PROJECT NO. J09CA063201
SODA LAKE AIR TO GROUND GUNNERY RANGE
SITE NO. J09CA063200
10 MAY 1994

PROJECT DESCRIPTION: Soda Lake Air To Ground Gunnery Range was used for gunnery and bomb target practice. Although the site has been previously inspected by a bomb disposal team and has been certified to be clean, it is possible that there is buried unexploded ordnance that may not have been discovered during the initial inspection.

PROJECT ELIGIBILITY: The property was formerly used by the Army Air Force based out of the Santa Maria Army Airfield. Improvements were installed and used, and ammunitions and other types of ordnance were used at the site.

POLICY CONSIDERATIONS: Any activity to be conducted at the site will require a permit from the Bureau of Land Management. Consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game may also be required due to the potential impact to threatened and endangered species.

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

RAC: Attached.

DISTRICT POC: Request CEHND inform CPT Harvey Maruya at (213) 894-2865, when a determination is made regarding project status.

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE
SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF
THE FOLLOWING SELECTED QUADS
Reference File No. 1-1-96-SP-440
February 14, 1996

QUAD: 218A PAINTED ROCK

Listed Species

Mammals

- giant kangaroo rat, *Dipodomys ingens* (E)
San Joaquin kit fox, *Vulpes macrotis mutica* (E)

Birds

- American peregrine falcon, *Falco peregrinus anatum* (E)
bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

- blunt-nosed leopard lizard, *Gambelia (=Crotaphytus) silus* (E)

Invertebrates

- longhorn fairy shrimp, *Branchinecta longiantenna* (E)
vernal pool fairy shrimp, *Branchinecta lynchi* (T)

Plants

- California jewelflower, *Caulanthus californicus* (E)
San Joaquin wooly-threads, *Lembertia congdonii* (E)

Proposed Species

Amphibians

- California red-legged frog, *Rana aurora draytoni* (PE)

Candidate Species

Mammals

- Nelson's antelope ground squirrel, *Ammospermophilus nelsoni* (1)
short-nosed kangaroo rat, *Dipodomys nitratoides brevinasus* (1)
greater western mastiff-bat, *Eumops perotis californicus* (2)
small-footed myotis bat, *Myotis ciliolabrum* (2)
long-eared myotis bat, *Myotis evotis* (2)
fringed myotis bat, *Myotis thysanodes* (2)
long-legged myotis bat, *Myotis volans* (2)
Yuma myotis bat, *Myotis yumanensis* (2)
Southern grasshopper mouse, *Onychomys torridus ramona* (2)
Tulare grasshopper mouse, *Onychomys torridus tularensis* (2)
San Joaquin pocket mouse, *Perognathus inoratus* (2)
Pacific western big-eared bat, *Plecotus townsendii townsendii* (2)

Birds

- tricolored blackbird, *Agelaius tricolor* (2)
ferruginous hawk, *Buteo regalis* (2)
mountain plover, *Charadrius montanus* (2)
little willow flycatcher, *Empidonax traillii brewsteri* (2)
San Joaquin LeConte's thrasher, *Toxostoma lecontei macmillanorum* (2)

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE
SPECIES THAT MAY OCCUR IN OR BE AFFECTED BY PROJECTS IN THE AREA OF
THE FOLLOWING SELECTED QUADS

Reference File No. 1-1-96-SP-440

February 14, 1996

QUAD : 218A PAINTED ROCK

Candidate Species

Reptiles

- silvery legless lizard, *Anniella pulchra pulchra* (2)
- southwestern pond turtle, *Clemmys marmorata pallida* (2)
- San Joaquin whipsnake, *Masticophis flagellum ruddocki* (2)
- California horned lizard, *Phrynosoma coronatum frontale* (2)

Amphibians

- California tiger salamander, *Ambystoma californiense* (1)
- western spadefoot toad, *Scaphiopus hammondi* (2)

Plants

- Lost Hills saltbush, *Atriplex vallicola* (2)
- recurved larkspur, *Delphinium recurvatum* (2)
- Carrizo peppergrass, *Lepidium jaredii* var. *jaredii* (2)

Notes:

- (E) Endangered (T) Threatened (P) Proposed (CH) Critical Habitat
- (1) Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
- (2) Category 2: Taxa for which existing information indicated may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
- (1R) Recommended for Category 1 status.
- (2R) Recommended for Category 2 status.
- () Listing petitioned.
- (*) Possibly extinct.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS.

APPENDIX F

LETTERS/MEMORANDUMS/Misc.

Table of Contents

- F-1 Letter, from the Corps of Engineers to Bureau of Land Management (B-11).
- F-2 Cultural Resource Inventory Reports (B-12).
- F-3 Letter to Acquisition Land for AGGR for Santa Maria Army Airfield (B-13).
- F-4 Letter to Excess AGGR Land (B-14).

602 Santa Maria Army Air Base,
Soda Lake Air-to-Ground Gun Range,
California, TWNT

21 May 1947

Director,
Bureau of Land Management,
Department of the Interior,
Washington 25, D. C.

Dear Sir:

Reference is made to letter from your Department dated 31 March 1944, copy of which is inclosed, authorizing the War Department to use the West 1/2 of the Southwest 1/4 of Section 17, and the West 1/2 of the Northwest 1/4 of Section 20, Township 31 South, Range 20 East, 1st. Diablo Meridian, California, in connection with the Soda Lake Air-to-Ground Gunnery Range, Santa Maria Army Air Base, California. The use of the aforementioned land is no longer required and jurisdiction therefore is hereby returned to your Department.

The land, used for a small arms range, has been inspected by a bomb disposal team and has been certified to be free from harmful elements.

It is recommended that this Department be advised whether or not the return of this land is accepted by your Department. In the event an inspection is deemed necessary, it is recommended that field representatives of your Department be authorized to conduct the inspection in conjunction with representatives of the Division Engineer, South Pacific Division, Corps of Engineers, 351 California Street, San Francisco, California.

FOR THE CHIEF OF ENGINEERS:

Sincerely yours,

1 Inclosure:

By ltr 31 Mar 44

PETER P. GORPZ
Colonel, Corps of Engineers
Assistant Chief of Engineers for
Real Estate

MAPPED

Painted Rock
Soda Lake
area 400
2pp
2 maps

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT

Report Number: CA-016-C/V-280
Resource Area: Caliente R. A.
Planning Area: Carrizo Plain

CULTURAL RESOURCE INVENTORY REPORT

Project Name: Education Center Fencing, Gating and Cattleguard move.

Project Number:

Project Description: Install 2 new gates, move a cattleguard and build a fence. New gates will be installed where Painted Rock Ranch road joins the Soda Lake road and .75 miles west of the Soda Lake road between the Painted Rock Ranch road and Saucito Ranch. The cattleguard where Painted Rock Ranch road joins Soda Lake road will be moved to a location approximately .25 miles south of the new visitor's center in the road leading to the Painted Rock parking area. The fence will be built between the new cattleguard location and the new gate located at the junction of Soda Lake road.

Project Location: T: 31S R: 20E **Section(s)** 32 M.D.B. & M.
Quad(s): Painted Rock, Ca. 7.5' 1959
County: San Luis Obispo **Geographic Area:** Carrizo Plains Natural Area

Brief Description of Area and Environment: Located within the Carrizo Plain Natural Area, at an elevation of 1,940' to 1,970', south west of Soda Lake. The geology of the Carrizo Plain is primarily Miocene Marine sandstone and shale. The project area is level and devoid of bedrock or rock outcrops. The soil is a heavy clay loam. The plant community in the project area is annual grassland.

Inventory Description (methodology, problems, reliability, coverage): The gate area west of Painted Rock Ranch was surveyed by walking 3 transects parallel to the road extending 50' east and 50' west of where the gate will be placed. One transect was walked in the center of the road. The other two transects were along the sides of the road between the road edge and the fence. The fences are electrified. I did not cross the fences but looked across. The surface beyond the fences was clear with only a sparse cover of vinegar weeds.

The cattleguard relocation area was surveyed by walking four transects each 100' long, 12' to 15' apart and extending 50' north and 50' south of the relocation site. Three of these were done west of the road between the road and the SE corner of the Painted Rock Ranch enclosure. One transect was walked in the road. The road has been bladed 1' below the ground surface. The road cut was examined carefully for artifacts as was a shallow gully just to the east of the road. Although historic farm implements are parked on the east side of the Painted Rock Ranch they will be far enough north to be safe from project impact.

The cattleguard will be moved from the Painted Rock Ranch entrance and replaced with a gate. Visibility of the ground surface here was obscured by heavy grasses and 3' fiddleneck. This location has been extensively impacted by the cattleguard installation, the blading of Painted Rock road each year, dirt is stored here for maintenance of Soda Lake road, a turn out, and two fences with H panels up to the sides of the cattleguard.

Description of Findings (include previously recorded sites): No prehistoric artifacts of any kind were observed during this survey. Historic farm equipment is parked on the east side of the Painted Rock Ranch. Although prehistoric sites are recorded in the area none are recorded within

1 mile of the project. Previous cultural surveys: CA-016-C/V-214 and CA-016-C/V-204 are adjacent to the project area.

Potential/Actual National Register Sites: None

Project Impact on Sites: None

Recommendations (comments, stipulations, etc.): The project shall be allowed to proceed with the standard stipulation: Any subsurface archaeological, historical, or paleontological remains discovered during construction shall be left intact. All work in the discovery area shall stop. The Caliente Area Manager shall be notified immediately. Work may resume upon approval of the Area Manager.

Date of Inventory: August 18, 1993

Date of Report: August 23, 1993

Signature: Kathleen A. Lamm

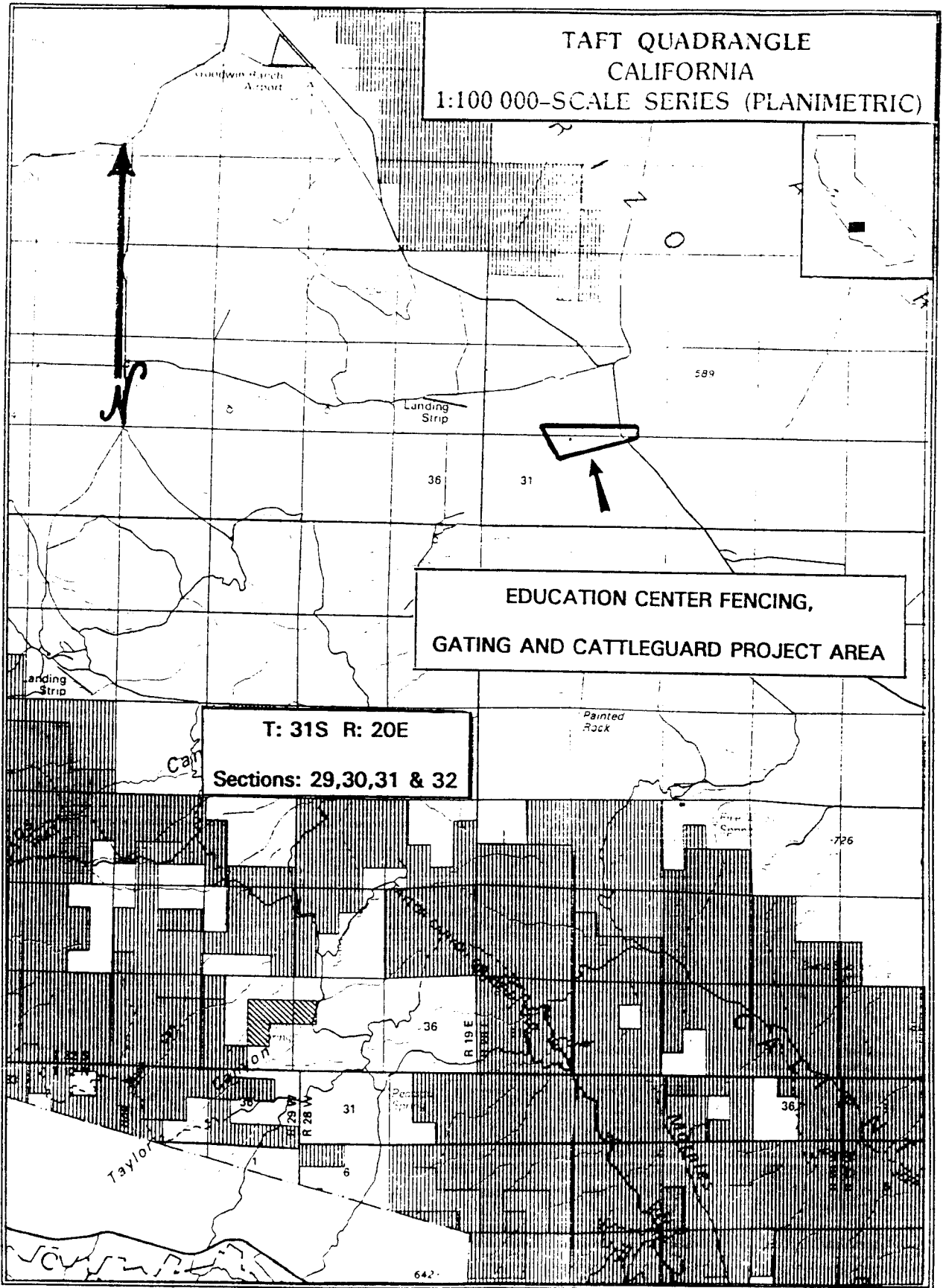
Title: Arch. Tech

Signature of Archeologist: David W. Kayser

Attach copies of maps
and site records (if any)

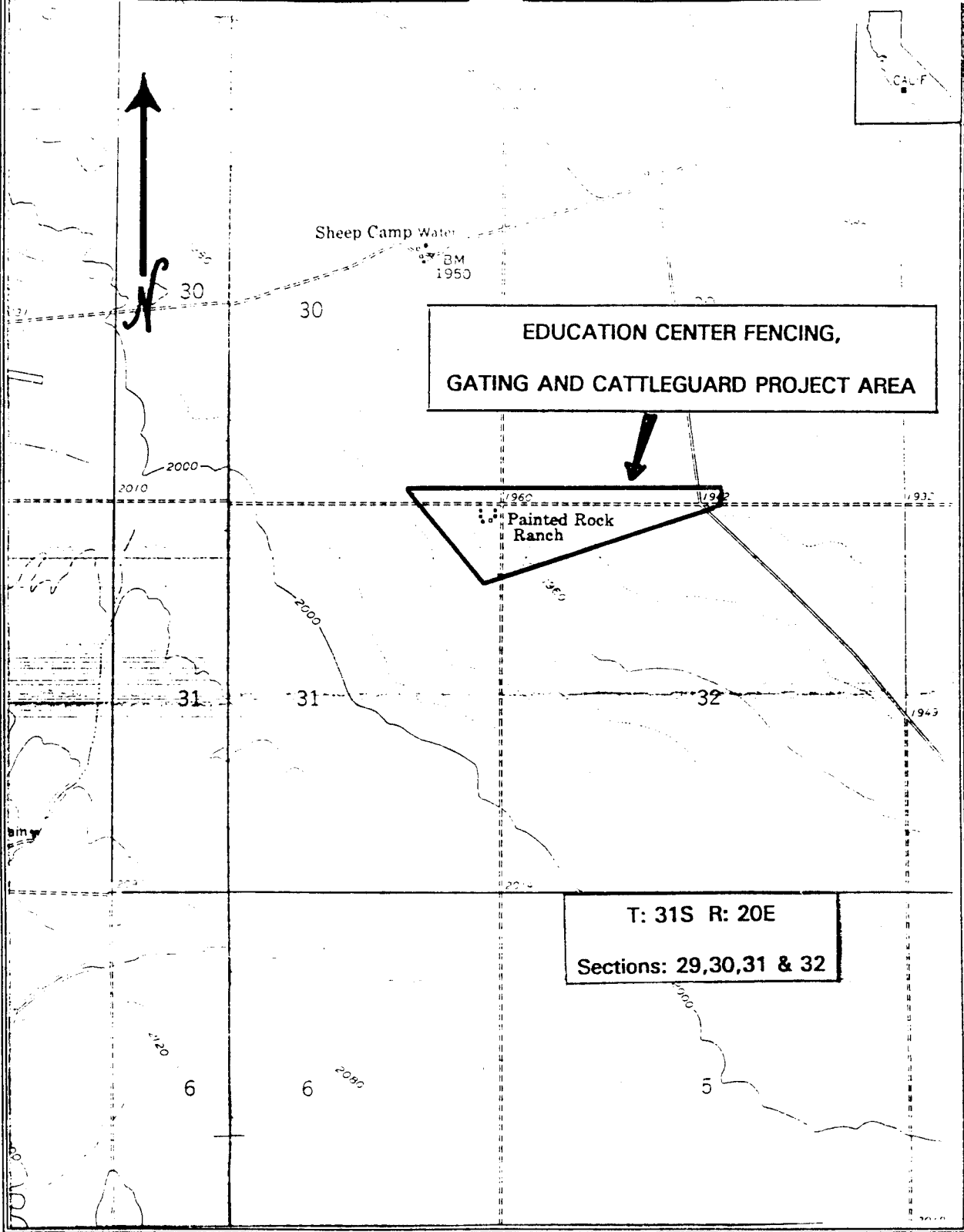
CA-010-8110-1

(Revised July, 1984)



CHIMINEAS RANCH QUADRANGLE
CALIFORNIA—SAN LUIS OBISPO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

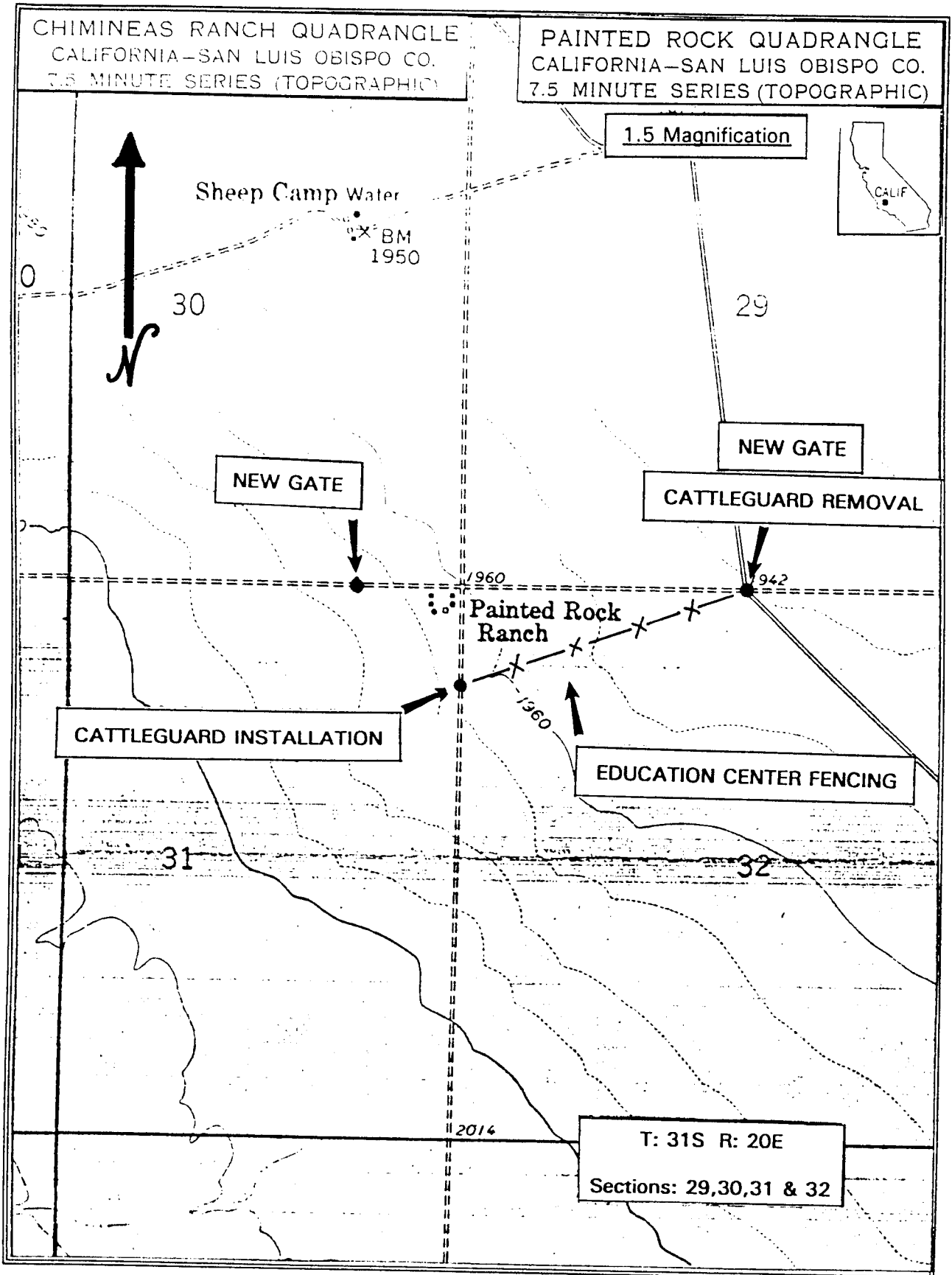
PAINTED ROCK QUADRANGLE
CALIFORNIA—SAN LUIS OBISPO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



**EDUCATION CENTER FENCING,
GATING AND CATTLEGUARD PROJECT AREA**

**Painted Rock
Ranch**

**T: 31S R: 20E
Sections: 29,30,31 & 32**



E-2193

CULTURAL RESOURCE INVENTORY REPORT

Project Name: Marsh Fence

MAPPED

Project Number: CA-016-89-36

Project Description: The proposed project is a fence line to be used to manage livestock grazing into a pasture rotation system and to protect the Valley Saltbush plant community and habitat. The project encompasses approximately 2.5 miles of electric wire fence with "H" braces and/or peeler core wood posts about every 440 feet. In addition, light-weight fiberglass fence posts are placed every 40 feet to support the electric wire. Construction will involve some vehicle travel on the fence line route to distribute electric fence. Refer to the E.A for more detailed information on the project description. The acreage to be impacted for this project will be approximately 5 acres. The area inventoried by archaeological survey was over 10 acres.

Project Location: T:31S R:20E Section(s): 27,28,29,32,33,34

U.S.G.S. Quad(s): Painted Rock, 7.5'; 1959.

County: San Luis Obispo Geographic Area: Carrizo Plain

Brief Description of Area and Environment: The project area is located on the Carrizo Plain at an elevation of 1,942 to 1,918 feet. The geology of the area is primarily Miocene marine sandstone and shale. However, the project area itself is devoid of any bedrock or rock outcrops. The soils consist of a heavy clay loam with moderate to high alkalinity. Two ephemeral slough channels that drain runoff to Soda Lake are along the route of the proposed fence line. The plant communities present in the project area include Annual Grassland and Valley Saltbush Scrub. These plant communities are once again becoming established due to the termination of dry land wheat farming. The project area can be characterized as very level terrain on the floor of the Carrizo Plain.

Inventory Description (methodology, problems, reliability, coverage): An archaeological survey consisting of 2 transects spaced at 10 meters apart along the south side of the dirt road/power line and one transect north of the dirt road along the proposed route of the fence line was completed for the entire project area. The proposed project area is located predominantly within previously plowed wheat fields that have been farmed during the last 50 years. However, the eastern section is still natural vegetation of Valley Saltbush plant community. The surface visibility was from good to moderate, due to varying degrees of annual grass cover. See the attached map for areas inventoried. Considering the past disturbances to the project area by farming, the closely spaced transects, and good ground visibility, survey coverage of the parcel is considered to be sufficient.

Description of Findings (include previously recorded sites): No cultural resources were discovered as result of this archaeological survey.

Potential/Actual National Register Sites: There are no potential/actual National Register sites within the proposed project area.

Project Impact on Sites: There are no known potential impacts to any cultural resources in this project area.

Recommendation (comments, stipulations, etc.): There will be no adverse effect upon any known cultural resources within or immediately adjacent to the project area as a result of this undertaking. It is recommended, therefore, that this project receive archaeological clearance. In the event that any subsurface cultural remains are encountered, all project work shall cease, and the Area Manager will be notified.

Date of Inventory: 6-22-89 & 11-17-89

Date of Report: 11-18-89

Signature: Robert van de Hoek
Robert Van de Hoek

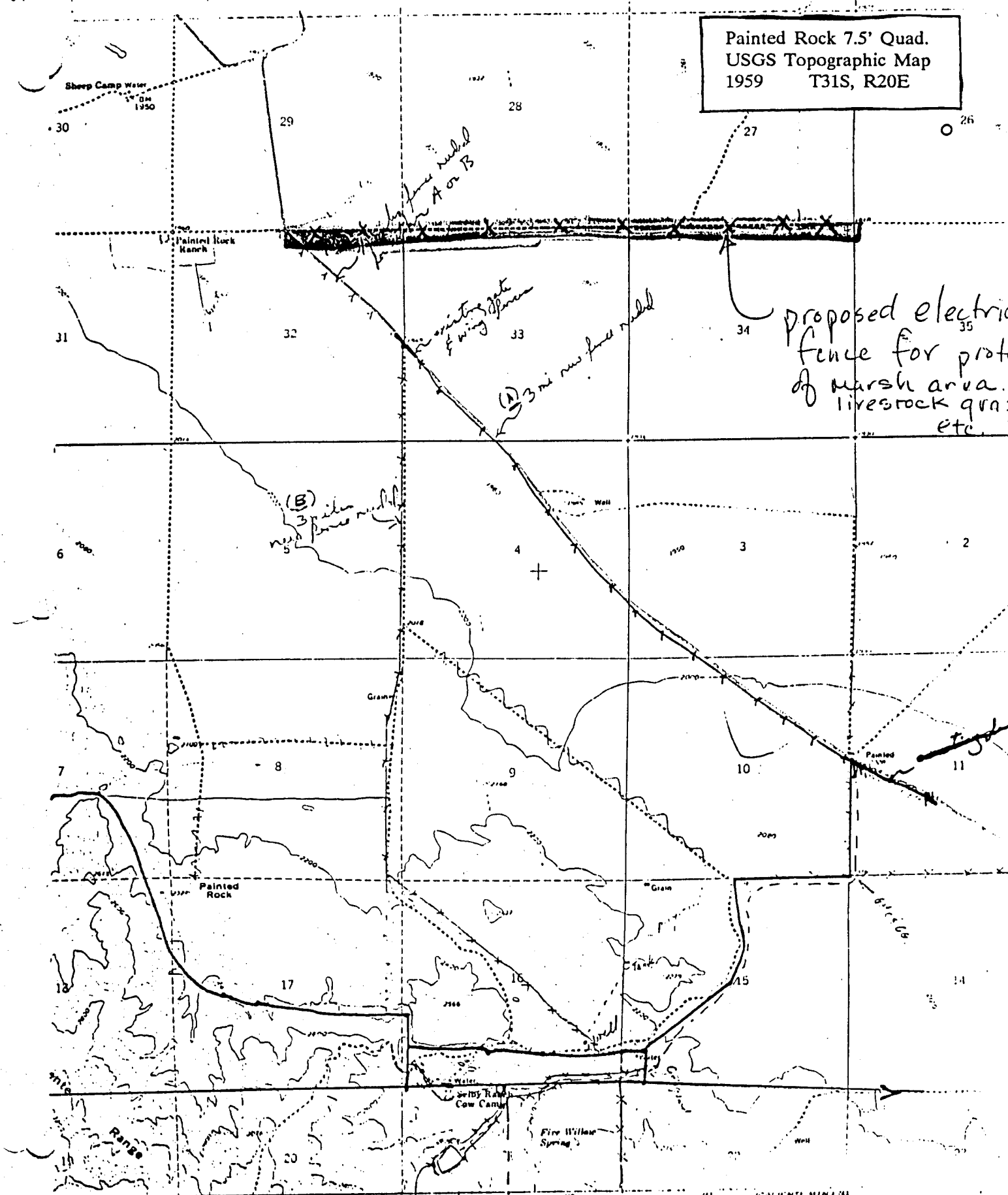
Title: Archaeologist

Attach copies of maps
and site records (if any)

CA-010-8110-1
(Revised July, 1984)

MARSH PROTECTION FENCE

Painted Rock 7.5' Quad.
USGS Topographic Map
1959 T31S, R20E



4400 FEET 19 40 41 50 42 43

1. edited, and published by the Geological Survey
by USGS, USC&GS, and USCE
by from aerial photographs by photogrammetric methods

SCALE 1:25000
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
E-2

CULTURAL RESOURCE INVENTORY REPORT

Project Name: Painted Rock Water Project

Project Number: CA-016-90-06

MAPPED

Project Description: A series of waterlines, cattle troughs, and a holding tank is planned for this grazing pasture as provided in the Carrizo Plain Natural Area Grazing E.A. and Management Plan. The water lines will be 1.5 inch PVC pipe covering about 4.5 miles in total. A mechanical trencher will be used to excavate trenches to a depth of 12-18 inches by 4 inches wide. The troughs will be of cement construction and will be set in the ground to a depth of 6-8 inches. The holding tanks proposed for section 16 will be 5,000 gallons and set on a base of crushed rock with ground disturbance to a depth of 6 inches and laid in a circular metal frame 10 feet in diameter. Construction will involve vehicle travel on the pipeline route to distribute the pipe and troughs. Refer to the E.A for more detailed information on the project description. The acreage to be impacted for this project will be approximately 5 acres. The area inventoried by archaeological survey was over 10 acres.

Project Location: T:32S R:20E Section(s): 3,4,5, and 16
T:31S R:20E Section(s): 32 and 33

U.S.G.S. Quad(s): Painted Rock, 7.5'; 1959.

County: San Luis Obispo

Geographic Area: Carrizo Plain

Brief Description of Area and Environment: The project area is located on the Carrizo Plain at an elevation of 1,970 to 2,320 feet. The geology of the area is primarily Miocene marine sandstone and shales and the soils consist of clay loams with sandy loams around the margins of rock outcrops. Much of the soils in the area have moderate to high alkalinity. The plant community present in the project area is annual grassland and valley saltbush scrub that is establishing itself due to the termination of dry land wheat farming. The project area can be characterized as level to gently sloping terrain rising above the Carrizo Plain and below the Caliente Range.

Inventory Description (methodology, problems, reliability, coverage): An archaeological survey consisting of 2 transects along the flagged route of the waterlines, troughs, and tanks was completed for the entire project area. The proposed project area is located predominantly within previously plowed wheat fields that have been farmed for approximately the last 50 years. One area east of the Soda Lake Road in Section 3 & 4 had some natural vegetation of the valley saltbush plant community. The surface visibility was from good to moderate, due to varying degrees of wheat/annual grass cover. See the attached map for areas inventoried. Considering the past disturbances to the project area by farming, the closely spaced transects, and ground visibility partially obscured by grasses, survey coverage of the parcel is considered to be sufficient.

Description of Findings (include previously recorded sites): No cultural resources were discovered as result of this archaeological survey.

Potential/Actual National Register Sites: There are no potential/actual National Register sites within the proposed project area.

Project Impact on Sites: There are no known potential impacts to any cultural resources in this project area.

Recommendation (comments, stipulations, etc.): There will be no adverse effect upon any known cultural resources within or immediately adjacent to the project area as a result of this undertaking. It is recommended, therefore, that this project receive archaeological clearance. In the event that any subsurface cultural remains are encountered, all project work shall cease, and the Area Manager will be notified.

Date of Inventory: 11-27-89 & 12-12-89

Date of Report: 12-19-89

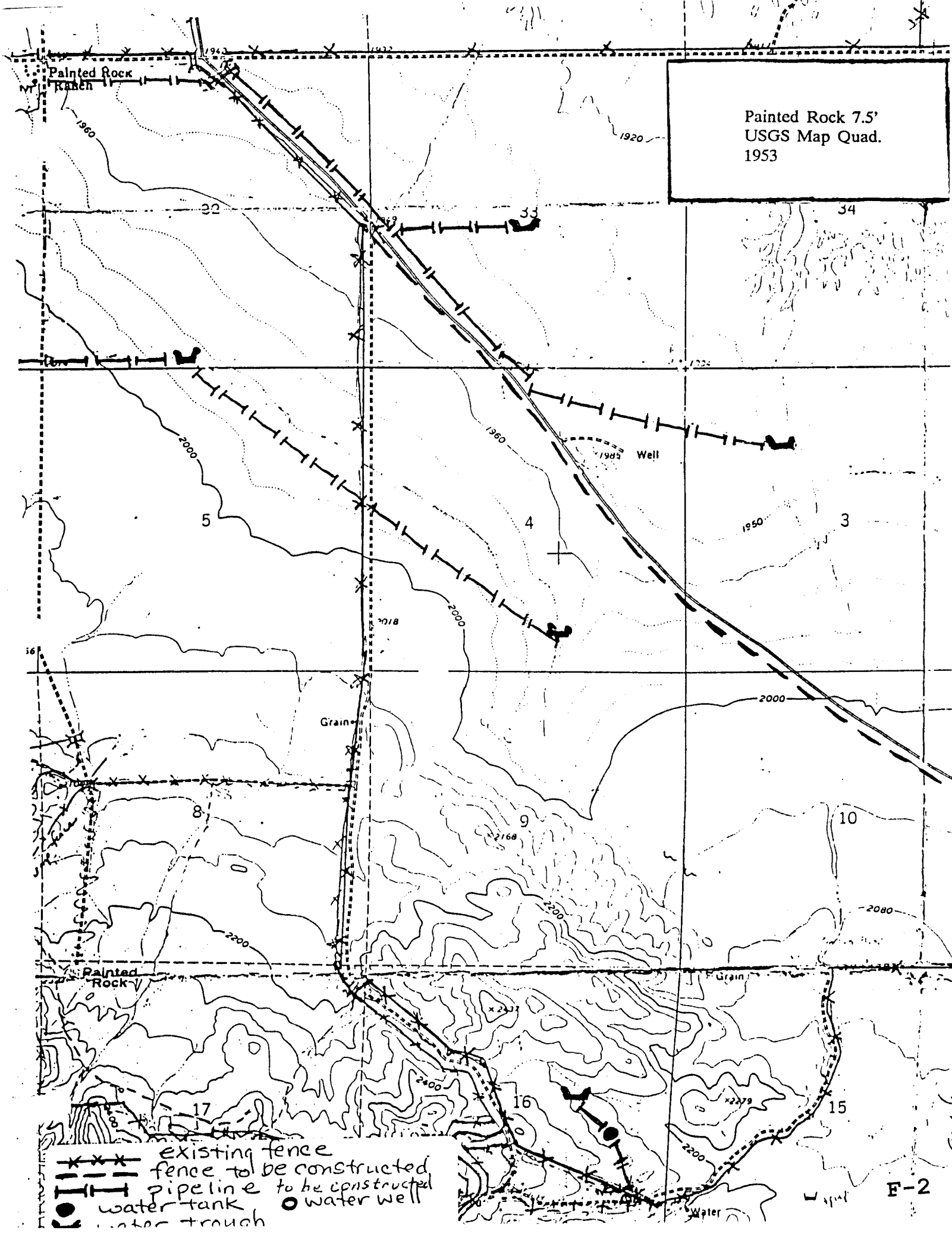
Signature: Robert van de Hoek
Robert Van de Hoek

Title: Archaeologist

Attach copies of maps
and site records (if any)

CA-010-8110-1
(Revised July, 1984)

Painted Rock 7.5'
USGS Map Quad.
1953



- *** existing fence
- fence to be constructed
- ||| pipeline to be constructed
- water tank
- water well

STANDARD STIPULATION

Cultural Resources and Paleontological Stipulations for the Painted Rock Water Project. Painted Rock 7.5' USGS Topographic Map Quad. T32S, R20E, Sections 3,4,5,16; T31S, R.20E, Sections 32,33.

If the following stipulation is adhered to for the project, no impact to cultural or paleontological resources should occur.

1. Any subsurface archaeological, historical, or paleontological remains discovered during construction should be left intact; all work in the area should stop immediately and the Caliente Resource Area Manager should be notified immediately. Commencement of work should be allowed upon clearance by the Area Manager.



THE SECRETARY OF THE INTERIOR
WASHINGTON 25, D. C.

MAR 31 10:31

MAR 31 1944

My dear Mr. Secretary:

Further reference is made to Acting Secretary Patterson's letter of February 22 requesting permission to use, as long as the military necessity exists, the $W\frac{1}{2}SW\frac{1}{4}$ sec. 17, and the $W\frac{1}{2}NW\frac{1}{4}$ sec. 20, T. 31 S., R. 20 E., M.D.M., California, as part of an air-to-ground gummy range for the Santa Maria Army Airfield.

The lands were withdrawn for classification and other purposes by Executive Order No. 6910 of November 26, 1934. The lands are embraced in the sodium lease, Sacramento 031924, entered into as of January 29, 1942, with John Tweeddale, 5102 Torrance Boulevard, Route 1, Box 102, Torrance, California, for a term of 20 years. The rights under the lease were subleased to C. A. Spicer, 215 South Lucerne Boulevard, Los Angeles, California, approved October 13, 1942. On May 4, 1943, this Department approved partial assignments of royalties under the lease from John Tweeddale to Joakim M. Andersen, 700 Avenue "B", Redondo Beach, California, 5 per cent, Marion L. Kemp, 523 S. Catalina Avenue, Redondo Beach, California, 20 per cent, and Melville Herbert Hussey, 1519 Beech Avenue, Torrance, California, 20 per cent.

Subject to valid existing rights and to the existing withdrawal, permission is hereby granted to use the above-described public lands for the purpose stated, as long as the military need therefor continues, but not beyond the expiration of the six months' period following the termination of the unlimited national emergency declared by Proclamation No. 2487 of May 27, 1941 (55 Stat. 1647). As you have been previously advised, the permission granted will not prevent the initiation of claims under the public-land laws, as this can only be prevented by a withdrawal of the lands.

Sincerely yours,

Secretary of the Interior.

Hon. Henry L. Stimson

Secretary of War.

O.C.S. 60152 Santa Maria Airfield, Calif.

Callahan
Real



THE SECRETARY OF THE INTERIOR RECEIVED
WASHINGTON WAR DEPARTMENT
SECRETARY'S OFFICE

SEP 24 1947
1947 SEP 25 AM 11:06

OST 680.4 Santa Maria Airfield, Calif. (9-24-47)

My dear Mr. Secretary:

Reference is made to the permission granted the War Department by our letter of March 31, 1944, to use the $W\frac{1}{2}NW\frac{1}{4}$ sec. 20, T. 31 S., R. 20 E., M. D. M., California, as part of an Air-to-ground Gunnery Range for the Santa Maria Army Airfield.

Pursuant to the information contained in the letter (602 Santa Maria Army Air Base, Soda Lake Air-to-ground Gunnery Range, California, ENGLT) of May 21, from Colonel Peter P. Goerz, Assistant Chief of Engineers for Real Estate, the permission of March 31, 1944, is hereby revoked.

Sincerely yours,

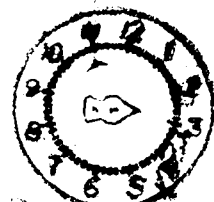
Osborn L. Chapman
Secretary of the Interior.

Under

Hon. Kenneth C. Royall,

Secretary of the Army.

SEP 26 1947



WAR DEPARTMENT
OFFICE OF THE
DEPT. SECRETARY

11/11/47

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX G

REAL ESTATE DOCUMENTS

APPENDIX G
REAL ESTATE DOCUMENTS

TABLE OF CONTENTS

- G-1 Document, Acquisition of Land - Air to Ground Gunnery Range (B-15).
- G-2 Realty Control File (B-16).
- G-3 Military Acquisition Report (B-17).

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS

File No. CE 601.53 SANTA MARIA ARMY AIR FIELD,
CALIF. - Soda Lake - SPELR.

Date 19 January 1944

Subject Acquisition of Land - Air to Ground Gunnery Range

From CHIEF, REAL ESTATE DIVISION

To (1) CONDEMNATION SECTION, ACQ. BR.
(2) LEASING BRANCH
(3) PURCHASE SECTION, ACQ. BRANCH.

1. Based on the request of the Commanding General, Army Air Forces, by 1st Indorsement dated 15 January 1944, and the approval of the Assistant Secretary of War for Air by 1st Indorsement dated 29 November 1943, a military necessity exists for the acquisition of land, described as follows:

a. BRIEF DESCRIPTION OF LAND: Certain tracts of land located in San Luis Obispo County, California, as shown on the attached Directive Map dated 17 November 1943, entitled "Real Estate Soda Lake, California Air to Ground Gunnery Range Military Reservation".

b. PROPOSED USE: Air to Ground Gunnery Range for Santa Maria Army Air Field.

c. ACREAGE INVOLVED: Approximately 9600 acres - 12 Tracts.

d. IMPROVEMENTS: None.

e. ESTIMATED COST: Annual Rental, \$2350.00.

f. ESTATE TO BE ACQUIRED: Leasehold interest in approximately 9440 acres privately owned land and temporary use of 160 acres Public Domain.

g. METHOD OF ACQUISITION: Negotiation or condemnation for possession of privately owned land and temporary use permit of Public Domain by request.

2. This site was cleared by the Interdepartmental Air Traffic Control Board at Meeting No. 395-A.

3. Funds for this acquisition are available from Public 108, 78th Congress, approved 1 July 1943.

4. Pursuant to authority contained in AR 100-61 paragraph 12, it is requested that necessary action be taken to acquire a leasehold interest in the 9440 acres of privately owned land, and to obtain a temporary use permit for the 160 acres of Public Domain.

Attached:

- RE-D 2818**
- 1 - Ltr. 11-26-43 w/1 Ind.
& Incls. 1 & 2
 - 2 - Ltr. 11-27-43 w/1 Ind.
 - 3 - Gross Appraisal
 - 4 - Directive Map.

Job
BRIEN.

W.H.
CAG

J.M.C.
JMC

J.M.C.
JMC

Forwarded to Condemnation Section, Acq. Br., 19 January, 1944.

rb

RCR
RCR
Hat

RE-D 2818

CLARK

G-1

REALTY CONTROL FILE SUMMARY
(Land Acquisitions and Disposals Subsequent to 1 July 1940)

RESERVATION NAME: **1980**
Soda Lake Air To Ground Gunnery Range, California

OFFICIALLY DESIGNATED BY:

LOCATION:
In San Luis Obispo County, 22 miles N. W. of Taft, California

TYPE:
Auxiliary to Hammer Field

LAND OWNERSHIP AND COST DATA

ACQUISITION ACTIONS

Exhibits "A"

DISPOSAL ACTIONS

Exhibits "B"

NET AREA LEASED ACREAGE NOT INCLUDED

SEE TRACT REGISTER AND MAP

160.00 acres, total area acquired
160.00 acres, **
0.00

GROSS COST

*

JURISDICTION

Exhibits "C"

RELOCATIONS

FINAL PROJECT MAP:

Exhibit "F"

MISCELLANEOUS PAPERS:

REMARKS:

- * Use Permit from Dept. of Interior dated 3-31-44.
- ** Retransferred to Dept. of Interior, dated 9-24-47, which had been relinquished to that Department on 5-21-47.

MILITARY ACQUISITION REPORT		DATE OF REPORT		REPORTS CONTROL			
		5 January 194		SYMBOL BNGLC-2 (R1)			
TO WAR DEPARTMENT, OFFICE OF THE CHIEF OF ENGINEERS, REAL ESTATE, REALTY REQUIREMENTS DIVISION, REALTY CONTROL BRANCH, WASHINGTON 25, D.C.		FROM (DIVISION) South Pacific					
PROJECT NAME Soda Lake Air to Ground Gunnery Range		DIRECTIVE DATE 19 Jan 1944		DIRECTIVE NUMBER RE-D 2818 (General)			
PURPOSE Auxiliary to Hemmer Field		COUNTY San Luis Obispo		STATE California			
FINAL REPORT	1980	CURRENT PERIOD			PROGRESS TO DATE		
		TRACTS	ACRES	DOLLARS	TRACTS	ACRES	DOLLARS
GENERAL							
1. TOTAL AUTHORIZED FOR ACQUISITION					12	9600	-
a. Fee					-	-	-
b. Easements & Lesser Interests					-	-	-
c. Public Lands					*1	160	
d. Leased to U.S.					**11	9440	
ACQUISITION OF FEE, EASEMENTS AND LESSER INT.							
2. TOTAL (Items 1a & 1b)							
3. TRACT OWNERSHIP DATA COMPLETED							
4. TRACT MAPS COMPLETED							
5. APPRAISALS APPROVED							
6. TITLE EVIDENCE ORDERED							
7. TITLE EVIDENCE RECEIVED							
PURCHASE (Including Donations)							
8. OPTIONS OBTAINED							
9. OPTIONS ACCEPTED							
10. TITLE EVIDENCE SUBMITTED							
11. PRELIMINARY TITLE APPROVED							
12. PAYMENTS AND CLOSINGS COMPLETED							
13. FINAL TITLE PAPERS SUBMITTED							
CONDEMNATION (Including Declarations of Taking)							
14. ASSEMBLIES SUBMITTED							
15. CONDEMNATION PETITION FILED							
16. ORDER OF POSSESSION ENTERED							
17. TITLE EVIDENCE TO U.S. ATTORNEY							
18. DECLARATION OF TAKING FILED							
19. STIPULATIONS AND AWARDS APPROVED							
20. AWARDS AND DEFICIENCIES DEPOSITED							
21. PARTIAL DISBURSEMENTS							
22. FINAL DISBURSEMENTS							
PROJECT MANAGER (Name) <i>John M. Keller</i> JOHN M. KELLER Chief, Real Estate Division		OFFICE ADDRESS South Pacific Division Oakland Army Base Oakland 14, California					

(SEE INSTRUCTIONS ON REVERSE SIDE)

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX H
NEWSPAPERS/JOURNALS

NOT USED

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX I

INTERVIEWS

APPENDIX I

INTERVIEWS

Table of Contents

I-1 Conversation record with Johna Cochrane.

CONVERSATION RECORD	TIME 10:00	DATE 17 April 1996
----------------------------	----------------------	------------------------------

TYPE		
<input checked="" type="checkbox"/> VISIT	<input type="checkbox"/> CONFERENCE	<input type="checkbox"/> TELEPHONE
		<input type="checkbox"/> INCOMING
		<input type="checkbox"/> OUTGOING

NAME OF PERSON CONTACT WITH Johna Cochran Taft, California	ORGANIZATION BLM	TELEPHONE NO. (805) 391-6093
---	----------------------------	--

SUBJECT Former Soda Lake Air to Ground Gunnery Range

SUMMARY Ms. Cochran has worked for BLM and in the Soda Lake area for several years as a ranger and is very familiar with the area.

She had no information about the site and knew of no incidents of anybody finding any OE.

She did recall as a child her father showing her what she described as a small bomb about a foot long with four fins. (probably a Mk23). She did not know where the round was found, but, she knew it was in the general area of the old Soda Lake Range.

ACTION REQUIRED
None

ACTION TAKEN
None

NAME OF PERSON DOCUMENTING CONVERSATION Jodi L. Bausman	ORGANIZATION CENCR-ED-DO	TELEPHONE NUMBER 309-794-6157
SIGNATURE <i>Jodi L. Bausman</i>	TITLE Engr Tech.	DATE 17 April 96

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX J

PRESENT SITE PHOTOGRAPHS

APPENDIX J

PRESENT SITE PHOTOGRAPHS

Table of Contents

- J-1** Looking SE from Soda Lake Overlook across Soda Lake at the area of the general location of the former gunnery range
- J-2** Looking E in the general direction of the former dive bombing range
- J-3** Looking S at White Soda Lake across the general area that made up the dive bombing range
- J-4** A fin assembly and spotting charge assembly from an M38A2 100-LB practice bomb
- J-5** Looking at remains of the target butts on the air to ground target range
- J-6** A 20mm target practice (TP) projectiles and caliber .50 bullet found on the air to ground target range
- J-7** A 20mm target practice (TP) projectiles found on the air to ground target range
- J-8** Two caliber .50 bullet found on the air to ground target range
- J-9** 20mm and caliber .50 cartridge cases and links found on the air to ground target range
- J-10** 20mm and caliber .50 links found on the strafing and skip bombing target range
- J-11** 20mm and caliber .50 cartridge cases found on the strafing and skip bombing target range
- J-12** Remains of one of the dummy tank targets on the strafing and skip bombing target range
- J-13** Remains of another dummy tank target with caliber .50 bullet found on the strafing and skip bombing target range
- J-14** Caliber .50 bullet and pieces from Mk23 3-LB practice bombs found on the strafing and skip bombing target range

Table of Contents (cont)

J-15 Tail fin and spotting charge assemble from M38 100-LB practice bombs found on the strafing and skip bombing target range

J-16 Body parts from M38 100-LB practice bombs found on the strafing and skip bombing target range

J-17 Body parts and tail fin from M38 100-LB practice bombs found on the strafing and skip bombing target range

J-18 Mk23 3-LB practice bomb found on the strafing and skip bombing target range



J-1 Looking SE from Soda Lake Overlook across Soda Lake at the area of the general location of the former gunnery range



J-2 Looking E in the general direction of the former dive bombing range



J-3 Looking S at White Soda Lake across the general area that made up the dive bombing range



J-4 A fin assembly and spotting charge assembly from an M38A2 100-LB practice bomb



J-5 Looking at remains of the target butts on the air to ground target range



J-6 A 20mm target practice (TP) projectile and caliber .50 bullet found on the air to ground target range



J-7 A 20mm target practice (TP) projectile found on the air to ground target range



J-8 Two caliber .50 bullet found on the air to ground target range



J-9 20mm and caliber .50 cartridge cases and links found on the air to ground target range



J-10 20mm and caliber .50 links found on the strafing and skip bombing target range



J-11 20mm and caliber .50 cartridge cases found on the strafing and skip bombing target range



J-12 Remains of one of the dummy tank targets on the strafing and skip bombing target range



J-13 Remains of another dummy tank target with caliber .50 bullet found on the strafing and skip bombing target range



J-14 Caliber .50 bullet and pieces from Mk23 3-LB practice bombs found on the strafing and skip bombing target range



J-15 Tail fin and spotting charge assemble from M38 100-LB practice bombs found on the strafing and skip bombing target range



J-16 Body parts from M38 100-LB practice bombs found on the strafing and skip bombing target range



J-17 Body parts and tail fin from M38 100-LB practice bombs found on the strafing and skip bombing target range



J-18 Mk23 3-LB practice bomb found on the strafing
and skip bombing target range

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX K
HISTORICAL PHOTOGRAPHS

APPENDIX K

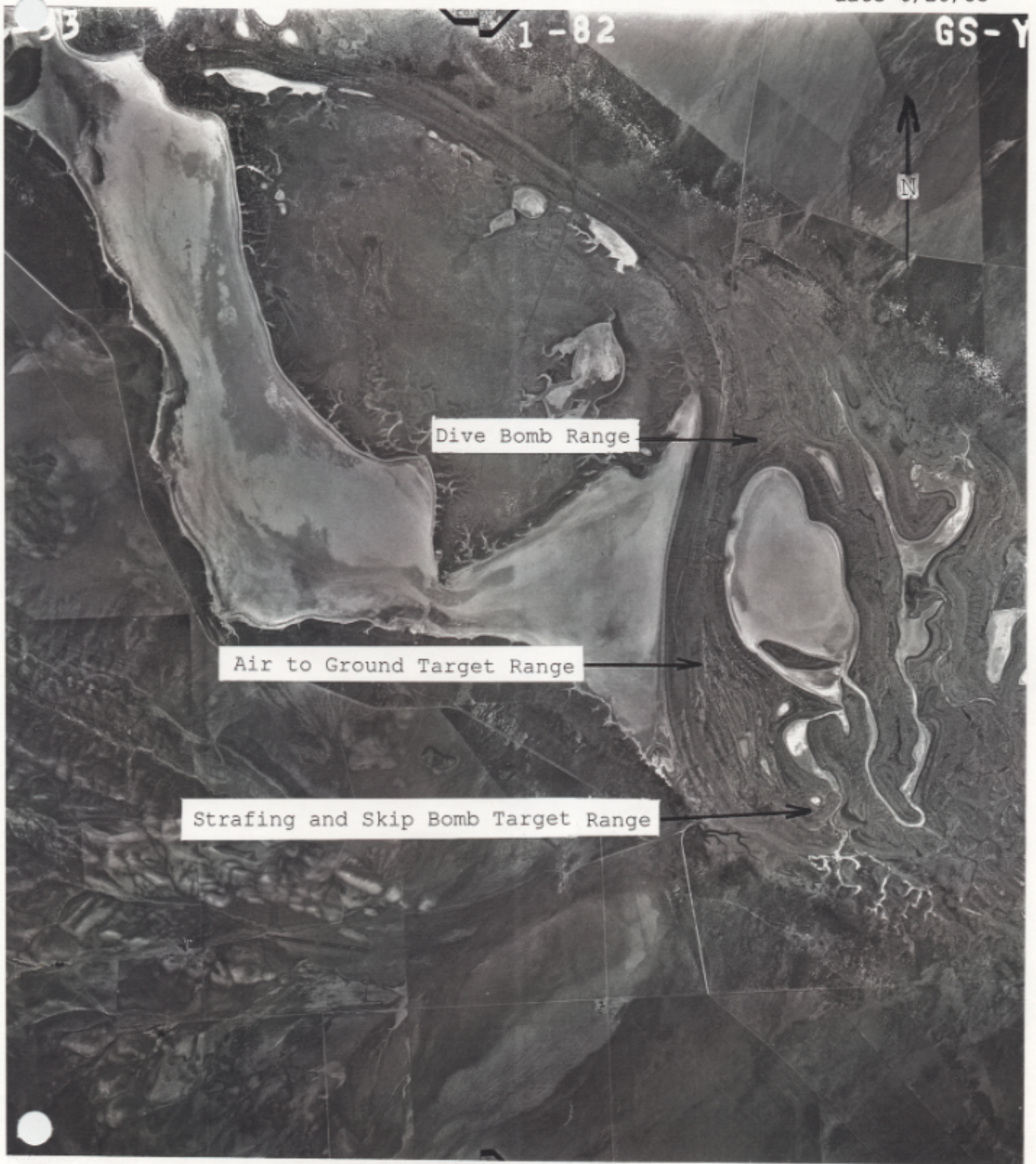
HISTORICAL PHOTOGRAPHS

Table of Contents

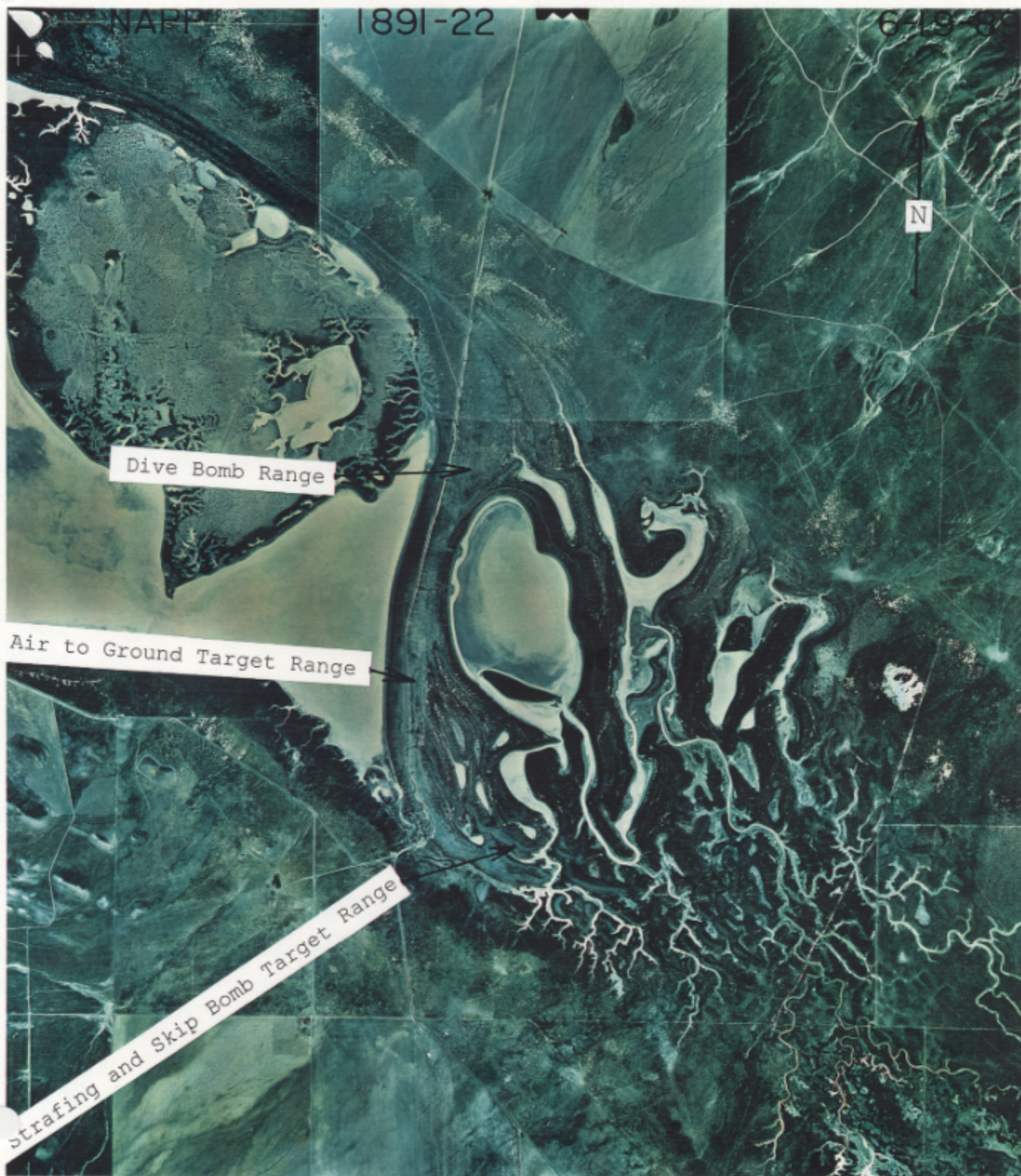
K-1 Aerial Photo dated 1953

K-2 Aerial Photo dated 1989

Aerial photo of range area, Former
Soda Lake Air to Ground Gunnery Range,
date 6/28/53



Aerial photo of range area, Former
Soda Lake Air to Ground Gunnery Range,
date 6/19/89



ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX L
REFERENCE MAPS/DRAWINGS

APPENDIX L

REFERENCE MAPS/DRAWINGS

Table of Contents

L-1 Drawing, Real Estate Soda Lake Air to Ground Gunnery Range
(Auxiliary to Hammer Field) (B-18).

ACQUISITION TRACT REGISTER				
TRACT NO.	LAND OWNER	ACREAGE		REMARKS
		LEASE	TRANS.	
1	CHURCHILL E. BLAKEY et al.	5840.00		W-04-193-eng-4528
2	ALEXANDER PROPERTIES COMPANY	640.00		W-04-193-eng-3205
3	CHURCHILL E. BLAKEY et al.	320.00		W-04-193-eng-4528
4	DEPARTMENT OF INTERIOR		160.00	Use Permit Dated 31st March 1944
5	L. F. SHINSHEIMER et al.	320.00		W-04-193-eng-3294
6	GEORGE HEARNS SCOTT et al.	320.00		U. S. versus 9440 Acres, County of San Luis Obispo et al.
7	SAMUEL G. BUCKBEE	120.00		W-04-193-eng-3204
8	CHARLES A. SANKEY et al.	80.00		W-04-193-eng-3293
9	ESTATE OF F. L. GATTON (Deceased) et al.	40.00		W-04-193-eng-3554
10	VISHNU OIL COMPANY AND ALEXANDER GALAINENA ET AL.	560.00		W-04-193-eng-3311
11	RUTH CRAWFORD WITCHELL	320.00		W-04-193-eng-3483
12	KERN COUNTY LAND COMPANY	880.00		W-04-193-eng-3292

W Vishnu Oil Company as Owner and Alexander Galainena et al as Lessee, Executed Joint Lease.



VICINITY MAP
SCALE IN MILES

TYPE: FINAL

PROJECT OWNERSHIP MAP

STATE: CALIFORNIA

COUNTY: SAN LOUIS OBISPO

DIVISION: SOUTH PACIFIC

DISTRICT: LOS ANGELES

6th ARMY AREA

LOCATION OF PROJECT

22 MILES N-W OF TAFT

MILES OF _____

TRANSPORTATION FACILITIES

RAILROADS _____

STATE ROADS 58 & 178

FEDERAL ROADS 57 & 155

AIRLINES _____

ACQUISITION

TOTAL ACRES ACQUIRED 9,600

ACRES FEE _____

ACRES TRANSFER TO WAR DEPT. 160

ACRES LEASED TO WAR DEPT. 9,440

ACRES LESSER INTERESTS _____

DISPOSAL

TOTAL ACRES DISPOSED OF 9,600

ACRES SOLD BY WAR DEPT. _____

ACRES TRANSFERRED BY WAR DEPT. _____

ACRES RETransferred TO GOVT. AGCY. 160

ACRES LEASES TERMINATED 9,440

ACRES LESSER INT'S TERM. _____

LEGEND

NOTE: USE SYMBOLS FROM FM-21-30 (WAR DEPT. BASIC FIELD MANUAL) PAGES 21 TO 37 INCL. EXCEPT

RESERVATION LINE _____

RESERVATION LINE (Actual Survey) _____

DAM SITS (Taking Line) _____

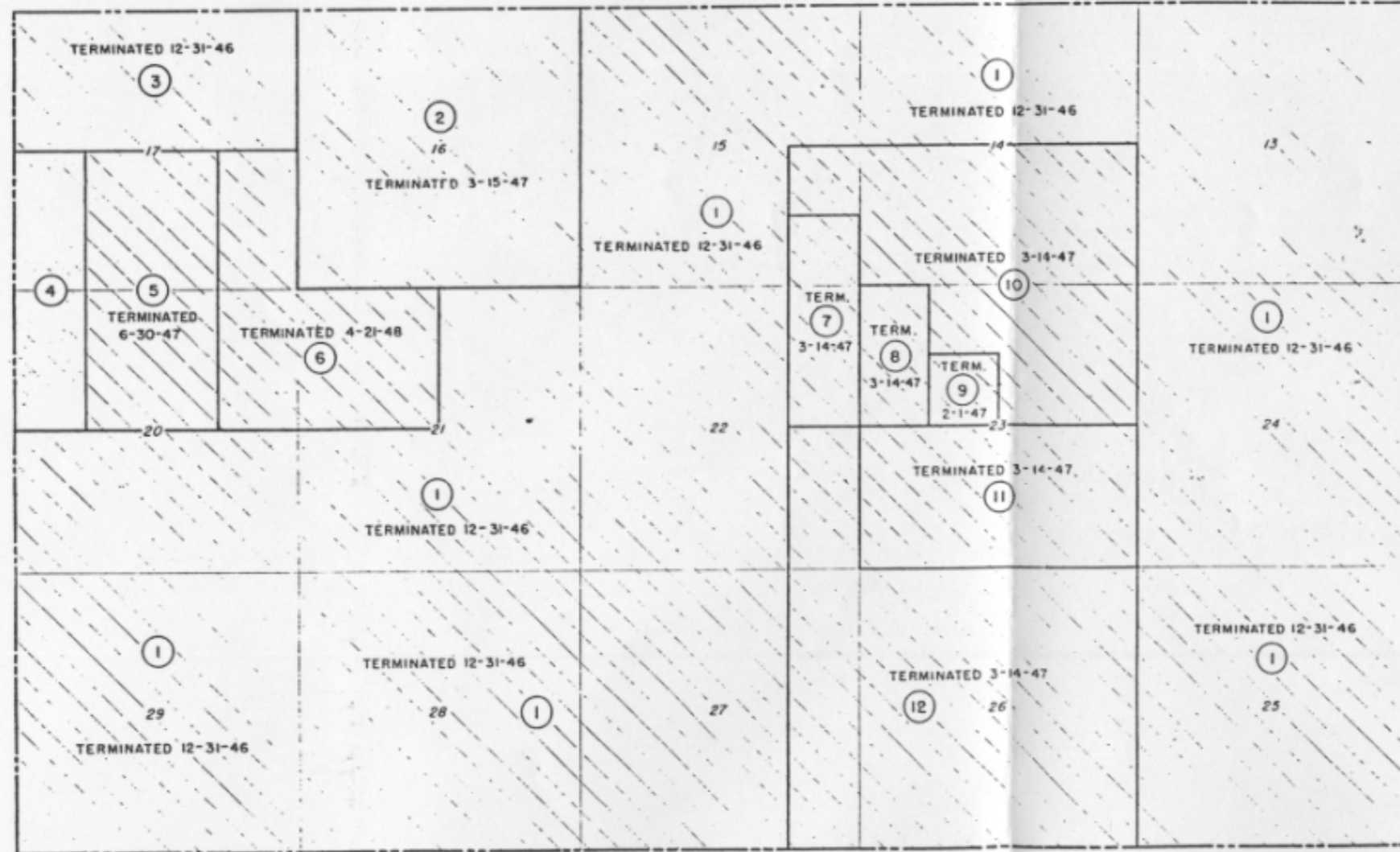
RESERVOIR SITE (Taking Line) _____

CONTOUR LINES _____

AVIGATION EASEMENTS _____

TRACT NUMBER 99

T. 31 S. R. 20 E. M. D. B. & M.



ACQUISITION AUTHORIZATION
RE-C-2818 (Gen) Dated 19th Jan. 1944.

REVISIONS	DATE	BY
1	8-48	DUE TO FINAL AUDIT
2	7-48	ENG. NO. ADDED
3	23-48	RETURNED DATA ADDED

WAR DEPARTMENT
OFFICE OF THE DIVISION ENGINEER
SOUTH PACIFIC DIVISION

REAL ESTATE
SODA LAKE
AIR TO GROUND GUNNERY RANGE
(AUXILIARY TO HAMMER FIELD)

DRAWN BY: J. D. S.
CHECKED BY: [Signature]
SUBMITTED BY: [Signature]
RECOMMENDED BY: [Signature]

APPROVED: [Signature]
DATE: 1-12-48

CHIEF, STATISTICAL BRANCH, DIVISION OF REAL ESTATE OFFICER
CHIEF, CHIEF OF ENGINEERS, WASHINGTON, D. C.

SCALE IN MILES

AUDITED 1980

SHEET OF DRAWING NO. 532-PP-1

USE PERMIT FOR 160 ACRES RETRANSFERRED TO THE DEPARTMENT OF INTERIOR ON 24 SEP. 1947
USE PERMIT FOR 160 ACRES RELINQUISHED TO THE DEPARTMENT OF INTERIOR ON 21 MAY 1947

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX M

ARCHIVES SEARCH REPORT CORRESPONDENCE

(NOT USED)

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
SODA LAKE AIR TO GROUND GUNNERY RANGE
TAFT, CALIFORNIA
PROJECT NUMBER: J09CA063201

APPENDIX N
DISTRIBUTION

APPENDIX N
DISTRIBUTION

Table of Contents

REPORT DISTRIBUTION LIST

	I	II	III
COMMANDER, U.S. Army Corps of Engineers Engineering and Support Center, Huntsville ATTN: CEHNC-OE-AI (MARDIS) P.O. BOX 1600 HUNTSVILLE, AL 35807-4301	2		
COMMANDER, U.S. ARMY CORPS OF ENGINEERS NORTH CENTRAL DIVISION ATTN: CENCD-PP-PM (WARDA) 111 N. CANAL STREET, 12TH FLOOR CHICAGO, IL 60606-7206	1		
COMMANDER, U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT ATTN: CESPL-ED-MI (Boghossian) P.O. Box 2711 Los Angeles, California 90053-2325	2		
COMMANDER, U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL ATTN: SIOAC-ESL SAVANNA, IL 61074-9639	3		
COMMANDER, U.S. ARMY HEALTH CLINIC ATTN: MCXP-RIA (PLATT) ROCK ISLAND ARSENAL ROCK ISLAND, IL 61201	1		

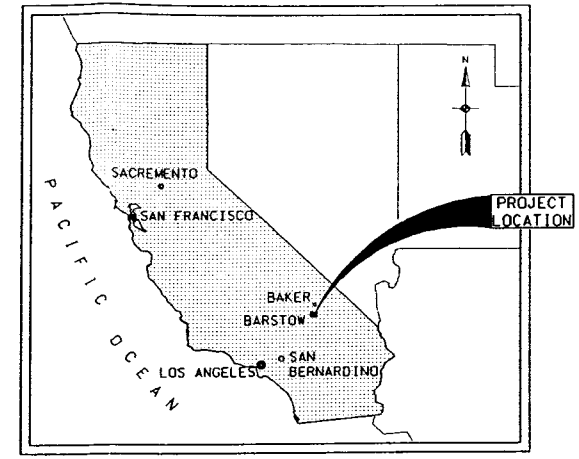
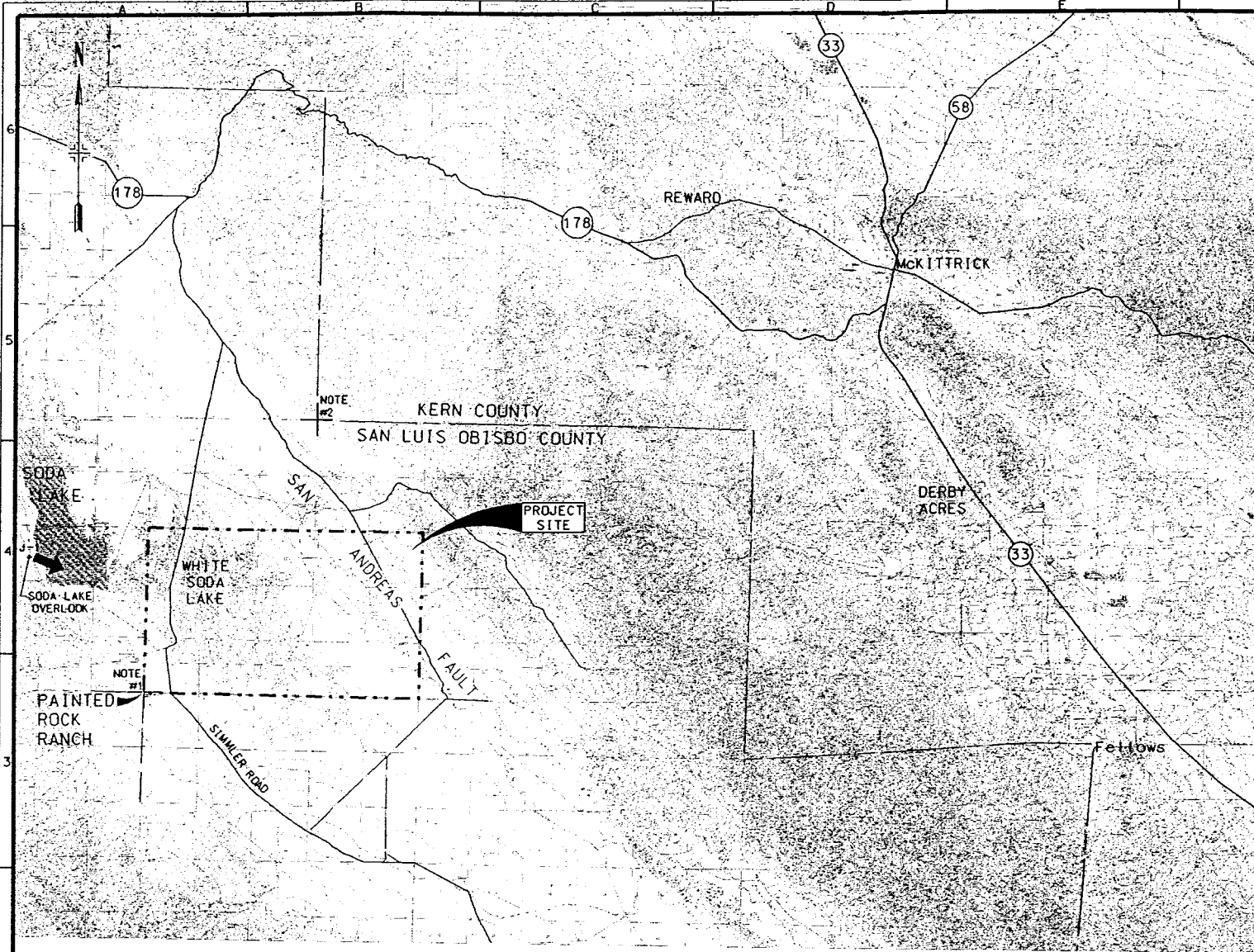
REPORT DISTRIBUTION LIST CONTINUED

	I	II	III
COMMANDER U.S. ARMY CORPS OF ENGINEERS			
ROCK ISLAND DISTRICT			
P.O. BOX 1600			
ROCK ISLAND, IL 61201			
ATTN: CENCR-			
ED			1
ED-D			1
ED-DO	3		
ED-G			1
ED-H			1
SO			1
RE			1
PD			1

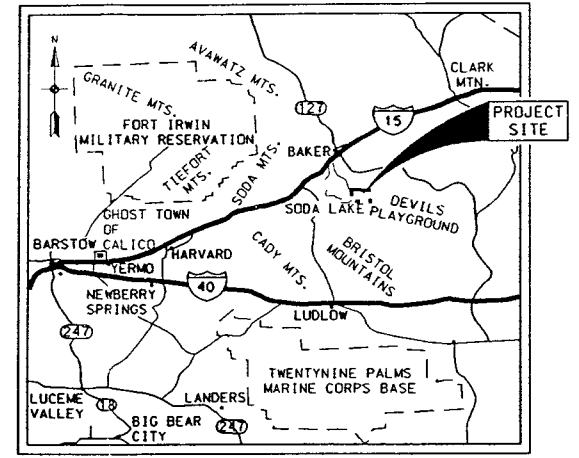
I = FINAL REPORT
II = FINDINGS REPORT
III = ROUTED FINAL REPORT

ORDNANCE AND EXPLOSIVE
ARCHIVE SEARCH REPORT
FOR
FORMER SODA LAKE AIR TO
GROUND GUNNERY RANGE,
TAFT, CALIFORNIA
PROJECT NUMBER J09CA063201

PLATES



STATE OF CALIFORNIA



VICINITY MAP

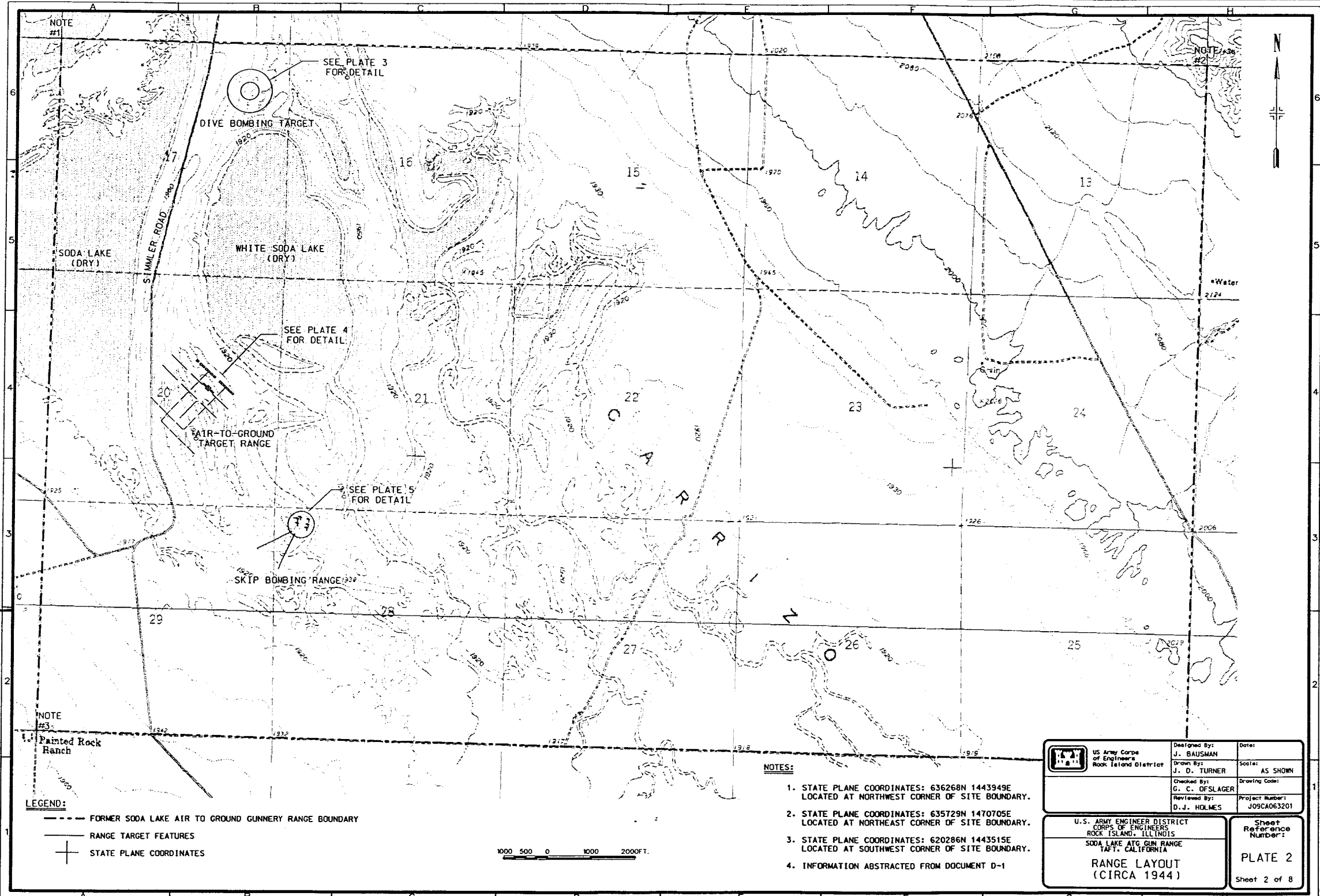
- LEGEND:**
- FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY
 - COUNTY BOUNDARY
 - IMPROVED TRAILS
 - - - UNIMPROVED TRAILS
 - ⬡ INTERSTATE HIGHWAYS
 - STATE HIGHWAYS
 - + STATE PLANE COORDINATES
 - ← PHOTO LOCATION

- NOTES:**
1. STATE PLANE COORDINATES: 620286N 1443515E
LOCATED AT INTERSECTION NORTHEAST OF
PAINTED ROCK RANCH.
 2. STATE PLANE COORDINATES: 646641N 1460143E
LOCATED ON CORNER OF SAN LUIS OBISPO
COUNTY BOUNDARY, DUE NORTH OF PROJECT SITE

	US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
		Drawn By: J. D. TURNER	Scale: AS SHOWN
		Checked By: G. C. D'SLAGER	Drawing Code:
		Reviewed By: D. J. HOLMES	Project Number: J09CA063201

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA	Sheet Reference Number: PLATE 1 Sheet 1 of 8
---	---

SITE MAP



NOTE #1

NOTE #2

NOTE #3

SEE PLATE 3 FOR DETAIL

SEE PLATE 4 FOR DETAIL

SEE PLATE 5 FOR DETAIL

NOTES:

1. STATE PLANE COORDINATES: 636268N 1443949E
LOCATED AT NORTHWEST CORNER OF SITE BOUNDARY.
2. STATE PLANE COORDINATES: 635729N 1470705E
LOCATED AT NORTHEAST CORNER OF SITE BOUNDARY.
3. STATE PLANE COORDINATES: 620286N 1443515E
LOCATED AT SOUTHWEST CORNER OF SITE BOUNDARY.
4. INFORMATION ABSTRACTED FROM DOCUMENT D-1

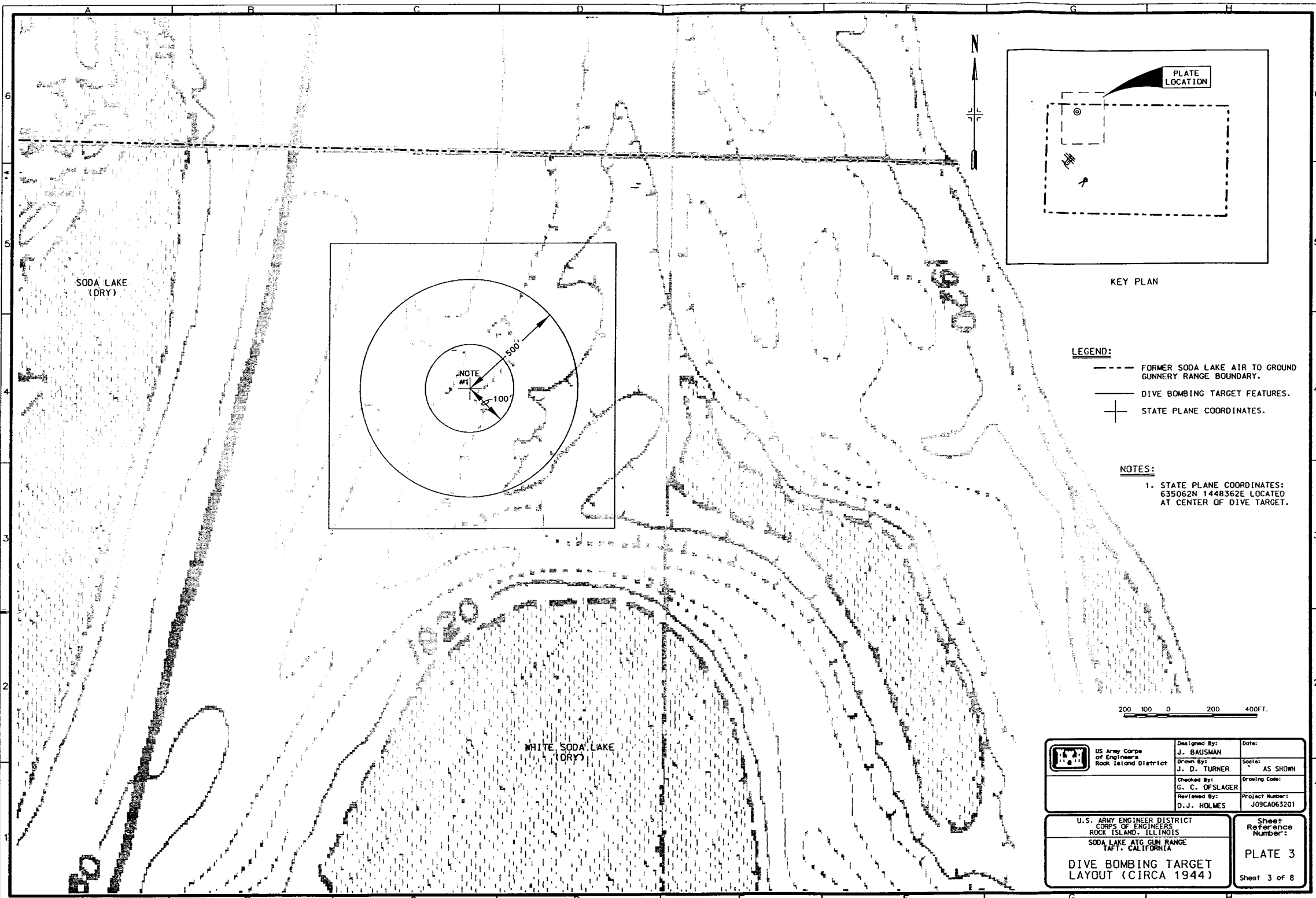
LEGEND:

- FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY
- RANGE TARGET FEATURES
- + STATE PLANE COORDINATES

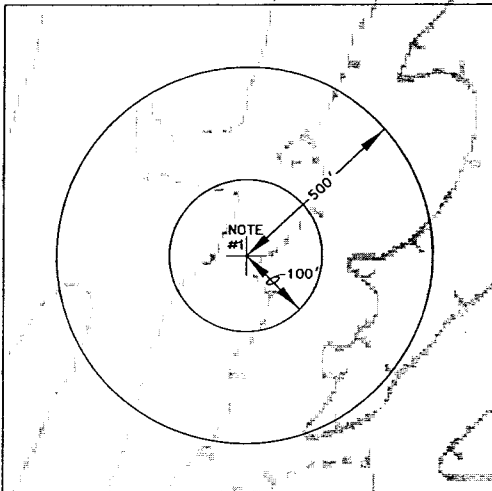


	US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
		Drawn By: J. D. TURNER	Scale: AS SHOWN
		Checked By: G. C. DEFLAGER	Drawing Code:
		Reviewed By: D.J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA			Sheet Reference Number: PLATE 2 Sheet 2 of 8

24-AUG-1984 0815
 60 PROJECT/REG/17/REP/1703.DGN



SODA LAKE
(DRY)



KEY PLAN


LEGEND:

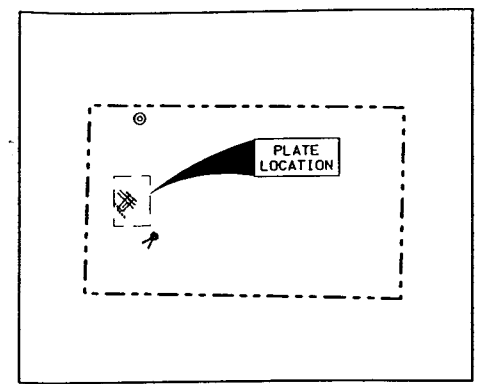
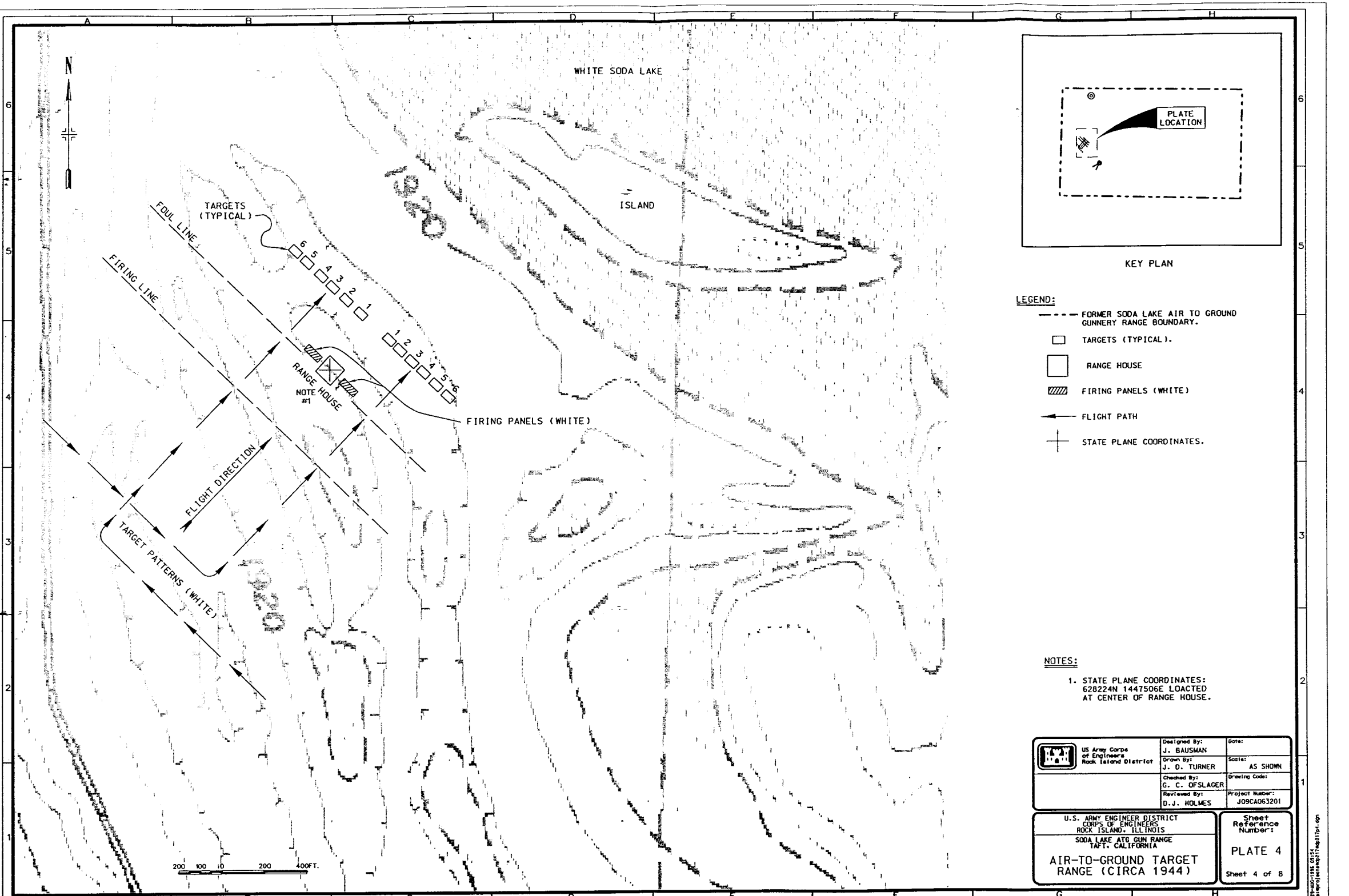
- FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY.
- DIVE BOMBING TARGET FEATURES.
- + STATE PLANE COORDINATES.

NOTES:

1. STATE PLANE COORDINATES: 635062N 1448362E LOCATED AT CENTER OF DIVE TARGET.



 US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
	Drawn By: J. D. TURNER	Scale: AS SHOWN
	Checked By: G. C. OFSLAGER	Drawing Code:
	Reviewed By: D. J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA		Sheet Reference Number: PLATE 3 Sheet 3 of 8



KEY PLAN

LEGEND:

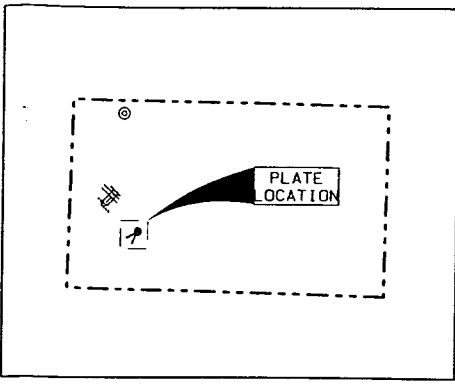
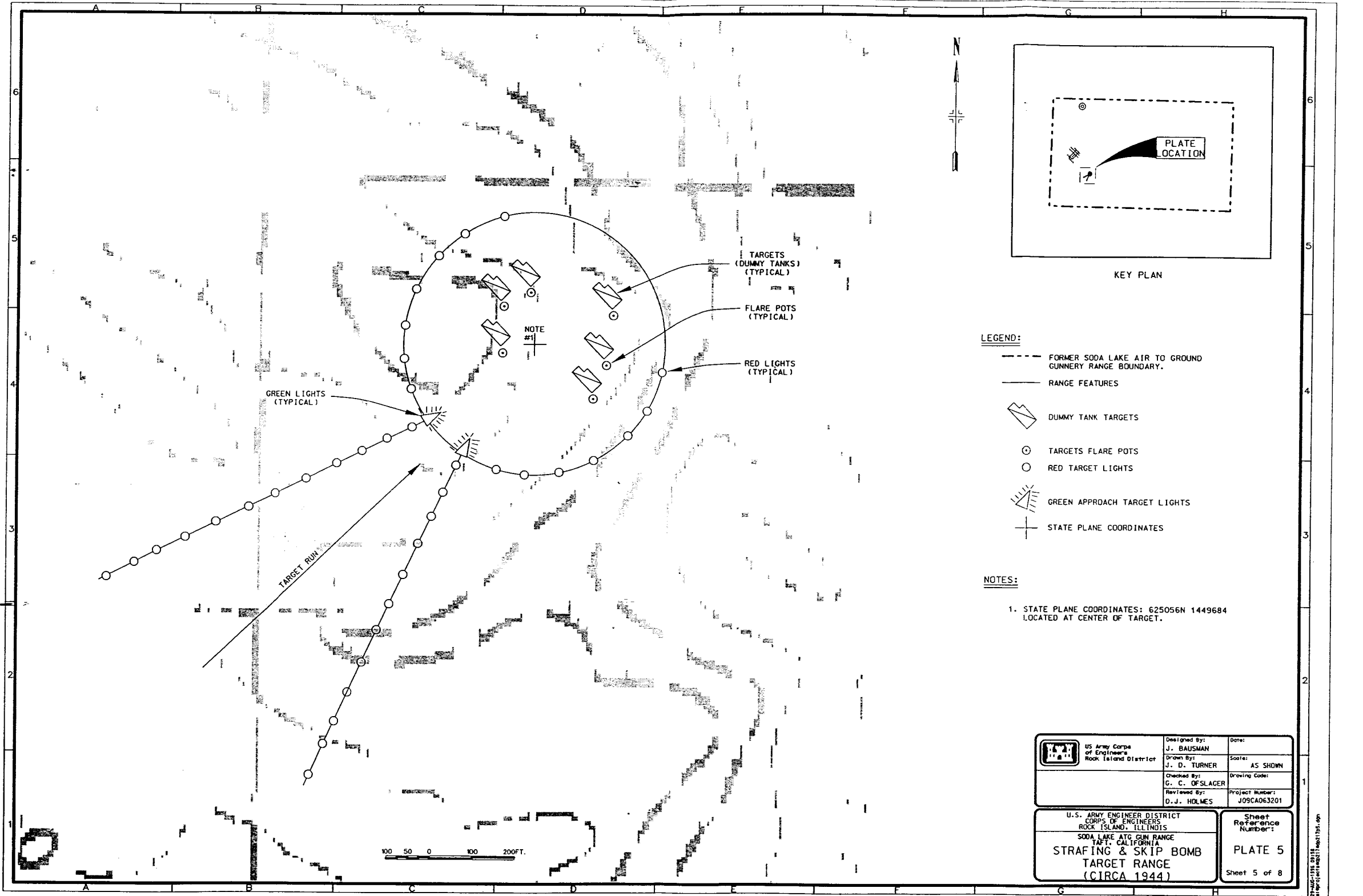
- FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY.
- TARGETS (TYPICAL).
- RANGE HOUSE
- ▨ FIRING PANELS (WHITE)
- ← FLIGHT PATH
- + STATE PLANE COORDINATES.

NOTES:

1. STATE PLANE COORDINATES:
628224N 1447506E LOCATED
AT CENTER OF RANGE HOUSE.

	US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
		Drawn By: J. D. TURNER	Scale: AS SHOWN
		Checked By: G. C. OFSLAGER	Drawing Code:
		Reviewed By: D. J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA		Sheet Reference Number: PLATE 4 Sheet 4 of 8	

22-MAR-1986 0915
 24 APR 1981 142017 1421751-50



KEY PLAN

LEGEND:

- FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY.
- RANGE FEATURES
- DUMMY TANK TARGETS
- TARGETS FLARE POTS
- RED TARGET LIGHTS
- GREEN APPROACH TARGET LIGHTS
- STATE PLANE COORDINATES

NOTES:

1. STATE PLANE COORDINATES: 625056N 1449684 LOCATED AT CENTER OF TARGET.

NOTE #1

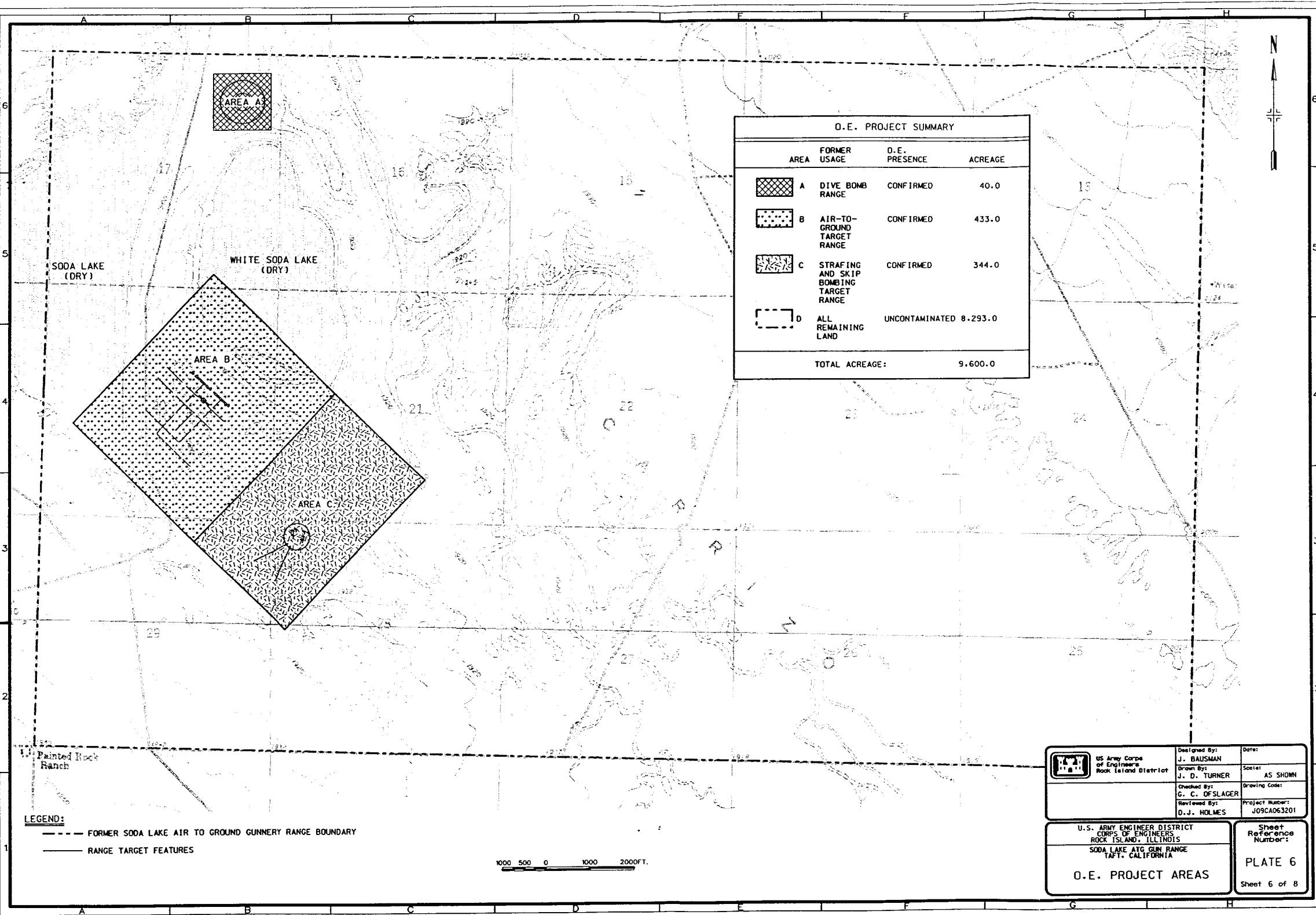






	US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
		Drawn By: J. D. TURNER	Scale: AS SHOWN
		Checked By: G. C. OFSLAGER	Drawing Code:
		Reviewed By: D. J. HOLMES	Project Number: J09CA063201

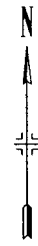
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS
SODA LAKE ATG GUN RANGE
LAFT, CALIFORNIA
**STRAFING & SKIP BOMB
TARGET RANGE
(CIRCA 1944)**

Sheet
Reference
Number:
PLATE 5
Sheet 5 of 8

11/15/11 11:11 AM




D.E. PROJECT SUMMARY			
AREA	FORMER USAGE	D.E. PRESENCE	ACREAGE
 A	DIVE BOMB RANGE	CONFIRMED	40.0
 B	AIR-TO-GROUND TARGET RANGE	CONFIRMED	433.0
 C	STRAFING AND SKIP BOMBING TARGET RANGE	CONFIRMED	344.0
 D	ALL REMAINING LAND	UNCONTAMINATED	8,293.0
TOTAL ACREAGE:			9,600.0

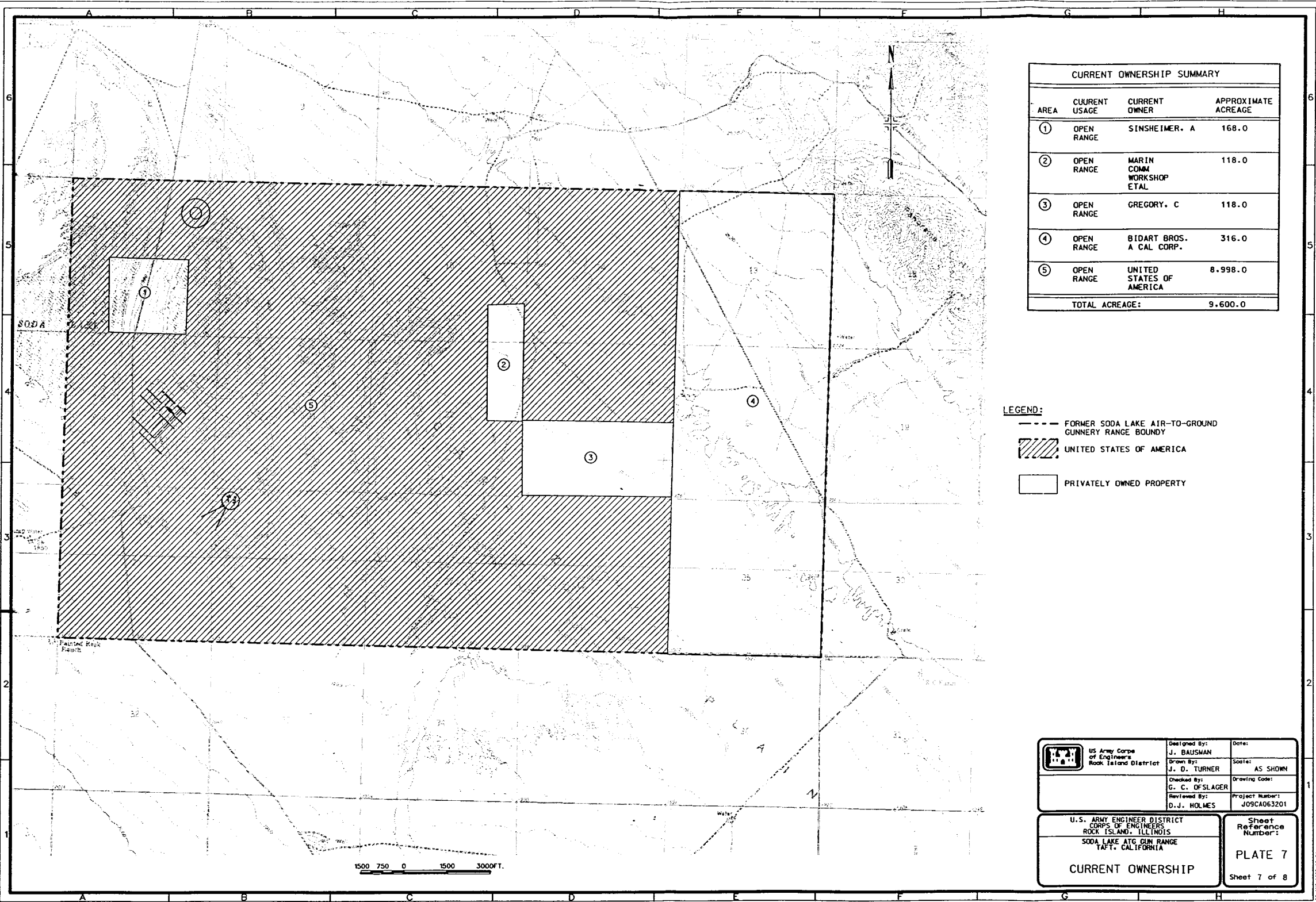


LEGEND:
 - - - FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY
 ——— RANGE TARGET FEATURES

1000 500 0 1000 2000FT.

	US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
		Drawn By: J. D. TURNER	Scale: AS SHOWN
		Checked By: G. C. OFSLAGER	Drawing Code:
		Reviewed By: D. J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA		Sheet Reference Number: PLATE 6 Sheet 6 of 8	

USACE/1111 10/01 21 000111110211 1001111114.dwg



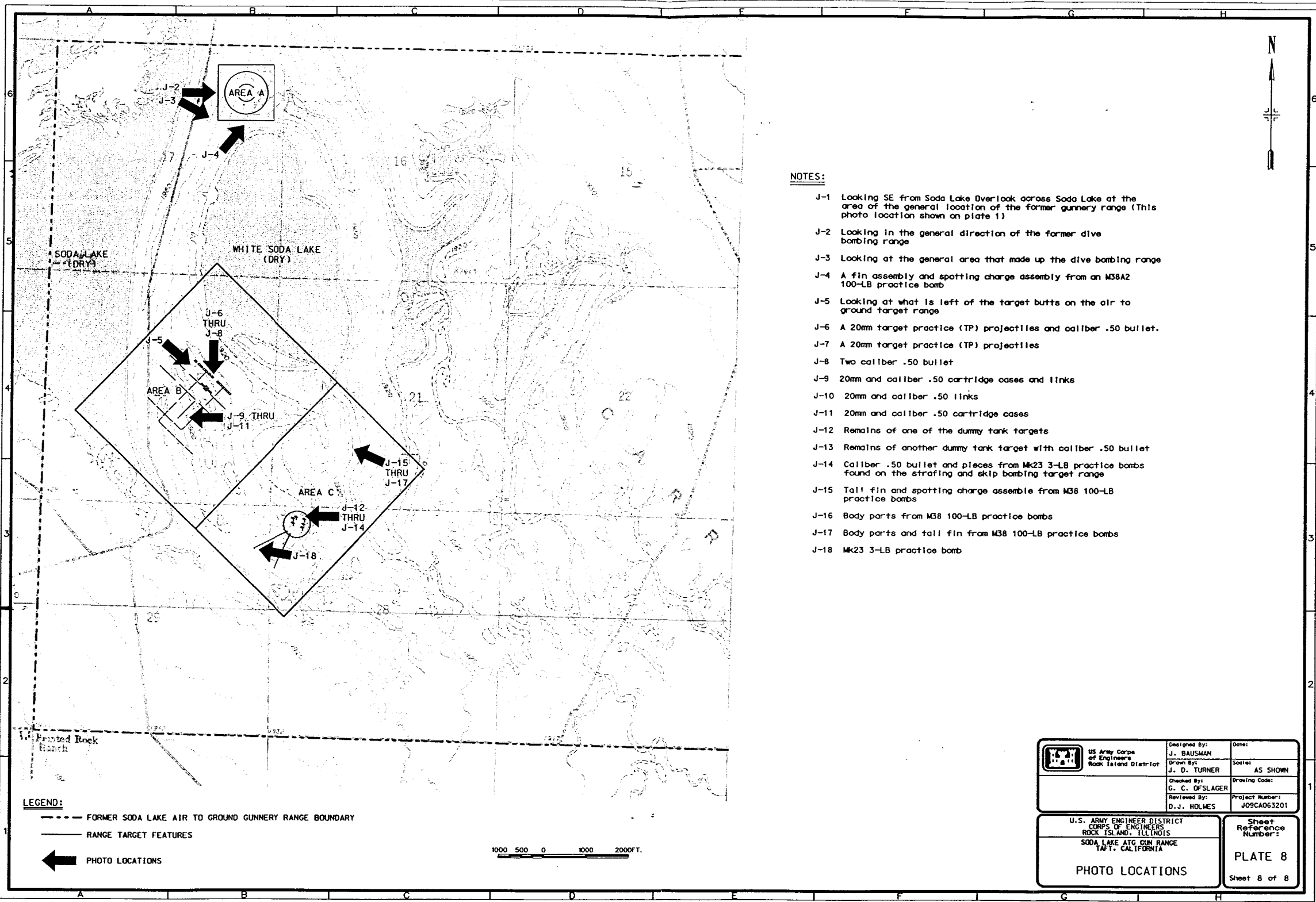
CURRENT OWNERSHIP SUMMARY			
AREA	CURRENT USAGE	CURRENT OWNER	APPROXIMATE ACREAGE
①	OPEN RANGE	SINSHEIMER, A	168.0
②	OPEN RANGE	MARIN COMM WORKSHOP ETAL	118.0
③	OPEN RANGE	GREGORY, C	118.0
④	OPEN RANGE	BIDART BROS. A CAL CORP.	316.0
⑤	OPEN RANGE	UNITED STATES OF AMERICA	8,998.0
TOTAL ACREAGE:			9,600.0

- LEGEND:**
- FORMER SODA LAKE AIR-TO-GROUND GUNNERY RANGE BOUNDARY
 - UNITED STATES OF AMERICA
 - PRIVATELY OWNED PROPERTY

US Army Corps of Engineers Rock Island District	Designed By: J. BAUSMAN	Date:
	Drawn By: J. D. TURNER	Scale: AS SHOWN
	Checked By: G. C. OFSLAGER	Drawing Code:
	Reviewed By: D. J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA		Sheet Reference Number: PLATE 7 Sheet 7 of 8

1500 750 0 1500 3000FT.

24-AUG-1984 10:04 4149/01/act/eng/11/sep/11/91.dgn



NOTES:

- J-1 Looking SE from Soda Lake Overlook across Soda Lake at the area of the general location of the former gunnery range (This photo location shown on plate 1)
- J-2 Looking in the general direction of the former dive bombing range
- J-3 Looking at the general area that made up the dive bombing range
- J-4 A fin assembly and spotting charge assembly from an M38A2 100-LB practice bomb
- J-5 Looking at what is left of the target butts on the air to ground target range
- J-6 A 20mm target practice (TP) projectiles and caliber .50 bullet.
- J-7 A 20mm target practice (TP) projectiles
- J-8 Two caliber .50 bullet
- J-9 20mm and caliber .50 cartridge cases and links
- J-10 20mm and caliber .50 links
- J-11 20mm and caliber .50 cartridge cases
- J-12 Remains of one of the dummy tank targets
- J-13 Remains of another dummy tank target with caliber .50 bullet
- J-14 Caliber .50 bullet and pieces from Mk23 3-LB practice bombs found on the strafing and skip bombing target range
- J-15 Tail fin and spotting charge assemble from M38 100-LB practice bombs
- J-16 Body parts from M38 100-LB practice bombs
- J-17 Body parts and tail fin from M38 100-LB practice bombs
- J-18 Mk23 3-LB practice bomb

LEGEND:
 - - - - - FORMER SODA LAKE AIR TO GROUND GUNNERY RANGE BOUNDARY
 ——— RANGE TARGET FEATURES
 ← PHOTO LOCATIONS



	Designed By: J. BAUSMAN	Date:
	Drawn By: J. D. TURNER	Scale: AS SHOWN
	Checked By: G. C. OFSLAGER	Drawing Code:
	Reviewed By: D.J. HOLMES	Project Number: J09CA063201
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS SODA LAKE ATG GUN RANGE TAFT, CALIFORNIA		Sheet Reference Number: PLATE 8 Sheet 8 of 8
PHOTO LOCATIONS		

24-480-108 10/18
 24-480-108 10/18