



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

Archives Search Report Findings

for the former

Victorville Precision Demolition Bombing Range "Z"

San Bernardino County, California Project Number J09CA731301 October 2001



DEFENSE ENVIRONMENTAL RESTORATION PROGRAM for FORMERLY USED DEFENSE SITES

FINDINGS

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR

FORMER VICTORVILLE PRECISION
BOMBING RANGE Z
VICTORVILLE, CALIFORNIA
PROJECT NUMBER J09CA731301

OCTOBER 2001

Prepared For

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

Prepared By

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

and

Defense Ammunition Center ATTN: SMAAC-ESL 1C Tree Road, Building 35 McAlester, OK 74501

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT

FOR

FORMER VICTORVILLE PRECISION BOMBING RANGE Z VICTORVILLE, CALIFORNIA PROJECT NUMBER J09CA731301

ACKNOWLEDGMENTS The following persons provided support as indicated.				
Function	Name/Title	Organization	Telephone	
On-Site Assessment	Jodi L. Bausman Ammunition Spec	CEMVR-ED-DO	(309) 782-7082	
	John Wilkins UXO Specialist	CEMVR-ED-DO	(309) 783-1486	
Engineering Support	Robert Hoffman Environmental Engineer	CEMVR-ED-DO	(309) 782-1492	
Historical Research	Jim Reynolds QASAS	CEMVR-ED-DO	(309) 783-1479	
Geographic District	Debra Castens Project Engineer	CESPL-ED-MI	(213) 894-3760	
Industrial Hygiene Support	Robert Platt Hygienist	MCXP-RIA	(309) 782-0807	
CADD Technician *Team Leader	LaShell Tillman	CEMVR-ED-DO	(309) 782-1483	

ORDNANCE AND EXPLOSIVE WASTE ARCHIVES SEARCH REPORT FOR

FORMER VICTORVILLE PRECISION
BOMBING RANGE Z
VICTORVILLE, CALIFORNIA
PROJECT NUMBER J09CA731301

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ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR

FORMER VICTORVILLE PRECISION
BOMBING RANGE Z
SAN BERNARDINO COUNTY, CA
PROJECT NUMBER J09CA731301

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 Victorville Precision Bombing Range Z San Bernardino County, 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) This investigation focused on approximately 4,212.0 acres of land that were used by the War Department. The site was used as a precision bombing range from 1942 to 1945.
- (3) The purpose of this investigation was to characterize the site for potential OE presence, to include conventional ammunition and chemical warfare materiel (CWM). This investigation was conducted by experienced ordnance experts thorough evaluation of historical records, interviews and an onsite 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 OE presence where ordnance presence has not been confirmed.
- (2) For the purpose of this report, OE presence 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 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 presence. OE further includes "explosive soil" which refers to any mixture in soil, sand, clay, 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. 1999 Preliminary Assessment of Eligibility

A Preliminary Assessment of Eligibility of Victorville (PBR) Z was conducted under DERP-FUDS by the US Army Corps Of Engineers, Los Angeles District (CESPL) in 1999 (see document E-1). The Findings and Determination of Eligibility, dated 30 Sep 1999, concluded that the 4,212.0 acres located in San Bernardino County, California, had been formerly used by the War Department/Department of Defense. That report recommended referral to CEHNC, for an evaluation of possible ordnance presence. Table 2-1 represents an overview of the PAE phase. Headquarters, Corps of Engineers, authorized an OE project number J09CA731301. No other projects were recommended at PBR Z.

TABLE 2-1 DERP-FUDS PRELIMINARY ASSESSMENT OF ELIGIBILITY				
Project Number	DERP Category	Present Phase	Comments	Location
J09CA731301	OE	SI	Ordnance or Explosives	Entire site See Plate 2
	HTRW	No projects recommended	·	
	BD/DR	No projects recommended		

b. Other Investigations

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

3. SITE DESCRIPTION

a. Existing Land Usage

(1) The former Victorville Precision Bombing Range Z is located approximately 47 miles east of Victorville, California in San Bernardino County (see plates 1 and 2). The area consists of

approximately 4,212.0 acres. Table 3-1 and plate 5 contains information for current property ownership and usage.

(2) The area is used for Off-Highway Vehicle (OHV) recreation, and camping, by the public. The 4.212.0 acres that made up the former target area has since been owned by private parties and the Department of Interior and is managed by the Bureau of Land Management (BLM).

	TABLE 3-1 LAND USAGE					
AREA	FORMER USAGE	PRESENT OWNER	PRESENT USAGE	SIZE/ ACRES	COMMENTS	
	Bomb Target	SF Pacific Properties	Recreational	1015.0	See Plate 4	
	Safety Zone	Federal Government	 Recreational	1329.0	See Plate 4	
	Remaining Land	Jerry J. Lanting	Recreational	1868.0	See Plate 4	
			TOTAL	4212.0		

b. Climatic Data

- (1) Rainfall is sparse in all months based on the climatology data for Barstow and Victorville, California. Precipitation is rare in the summer months and occurs mainly in the winter. Measurable rain occurs one day in four from late October to early April. In three years out of four, traces or less are reported for the entire months of June, July and August. June is usually the month of minimum rainfall (0.04 inch) on the average. January is usually the month of maximum rainfall (1.01 inch) on the average. The total annual precipitation is about five inches. Very small amounts of snow are recorded during the winter months. The average seasonal snowfall is about two inches. Snow on the ground is rare and the number of such days varies from year to year.
- (2) The desert type climate is normally mild during the winter months and summers long and hot. Winters are quite warm despite an occasional series of days when the nightly temperature drops below freezing. In winter, the average temperature is 45 degree Fahrenheit with an average daily minimum during the winter months of 30 degrees Fahrenheit. In 1949 a temperature of 17 degrees Fahrenheit was recorded. In summer, the average temperature is 77 degrees Fahrenheit. The average daily maximum temperature is 97 degrees Fahrenheit. The highest recorded temperature in San Bernardino County was 116 degrees Fahrenheit on July 14, 1972 at Barstow.

- (3) The average relative humidity in mid afternoon is about 20 percent. Humidity is higher at night and the average at dawn is about 50 percent. Percentage of possible sunshine is 90 percent of the time in summer and 60 percent in winter. The mean annual temperature is 62 degrees Fahrenheit.
- (4) The prevailing wind in the summer is from the west with an average windspeed, of eight miles per hour. The highest recorded windspeed was 87.4 miles per hour.

c. Topography

- (1) The Victorville PBR Z Range is located in the Mojave Desert near Johnson Valley and encompasses the Galway Dry Lake. This area lies between small mountain masses that are part of the Fry Mountains. The eastern boundary is adjacent to the current live firing range of the U.S. Marine Corps, Twenty-nine Palms.
- (2) The area is nearly level to strongly sloping terraces with approximately a 0 to 15 percent slope, with elevations from approximately 2,000 feet to about 4,000 feet.
- (3) The area has characteristics of many gullies and channels leading from the mountain ranges to the playas on the desert floor. The vegetation consists of mostly desert shrubs, annual forbs, and grasses (see document F-3).

d. Geology and Soils

- (1) The area in which the former range lies is made up from only one soil association. The Mohave-Adelanto variants association consists of a well drained, moderately slowly permeable, sandy loams, moderately deep to deep caliche, developed in stratified clay loam alluvium.
- (2) The mohave variant soils have brown, platy soft mildly alkaline sandy loam surface soils and reddish brown, prismatic, very hard slightly acid, sandy clay loam subsoils.
- (3) The adelanto variant soils have brown, granular, soft, moderately alkaline, sandy loam surface soils and reddish brown, blocky, slightly hard, moderately alkaline, sandy loam subsoils.
- (4) These soils overlie grayish brown massive, very hard and extremely hard, moderately alkaline, calcareous, clay loam (caliche) substrata (see document F-3)

e. Hydrology

- (1) Due to the desert climate and rapid permeability of the soil, there are no streams on the site. No dry streams, gullies or rills were noted during the site inspection. The Mojave River is the only watershed in the area. Due to the remoteness of the former site there are no reports indicating the depth of groundwater in the immediate area of PBR Z. However, other former Victorville PBR sites in the vicinity have reported groundwater depths of approximately 250 feet.
- (2) The area in which the former range was located is in the groundwater flow systems of the Basin and Range area. The Basin and Range area is in individual basins or in two or more hydraulically connected basins through which groundwater flows to a terminal discharge point or sink.
- (3) These sinks have essentially the same characteristics, the impermeable rocks of the mountain ranges serve as boundaries to the flow system, and the majority of the groundwater flows through the basin-fill deposits.
- (4) In the areas where carbonated rocks underlie the basins, substantial quantities of water can flow between the basins through the carbonated rocks and into the basin-fill deposits. This water also is ultimately discharged by evapotranspiration.
- (5) Where possible recharge to the basin-fill deposits originates in the mountain as snow melt, and, where the streams emerge from the bedrock channels, the water infiltrates into the alluvial fans and replenishes the basin-fill aquifer. Intense rains may provide some direct recharge to the basin-fill deposit, but, in most cases, any rainfall that infiltrates the soil is immediately evaporated or taken up as soil moisture (see document F-4).

f. Natural Resources

A letter from the US Fish and Wildlife Service indicates the threatened desert tortoise may be found in the area of PBRs. Contact should be made with the above mentioned department if any projects are warranted. This information is provided in Table 3-2 (see document F-1).

g. Historical/Cultural Resources

There are no recorded sites in the area that made up the former PBR Z. However, there are rock arts recorded in the vicinity. Coordination should be done with the California

Archaeological Information Center if any projects are recommended in this area (see document F-2 and table 3-2).

NA*	TABLE 3-2 TURAL & CULTURAL RESOU	⊃ES
Resource Classification	Type	Federal Status*
	Desert Tortoise	Threatened
Vegetation		None Listed
Historical/ Cultural	Prehistoric Historic	Coordinate with SHPO

4. HISTORICAL ORDNANCE PRESENCE

a. Chronological Site Summary

- (1) In 1942 approximately 2,763.0 acres, was transferred from the Department of Interior to the War Department by "implied transfer" and 1,449.0 acres were leased from the Southern Pacific Land Company under Lease No. W04-193-eng-4536. (see document F-5). The land is located approximately 47 miles east of Victorville, California in San Bernadino County.
- (2) The land was to be used as a precision bombing range for training pilots and bombardiers stationed at Victorville Army Air Base (see document G-1).
- (3) In 1945 it was determined by the War Department that no further need exists for the real estate of PBR Z located east of Victorville, California (see documents G-2).
- (4) DOD cancelled the lease with the Southern Pacific Land Company on 23 February 1948 and relinquished the "implied transfer" from the Department of Interior on 1 November 1948 (see document G-2).

b. Ordnance Related Records Review

(1) A documents search was conducted by the site inspection (SI) team to obtain ordnance related records relevant to the former Victorville Precision Bombing Range Z. 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) Document F-5 was Public Land Order 125 that withdre lands to be used by the War Department for bombing targets. This document has an attached clearance certificate dated 22 March 1948 and a dedudding report dated 4 February 1948 for 11 of the Victorville Bombing Targets. These reports indicate that M38A2 practice bombs, 32 dud flare bombs, M26 aircraft parachutes and 100 pound demo bombs were found and destroyed during this dedudding action. These reports also declare the PBRs free from explosive contamination.
- (3) Document F-6 is the history of Victorville Army Air Field for November and December 1944. This document shows that the Army airfield maintained M38A2 practice bombs, M47A2 incendiary bombs, M85 concrete bombs and various small arms ammunition.
- (4) Document G-1 and G-2 are land Declaration of Excess and Abandonment property documents. These documents verify acquisition, acreage location and surplus date of the property in question.
- (5) Document L-1 is a September 1945 drawing of the Victorville Army Air Field Bombing Ranges. This map was utilized in the drafting of the plates in this report.

c. Interviews With Site Related Personnel

- (1) Efforts to locate individuals who had served or had first hand knowledge of the Victorville Bombing Range PBR Z were not highly successful. Personal interviews were conducted with local individuals that had worked at the Victorville Army Air Force Base during the war years, but they did not know of the bombing ranges. Bureau of Land Management representatives, US Fish and Wildlife Service employees, and local law enforcement were also interviewed to obtain information about PBR Z.
- (2) There were four interviews with persons that had knowledge of all the PBRs as a bombing range or if ordnance had ever been found in the area (See documents I-1 through I-4).
- (3) Detective's Bill Myers and Bob Hall from San Bernardino Sheriff's Department were shown a map of the Victorville PBR targets. They stated that a 100 lb practice bomb had been recovered from PBR Z area. They normally received 200 calls a year on military ordnance because of the large military presence in the area. They said most of the ordnance had been moved numerous times and thus could not say for sure where they were originally discovered (see document I-1).

- (4) Personnel from the U.S. Army EOD Team at Fort Irwin and the U.S. Air Force EOD Team at Edwards AFB were also interviewed. They had no knowledge of any OE being discovered on Victorville PBR Z (see documents I-2 and I-3).
- (5) Interviews from two former military personnel that were stationed at Victorville Flying School stating that they had only seen 100 pound sand filled practice bombs dropped on the PBRs. However, they could not identify the specific targets (see documents I-4 and I-5).
- (6) Mr. Bronson, supervisor for the Law Enforcement Rangers of the Bureau of Land Management, commented that when ordnance was found they notified Ft. Irwin EOD for removal actions. He did not pinpoint any specific areas with the exception that he thought ordnance items had been found near Target N-3 (see document I-6).

5. SITE ELIGIBILITY

a. Confirmed Formerly Used Defense Site

Former land usage by the War Department was previously confirmed for the entire site as summarized in section 4a of this report. The 4,212.0 acres of the former Victorville PBR Z was used by the War Department/Department of Defense as a precision bombing range. Historical documents and personal interviews confirm this finding. No ownership or usage of any part of the Victorville PBR Z remains with the Department of Defense (DOD) (See documents E-1, G-1, G-2, plate 1 and 2).

b. Potential Formerly Used Defense Site

There are no additional acres found during this investigation that were utilized to support this target.

6. VISUAL SITE INSPECTION

a. General Procedures and Safety

- (1) During the period of 17 January through 23 January 2001, members of the Assessment Team traveled to the former Victorville PBR Z. The primary task of the team was to assess OE presence and potential, due to its former usage as a precision bombing range by the War Department/Department of Defense, as stated in the INPR. Site inspection was limited to non-intrusive methods; i.e. subsurface sampling was not authorized nor performed.
- (2) Real estate rights-of-entry were not obtained nor deemed necessary, as the land in question is public land and accessible to the team.

- (3) A site safety plan was developed and utilized by the assessment team to assure safety from injury during the site inspection of this facility. Prior to the inspection, a briefing was conducted which stressed that OE should only be handled by military EOD personnel (Reference B-1).
- (4) Prior 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 was made to ensure awareness of potential ordnance types and hazards.
- (5) The team traversed the target area first in a vehicle and then on foot. The team stopped at various points in the PBR Z to observe for any fragments of bombs within the target area.
- (6) The site is being broken down into sub-sites for this report: i.e., Area A is the target area, Area B is a buffer zone, and Area C is remaining land (see plate 4).

b. Area A: Target Area

area was designated as a practice bombing range in 1942 and relinquished in 1948 to the Department of the Interior. The SI team found numeris practice bomb bodys and HE frag in this area. This area is BLM properties. The actual area of this target is very remote and therefore, is not likely to be a popular site to set up camp, although the possibility remains for campers. Usage of this area by the public falls off drastically (minimal to no usage) during the summer with temperatures exceeding 100 degrees Fahrenheit and then the cool temperatures and rainfall of the fall and winter. Due to the remoteness of the PBR and its bordering the Naval training center on the east, it shows very little usage by the public at the present time.

c. Area B: Buffer Zone

- (1) This area consists of approximately 1,329 acres that surrounds the original target area. The area is BLM property.
- (2) Items found in the area were HE frag parts of practice bombs, spotting charge end caps, rusted body pieces and suspension lugs. The farther from the target center the less amounts of debris were found.

d. Area C: Remaining Land

This remaining 1,868 acres surrounds the outside of the buffer area and the target (see plate 4). It is also BLM property. There was no residue found in this area by the inspection team during this inspection.

7. EVALUATION OF ORDNANCE HAZARDS

a. General Procedures

- (1) This land was evaluated to determine confirmed, potential, or no ordnance presence. Confirmed ordnance and explosive (OE) presence is based on verifiable historical records evidence or direct witness of OE items (with explosive components and/or inert debris/fragments) since site closure. Additional field data are not needed to identify a confirmed site.
- (a) Verifiable historical record evidence is based on OE items actually seen on site since site closure and authenticated by: historical records (Archive Records, Preliminary Assessment Reports, Site Investigation Reports), local fire departments and law enforcement agencies/bombs squads, military Explosive Ordnance Disposal (EOD) Units, newspaper articles, photographs, or maps.
- (b) Direct witness of OE items consists of the site inspection team(s) and other credible witnesses as determined by the ASR Research Team Leader (landowners, workers on-site, soldiers who served there, etc.) verifying that they have seen OE presence on the surface or subsurface since site closure.
- (2) Potential Ordnance and Explosives (OE) Presence is based on a lack of confirmed OE presence. Potential OE presence is inferred from records, present day site features, non-verifiable direct witness, or indirect witness. Additional field data are needed to confirm potential OE sites.
- (a) Inference from historical records is based on no OE items actually seen on site since site closure and would include documentation (records, aerial photographs, maps) indicating possible OE presence derived from common practice in production, storage, use, or disposal at that time and from records indicating known OE usage.
- (b) Inference from present day site features would be the indication of possible OE presence from such obvious features as target circles, depressions, mounds/backstops, OB/OD areas/pits, etc.
 - (c) Indirect witness would be people who have stated

that they have heard of OE presence on-site (hearsay evidence).

(3) No ordnance presence areas 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 presence. There is no reasonable evidence, either direct or inferred, to suggest present day ordnance presence. Additional field data are not needed to assess uncontaminated ordnance presence site.

b. Area A: Target Area

- (1) Based on materiel collected during the ASR and the definition of OE this area is considered a **confirmed** area of OE presence. This is based on historical documentation and visual evidence. The OE SI team found ammunition items within the target area.
- (2) The ordnance found in this area was HE FRAG expended practice bomb parts, including spotting charge parts. There were no complete rounds found during this investigation. There were no reports of any complete items ever being found in this area. The items observed by the SI team were inert and were not hazardous, they appeared to have already functioned as intended (See documents D-1 through D-5, J-2 through J-7, J-9 plate 3 and plate 5).

c. Area B: Buffer Zone

- (1) Area B is a **confirmed** area of OE presence based on historical documentation, visual evidence and the definition of OE. The OE SI team found ammunition items within the Buffer Zone.
- (2) The ordnance found in this area was expended practice bomb parts, including spotting charge parts. There were fewer parts found in this area than in the above mentioned area. There were no complete rounds found during this investigation. There were no reports of any complete items ever being found in this area. The items observed by the SI team were inert and were not hazardous, they appeared to have already functioned as intended (See documents D-1 through D-5, J-10 plate 3 and plate 5).

d. Area C: Remaining Land

(1) The outer area shown in plate 4 is a **potential** area based on historical documentation, no visual evidence and the definition of OE. The OE SI team found no ammunition items or parts within the target area.

(2) This area has the potential to have some of the same above mentioned items within its boundaries due to the close proximity to the buffer area and target. There were no items discovered during this investigation.

8. SITE ORDNANCE TECHNICAL DATA

a. End Item Technical Data

- (1) While no comprehensive list of the exact types of ammunition used at the former Victorville PBR Z could be located, the range was a practice bombing range. The general fillers of the munitions used on the target area were sand or water filled. No evidence exists that chemical warfare materials were used at this site.
- (2) Table 8-1, has been developed to establish a list of potential ordnance items and their fillers that could exist at surface or sub-surface levels within the former site. This table has been developed based on historical documentation and circumstances under which this area was used. The model numbers used to delineate possible types are speculative and are based on common models that existed during the time period the site was in existence.

	E 1	nd item technical data	
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
HE Bomb	AN-M30	Body cast steel	Nose AN M-103
100 pound		Filler TNT 57 pounds	Tail M 100A1
Bomb,	M38A2	Body - sheet metal	Unknown
practice,		Filler - sand	
100 pound		Spotting charge - M1A1	
	М85	Body - concrete with sheet metal tail assembly Spotting charge - M1A1	None
Bomb, chemical, 100 pound (metal parts)	M47A1*, M47A2*	Body - sheet metal Filler* - sand	Unknown*
Bomb Practice 250 lb	M124	Body - sheet metal Filler - gravel/concrete sand Spotting charge - M39A1 Conical tail fin Assemble	M193
Charge, spotting	M1A1, M39A1	Filler - 3 lbs black powder	N/A

configured as practice bombs and inertly filled with sand. It is unknown if inert fuzes were used in this configuration.

b. Chemical Data of Ordnance Fillers

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

СНЕЙ	TABLE 8-2	E FILLERS
FILLER	SYNONYM(S)	CHEMICAL FORMULA
TNT		C ₆ H ₂ CH ₃ (NO ₂) ₃
Black Powder		
75% Sodium Nitrate		\mathtt{NaNO}_3
10% Sulfur		S
15% Charcoal		, C

9. OTHER ENVIRONMENTAL HAZARDS

a. Hazardous, Toxic, and Radiological Waste

There was no evidence found to suggest the presence of any HTRW which could be attributed to Department of Defense usage. It is therefore recommended that no HTRW project be pursued for this site.

b. Building Demolition/Debris Removal

There was no evidence found to suggest the presence of any building or debris presence which could be attributed to Department of Defense usage. It is therefore recommended that no BD/DR project be pursued for this site.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX A

REFERENCE SOURCES

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES Department of Defense	GOVERNMENT SOUR	<u>Ces</u>		
Department of Defense Explosive Safety Board (DDESB) 2461 Eisenhower Avenue Alexandria, VA 22331-0600	Computer Search	(703) 325-8624	No Information	
Defense Library on Disk (DLOD) Pentagon Library, RM 1A518 Washington, DC 20301-6000	Computer Search	(703) 697-4658	No Information	
Defense Technical Information Center. (DTIC) 8725 John J. Kingman Rd. Suite 0944 Fort Belvoir, VA 22304-6145	Computer Search	(703) 427-8274	No Information	
Center of Military History ATTN: DAMH-RAS 1099 14th St. N.W. Washington, DC 20005-3402	Staff	(202) 761-5416	See Appendix B, Section II, Parts A and B	
Department of the Army				
759 th Ord Co. (EOD) Building 520, 1 st St. or Box 105051 Ft. Irwin, CA 92310-5051	SFC Vance	(760) 380-4092	No Information See Conversation Record I-3	

	APPENDIX A REFERENCE SOURCES		
Organizations	Name	Telephone	Nature of Support
FEDERAL AGENCIES Department of Army (continued)	GOVERNMENT SOURCE	ES	
Defense Logistics Studies (DLSIE) Information Exchange Fort Lee, VA 23801	Computer Search	(804) 734-4007	No Information
Defense Supply Center, DCSR-JNB 8000 Jefferson Davis Highway Richmond, VA 23297	Staff	(800) 826-0432	New Aeronautical/Nautical Charts
IOC Historical Office ATTN: AMSIO-EAH Bldg 390, Rock Island Arsenal Rock Island, IL 61299	Tom Slattery	(309) 794-1450	No Information
Rock Island Arsenal Museum ATTN: AMSIO-PAC-M, Bldg 60 Rock Isalnd, IL 61299	Chris Leinicke	(309) 794-3518	No Information
U.S. Army Chemical School Fisher Library Bldg. 1081 Fort McClellan, AL 36205	Richard Pastorett	(205) 848-4414	No Information
U.S. Military History Institute Library Carlisle Barracks Bldg. 22 Carlisle, PA 17013	Dennis Vetock John Sloanaker	(717) 245-3611	No Information
U.S. Army Technical Center for Explosives Safety ATTN: SIOAC-ESL Savanna, IL 61074-9639	FUDS Reference Library	(815) 273-8867/ 8789/8825	No Information

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES Department of Army (continued)	GOVERNMENT SOUR	<u>CES</u>		
U.S. Army Technical Center for Explosives Safety Library ATTN: SIOAC-ESM 1C Tree Road McAlester, OK 74501-9002	Chris Holiday	(918) 420-8772	Reference Sources	
U.S. Military History Institute Reference Library Carlisle Barracks, Bldg. 22 Carlisle, PA 17013-5008	Louise Frend	(717) 245-3103	No Information	
U.S. Military History Institute Photo Archives 22 Ashburn Drive, Carlisle Barracks Carlisle, PA 17013-5008	Mike Winey	(717) 245-3434	No Information	
US Army SBCCOM Attn: AMSSB-SCI-H, 5232 Fleming Road Aberdeen Proving Ground, MD 21010-5423	Kathleen Ciolfi	(410) 679-4430	No Information	
U.S. Army Ordnance Museum Building 2601 Aberdeen Blvd. Aberdeen PG, MD 21005-5201	Dr. Atwater	(410) 278-3602	No Information	
USACE-Los Angeles District Southern California Area Office 16885 West Bernardo Drive, Suite 300-B San Diego, CA 92127	B.J. Allen	(868) 674-6766	Referrals	

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	APPENDIX A	_	
Organizations	REFERENCE SOURCE		
Organizacions	Name GOVERNMENT SOUR	Telephone	Nature of Support
FEDERAL AGENCIES Department of Army (continued)	3371114111111 3001	<u> </u>	
USACE-Los Angeles District 911 Wilshire Blvd. Los Angeles, CA 90017	Debra Castens P.E	. (213) 452-3990	Historical Background
Utilization of Command Installations (Monthy Progress Report)	Publication		No Information
Army Air Force Installations Directory Continental United States	Publication		No Information
Development of AAF Base Facilities in The U.S. 1939-1945	Publication		No Information
Department of the Air Force			
Air Force Historical Research Agency 600 Chennault Circle, Bldg 1405 Maxwell AFB, AL 36112-6424	Joe Caver	(334) 953-2395	No Information
(AFHRA) Air Force Historical Research Agency 600 Chennault Drive Maxwell AFB, AL 36112	IRIS System	(334) 953-2437	Microfilm Rolls No Information
Air Force Bases (Active Air Force Bases within the USA On 17 September 1982)	Publication		No Information
Air Force Times 6883 Commercial Drive Springfield, VA 22159	Locators Staff	(800) 368-5718	No Information

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APPENDIX A REFERENCE SOURCES				
	GOVERNMENT SOURCES	<u>s</u>		
FEDERAL AGENCIES				
Department of the Air force (continued)				
Air University Library	Leroy Bell	(334) 953-2888	No Information	
600 Chennault Circle	-			
Maxwell AFB, AL 36112				
95 th CEG/CED	MSGT Hepner	(661) 277-2162	No Information	
501 N.Rosamond Blvd.	noor nopnor	(001) 211 2102	See Conversation Record	
Edwards AFB, CA. 93524			I – 4	
Department of the Navy				
Naval Construction Battalion Center	Dr. Vince Transano	(805) 982-5913	No Information	
(NCBC) ATTN: Code 10H-NAVFAC Historian	Carol Marsh	(000) 504 0525	no intermediat	
10 23 rd Ave.				
Port Hueneme, CA 93043				
Naval Construction Battalion Center (NCBC)	Brian Thompson	(805) 982-1124	No Information	
Technical Information Center		, ,		
ATTN: Code 72, 1100 23 rd Avenue				
Port Hueneme, CA 93043				
Marine Corps Historical Center	Staff	(202) 433-3483	See Appendix B Section II	
Bldg 58, Washington Naval Yard			Parts A and B	
Washington, DC 20374				
Naval Construction Battalion Center (NCBC)	Mona Leon-Guerrero	(805) 982-3057	No Information	
Civil Engineering Support Office		,		
ATTN: Code 15, 1000 23 rd Ave.				
Port Hueneme, CA 93043				
NAVEODTECDIV	Betty Arboghast	(301) 743-6834	No Information	
Technical Library	-			
2008 Stump Neck Road				
Indianhead, MD 20640-5070				

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES	GOVERNMENT SOURCE			
Department of the Navy (continued)				
Washington Navy Yard Operationl Archives Bldg. 57 Washington, DC 20374	Staff	(202) 433-3171	See Appendix B, Section II, Parts A and B	
MWSS 374 MWSG 37 3 rd MAW EOD Team, Box 788285 Twentynine Palms, CA 92278-8285	CWO Gersbeck	(760) 830-6459 6462 6465	No Information	
EDERAL AGENCIES National Archives Federal Records Administration				
NARA-Pacific Region (Laguna Niguel) 24000 Avila Rd. Laguna Niguel, CA 92607	Suzanne Dewberry	(714) 360-2641	See Appendix B, Section III, Parts A and B	
NARA-Pacific Region (San Francisco) 1000 Commodore Drive San Bruno, CA 94066-2350	Bill Greene Lisa Miller	(415) 876-9015 Fax 876-9233	See Appendix B, Section III, Parts A and B	
Washington National Records Center 4205 Suitland Rd Suitland, MD 20409	Staff	(202) 707-5522	See Appendix B, Section II, Parts A and B	
NARA- Archives II (Cartographic/Architectural Branch) 8601 Adelphi Rd College Park, MD 20740	Staff	(301) 713-7040	See Appendix B, Section II, Parts A and B	

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES National Archives Federal Records Administration (continued)	GOVERNMENT SO	DURCES		
NARA- Archives I (Modern Military) Pennsylvania Ave & 7 th Washington, DC 20408	Staff	(202) 501-5385	See Appendix B, Section II, Parts A and B	
NARA- Archives II (Still Picture Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-6660	See Appendix B, Section II, Parts A and B	
NARA- Archives II (Civil Reference Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7250	See Appendix B, Section II, Parts A and B	
NARA- Archives II (Motion Picture Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7060	See Appendix B, Section II, Parts A and B	
NARA- Archives II (Textural Reference Branch) 8601 Adelphi Road College Park, MD 20740	Staff	(301) 713-7250	See Appendix B Section II, Parts A and B	
NARA- Archives I (Old Military) Pennsylvania Ave & 7 th Washington, DC 20408	Staff	(202) 501-5390	See Appendix B, Section II, Parts A and B	

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	APPENDIX A REFERENCE SOURCES		
Organizations	Name	Telephone	Nature of Support
FEDERAL AGENCIES National Archives Federal Records Administration (continued)	GOVERNMENT SOURCES	,	
NARA- Archives I (Navy) Pennsylvania Ave. & 7th Washington, DC 20409	Staff	(202) 501-5671	See Appendix B, Section II, Parts A and B
National Archives, Suitland Branch (Civil and Military) 4205 Suitland Road Suitland, MD 20409	Staff	(314) 538-4085	See Appendix B, Section III, Parts A and B
National Personnel Records Center 9700 Page Ave St. Louis, MO 63132	Wilson Sullivan Bill Siebert	(314) 538-4085	See Appendix B, Section III, Parts A and B
Library of Congress			
Library of Congress Geography and Map Division Washington, DC 20536	Staff	(202) 707-5522	See Appendix B, Section II, Parts A and B
Smithsonian Institution			
Smithsonian National Air And Space Museum Historical Research Division Washington, DC 20560	Staff	(202) 357-3133	See Appendix B, Section II, Parts A and B

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES Department of Agriculture	GOVERNMENT SOURCES			
U.S. Department of Agriculture Aerial Photography Field Office P.O. Box 30010 2222 West 2300 South Salt Lake City, UT 84131-0010	Sherrie Holyoak	(801) 975-3503	Aerial Photos after 1956	
U.S. Department of Agriculture Consolidated Farm Service Agency 44811 Date Avenue West Lancaster, CA 93534	Doug Brand Holleen	(805) 942-9549	Aerial Photos from 1959, 1965 and 1971	
U.S. Department of Agriculture Natural Resources Conservation Service P.O. Box 788115, Bldg. 1456, Griffin Rd Twenty-nine Palms, CA 92278	John Rule	(760) 830~7011	Aerial Photos from 1982	
U.S. Department of Agriculture Natural Resources Conservation Service 18484 Highway 18, Suite 195 Apply Valley, CA 92307	Jackie Lindgren Rick Aguayo	(760) 242-2906 Fax 242-0203	Soil Survey Information	
Department of Commerce				
NOAA, Air Force Weather Service 151 Patton Avenue, Room 120 Ashville, NC 28801	Janet Wall	(704) 271-4404	Local Climatological Data	
NOAA, National Climatic Data Center Federal Bldg. Ashville, NC 28801	Sam McCowan Yolanda Goosch	(704) 271-4272	Climatological Data	

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
FEDERAL AGENCIES Department of the Interior	GOVERNMENT SOURCES			
Bureau of Land Management 6221 Box Springs Blvd. Riverside, CA 92507	John Keyes	(909) 679-5383	No Information	
Bureau of Land Management Barstow Resouece Area 150 Coolwater Lane Barstow, CA 92311	Tim Read	(619) 255-8700	Real Estate Records	
U.S. Geological Survey EROS Data Center Sioux Falls, SD 57198	Staff	(605) 594-6151 Fax 594-6589	Aerial Photos	
U.S. Geological Survey, (ESIC) Box 25046, Bldg. 810 Denver Federal Center Denver, CO 80225	Paula Erickson Steve Reiter	(303) 202-4200 Fax 202-4188	Aerial Photos	
USGS, Denver Federal Center P.O. Box 25286 Denver CO 80225	Roger Compton	(303) 202-4700	Topographic Quad Maps	
U.S. Fish and Wildlife Service Ecological services 2493 Portola Rd., Suite B Ventura, CA 93003	Ray Branfield	(805) 644-1766	Endangered/Threatened Species	

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APPENDIX A REFERENCE SOURCES						
Organizations	Name	Telephone	Nature of Support			
State GOVERNMENT SOURCES						
California State Archives 1020 East O St. Sacramento, CA 92415	Mr. Metzer	(916) 653-2246	No Information			
California State Historic Preservation Office San Bernardino Archaeological Information Center 2024 Orange Tree Lane Redland, CA 92374	Robin Laska	(909) 792-1497 Fax 798-8585	Archaeological/Historical Information			
California State Library California History Section 914 Capitol Hall Library and Courts Bldg. Sacramento, CA 94237	John Gonzales Sybylle Zemitis	, ,	No Information			
California State University San Bernardino Library 5500 University Parkway San Bernardino, CA 92407	Staff	(909) 880-5084 Fax 880-7084	No Information			
California State Library Government Documents Section 914 Capital Hall Library and Court Bldg. Sacramento, CA 94237-0001	Brent Murphy	(916) 654-0069	No Information			
State of California Department of Fish and Game 1416 9 th Street Sacramento, CA 95814	Internet		Endangered Species Information			

APPENDIX A REFERENCE SOURCES					
Organizations	Name	Telephone	Nature of Support		
State (continued)	GOVERNMENT SOURCES	-			
University of California P.O. Box 19557 Irvine, CA 92110	Staff	(714) 824-6836	No Information		
University of California Government Documents Dept. P.O. Box 19557 Irvine, CA 92110	Jeff Schneidewind Kay Collins	(714) 824-7234	No Information		
University of California Archives P.O. Box 19557 Irvine, CA 92713	Mary Ellen Goddard	(714) 824-7193	Provided Referrals		
ocal					
San Bernardino County 172 West 3 rd St. San Bernardino, CA 92415	Staff	(909) 387-8307	Plat maps		
San Bernardino County Flood Control 825 East 3 rd St. San Bernardino, CA 92415	Gary Duncan	(909) 387-2529	No Information		
San Bernardino County Library Victorville Branch 15011 Circle Drive Victorville, CA 92392	Mr. Booker	(619) 245-4222	No Information		
San Bernardino County Library Lucerne Valley Branch 33103 Old Woman Springs Rd Lucerne Valley, CA 92356	Staff	(619) 248-7521	No Information		

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	APPENDIX A REFERENCE SOURCES		
Organizations	Name	Telephone	Nature of Support
Local (continued)	GOVERNMENT SOURCES		
San Bernardino County Museum 2024 Orange Tree Lane Redlands, CA 92374	Robin Laska Noella Benvenuti Pamela Frost	(909) 798-8570	No Information
San Bernardino County Planning 385 North Arrowhead Ave. San Bernardino, CA 92415	Marla Taub	(909) 387-4131	No Information
San Bernardino County Sheriff's Dept. Barstow Station 225 E Mountainview Barstow, CA 92311	SGT. Jecusco	(760) 256-4841	No Information
San Bernardino County Sheriff and Bomb Squad 655 East 3 rd St. San Bernardino, CA 92415	Tom Alsky Bill Myers Bob Hall	(909) 387-3598/ 3606/3601 Fax 387-3455	No Information See Conversation Record I-1
San Bernardino Public Library 555 West 6 th St. San Bernardino, CA 92415	Chris Shovey	(909) 381-8208	No Information
National	NON GOVERNMENT SOURCES		
Coast Defense Study Group, Inc. 731 Baltimore Pike Bel Air, MD 21014	Publication		No Information
Northern Illinois Library System 4034 East State St. Rockford, IL 61108	Staff	(815) 229-0330	No Information

APPENDIX A REFERENCE SOURCES				
Organizations	Name	Telephone	Nature of Support	
National (continued)	NON GOVERNMENT SOU	<u>-</u>		
Council on America's Past 518 Why Worry Lane Phoenix, AZ 85021	Heliogram Publication	(800) 398-4693	No Information	
Knight-Ridder Information Inc. 2440 El Camino Mountain View, CA 94040	Staff	(800) 334-2564	No Information	
On-line Computer Library Center 6565 Frantz Rd Dublin, OH 43017-3395	Staff	(800) 848-5878	No Information	
Scientific & Tech Info Library System 689 Discovery Drive Huntsville, AL 35806	Staff	(205) 922-9820	No Information	
World War II sites in The U.S.	Richard Osborne		No Information	
California Historical Society 678 Mission Street San Francisco, CA 94105	Beth Graham	(415) 357-1848 Fax 357-1850	No Information	
San Bernardino Visitor and Convention Bureau 201 North E. Street San Bernardino, CA 93603	Christine	(909) 889-8937	No Information	
State Historical Society Of Wisconsin Library 816 State Street Madison, WI 53706	Staff	(608) 264-6534	No Information	

APPENDIX A REFERENCE SOURCES				
Organizations Name	Telephor			Nature of Support
Local	NON GOVERNMENT SOURCE	ES		
19446 Corwin Rd Apple Valley, CA 92307	Edward Laska	(619)	242-5746	No Information
40 Oak Shadow Ct. Baltimore, MD 21228	Owen Cooper	(410)	747-5991	No Information
Arda Haenszal 809 Standish Way Redlands, CA 92373	Local Historian	(909)	798-0550	No Information
John Darr Cheyenne, WY	Knowledgeable Person	(307)	635-2924	No Information
John Lynch 518 Why Worry Lane Phoenix, AZ 85021	Historian/Author	(602)	249-3974	No Information
Victorville Chamber of Commerce 14174 Greentree Boulevard Victorville, CA 92392	Sally Martinez	(760)	245-6506	No Information
Victorville Museum 11873 Apply Valley Road Apply Valley, CA 92307	Walter Day Wayne Fowlie	(619)	240-2111	No Information

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX B REFERENCES AND ABSTRACTS

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX B REFERENCES AND ABSTRACTS

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PART B: NEGATIVE FINDINGS

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REFERENCES AND ABSTRACTS

SECTION I

BIBLIOGRAPHY

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- B-1 <u>Site Safety Plan For OEW Investigations</u>, U.S. Army Corps of Engineers, Rock Island District, dated 25 June 1992. Appendix A-260, dated January 2001.
- B-2 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-3 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-4 Navsea OP 1664, <u>U.S. Explosive Ordnance</u>, Commander, Naval Sea Systems Command, dated May 1947 w/changes January 1969. (100 Pound Practice Bomb M38A2. D-1, Spotting Charge M1A1, D-2, Icendiary Bomb M47A1, D-3, 100 Pound Practice Bomb M85, D-4).
- B-5 Ordnance Corps, Drawing, 82-0-23, Bomb Practice, 100LB, M38A2, Complete Assembly, 10 August 1955, (D-1).
- B-6 Ordnance Corps, Drawing, 82-0-80, Bomb Smoke, 100LB, M47A4, Complete Assembly, 30 December 1948, (D-3).
- B-7 Ordnance Corps, Drawing, 82-3-405, Bomb Smoke, 100LB, M47A4, Complete Assembly, 15 November 1946, (D-4).
- B-8 Ordnance Corps, Drawing, 82-0-96, Bomb Smoke, 100LB, M47A4, Complete Assembly, 15 November 1946, (D-4).
- B-9 Department of the Army Technical Manual, <u>Bombs and Bomb</u> <u>Components</u>, TM 9-1325-200 dated April 1966 (250 Pound Practice Bomb M124, D-5).
- B-10 US Army Corps of Engineers, Los Angeles District, FDE, SSS, and PSS for Victorville Precision Bombing Range Z, dated 3 July 1991 (E-1).

- B-11 Letter, United States Department of the Interior, Fish and Wildlife Service, Ventura Fish and Wildlife Office, Ventura California, Species list for the Former Victorville PBR, San Bernardino County, California, dated 19 December 1998 (F-1).
- B-12 Letter, <u>California Archeological Inventory</u>, Archeological Information Center, San Bernardino County Museum, Redlands California, dated 11 November 1997 (F-2).
- B-13 Letter, <u>Soil Information</u>, United States Department of Agriculture, Apple Valley, California, dated 17 November 1997 (F-3).
- B-14 Computer Search, USGS, <u>Ground Water Atlas of the United</u>
 <u>States-Segment 1 California Nevada, Ground Water Flow System</u>, URL
 http://doi.org/10.1001/journal.org/<a>, USGS, <u>Ground Water Atlas of the United</u>
 http://doi.org/10.1001/journal.org/<a>, USGS, <u>Ground Water Atlas of the United</u>
 http://doi.org/10.1001/journal.org/http://doi.org/<a>, USGS, <u>Ground Water Atlas of the United</u>
 http://doi.org/http://doi.org/<a>, USGS, <u>Ground Water Flow System</u>, URL
 http://doi.org/<a href="http:/
- B-15 Public Land Order #125, California Withdrawing Public Land for use of the War Department as Bombing Target Sites, date April 1945, attached Clearance Certificate dated 22 March 1948 and attached Dedudding Report for Victorville Bombing Targets dated 4 February 1948, NARA Pacific Southwest Region, (F-5).
- B-16 Report, History of Victorville Army Air Field, Victorville, California from 1 November to 31 December 1944, Range Maintenance /Ammunition Received, AFHRA, Maxwell AFB, AL Call NO. 289.40-8, IRIR 00179308 (F-6).
- B-17 Land Acquisition and Disposal Report, Reproduction from the National Archives Pacific Region, Laguna Nignel Office, Not Dated (G-1).
- B-18 Real Property Management and Disposal Report, dated June 1954, Reproduction from the National Archive Pacific Region, Laguna Nignel Office, (G-2).
- B-19 Drawing, Real Estate, Victorville Army Air Field bombing Ranges, dated September 1945, Reproduction from the National Archive Pacific Southwest Region, (L-1).

SECTION II

NATIONAL CAPITAL REGON ARCHIVES FINDINGS

PART A

POSITIVE FINDINGS

VICTORVILLE PRECISION BOMBING RANGE Z, CA

SECTION II NATIONAL CAPITAL REGION ARCHIVES FINDINGS PART A POSITIVE FINDINGS

VICTORVILLE PRECISION BOMBING RANGE Z, CA

Also Researched Under: San Bernardino County, CA, Mojave Desert, CA; Victorville, CA; Galway Dry Lake, CA; US Marine Corps Live Firing Range, Twentynine Palms, CA; Victorville PBR Z, CA; Demolition Bombing Target Z, CA; Victorville Army Airfield, CA; and DT-4, CA.

NARA - ARCHIVES II – TEXTUAL BRANCH COLLEGE PARK, MD

RG 18 (Records of the Army Air Corps)

Entry 1: Decimal File, 1945 - Oct. 1948 Box 290

Correspondence Relative to Abandonment of Targets Nos. 6, 9, 15, Y, and Z, Victorville Army Air Field, 26 April - 7 June 1945

Entry 1: Decimal File, 1945 – Oct. 1948 Box 292

Surplus Reports Relative to Victorville Army Air Field Facilities, Auxiliary Fields, and Bombing Targets, 1 October - 19 November 1945

Entry 2: Unclassified Decimal File, June1944 – 1946 Box 2248

Letter Relative to Hours of Use, Victorville Army Air Field Precision Bombing Ranges, 20 June 1944

Entry 2: Unclassified Decimal File, June 1944 – 1946 Box 2257

Correspondence Relative to Declaration of Victorville Army Air Field Auxiliary Fields and Bombing Targets as Excess to Air Force Requirements, Victorville Bombing Target Z, 7 December 1945 - 15 January 1946, Including Details as to Location and Acreage

Entry 2: Unclassified Decimal File, June 1944 – 1946 Box 2281

Correspondence Relative to Cancellation of Sonic Bomb Scoring Target Installation, Victorville Army Air Field Bombing Ranges, 27 March - 26 April 1945

Entry 2C: Unclassified Decimal File, 1947 – 1948

Box 2797

Letters Relative to Status of and Future Plans, Victorville Army Air Field, 10 - 16 December 1942

Entry 2C: Unclassified Decimal File, 1947 – 1948

Box 2798

Correspondence Relative to Bombing Target Reactivation, Victorville Air Force Base, 16 January - 18 February 1947

Entry 2C: Unclassified Decimal File, 1947 – 1948

Box 3191

Correspondence Relative to Closing and Reopening of Victorville Air Force Base, 29 October - 15 November 1948

Entry 2C: Unclassified Decimal File, 1947 - 1948

Box 3191

Telegram Relative to Placement of Victorville Air Force Base on Minimum Operational Status, 10 August 1948

Entry 292A: Central Decimal Files, Oct. 1942 – May 1944

Box 1641

Range Data, Victorville Army Air Field, Including Type Of Training, Type of Planes Using Ranges, List of Proposed Ranges, and Status of Range Acquisition, February 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942

Box 1834

Correspondence Relative to Bomb Spotting Tower Construction, Victorville Flying School, 25 February - 7 March 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942

Box 1834

Correspondence Relative to Gas Instruction Building, Victorville Army Flying School, 19 September - 2 October 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942

Box 1834

Correspondence Relative to Real Estate Acquisition, Victorville Military Airport Bombing Targets, 15 June - 15 October 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942

Box 1834

Letter Relative to Bombing Target Construction Funds, Victorville Airfield, 31 January 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942 Box 1834

Letters Relative to Real Estate Acquisition, Bomb Storage Facilities, Victorville Flying School, 9 - 19 October 1942

Entry 295: Correspondence Relating to Airfields, 1939 - 1942 Box 1835

Correspondence Relative to Bombing Target Construction Funding, Victorville Airfield, 24 January - 14 February 1942

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

Entry 1023: General Correspondence Relating to Airfields and Related Facilities, 1940 - 1945

Box 99

Construction Progress Report, Advanced Twin Engine Flying School, Victorville, California, Including Location and General Description, Pertinent Data, Status of Construction, Project Costs, Status of Plans and Specifications, Construction Operations, Future Construction Operations, and Estimated Completion Dates, Including Facilities List and Maps, 31 December 1941

RG 429 (Records of Organizations in the Executive Office of the President)

Entry 12: Central Real Property Surveys Box 47

Department of Defense Installation Survey Report, George Air Force Base, Victorville, California, 18 - 19 September 1973, Including Installation History

U.S. ARMY CORPS OF ENGINEERS – OFFICE OF HISTORY ALEXANDRIA, VA

Real Estate Records Collection

Realty Control File Summary
Victorville Precision Bombing Range No. Z, CA

RG 121 (Records of the Public Building Service)

Entry 80: Title Papers and Site Registers, 1938 - 1943

RG 156 (Records of the Office of the Chief of Ordnance)

Entry 36: General Correspondence, 1915 – 1941

Entry 39: Confidential Correspondence, 1917 – 1940

RG 159 (Records of the Office of the Inspector General)

Entry 26: General Correspondence, 1939 - 1947

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: Command Installations Branch, Correspondence File, 1942 – 1946

Entry 45: Director of Plans and Operations, Planning Division, Theater Branch,

Eastern Defense Command, 1942 - 1946

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

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

Entry 159: Director of Military Training, Training Requirements Division,

Historical Branch

RG 162 (Records of the Federal Works Agency)

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

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

Entry 258: Reports and Correspondence Relating to Construction, Utilization, and

Disposal of Army Installations, 1944 – 1947

Entry 484C: Legislative and Liaison Division, Card Files and Approved WPA

National Defense Projects, 1941 - 1942

Entry 484D: Federal Works Agency Project Files, 1940 – 1942

Entry 484E: Security Classified Federal Works Agency Project Files, 1942 - 1945

Entry 484G: Airport Development File, 1940 – 1942

Entry 484H: Civil Aeronautics Administration Airport Development Program,

1940 - 1945

RG 168 (Records of the National Guard Bureau)

Entry 334: Army – NGB Decimal File, 1942 - 1962

Entry 344: State Decimal Files, 1941 – 1947

Entry 348: State Guard State Files, 1941 – 1949

RG 175 (Records of the Chemical Warfare Service)

Entry 1: Central Correspondence Files, 1918 – October 1942

Entry 1A: Records of The Office of the Chief Chemical Officer, 1946 – 1954

Entry 2: General Correspondence, 1918 – 1940

Entry 4: General Correspondence, 1918 – 1942

Entry 7: Records of the Office of the Chief Chemical Officer, 1948 – 1960

RG 218 (Records of the Joint Chiefs of Staff)

Entry: Series 1942 – 1959 (Geographic File)

RG 225 (Records of Joint Army and Navy Boards and Committees)

Entry 4: General Correspondence, 1922 – 1946

Entry 4A: Army and Navy Munition Board Central Files, 1922 - 1941

Entry 5: Security Classified General Correspondence, 1922 - 1945

RG 250 (Records of the Office of War Mobilization and Reconversion)

Entry 73: Federal Construction Projects, August - October 1946

RG 269 (General Records of the General Services Administration)

Entry 62: Real Property Disposal Case Files

RG 270 (Records of the War Assets Administration)

Entry 3: Office of War Information Subject Files, 1946 – 1949

Entry 4: Records of the General Review Board, 1946 – 1948

Entry 8: Records of the Real Property Review Board, 1946 – 1949

Entry 9: Subject File of the Central Office of Real Property, 1946 - 1949

RG 291 (Records of the Federal Property Resources Service)

Entry 5: Real Property Disposal Case Files

RG 319 (Records of the Army Staff)

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

RG 330 (Records of the Office of the Secretary of Defense)

Entry 11: Inventories of Military Real Property, 1954 – 1957

RG 334 (Records of Interservice Agencies)

Entry 15: Armed Forces Explosives Safety Board

RG 335 (Records of the Office of the Secretary of the Army)

Entry 60: Assistant Secretary of the Army (Installations and Logistics), General

Correspondence, 1963 - 1964

RG 336 (Records of the Office of the Chief of Transportation)

Entry: Historical Program Files, 1940 - 1950

RG 337 (Records of Headquarters Army Ground Forces)

Entry 1: Army Field Forces. Headquarters, Chief of Staff, Combat Arms Advisory

Group, Inspection Reports, 1948 - 1964

Entry 26A: National Guard Branch, Central Decimal File, 1945 – 1948

Entry 29A: Troop Training Division, Maneuvers, Special Projects, Subject

Correspondence File, March 1942 - 1944

Entry 30: G3 Section Inspection Reports

Entry 31: General Staff, Administrative Division, Classified Decimal File, 1949 – 1950

Entry 51A: Headquarters, Special Staff, Budget and Fiscal Section, Subject File, 1941 - 1950

Entry 55: General Correspondence, 1942 - 1945

Entry 55A: Project Decimal File, March 1942 – 1947

Entry 56: Adjutant General Section, Communications and Records Division,

Decimal File, 1951 - 1952

Entry 57: General Headquarters, U.S. Army, General Correspondence, 1940 -

Entry 57A: General Headquarters, U.S. Army, 1940 – 1942, Projects

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

Entry: Posts, Camps, and Stations

Entry: Unit Histories, 1940 – 1947

Entry 24: Western Defense Command, Central Correspondence, 1942 – 1946

Entry 28054: 9th Service Command

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

Entry: Security Classified General Correspondence, 1956 - 1965

Entry 47: Security Classified General Correspondence, 1945 - 1948

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

Entry 494: Correspondence Relating to Real Estate Facilities, 1948 – 1955

Entry 495: Records Re: Policy on Construction Matters, 1950 - 1951

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

Entry: Field Installations

Entry 296: 9th Corps Area: General Correspondence of the Construction Division.

1916 - 1947

Entry 298: 9th Corps Area: Historical Reports Pertaining to Post Planning, 1899 -1943

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

Entry: 1940 – 1945 Army – AG Project Decimal File, Unclassified

Entry: 1946 – 1948 Army – AG Project Decimal File, Unclassified

Entry: 1951 – 1952 Army – AG Project Decimal File, Unclassified

Entry 360: 1903 – 1942 Army – AG Project Decimal File, Formerly Classified

Entry 360: 1943 – 1945 Army – AG Project Decimal File, Formerly Classified

Entry 360: 1946 – 1947 Army – AG Project Decimal File, Formerly Classified

Entry 360: 1949 – 1950 Army – AG Project Decimal File, Formerly Classified

Entry 427: WW II Operations Reports, 1940 – 1948

RG 429 (Records of the Organizations in the Executive Office of the President)

Entry 17: Records Relating to Property and Installation Surveys, 1978 – 1984

NARA - ARCHIVES II - CARTOGRAPHIC BRANCH COLLEGE PARK, MD

RG 18 (Records of the Army Air Corps)

RG 30 (Records of the Bureau of Public Roads)

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

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

RG 145 (Records of the Agricultural Stabilization and Conservation Service)

RG 373 (Records of the Defense Intelligence Agency)

NARA – ARCHIVES II – MOTION PICTURE, SOUND, AND VIDEO COLLEGE PARK, MD

RG 69 (Records of the Work Projects Administration)

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

RG 200 (National Archives Gift Collection)

RG 335 (Records of the Office of the Secretary of the Army)

RG 342 (Records of U.S. Air Force Commands, Activities, and Installations)

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

RG 18 (Records of the Army Air Force)

RG 30 (Records of the Bureau of Public Roads)

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

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

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

RG 156 (Records of the Office of the Chief of Ordnance)

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

RG 342 (Records of U.S. Air Force Commands, Activities, and Installations)

U.S. ARMY CORPS OF ENGINEERS – OFFICE OF HISTORY ALEXANDRIA, VA

Book of Military Reservations
Dale Floyd Collection
Coast Defense Study Newslett

Coast Defense Study Newsletter

Image Collections

Installation Books

Map Collection

Military Collection

Oral History Collections

Personal Papers Collection

WASHINGTON NATIONAL RECORDS CENTER SUITLAND, MD

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

- Accession 52 0117
- Accession 52 0434
- Accession 53 0325
- Accession 63 1540
- Accession 63 1551
- Accession 64 2125
- Accession 65 3183
- Accession 65 3184
- Accession 03 3184
- Accession 66 3183
- Accession 67 4792
- Accession 68 1925
- Accession 68 1932
- Accession 69 2580
- Accession 69 2583
- Accession 70 1100
- Accession 70 1101
- Accession 70 1102
- Accession 70 1103
- Accession 70 1116
- Accession 70 1119
- Accession 70 2644
- Accession 70 2646
- Accession 71 2966
- Accession 71 2967
- Accession 71 2968
- Accession 72 3434
- Accession 72 4032
- Accession 72 4035
- Accession 72 4037
- Accession 73 0041
- Accession 73 0042
- Accession 73 0043
- Accession 73 0050
- Accession 74 0028
- Accession 76 0051
- Accession 77 0002
- Accession 79 0002

SECTION III REGIONAL NATIONAL ARCHIVES FINDINGS PART A POSITIVE FINDINGS

VICTORVILLE PBR Z

NARA, PACIFIC REGION (LAGUNA NIGUEL) LAGUNA NIGUEL, CA

RG 77, Records of the Office of the Chief of Engineers
Box #95

Federal Register, Public Land Order 125 & 126, Withdrawal of Public Lands for use by War Department, 28 May 1943

Box #127

Memo, Subject: Abandonment of Demolition Target "Z",
 26 Apr 1945, w/indorsements

Memo, Subject: Abandonment of Targets 6, 9, and 15, and Y and Z, Victorville Army Air Field, 11 Jun 1945

Internal Security Inspection Report, Targets 6, 9, 15, and Z, 21 Jul 1945

Memo, Subject: Neutralization of Unexploded Bombs,
21 Jul 1945

Memo, Subject: Disposal of Unexploded Bombs, Victorville Army Air Field Targets, 11 Aug 1945

Memo, Subject: Declaration as Excess, Auxiliary
Installations of Victorville Army Air Field, 7 Dec 1945

Box #128

Government Owned Property Inspection Report "Victorville Army Air Field", Composite Report Including Leased Land, 23 Nov 1944

Site Description, Victorville Army Air Field, 5 Oct 1946

Box #129

Memo, Subject: Land Acquisition, Bombing Ranges for Victorville Army Flying School, 2 Sep 1942, w/indorsements Memo, Subject: Abandonment of Targets 6, 9, and 15, and Y and Z, Victorville Army Air Field, 11 Jun 1945, w/indorsement

Memo, From Chief of Engineers to BLM, Subject: Public Land Order 125, 1 Nov 1948

Realty Control File Summary, Victorville PBR Z, undated Military Acquisition Project Report, Victorville PBR Z, 23 Jun 1948

Box #130

Letter, Subject: Victorville Bombing Targets no Longer Required, 1 Nov 1948

RG 270, Records of the War Assets Administration Box #161

Memo, Subject: Report on the Dedudding of Victorville Bombing Targets, San Bernardino County, 20 Oct 1947

Box #162

Withdrawing Public Lands for use of the War Department as Bombing Target Sites, 20 May 1943

NARA, NATIONAL PERSONNEL RECORDS CENTER ST LOUIS, MO

RG 342, Records of U.S. Air Force Commands, Activities, and Organizations

Accession #342-53A-4077

Box #1

Memo, Subject: Abandonment of Demolition Target "Z",
 26 Apr 1945

Memo, Subject: Acquisition of Bombing Target Sites, 23 May 1945

Memo, Subject: Neutralization of Unexploded Bombs, 21 Jul 1945, w/indorsements

SECTION III REGIONAL NATIONAL ARCHIVES FINDINGS PART B NEGATIVE FINDINGS

VICTORVILLE PBR Z

NARA, PACIFIC REGION (LAGUNA NIGUEL) LAGUNA NIGUEL, CA

- RG 18, Records of the Army Air Forces
 All Entries
 Nothing Found
- RG 30, Records of the Bureau of Public Roads All Entries Nothing Found
- RG 48, Records of the Secretary of the Interior All Entries
 Nothing Found
- RG 49, Records of the Bureau of Land Management All Entries Nothing Found
- RG 156, Records of the Office of the Chief of Ordnance All Entries Nothing Found
- RG 219, Records of the Office of Defense Transportation All Entries Nothing Found
- RG 336, Records of the Office of the Chief of Transportation All Entries
 Nothing Found
- RG 338, Records of U.S. Army Commands
 All Entries
 Nothing Found
- RG 342, Records of U.S. Air Force Commands, Activities, and Organizations
 All Entries
 Nothing Found

NARA, NATIONAL PERSONNEL RECORDS CENTER ST LOUIS, MO

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

RG 342, Records of U.S. Air Force Commands, Activities, and Organizations

Accession #342-53F-5038

Box #13

Nothing of Value to This ASR Found

Accession #342-55F-5042

Box #1

Nothing of Value to This ASR Found

NARA, PACIFIC REGION (SAN FRANCISCO) SAN BRUNO, CA

- RG 18, Records of the Army Air Forces
 All Entries
 Nothing Found
- RG 30, Records of the Bureau of Public Roads All Entries Nothing Found
- RG 49, Records of the Bureau of Land Management All Entries Nothing Found
- RG 77, Records of the Office the Chief of Engineers
 Accession #75Q1061
 Boxes #1-3
 Nothing of Value to This ASR Found
- RG 92, Records of the Office of the Quartermaster General All Entries
 Nothing Found
- RG 111, Records of the Chief Signal Officer All Entries
 Nothing Found

- RG 112, Records of the Surgeon General (Army)
 All Entries
 Nothing Found
- RG 121, Records of the Public Buildings Service
 Accession #9NSS-121-87-001
 Boxes #1 and 9
 Nothing of Value to This ASR Found

Accession #9NSS-121-85-009 Box #12 Nothing of Value to This ASR Found

Accession #9NSS-121-85-004
Box #72
Nothing of Value to This ASR Found

- RG 156, Records of the Office of the Chief of Ordnance All Entries Nothing Found
- RG 219, Records of the Office of Defense Transportation All Entries Nothing Found
- RG 269, General Records of the General Services Administration All Entries Nothing Found
- RG 270, Records of the War Assets Administration All Entries Nothing Found
- RG 291, Records of the Federal Property Resources Service
 Accession #9NSS-291-93-002
 Box #19
 Nothing of Value to This ASR Found
- RG 338, Records of U.S. Army Commands
 All Entries
 Nothing Found

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX C

GLOSSARY

APPENDIX C

GLOSSARY AR Army Regulation Air to Ground Gunnery Range AGGR BD/DR Building Demolition/Debris Removal BLM State recreational land's CAL Caliber CEHNC U.S. Army Corps of Engineers, Engineering and Support Center, Huntsville U.S. Army Engineer, Mississippi Valley Division CEMVD U.S. Army Engineer, Rock Island District CEMVR Comprehensive Environmental Response, Compensation and CERCLA Liability Act CON/HTW Containerized Hazardous and Toxic Waste CWM Chemical Warfare Material DA Department of Army DACS Defense Ammunition Center and School Defense Environmental Restoration Account DERA Defense Environmental Restoration Program DERP Defense Mapping Agency Customer Service Center DMACSC DOD Department of Defense DOI Department of Interior EE/CA Engineering Evaluation Cost Analysis EOD Explosive Ordnance Disposal FDE Findings and Determination of Eligibility Field Manual FΜ FUDS Formerly Used Defense Site(s) General Services Administration GSA High Explosive $^{
m HE}$ HTRW Hazardous, Toxic and Radiological Waste HTWHazardous and Toxic Waste INPR Inventory Project Report IOC Industrial Operations Command IRP Installation Restoration Program NARA National Archives Records Administration National Geographical Service NGS ΟE Ordnance and Explosives PΑ Preliminary Assessment PBR Precision Bombing Range PD Point Detonating

PNProject Number

PRP Privately Responsible Party

PSS Project Summary Sheet

OASAS Quality Assurance Specialist Ammunition Surveillance

GLOSSARY (CONT.)

UXO

Remedial Action RA Risk Assessment Code RAC RD Remedial Design RD/RA Remedial Design/Remedial Action Real Estate RE SAA Small Arms Ammunition SARA Superfund Amendments and Reauthorization Act SFC Sergeant First Class SGT Sergeant Site Inspection SI SIOAC-ES Army Material Command Ammunition Center for Explosive Safety SMAAC-ESL U.S. Army Technical Center for Explosives Safety, Ordnance Explosives Environmental SSS Site Summary Survey TSO Timed Super Quick USA U.S. Army U.S. Army Corps of Engineers USACE U.S. Army Technical Center for Explosives Safety USATCES United States Department of Agriculture USDA

Unexploded Ordnance

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX D

TEXTS/MANUALS

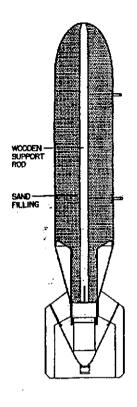
APPENDIX D

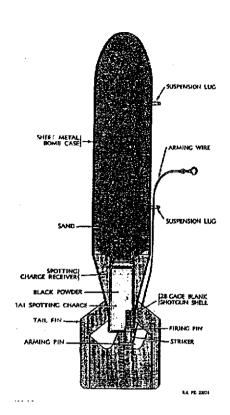
TEXTS/MANUALS

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- D-1 100 Pound Practice Bomb M38A2 (B-4, B-5).
- D-2 Spotting Charge M1A1 (B-4).
- D-3 Incendiary Bomb M74 (B-4, B-6, B-7, B-8).
- D-4 100 Pound Demo Bomb M30 (B-4).
- D-5 250 Pound Practice Bomb AN-M57 (B-9).

BOMB, PRACTICE, 100 POUND, M38A2





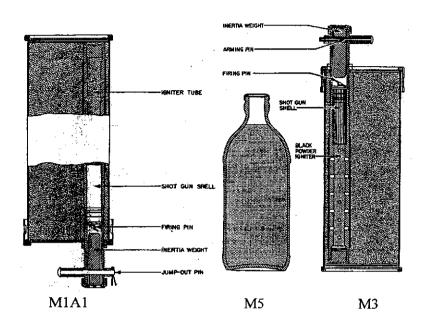
with M5 spotting charge

with M1A1 spotting charge

Description. This bomb simulates a General Purpose bomb of the same size. It is constructed of light sheet metal, approximately 22-gage, formed by rolling a rectangular sheet of metal into the form of a cylinder approximately 8 inches in diameter, and spot-welding the seam. The rounded nose is pressed from the same metal, as is the tail, which is formed in the shape of a cone. The tail portion ends in box type fins, which is welded to the cone. Inside of the smaller end of the conical tail section is welded the spotting charge receiver. The spotting charge is assembled in a sleeve at the base of the bomb, within the fin box. Authorized spotting charges are the M1A1, M3, and M5. When using the M5 spotting charge a wooden support rod is installed in the bomb. Two suspension lugs are bolted to the bomb body during fabrication. The Suspension Band M1 is provided for single suspension. The band is a separate component. The over-all length of the bomb body is 472 inches. When empty, the bomb body weighs approximately 14 pounds. When completely loaded with sand and spotting charge, the weight of the bomb is approximately 100 pounds.

Over-all length	47.5 inches
Diameter	
Weight empty	
Weight sand loaded & spotting charge	

SPOTTING CHARGES, M1A1, M3, M5



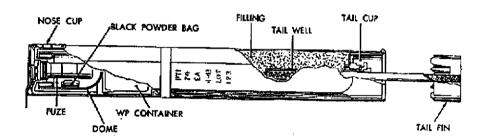
M1A1 Spotting Charge. This type of spotting charge fits in the after end of the 100-pound Practice Bomb M38A2. It produces a flash of flame and white smoke for observation of bombing accuracy. It is made from a large tin can, 11.18-inches long, 3.43-inches diameter, weighing 4.25-pounds. At the top of the can is a cover, which has a hole in it for the insertion of a 28-gage blank shotgun shell and firing mechanism. Upon impact, the inertia weight drives the firing pin into the shotgun-type primer, igniting the 3-pounds of black powder.

M3 Spotting Charge. The spotting charge has a 2 1/3-pound dark smoke filling and a black-powder igniter. It is 5/8 of an inch longer than the Spotting Charge M1A1, but otherwise similar. The M3, with its dark smoke filler, is well adapted for bombing practice over snow-covered terrain. The black-powder igniter charge contains approximately 425 grains. It is used in the M38A2 Practice bomb.

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

BOMB, INCENDIARY, M74



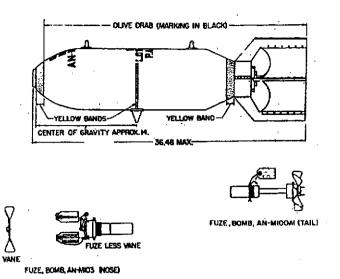


General. The M74 incendiary bomb is 192 inches long, 2f inches across opposite faces of the hexagon, and weighs 8.5 pounds. The M74 bomb is used in M31 bomb clusters. The complete round consists of a sheet-steel body, a dome, a white phosphorus (WP) igniting charge, incendiary filling, a fuze, and a tail assembly. The body is hexagonal in cross section except for the tail end, where it is circular. A sheet-metal nose cup that provides a seat for the fuze closes the nose end of the bomb. A spring loaded release bar clips to the nose cup over a release pin in the M14A1 fuze. The dome is located in the bomb nose behind the nose cup. It separates the fuze from the filling and forms a container for two small bags of magnesium-black powder mixture. The igniting charge consists of approximately 6 ounces of WP in a plastic container that is installed in the bomb behind the dome and ahead of the filling. The filling consists of approximately 2.75 pounds of PT1, essentially, a mixture of magnesium with gasoline and other petroleum products thickened with isobutyl methacrylate. The fuze is an M142A1 bomb fuze that is screwed into the nose cup; the booster end of the fuze is inside the dome and is adjacent to the bags of black powder.

Over-all length	192 inches
Diameter	2f inches
Weight	8.5 pounds
9	
0	PT1, 2.75 pounds (approximately)
Fuze	

Reference: TM 3-400, Chemical Bombs and Clusters, May 1957

BOMB, GP, 100-POUND, AN-M30



Description. The GP and M series bombs of 100-pound weight have the same dimensions. The GP is distinguishable from the M-series by the fact that it has a base plug in the tail and a single suspension lug in addition to two Army lugs. The old GP bombs are a relatively thin-cased bomb with an ogival nose, parallel sidewalls, and a tapered aft section. It uses both the box type and conical type fin assembly. The box-type fin assembly is secured to the aft end of the bomb with a fin locknut, while the conical-type fin assembly is secured to the bomb body by means of a support tube. The two Army lugs are 14 inches apart, each 7 inches from the center of gravity. The single suspension lug is on the center of gravity 14 inches behind the nose. The weight of the case is 42.1 pounds and the fins weigh between 5.6 to 17.5 pounds. The filler is 50/50 amatol, TNT, or Tritonal. Percentage of filler is approximately 49 percent. The AN-M30 Bomb is fuzed in the nose with the AN-M103 Fuze and in the tail with the AN-M100A2 Fuze. Alternate fuzes that may be used as substitutes or for special purposes are the M103, M118, or M119 Nose Fuzes, and the M112, M100, M106, or its modifications, or the AN-M100A1 Tail Fuzes.

Length, assembled bomb	
Fin assembly AN-M103A1	. 40.26 inches
Fin assembly M135	
Diameter	. 8.18 inch
Weight of Filler	
TNT	. 57 pound
Amatol	. 54 pound
Tritonal	. 62 pound
Fuze:	-
Nose	. ANM103, M103, M118,
M119	,
Tail	. AN-M103, M112, M100,
M106,	
Painting and Markings	AN-M100A1 Olive drab with black stencil, 2 yellow bands (1aft, 1 center)

BOMB, GENERAL PURPOSE, 250 LB, AN-M57 AND AN-M57A1

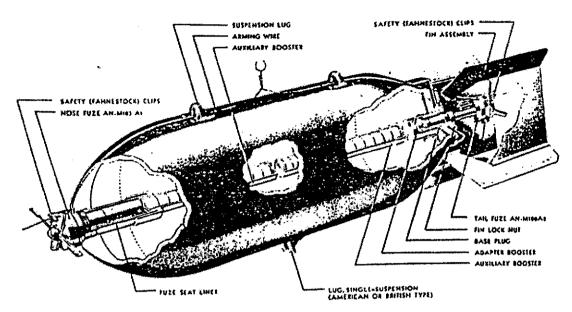


Figure 282. 250-pound G.P. Bomb AN-MS7

Description. This bomb is of cylindrical construction and may be charged with 50-50 Amatol, TNT, or Tritonal. The bomb is painted Olive Drab with black markings. Yellow bands around the nose and tail are used to distinguish which explosive is loaded in the bomb. One band for TNT and Amatol, and three bands for Tritonal. This bomb may be fitted with box, conical, or parachute retarding tail assemblies that affect the overall length. Only the length of the main body is given here.

Body Length			
	50-50 Amatol	TNT	ritonal
Total Weight	. 243 lbs	247.2 lbs2	53.7 lbs
Filler Weight	. 119.7 lbs	. 124.6 lbs1	31.1 lbs
	Nose	Tail	
Fuze	. M103, M103A1	M100A1, M100A	2
	M139, M139A1	M112, M112A1	
	M140, M140A1	M115	
	M163, M164, M165	M123 series	
	M166, M168	M132	
		M151	

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR THE FORMER VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA PROJECT NUMBER J09CA731301

APPENDIX E

REPORTS/STUDIES

APPENDIX E

REPORTS/STUDIES

Table	e of	Contents

E-1 FDE, SSS, And PSS for Victorville Precision Bombing Range Z, dated 3 July 1991 (B-10).

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

VICTORVILLE PRECISION BOMBING RANGE Z SAN BERNARDINO COUNTY, CALIFORNIA SITE NO. J09CA731300

FINDINGS OF FACT

- 1. The Department of Defense (DOD) acquired 4,212 acres of land in the Mojave Desert per Directive RE-D 1554, 2 September 1942, for the establishment of Victorville Precision Bombing Range Z. Of the 4,212 acres acquired, 1,449 acres were leased from the Southern Pacific Land Company under Lease No.W04-193-eng-4536. The remaining 2,763 acres were acquired by "implied transfer" from the Department of the Interior. Real estate records describe the transfer as "implied", as neither a permit nor Public Land Order was obtained by DOD for use of the public lands.
- 2. Victorville Precision Bombing Range Z was used for Demolition Bombing Target practice by Army Air Corps pilots and bombardiers in training during World War II at Victorville Army Air Field. DOD is not known to have constructed any facilities at the site and no improvements were made to the site other than oiled rings to mark the targets.
- 3. DOD declared the site surplus on 22 June 1945. The site was dedudded by 4 June 1948. DOD cancelled the lease with Southern Pacific Land Company on 23 February 1948 and relinquished the "implied transfer" from the Department of the Interior on 1 November 1948. The site is currently owned by private parties and the Department of the Interior. It is unimproved and used as a recreation area for off-highway vehicles and campers.

DETERMINATION

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

30 S=0 99 DATE

PETER T. MADSEN

(P) Colonel (P), U.S. Army

Commanding

SITE SURVEY SUMMARY SHEET FOR

DERP-FUDS SITE NO. J09CA731300 VICTORVILLE PRECISION BOMBING RANGE Z 27 AUGUST 1999

SITE NAME: VICTORVILLE PRECISION BOMBING RANGE Z; also known as Victorville PBR Z; Demolition Bombing Target Z; DT-4.

LOCATION: The site of Victorville Precision Bombing Range Z is located in the Mojave Desert, about 47 miles east of Victorville, in San Bernardino County, California. The site encompasses Galway Dry Lake and the eastern boundary is adjacent to the live firing range of the U.S. Marine Corps, Twentynine Palms.

SITE HISTORY: Victorville Precision Bombing Range Z was established on 4,212 acres of land acquired by the War Department per Directive RE-D 1554, 2 September 1942, by lease from Southern Pacific Land Company and by "implied transfer" from the Department of the Interior.

The site was used for Demolition Bombing Target practice by Army Air Corps pilots and bombardiers in training at Victorville Army Air Field. Two targets, 1Z and 2Z, were established on the lakebed and adjacent area respectively for the practice of demolition bombing. Five hundred pound bombs were used for demolition bombing. The site was declared surplus on 22 June 1945 and was subsequently cleared and dedudded. DOD cancelled the lease with the Southern Pacific land Company on 23 February 1948 and relinquished the "implied transfer" from the Department of the Interior on 1 November 1948.

The site has since been owned by private parties and the Department of the Interior. It is managed by the Bureau of Land Management and is part of the Johnson Valley Off-Highway Vehicle Recreation Area. The site remains unimproved except for dirt roads and tracks established by recreational vehicles.

During the surface survey of the site no evidence was found of toxic or hazardous debris which could be attributed to DOD use. No evidence of ordnance or munitions items use was found. Ordnance use is inferred from records of DOD use of the site and dedudding reports.

SITE VISIT: The site was visited on 17 January 1999 by Joyce Clarke and John Pacetti of Science Applications International Corporation, Fountain Valley, California. The primary site contact was Mr. John Key, Bureau of Land Management, Riverside.

CATEGORY OF HAZARD: OE.

SITE No. J09CA731300

PROJECT DESCRIPTION: Recommend the Corps' Huntsville Engineering and Support Center make a determination regarding further investigation at this site.

AVAILABLE STUDIES AND REPORTS: None.

DISTRICT POC: Jeffery B. Armentrout, Los Angeles District (213) 452-3720.

PROJECT SUMMARY SHEET

DERP-FUDS OF PROJECT NO. J09CA731301
VICTORVILLE PRECISION BOMBING RANGE Z
SAN BERNARDINO COUNTY
SITE NO. J09CA731300
27 August 1999

PROJECT DESCRIPTION: Victorville Precision Bombing Range Z (PBR Z) was established during World War II by the Army Air Corps for Demolition Bombing Target practice for pilots and bombardiers in training at Victorville Army Air Field. Two Demolition Bombing Targets were established on the site. Victorville PBR Z was associated with the Victorville Bombing Range, established by DOD on desert land east of Victorville Army Air Field.

Although the site was reported as dedudded in 1948, only a surface clearance was made. No direct evidence of ordnance use was discovered at the site during the site visit, when a surface survey for bomb craters and munitions items was made. Local agencies and persons contacted had no knowledge of reports or records of discovery of ordnance at the site, which is extensively used by off-highway vehicles. Ordnance use is inferred from records of use of the site; records show that five hundred pounds bombs were used for Demolition Bombing Target practice. It is possible that evidence of ordnance use may be discovered in a subsurface search.

project ELIGIBILITY: This property was acquired by DOD as part of Victorville Bombing Range. The property was used by the Army Air Corps during World War II for Demolition Bombing Target practice for bombardiers and pilots training at Victorville Army Air Field. Since DOD disposed of the property in 1948, it has remained unimproved and has been used as an off-highway vehicle recreational area. Thus, any ordnance or munitions items discovered could be the result of past DOD activities.

POLICY CONSIDERATIONS: No policy considerations exist that would prohibit proposal of this project.

PROPOSED PROJECT: Recommend the Corps' Huntsville Engineering and Support Center make a determination if further action is appropriate.

RAC FORM: Attached.

DISTRICT POC: Request CEHNC inform Mr. Jeffery B. Armentrout at (213) 452-3720 when a determination is made regarding project status.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR THE FORMER
VICTORVILLE PRECISION BOMBING RANGE Z
SAN BERNARDINO COUNTY, CALIFORNIA
PROJECT NUMBER J09CA731301

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

APPENDIX F

LETTERS/MEMORANDUMS/ MISCELLANEOUS ITEMS

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- F-1 Letter, Species list for the Former Victorville PBR, San Bernardino County, California (B-11).
- F-2 Letter, California Archeological Inventory (B-12).
- F-3 Letter, Soil Information (B-13).
- F-4 Ground Water Information (B-14).
- F-5 Public land order #125 dated April 1945, With Attachments Clearance Report dated March 1948 and Dedudding Report dated February 1948 (B-15).
- F-6 Report, History of Victorville Army Air Field, Victorville, California from 1 January 1943 to 1 March 1944 (B-16).

State of California The Resources Agency DEPARTMENT OF FISH AND GAME Wildlife and Habitat Data Analysis Branch California Natural Diversity Data Base

SPECIAL ANIMALS

July 2000

The California Natural Diversity Data Base (CNDDB) is a continually refined and updated, computerized inventory of location information on the more rare animals, plants, and natural communities in California. The blueprint used to set up the CNDDB was developed by The Nature Conservancy (TNC) in the early 1970's. TNC has helped to set up similar programs in all 50 states and a number of foreign countries. Collectively these programs are known as the Natural Heritage Network. The "Heritage Methodology" used by all of these programs, sets the standards on the information we gather and the procedures we use. More information on the Natural Heritage Network is available on their Web site: http://www.heritage.tnc.org/nhp/overview_nhp.html.

"Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. These taxa generally fall into one or more of the following categories:

- Officially listed or proposed for listing under the State and/or Federal Endangered Species Acts
- State or Federal candidate for possible listing
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines (more information on CEQA is available on the internet at: http://ceres.ca.gov/topic/env law/ceqa/guidelines/)
- Taxa considered by the Department to be a Species of Special Concern
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.)
- Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or non-governmental organization (NGO)

For most animal taxa, the CNDDB is interested in sightings that indicate the presence of a **resident population**. For many birds, however, the CNDDB tracks only nesting locations, (those species are so indicated on the list). It is not necessary to actually locate the nest to confirm breeding status. Any indication of breeding (territorial males, adults carrying nest material, adults carrying food, the presence of newly fledged young, etc.) is acceptable evidence of nesting. For other taxa where we track only a certain part of their range or life history, the area or life stage is indicated on the list.

Taxa marked with a "+" to the left of the scientific name are those for which there is location information in the CNDDB Geographic Information System (GIS), as of the date of this list.

CNDDB RANKS:

The CNDDB ranking codes are part of the "Heritage Methodology". It is a shorthand formula that provides information on how rare a taxa is, both throughout its entire range and within California. We use the best information available to assign these ranks and they are changed as new information becomes available. More detailed information on our ranks can be found in Appendix 1.

CALIFORNIA ENDANGERED SPECIES ACT (CESA) LISTING CODES: The listing status of each species is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and prints quarterly (January, April, July, & October).

SE State-listed as Endangered

ST State-listed as Threatened

SCE State candidate for listing as Endangered

SCT State candidate for listing as Threatened

ENDANGERED SPECIES ACT (ESA) LISTING CODES: The listing status is current as of the date of this list. The most current changes in listing status will be found in the list of "Endangered and Threatened Animals of California", which the CNDDB updates and prints quarterly (January, April, July, & October).

FE Federally listed as Endangered

FT Federally listed as Threatened

FPE Federally proposed for listing as Endangered

FPT Federally proposed for listing as Threatened

FPD Federally proposed for delisting

FC Federal candidate species (former Category 1 candidates)

(FSC) Federal Special Concern species (a "term-of-art" for former Category 2 candidates). More information is available in Appendix 2.

IUCN CODES:

The World Conservation Union (formerly the International Union for the Conservation of Nature) was created in 1949. It is the world's largest conservation-related organization with over 900 governmental and non-governmental members from 181 countries. The IUCN is a storehouse of information and expertise, and as such, it advises and assists governments, organizations and local communities in developing and implementing conservation strategies. The Species Survival Commission, one of six global commissions within IUCN, has been publishing the "Red List of Threatened Species" for over 30 years. The Red List contains a roster of species that have been assessed against strict criteria. Detailed information on the IUCN codes can be found in Appendix 3. Additional information is available on their Web site at: http://www.iucn.org/themes/ssc/redlists/ssc-rl-c.htm.

OTHER CODES:

<u>Audubon: Cal WL</u>: The Audubon Society's state WatchList for California. The state WatchLists were developed using the Partners in Flight (PIF) data and prioritization process. The state lists are an additional tool designed to help conserve local bird populations. More information is available on their Web site at: http://www.audubon.org/bird/watch/state2/ca.html.

BLM: Sensitive: Bureau of Land Management. BLM Manual §6840 defines sensitive species as "...those species that are (1) under status review by the FWS/NMFS; or (2) whose numbers are declining so rapidly that Federal listing may become necessary; or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats." Existing California-BLM policy concerning the designation of sensitive species identifies two conditions that must be met before a species may be considered as BLM sensitive: (1) a significant population of the species must occur on BLM-administered lands, and (2) the potential must exist for improvement of the species' condition through BLM management.

CDF: Sensitive: California Department of Forestry and Fire Protection. The Board of Forestry classifies as "sensitive species" those species that warrant special protection during timber operations. The list of "sensitive species" is given in §895.1 (Definitions) of the California Forest Practice Rules. The Forest Practice Rules are

available on CDF's Web site at: http://www.fire.ca.gov/pdf/2000RULEi197.pdf

<u>DFG: CSC</u>: California Special Concern species. It is the goal and responsibility of the Department of Fish and Game to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long term viability. Not all "Species of Special Concern have declined equally; some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a "Threatened" or "Endangered" species under the State and/or Federal Endangered Species Acts. More information on the Department's species of special concern reports can be found in Appendix 4.

DFG: Fully protected and Protected: Fully protected and Protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or the Department of Fish and Game. Information on Fully protected species can be found in the Fish and Game Code, (birds at §3511, mammals at §4700, reptiles and amphibians at §5050, and fish at §5515). Information on Fully Protected fish can be found in the California Code of Regulations, Title 14, Division 1, Chapter 2, Article 4, §5.93. Information on Protected native amphibians can be found in Chapter 5, §41 and Protected native reptiles at §42. The Fish and Game Code is available on the internet at: http://www.leginfo.ca.gov/calaw.html. Title 14 is available on the internet at: http://www.dfg.ca.gov/title/contents.html.

<u>FS: Sensitive</u>: The Forest Service participates in recovery programs with the California Department of Fish and Game and the U.S. Fish and Wildlife Service to restore declining populations and protect habitats. A Forest Service "Sensitive Species" program identifies and manages species whose populations are declining. More information is available on their Web site at:

http://www.r5.fs.fed.us/forestmanagement/html/endangered species.html

<u>FWS: MNBMC</u>: Fish and Wildlife Service: Migratory Nongame Birds of Management Concern: Species of migratory nongame birds that are considered to be of concern in the United States because of (1) documented or apparent population declines, (2) small or restricted populations, or (3) dependence on restricted or vulnerable habitats. More information is available on their Web site at:

http://migratorybirds.fws.gov/reports/speccon/tblconts.html

PIF: WatchList: The WatchList is compiled by Partners in Flight, a coalition of state, federal, and private sector organizations working together to protect the birds of the western hemisphere. The WatchList identifies North American bird species in need of help. WatchList species are those faced with population decline, limited geographic range, and/or threats such as habitat loss on their breeding and wintering grounds. The WatchList is an early warning system that focuses attention on at-risk bird species before they become endangered. Saving species pushed to the edge of extinction is difficult, costly and politically charged. The WatchList shifts the agenda from reactive, last-minute rescue attempts to preventive action. More information on the WatchList and the PIF prioritization process can be found on their Web site at: http://www.audubon.org/bird/watch/index.html.

<u>WBWG: High Priority</u>: The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. The goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs. Species designated as "High Priority" are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

OTHER DATABASES

In addition to the CNDDB, the Department of Fish and Game maintains other databases which may be of interest to CNDDB users. Some of these databases are listed in Appendix 5.

California Department of Fish and Game Natural Diversity Database

For information about these species or natural communities, or other species or natural communities, or for staff contacts, please see the NDDB website at http://www.dfg.ca.gov/whdab/cnddb.htm

IMPORTANT NOTICE:

This list of species was produced from data presently included in the California Natural Diversity Database (CNDDB). The CNDDB is a positive sighting data base, and our data sets can not be considered to be complete for every species in every county. Therefore, this list must not be considered to be a comprehensive list of all special status species in the county.

Special Status Plants, Animals and Natural Communities of SAN BERNARDINO COUNTY

Scientific Name	Common Name	STATUS*: *(see footnotes)			
		<u>Federal</u>	California		CNPS
Vascular Plants					
Achnatherum aridum	MORMON NEEDLE GRASS	None	None		2
Allium nevadense	NEVADA ONION	None	None		2
Androstephium breviflorum	SMALL-FLOWERED ANDROSTEPHIUM	None	None		2
Antennaria marginata	WHITE-MARGINED EVERLASTING	None	None		2
Arabis breweri var pecuniaria	SAN BERNARDINO ROCK CRESS	Species of concern	None		1B
Arabis dispar	PINYON ROCK CRESS	Поле	None		2
Arabis parishii	PARISH'S ROCK CRESS	Species of concern	None		1B
Arabis pulchra var munciensis	DARWIN ROCK CRESS	None	None		2
Arabis shockleyi	SHOCKLEY'S ROCK CRESS	None	None		2
Arctomecon merriamii	WHITE BEAR POPPY	Species of concern	None		1B
Arenaria paludicola	MARSH SANDWORT	Endangered	Endangered		1B
Arenaria ursina	BIG BEAR VALLEY SANDWORT	Threatened	None		1B
Argyrochosma limitanea var limitanea	CLOAK FERN	None	None		2
Astragalus albens	CUSHENBURY MILK-VETCH	Endangered	None		1B
Astragalus allochrous var playanus	PLAYA MILK-VETCH	None	None		2
Astragalus cimae var cimae	CIMA MILK-VETCH	None	None		1B
Astragalus jaegerianus	LANE MOUNTAIN MILK-VETCH	Endangered	None		1B
Astragalus lentiginosus var antonius	SAN ANTONIO MILK-VETCH	Species of concern	None		18
Astragalus lentiginosus var sierrae	BIG BEAR VALLEY MILK-VETCH	Species of concern	None		18
Astragalus leucolobus	BIG BEAR VALLEY WOOLLYPOD	Species of concern	None		1B
Astragalus preussii var preussii	PREUSS'S MILK-VETCH	None	None		2
Astragalus tricarinatus	TRIPLE-RIBBED MILK-VETCH	Endangered	None		1B
Astrolepis cochisensis	SCALY CLOAK FERN	None	None		2
Atriplex coulteri	COULTER'S SALTBUSH	None	None		1B
Atriplex parishii	PARISH'S BRITTLESCALE	Species of concern	None		1B
Ayenia compacta	AYENIA	None	None		2
Berberis nevinii	NEVIN'S BARBERRY	Endangered	Endangered		- 1B
Botrychium crenulatum	SCALLOPED MOONWORT	Species of concern	None		1B
Bouteloua trifida	RED GRAMA	None	None		2
Brodiaea filifolia	THREAD-LEAVED BRODIAEA	Threatened	Endangered		- 1B
Calochortus palmeri var palmeri	PALMER'S MARIPOSA LILY	Species of concern	None		1B
Calochortus plummerae	PLUMMER'S MARIPOSA LILY	Species of concern	None		1B
Calochortus striatus	ALKALI MARIPOSA LILY	Species of concern	None		1B
Calochortus weedii var intermedius	INTERMEDIATE MARIPOSA LILY	Species of concern	None		18
Canbya candida	PYGMY POPPY	None	None		1B
Carex comosa	BRISTLY SEDGE	None	None		2
Carnegiea gigantea	SAGUARO	None	Nane		2
Castela emoryi	CRUCIFIXION THORN	None	None		2
Castilleja cinerea	ASH-GRAY INDIAN PAINTBRUSH	Threatened	None		1B
Castilleja lasiorhyncha	SAN BERNARDINO MOUNTAINS OWL'S-CLOVER	Species of concern	None		1B
Caulanthus simulans	PAYSON'S JEWEL-FLOWER	Species of concern	None		4

Special Status Plants, Animals and Natural Communities of

SAN BERNARDINO COUNTY

Scientific Name	Common Name	S	STATUS*: *(see footnotes)			
					CNP	
/ascular Plants				•		
Chamaesyce platysperma	FLAT-SEEDED SPURGE	Species of concern	None		11	
Cheilanthes wootonii	WOOTON'S LACE FERN	None	None		2	
Chorizanthe parryi var parryi	PARRY'S SPINEFLOWER	Species of concern	None		3	
Claytonia lanceolata var peirsonii	PEIRSON'S SPRING BEAUTY	Species of concern	None		1	
Cordylanthus maritimus ssp maritimus	SALT MARSH BIRD'S-BEAK	Endangered	Endangered		1	
Cordylanthus parviflorus	PURPLE BIRD'S-BEAK	None	None		2	
Cordylanthus tecopensis	TECOPA BIRD'S-BEAK	Species of concern	None		1	
Cryptantha clokeyi	CLOKEY'S CRYPTANTHA	None	None		1	
Cymopterus deserticola	DESERT CYMOPTERUS	Species of concern	None		1	
Cymopterus gilmanii	GILMAN'S CYMOPTERUS	None	None		2	
Ditaxis clariana	GLANDULAR DITAXIS	None	None		2	
Dodecahema leptoceras	SLENDER-HORNED SPINEFLOWER	Endangered	Endangered		1	
Dryopteris filix-mas	MALE FERN	None	None		2	
Dudleya abramsii ssp affinis	SAN BERNARDINO MOUNTAINS DUDLEYA	Species of concern	None			
Dudleya multicaulis	MANY-STEMMED DUDLEYA	Species of concern			11	
Echinocereus engelmannii var howei	HOWE'S HEDGEHOG CACTUS	Species of concern	None		11	
Enneapogon desvauxii	NINE-AWNED PAPPUS GRASS	None	None		11	
Eriastrum densifolium ssp sanctorum	SANTA ANA RIVER WOOLLYSTAR		None		2	
Erigeron breweri var bisanctus	PIOUS DAISY	Endangered None	Endangered		11	
Erigeron parishii	PARISH'S DAISY		None		16	
Erigeron uncialis var uncialis	LIMESTONE DAISY	Threatened	None		11	
Eriogonum bifurcatum	FORKED BUCKWHEAT	None	None		2	
Eriogonum ericifolium var thomei	THORNE'S BUCKWHEAT	Species of concern	None		16	
Eriogonum kennedyi var alpigenum	SOUTHERN ALPINE BUCKWHEAT	Species of concern	Endangered		16	
Eriogonum kennedyi var austromontanum		None	None		11	
_	SOUTHERN MOUNTAIN BUCKWHEAT	Threatened	None		18	
Eriogonum microthecum var johnstonii	JOHNSTON'S BUCKWHEAT	Species of concern	None		18	
Eriogonum ovalifolium var vineum	CUSHENBURY BUCKWHEAT	Endangered	None		16	
Eriogonum umbellatum var juniporinum	JUNIPER BUCKWHEAT	None	None		2	
Erioneuron pilosum Eriophyllum mohavense	HAIRY ERIONEURON	None	None		2	
' '	BARSTOW WOOLLY SUNFLOWER	Species of concern	None		1 E	
Eschscholzia minutiflora ssp twisselmannii	RED ROCK POPPY	Species of concern	None		7 E	
Escobaria vivipara var alversonii	FOXTAIL CACTUS	Species of concern	None		18	
Escobaria vivipara var rosea	VIVIPAROUS FOXTAIL CACTUS	None	None		1B	
Euphorbia exstipulata var exstipulata	CLARK MOUNTAIN SPURGE	None	None		2	
Fimbristylis thermalis	HOT SPRINGS FIMBRISTYLIS	None	None		2	
Galium californicum ssp primum	CALIFORNIA BEDSTRAW	Species of concern	None		1B	
Gallium hilendiae ssp kingstonense	KINGSTON MOUNTAINS BEDSTRAW	Species of concern	None		1B	
Galium wrightii	WRIGHT'S BEDSTRAW	None	None		2	
Gentiana fremontii	MOSS GENTIAN	None	None		2	
Gilia maculata	LITTLE SAN BERNARDINO MOUNTAINS GILIA	Species of concern	None		1B	
Gilia ripleyi	RIPLEY'S GILIA	None	None		2	
Glossopetalon pungens	PUNGENT GLOSSOPETALON	Species of concern	None		1B	
Helianthus nuttallii ssp parishii	LOS ANGELES SUNFLOWER	Species of concern	None		1A	
Hemizonia mohavensis	MOJAVE TARPLANT	Species of concern	Endangered		1A	
Hemizonia pungens ssp laevis	SMOOTH TARPLANT	Species of concern	None		1B	
Heuchera parishii	PARISH'S ALUMROOT	None	None		1B	
Horkelia wilderae	BARTON FLATS HORKELIA	Species of concern	None		1B	
Ivesia argyrocoma	SILVER-HAIRED IVESIA	Species of concern	None		18	
Ivesia jaegeri	JAEGER'S IVESIA	Species of concern	None		1B	
Ivesia patellifera	KINGSTON MOUNTAINS IVESIA	Species of concern	None		1B	
Lasthenia glabrata ssp coulteri	COULTER'S GOLDFIELDS	Species of concern	None		1B	
Lepidium virginicum vər robinsonii	ROBINSON'S PEPPER-GRASS	None	None		1B	

Scientific Name	Common Name	STATUS*: -(see footnotes)			
		Federal	California	CDFG CN	
/ascular Plants					
Lesquerella kingli ssp bernardina	SAN BERNARDINO MOUNTAINS BLADDERPOD	Endangered	None		
Lilium parryi	LEMON LILY	Species of concern	None		
Linanthus arenicola	SAND LINANTHUS	None	None		
Linanthus concinnus	SAN GABRIEL LINANTHUS	Species of concern	None		
Linanthus killipii	BALDWIN LAKE LINANTHUS	Species of concern	None		
Linanthus orcuttii	ORCUTT'S LINANTHUS	Species of concern	None		
Lotus argyraeus var multicaulis	SCRUB LOTUS	None	None		
Lotus argyraeus var notitius	PROVIDENCE MOUNTAINS LOTUS	None	None		
Lycium parishii	PARISH'S DESERT-THORN	None	None		
Lycurus phleoides var phleoides	WOLFTAIL				
	PARISH'S BUSH MALLOW	None	None		
Malacothamnus parishii		Species of concern	None		
Malaxis monophyllos ssp brachypoda	ADDER'S-MOUTH	None	None		
Matelea parvifolia	SPEARLEAF	None	Noпе		
Maurandya antimhinillora ssp antirrhinillora	VIOLET TWINING SNAPDRAGON	None	None		
Mimulus exiguus	SAN BERNARDING MOUNTAINS MONKEYFLOWER	Species of concern	None		
Mimulus mohavensis	MOJAVE MONKEYFLOWER	Species of concern	None		
Mimulus purpureus	PURPLE MONKEYFLOWER	Species of concern	None		
Monardella macrantha ssp hallii	HALL'S MONARDELLA	None	None		
Monardella pringlei	PRINGLE'S MONARDELLA	Species of concern	None		
Monardella robisonii	ROBISON'S MONARDELLA	Species of concern	None		
Muhlenbergia appressa	APPRESSED MUHLY	None	None		
Muhlenbergia arsenei	TOUGH MUHLY	None	None		
Muhlenbergia californica	CALIFORNIA MUHLY	None	None		
Muhlenbergia fragilis	DELICATE MUHLY	None	None		
Muhlenbergia pauciflora	FEW-FLOWERED MUHLY	None	None		
Munroa squarrosa	FALSE BUFFALO-GRASS	None	None		
Nama dichotomum var dichotomum	FORKED PURPLE MAT	None	None	,	
Navarretia peninsularis	BAJA NAVARRETIA	None	None		
Nemacaulis denudata var gracilis	SLENDER WOOLLY-HEADS	None	None		
Opuntia basilaris var brachyclada	SHORT-JOINT BEAVERTAIL	Species of concern		:	
Opuntia curvospina	CURVED-SPINE BEAVERTAIL	•	None	•	
•		None	None	î	
Oxytheca parishii var cienegensis	CIENEGA SECA OXYTHECA	Species of concern	None	•	
Oxytheca parishii var goodmaniana	CUSHENBURY OXYTHECA	Endangered	None	•	
Pellaea truncata	CLIFF BRAKE	None	None	2	
Penstemon albomarginatus	WHITE-MARGINED BEARDTONGUE	Species of concern	None	٦	
Penstemon calcareus	LIMESTONE BEARDTONGUE	None	None	2	
Penstemon stephensii	STEPHENS'S BEARDTONGUE	Species of concern	None	1	
Perideridia parishii ssp parishii	PARISH'S YAMPAH	None	None	2	
Phacelia anelsonii	AVEN NELSON'S PHACELIA	None	None	2	
Phacelia mustelina	DEATH VALLEY ROUND-LEAVED PHACELIA	None	None	1	
Phacelia parishii	PARISH'S PHACELIA	Species of concern	None	2	
Phacelia pulchella var gooddingii	GOODDING'S PHACELIA	None	None	2	
Phlox dolichantha	BIG BEAR VALLEY PHLOX	Species of concern	None	1	
Pholistoma auritum var arizonicum	ARIZONA PHOLISTOMA	None	None	2	
Physalis lobata	LOBED GROUND-CHERRY	None	None	7	
Piptatherum micranthum	SMALL-FLOWERED RICE GRASS	None	None	2	
Poa atropurpurea	SAN BERNARDINO BLUE GRASS	Endangered	None	1	
Poliomintha incana	FROSTED MINT	None	None	1	
Populus angustifolia	NARROW-LEAVED COTTONWOOD	None			
Puccinellia parishii	PARISH'S ALKALI GRASS		None	2	
		Species of concern	None	1	
Pyrrocoma uniflora var gossypina Ribes divaricatum var parishii	BEAR VALLEY PYRROCOMA PARISH'S GOOSEBERRY	Species of concern Species of concern	None None	1	

Scientific Name	Common Name	STATUS*: *(see footnotes)			
		Federal California CDFG C			
Vascular Plants					
Rorippa gambelii	GAMBEL'S WATER CRESS	Endangered	Threatened		16
Salvia greatae	OROCOPIA SAGE	Species of concern	None		16
Sanvitalia abertii	ABERT'S SANVITALIA	None	None		2
Scleropogon brevifolius	BURRO GRASS	None	None		2
Scutellaria bolanderi ssp austromontana	SOUTHERN SKULLCAP	None	None		11
Senecio bernardinus	SAN BERNARDINO RAGWORT	Species of concern	None		11
Senna covesii	COVES'S CASSIA	None	None		2
Sidalcea hickmanii ssp parishii	PARISH'S CHECKERBLOOM	Candidate	Rare		1
Sidalcea neomexicana	SALT SPRING CHECKERBLOOM	None	None		2
Sidalcea pedata	BIRD-FOOT CHECKERBLOOM	Endangered	Endangered		1!
Sphaeralcea rusbyi var eremicola	RUSBY'S DESERT-MALLOW	Species of concern	None		1[
Sphenopholis obtusata	PRAIRIE WEDGE GRASS	None	None		
Streptanthus bernardinus	LAGUNA MOUNTAINS JEWEL-FLOWER	None			2
Streptanthus campestris	SOUTHERN JEWEL-FLOWER		None		11
Taraxacum californicum	CALIFORNIA DANDELION	None	None		71
Thelypodium stenopetalum	SLENDER-PETALED THELYPODIUM	Endangered	None		16
Thelypteris puberula var sonorensis	SONORAN MAIDEN FERN	Endangered	Endangered		16
Viola aurea	GOLDEN VIOLET	None	None		2
Wislizenia refracta ssp refracta	JACKASS-CLOVER	None	None		2
Woodsia plummerae	PLUMMER'S WOODSIA	None	None		2
Snails and Slugs	LEOMMIEK 2 MOOD 214	None	None		2
					
Eremanionta rowelli bakerensis	BAKER DESERTSNAIL	Species of concern	None		
Eremarionta morongoana	MORONGO (=COLORADO) DESERTSNAIL	Species of concern	None		
Helminthoglypta mohaveana	VICTORVILLE SHOULDERBAND	Species of concern	None		
Grasshoppers, Katydids, and Cric	<u>kets</u>				
Ammopelmatus kelsoensis	KELSO JERUSALEM CRICKET	Species of concern	None		
Macrobaenetes kelsoensis	KELSO GIANT SAND TREADER CRICKET	Species of concern	None		
Psychomastix deserticola	DESERT MONKEY GRASSHOPPER	Species of concern	None		
True Bugs					
Belostoma saratogae	SARATOGA SPRINGS BELOSTOMAN BUG	Species of concern	None		
Pelocoris shosone	AMARGOSA NAUCORID BUG	Species of concern	None		
acewings					
Oliarces clara	CHEESEWEED OWLFLY	Species of concern	None		
<u>Beetles</u>		·			
Hydroporus simplex	SIMPLE HYDROPORUS DIVING BEETLE	Species of concern	None		
Polyphylla erratica	DEATH VALLEY JUNE BEETLE	Species of concern	None		
lies					
Rhaphiomidas terminatus abdominalis	DELHI SANDS FLOWER-LOVING FLY	Endangered	None		
Butterflies and Moths		3			
Euchloe hyantis andrewsi	ANDREW'S MARBLE BUTTERFLY	Species of concern	None		
ish		Species of concern	NOTIC		
Catostomus santaanae	CANTA ANA CHOVED	D 171			
Cyprinodon nevadensis amargosae	SANTA ANA SUCKER	Proposed Threatened		SC	
· ·	AMARGOSA PUPFISH	None	None	SC	
Cyprinodon nevadensis nevadensis	SARATOGA SPRINGS PUPFISH	None	None	SC	
Gasterosteus aculeatus williamsoni	UNARMORED THREESPINE STICKLEBACK	Endangered	Endangered		
Gila bicolor mohavensis	MOHAVE TUI CHUB	Endangered	Endangered		
Rhinichthys osculus ssp 1	AMARGOSA CANYON SPECKLED DACE	Species of concern	None	SC	
Xyrauchen texanus	RAZORBACK SUCKER	Endangered	Endangered		

Scientific Name	Common Name	STATUS*: *(see footnotes)		
		<u>Federal</u>	<u>California</u>	CDFG CNP
Amphibians				
Bufo microscaphus californicus	ARROYO TOAD	Endangered	None	SC
Rana aurora draytonii	CALIFORNIA RED-LEGGED FROG	Threatened	None	SC
Reptiles				
	COUTUEDN DUDDED DOA	m	T I	
Charina bottae umbratica	SOUTHERN RUBBER BOA	Species of concern	Threatened	
Clemmys marmorata pallida	SOUTHWESTERN POND TURTLE	Species of concern	None	SC
Cnemidophorus hyperythrus	ORANGE-THROATED WHIPTAIL	Species of concern	None	SC
Cnemidophorus tigris multiscutatus	COASTAL WESTERN WHIPTAIL	Species of concern	None	
Diadophis punctatus modestus	SAN BERNARDINO RINGNECK SNAKE	Species of concern	None	0.0
Heloderma suspectum cinctum	BANDED GILA MONSTER	Species of concern	None	SC
Lampropeltis zonata parvirubra	SAN BERNARDINO MOUNTAIN KINGSNAKE	None	None	
Phrynosoma coronatum blainvillei	SAN DIEGO HORNED LIZARD	Species of concern	None	SC
Thamnophis hammondii Varobates agreeizii	TWO-STRIPED GARTER SNAKE DESERT TORTOISE	Species of concern	None	SC
Xerobates agassizii	DESERT TORTOISE	Threatened	Threatened	
<u>irds</u>				
Accipiter cooperii (nesting)	COOPER'S HAWK	None	None	SC
Aquila chrysaetos (nesting and wintering)	GOLDEN EAGLE	None	None	SC
Asio otus (nesting)	LONG-EARED OWL	None	None	SC
Athene cunicularia (burrow sites)	BURROWING OWL	Species of concern	None	SC
Buteo swainsoni (nesting)	SWAINSON'S HAWK	None	Threatened	
Cardinalis cardinalis superba	NORTHERN CARDINAL	None	None	SC
Charadrius alexandrinus nivosus (nesting)	WESTERN SNOWY PLOVER	Threatened	None	SC
Coccyzus americanus occidentalis (nesting)	WESTERN YELLOW-BILLED CUCKOO	None	Endangered	
Cypseloides niger (nesting)	BLACK SWIFT	None	None	SC
Dendroica petechia brewsteri (nesting)	YELLOW WARBLER	None	None	SC
Dendroica petechia sonorana (nesting)	SONORAN YELLOW WARBLER	None	None	SC
Empidonax traillii (nesting)	WILLOW FLYCATCHER	None	Endangered	
Empidonax traillii extimus (nesting)	SOUTHWESTERN WILLOW FLYCATCHER	Endangered	None	
Falco mexicanus (nesting)	PRAIRIE FALCON	None	None	SC
Haliaeetus leucocephalus (nesting & wintering)	BALD EAGLE	Threatened	Endangered	
Icteria virens (nesting)	YELLOW-BREASTED CHAT	None	None	SC
Junco hyemalis caniceps (nesting)	CALIFORNIA GRAY-HEADED JUNCO	None	None	SC
Melanerpes uropygialis	GILA WOODPECKER	None	Endangered	
Micrathene whitneyi (nesting)	ELF OWL	None	Endangered	
Myiarchus tyrannulus (nesting)	BROWN-CRESTED FLYCATCHER	None	None	SC
Piranga flava (nesting)	HEPATIC TANAGER	None	None	SC
Piranga rubra (nesting)	SUMMER TANAGER	None	None	SC
Polioptila californica	CALIFORNIA GNATCATCHER	Threatened	None	SC
Pyrocephalus rubinus (nesting)	VERMILION FLYCATCHER	None	None	SC
Rallus longirostris yumanensis	YUMA CLAPPER RAIL	Endangered	Threatened	
Toxostoma bendirei	BENDIRE'S THRASHER	None	None	sc
Toxostoma crissale	CRISSAL THRASHER	None	None	SC
Toxostoma lecontei	LE CONTE'S THRASHER	None	None	SC
Vermivora virginiae (nesting)	VIRGINIAS WARBLER	None	None	SC
Vireo bellii arizonae (nesting)	ARIZONA BELL'S VIREO	None	Endangered	
Vireo bellii pusillus (nesting)	LEAST BELL'S VIREO	Endangered	Endangered	
Vireo vicinior (nesting)	GRAY VIREO	None	None	SC
ammals				
Antrozous pallidus	PALLID BAT	None	None	SC
Chaetodipus (=perognathus) fallax fallax	NORTHWESTERN SAN DIEGO POCKET MOUSE			
		Species of concern	None	SC
Corynorhinus townsendii pallescens	PALE BIG-ÉARED BAT	Species of concern	None	SC

Scientific Name	Common Name		STATUS*: *(see footnotes)		
		<u>Federal</u>	<u>California</u>	CDFG	CNP
<u>Mammals</u>					-
Dipodomys merriami parvus	SAN BERNARDINO KANGAROO RAT	Endangered	None	SC	
Dipodomys stephensi	STEPHENS' KANGAROO RAT	Endangered	Threatened		
Eumops perotis californicus	CALIFORNIA MASTIFF BAT	Species of concern	None	SC	
Macrotus californicus	CALIFORNIA LEAF-NOSED BAT	Species of concern	None	SC	
Microtus californicus mohavensis	MOHAVE RIVER VOLE	None	None	SC	
Myotis ciliolabrum	SMALL-FOOTED MYOTIS	Species of concern	None		
Myotis evotis	LONG-EARED MYOTIS	Species of concern	None		
Myotis thysanodes	FRINGED MYOTIS	Species of concern	None		
Myotis velifer	CAVE MYOTIS	Species of concern	None	SC	
Myotis volans	LONG-LEGGED MYOTIS	Species of concern	None		
Neotoma albigula venusta	COLORADO VALLEY WOODRAT	None	None		
Neotoma lepida intermedia	SAN DIEGO DESERT WOODRAT	Species of concern	None	SC	
Ovis canadensis nelsoni	NELSON'S BIGHORN SHEEP	None	None		
Perognathus alticola alticola	WHITE-EARED POCKET MOUSE	Species of concern	None	SC	
Perognathus longimembris brevinasus	LOS ANGELES POCKET MOUSE	Species of concern	None	SC	
Spermophilus mohavensis	MOHAVE GROUND SQUIRREL	Species of concern	Threatened	Ü	
Tamias panamintinus acrus	KINGSTON MOUNTAIN CHIPMUNK	None	None		
Natural Communities					
Alkali seep	N.A.	None	None		
Amargosa river	N.A.	None	None		
Arizonan woodland	N.A.	None	None		
California walnut woodland	N.A.	None	None		
Canyon live oak ravine forest	N.A.	None	None		
Coastal and valley freshwater marsh	N.A.	None	None		
Crucifixion thorn woodland	N.A.	None	None		
Desert fan palm oasis woodland	N.A.	None	None		
Mesquite bosque	N.A.	None	None		
Mojave mixed steppe	N.A.	None	None		
Mojave riparian forest	N.A.	None	None		
Mojave yucca scrub and steppe	N.A.	None	None		
Pebble plains	N.A.	None	None		
Riversidian alluvial fan sage scrub	N.A.	None	None		
Southern california arroyo chub/santa ana sucker strea	N.A.	None	None		
Southern california threespine stickleback stream	N.A.	None	None		
Southern coast live oak riparian forest	N.A.	None	None		
Southern cottonwood willow riparian forest	N.A.	None	None		
Southern mixed riparian forest	N.A.	None	None		
Southern riparian forest	N.A.	None	None		
Southern riparian scrub	N.A.	None	None		
Southern sycamore alder riparian woodland	N.A.	None	None		
Southern willow scrub	N.A.	None	None		
Transmontane alkali marsh	N.A.	None	None		

ARCHAEOLOGICAL INFORMATION CENTER

San Bernardino County Museum

2024 Orange Tree Lane Redlands, CA 92374 (909) 307-2669 x 255

FAX (909) 307-0689

rlaska@ccr.co.san-bernardino.ca.us



San Bernardino County

14 February 2000

Mr. James R. Reynolds US Army Engineer District, Rock Island Attn: CEMVR-ED-DO Clock Tower Bldg, P.O. Box 2004 Rock Island, IL 61204-2004

Dear Mr. Reynolds,

The results of the record search for the three bombing areas is as follows:

Victorville Precision Bombing Range Z has one Prehistoric Pending Site, P1543-1, a campsite containing points, flakes and a metate. It is in T5N R5E SW/SE/SW Section 5 between Glaway Lake and the hills on the north side of the lake. The site is pending because there has been no formal survey and no site record has been filed, just a spot on a map. Also, the bombing target is historic but not recorded yet.

Clarks Pass has no recorded sites, isolates or surveys; however, the bombing target is historic but not yet recorded.

Fort Mojave Reservation has many sites, isolates and surveys both prehistoric and historic. This area is rich in ground figures, campsites, village sites, military sites, homesteads, Fort Mohave itself and ethnographic sites. The bombing targets in this area are historic and have not yet been recorded.

If you have any further questions, please, call me at (909) 307-2669 x255 Monday through Friday between 8 AM & 4 PM. Have a great day!

Sincerely,

Robin E. Laska

Assistant Coordinator



Natural Resources Conservation Service

18484 Highway 18, Suite 195 Apple Valley, California 92307 (760) 242-2906 ♦ Fax: (760) 242-0203

November 17, 1997

Mr. Larry M. Daupin Director, DAC 3700 Army Depot Road Savanna, IL 61074-9639

Dear Mr. Daupin:

In response to your FAX requesting soils and aerial photography information for various PBR's I have enclosed individual map sheets and soils data for each. You were correct in that PBR's N-3, 3, 4, 5, and 6 are within the Mojave River Area Soil Survey which was issued in February 1986. I have enclosed the map sheets and soils descriptions for each of the soils within the PBR.

For the other PBR's, we do not have detailed soils data. The soils information for PBR's, nos. 9, 10, 11, 12, 14, 15, 16, and 19 was obtained from the General Soils Report of the Southwestern Desert Area of San Bernardino County, which was issued in June of 1970. Please keep in mind that the soils information from this survey is for general planning purposes and is not site specific. I've attached narrative soils descriptions for each of the PBR's noted on the soil survey map sheet for the General Soils Report.

As for aerial photography, we do have some photos which are infrared photos. These do not photocopy very well and I can not lend these photos out. However, you may want to contact the Mojave Desert RCD who has a color scanner which may be able to scan these photos for you at a nominal cost. Please contact Jackie Lindgren, District Coordinator, to find out cost information for scanning these photos.

Should you have any additional questions please do not hesitate to call me.

Sincerely,

Rick Aguayo

District Conservationist

Enclosures

Group IV - Areas dominated by soils that have restricted depth.

Carrier association, 0 to 15 percent slopes.

This association consists of well drained, moderately slowly permeable, sandy loams, moderately deep to deep to caliche, developed in stratified clay loam alluvium. The soils are on nearly level to strongly sloping terraces on slopes of 0 to 15 percent. Vegetation consists mostly of desert shrubs, annual forbs, and grasses. Elevations range from 2,000 to about 4,000 feet. Mean annual precipitation is 3 to 7 inches, mean annual air temperature is 66° F., and the frost-free season is 220 to 300 days. This association comprises about 16 percent of the Desert Area.

Mohave variant soils make up about 45 percent and Adelanto variant soils about 35 percent of the association. Sunrise (10 percent) and Cajon and Arizo (10 percent) soils comprise the remaining 20 percent.

Mohave variant soils have brown, platy, soft, mildly alkaline, sandy loam surface soils and reddish brown, prismatic, very hard, slightly acid, sandy clay loam subsoils. Adelanto variant soils have brown, granular, soft, moderately alkaline, sandy loam surface soils and reddish brown, blocky, slightly hard, moderately alkaline, sandy loam subsoils. These

soils overlie grayish brown, massive, very hard and extremely hard, moderately alkaline, calcareous, clay loam (caliche) substrata.

These soils are used mainly for recreation, urban, and wildlife. Limited grazing in some areas is possible when there is sufficient rainfall to produce forage. Urban uses are rapidly expanding around Adelanto, Apple Valley, Barstow, Hesperia, and Victorville.



Ground Water Atlas of the United States - Segment 1 California Nevada

#GROUND-WATER FLOW SYSTEMS

The ground-water flow systems of the Basin and Range area are in individual basins or in two or more hydraulically connected basins through which ground water flows to a terminal discharge point or sink. Except for relatively small areas that drain to the Colorado River, water is not discharged to major surface-water bodies but is lost solely through evapotranspiration. Each basin has essentially the same characteristics-the impermeable rocks of the mountain ranges serve as boundaries to the flow system, and the majority of the ground water flows through basin-fill deposits. In the areawhere carbonate rocks underlie the basins, substantial quantities of water can flow between basinsthrough the carbonate rocks and into the basin-fill deposits, but this water also is ultimately discharged by evapotranspiration. Most recharge to the basin-fill deposits originates in the mountains as snowmelt, and, where the mountain streams emerge from bedrock channels, the water infiltrates into the alluvial fans and replenishes the basin-fill aquifer. Intense thunderstorms may provide some direct recharge to the basin-fill deposits, but, in most cases, any rainfall that infiltrates the soil is either immediately evaporated or taken up as soil moisture; little water percolates downward through the unsaturated zone to reach the water table in the valleys. In mountain areas underlain by permeable carbonate rocks, most of the recharge may enter the carbonate rocks and little water remains to supply runoff.

Figure 25. Four types of basins have area and are classified on the basis of

been identified in the Basin and Range differences in ground-water flow. **EXPLANATION** Basin-fill deposits Playa that receives groundwater discharge Dry playa Phreatophytes-Plants with roots that extend to water table Low-permeability bedrock Permeable bedrock Direction of ground-water movement Eakin, T.E., Price, Don, and Harrill, J.R., 1976. Fault-Arrows show Summary appraisals of the Nation's ground-water relative vertical resources—Great Basin region: U.S. Geological movement Survey Professional Paper 813-G, 37p.

Because regional aquifers are not continuous within the Basin and Range area, the individual basins, which are encircled by topographic drainage divides, have been classified as one of four types based on similar recharge-discharge relations (fig. 25 and table 1). The simplest type is the "undrained, closed basin," a single valley in which the underlying and surrounding bedrock is practically impermeable and does not allow interbasin flow, and all recharge is discharged at a sink represented by a playa near the center of the basin. Basins underlain by permeable bedrock commonly are hydraulically connected as multiple valley systems. The "partly drained, closed basin" is underlain or surrounded by bedrock that is moderately permeable and allows some ground water to flow out of the basin. In this type of basin, some water is evaporated or transpired at the upgradient side of a playa, but most of the water continues to flow past the downgradient side of the playa and leaves the basin. The "drained, closed basin" has a deep water table that prevents evapotranspiration. The bedrock is sufficiently permeable to allow all recharge to flow through it and out of the basin. The "terminal sink basin" is underlain or surrounded by bedrock that is sufficiently permeable to conduct flow into the basin, and the playa in the basin is the discharge point for recharge from several connected basins.

In some places, an existing or ancestral stream course connects several basins that are not closed. The individual basins connected by such streams can also be classified as partly drained, drained, or terminal sink.

Examples of the individual type basins follow, except for the drained closed basin. With the exception that the water table in the drained closed basin is far below the playa, the partly drained and drained closed basins are sufficiently similar that discussion of each type is not warranted.

Back to "Basin-Fill Aquifers" - Forward to "Single, Undrained, Closed Basin"

Back to Basin and Range aquifers "Contents"

Ground Water Atlas Home Page

Back to:

발USGS Earth Resources of California 발USGS Headquarters 발USGS Water Resources - National

The URL for this report is http://water.wr.usgs.gov/gwatlas/basin/systems.html. For questions or comments regarding the USGS World Wide Web contact: <Dale A. Cox>

HEADQUARTERS VICTORVILLE ARMY AIR FIELD VICTORVILLE, CALIFORNIA

C13-PGB/kr

26 April 1945

SUBJECT: Abandonment of Demolition Target "Z".

TO: Commanding General, Army Air Forces, Washington 25, D. C., (THRU: Commanding General, Army Air Forces Western Flying Training Command, 1104 West Eighth Street, Santa Ana, California).

- l. In compliance with War Department Circular No. 306, dated 18 July 1945, Demolition Bombing Target $^{m}Z^{m}$, Victorville Army Air F ield is reported as no longer necessary for current requirements.
- 2. The following information is submitted in accordance with Paragraph 12, War Department Circular No. 306, dated 18 July 1944:
- a. Demolition Target "Z" is located approximately 52 miles East of Victorville Army Air Field on property located as follows:

Sections 4, 5, 6, 7, 8 and 9, TWP 5N, R5E, San Bernardino Base and Meridian, San Bernardino County, California. This property comprises 2560 acres of Public Land which has not been withdrawn for use by the War Department and approximately 1,449.12 acres held under Lease No. W-04-193-eng.-4536.

- b. The property is desert land and there are no improvements.
- c. Site has been used for bombing target, but is no longer required, due to a change in training program.
 - d. Surplus status is recommended.
 - e. Property could be used by Federal Agencies.
 - f. Is available for surplus status as of 20 April 1945.
 - g. There are no commitments on any of this land.
 - h. There are no auxiliary facilities.
 - i. There are no commitments to other Army or Federal Agencies.

 For the Commanding Officer:

684

1st Ind.

AGC 9H-LG-AW

(26 Apr 45)

HQ AAFWFTC, 1104 W 8, Santa Ana, Calif. 8 May 45.

TO: Commanding General, AAF Training Command, Texas and Pacific Railway Building, Fort Worth 2, Texas.

1. This headquarters concurs in the declaration of surplus of Demolition Bombing Target "Z" (DT-4) of Victorville AAF.

2. The site is located at Lat. 34° 33', long. 116° 28'.

For the Commanding General:

/s/ Fred D. Hall
FRED D. HALL,
Maj AC,
Actg Asst Adjutant General.

Ltr Hq Victorville AAFld, Calif. 26 Apr 45, subj "Abandonment of. Demolition Target "Z"

684

2d Ind

HL

Headquarters, AAF Training Command, Fort Worth 2, Texas

19 May 1945

TO: Commanding General, Army Air Forces, Washington 25, D. C., ATTENTION: Assistant Chief of Air Staff, Materiel and Services, Air Installations Division

In compliance with the provisions of Circular 89, War Department, 1945, Demolition Bombing Target "Z" (DT-4) of Victorville Army Air Field, California is reported surplus to the needs of this Command effective 20 April 1945.

FOR THE COMMANDING GENERAL:

/s/ Robert C. Rice ROBERT C. RICE Colonel, AGD Asst.Adj.Gen.

Copies furnished: CG, AAF, AFACT CG, AAFWFTC

AFDIN 3C/f

WAR DEPARTMENT HEADQUARTERS OF THE ARMY AIR FORCES WASHINGTON, D. C.

11 June 1945

SUBJECT: Abandonment of Targets Nos. 6, 9, and 15, and Y and Z, Victorville Army Air Field, California.

TO: Commanding General, Army Service Forces, Washington 25, D. C. Attn: Director of Plans and Operations.

- 1. There are inclosed communications from the Commanding General, Army Air Forces Training Command, reporting as surplus five targets, enumerated below, at Victorville Army Air Field, California. The designation of the targets and the nature of the interest acquired by the United States are as follows:
- a. Target No. 6, comprising 240 acres, acquired in fee, 320 acres of public domain, 80 acres under Lease No. W-04-193-eng-5550.
- b. Target No. 9, comprising 640 acres of public domain, transferred to the War Department by Public Land Order No. 125.
- c. Target No. 15, comprising 640 acres of public domain, transferred to the War Department by Public Land Order No. 125.
- d. Traget "Y", situated 50 miles ESE of Victorville Army Air Field, in Sections 24 and 25, TWP 4N, R4E, and Section 19 and N2 of Section 30, TSP 4N, Range 5E, San Bernardino County, California, Acreage not known. Land owned in fee by the government.
- e. Target "Z", comprising 2,560 acres of public land which has not been withdrawn for use by the War Department, and approximately 1,449.12 acres held under Lease No. W-04-193-eng-4536.
- 2. The Basic communications from the Commanding Officer, Victorville Army Air Field, together with indorsements, set forth the information required by paragraphs 12 and 13, Cir. 89, WD, 1945. It is requested that the aforementioned installations be declared surplus in accordance with the referenced circular.

FOR THE COMMANDING GENERAL:

5 Incls

1. Ltr fr CO, V. AAFld to CG, AAF, 12 Apr 45, w/2 Inds

2. Ltr fr CO, V. AAFld to

CG,AAF, 13 Apr 45, W/2 Inds

3. Ltr fr CO, V. AAF to CG,AAF, 12 Apr 45, w/2 inds.

4. Ltr fr CO, V.AAF, to CG,AAF, 26 Apr 45, w/2 Inds.

5. Ltr fr CO, V/AAF, to CG/AAF 26 Apr 45, w/2 Inds. /s/ Lucius M. Sargent, Lt. Col., A.C.,
LUCIUS M. SARGENT, LT. COL., A.C.,
Assn't Chief, Air Installations Div.
Office of Ass't Chief of Air Staff,
Material and Services

PADL-1-20 (5-)

21 July 1945

600

INTERNAL SECURITY INSPECTION REPORT

Div. Real Estate Directive No. 2-3020 , L.A. Dist. Directive No. Z-1481

		508-1453.10.1/16			.2/1604
Lease No.	LA PADRM		S.F. Cont. No	•• 1604	
Lessor:			Address: Towns	ship 5 N. Ran	ge 1 W. San
Gor	vernment ûwne	d Land	Bernardino Base	& Meridian.	San Bernar
			dino County, Ca	alifornia	
	lity declared 22 June 1945	surplus	Date inspected		
Facility of	consists of:	(1) Target 6 -	320 acres of Ta	nd	
		(2) Target 9 -	640 acres of la	ınd	
		<u>(3</u>) Target 15. =	640 acres of]	and	
		(4) Target Z -	2,530 acres of	land	
Indication	ns of vandali	sm: No			
					•
Fire hazar	d: No		Fire protection	n furnished	by:
Safety haz	ard: Wire fe	ence around homb	ranges. Repor	ts are that	some dudds
712721	-				
Juilluties:	Electricity		Request be tur	ned: On 🗆	Off 🗆
None	Gas Water Telephone	On \square Off \square	Request be tur Request be tur Request be tur	ned: On	Off 🗆
Immediat	era: les i	contracted for by \square No \square No	y former using utilities	agency be ter	rminated
facility p	osted as bein	g Government-own	ned Yes KX	No 🗆	
	e required:			Estimated	I Cost
JETH PEHENC	e requirea:	No		Material	Labor
			· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·			`		
Warding:	Not necessar Necessary		Guarding by:	Roving guard Full time gu Part time gu	uard 🗔
ilscellane	ous Comments:	(1) Located on d	lry lake bed.	Penced with 3	
erb wire.	Iron posts	15t apart. Appr	ox. 1 mile of	fence.	
		(2) Same as abov	70 •	<u> </u>	
	· · ·	(3) Same as above	re.		
4) Range	"Z" was a dem	olition target.	This range is:	it fenced bu	t is posted
<u>vith signs</u>	stating that	high explosives	exist.		
					-
					1 1 4 1 E
				<u>Aparta territoria de 1</u>	
	1 4724-474 (2010) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			15 4 4	1
and the second s	and the second of the second of the second		and the second of the second of the second	12.	17

ORVID E. GURNEY

Pacific Region, Laguna Niguel Office

WAR DEPARTMENT

In reply refer OFFICE OF THE DIVISION ENGINEER 601.1 (Victorville Army Air Field - Bombing Targets-Targets

Y and Z)LA PADRE-D 7.21 WFB

LOS ANGELES SUB-OFFICE 621 SOUTH HOPE STREET

LOS ANGELES 14, CALIF.

21 July 1945

SUBJECT: Neutralization of Unexploded Bombs

TO:

Division_Engineer Pacific Division

SAN FRANCISCO 19, CALIFORNIA

ATTENTION: Real Estate Division

Investigation by this office discloses that Targets Y and Z should be neutralized and information requested under Paragraph 105.15 of P D Manuel is furnished as follows:

> a. Location: San Bernardino County, alifornia San Bernardino Base and Meridian

Demolition Target "Y"		
All of Sec. 24 and 25	T 4 N, R 4 E	1280 Ac.
All of Sec. 19	T 4 N, R 5 E	640 Ac.
$N\frac{1}{2}$ of Sec. 30	T4N, R5E	320 Ac.

TOTAL

Demolition Target "Z" All of Sec.4,5,6,7,8, & 9 T 5 N, R 5 E 3840 Ac.

b. Surplus Real Estate Directive numbers: Target "Y" Pacific Div. No. X-3019 Los Angeles Dist. No. X-1480

Target "Z" Pacific Div. Nos. 3021 and Z 3020 Los Angeles Dist. Nos. 1482 and Z 1481

- c. All of above 6080 Acres
- d. Demolition Bombing Targets 100 pound demolition bombs were used here.
- e. The Using Agency has not fully decontaminated these areas. Many of the duds have been marked by maintainence crews but they have not been removed or exploded.

2240 Ac.

Pacific Region, Laguna Niguel Office

Atr. Div. Engineer San F. 601.1 - LA PADRE D 7.21 WFB 21 July, 1945 (Continued)

sumed that many more duds are completely buried and their exact location unknown.

f. Map attached with area to be decontaminated outlined in red-

JOHN A. LOOMIS

Chief, Los Angeles Sub-Office

Ohn a. Lo

Inclosure:

Reproduced from the holdings of the National Archives

Pacific Region Laguna Niguel Office 15th BOMB DISFOSAL SQUAD .amp Haan, Calii.

11th August 1945

SUBJECT: Disposal of Unexploded Bombs, Victorville Army Air Field Targets

: Commanding Officer, Camp Haan, California TO

- 1. Reconnaisance made of Targets Y and Z per Par. 1, basic communication, indicated practicability of using squad vehicles for thorough searching of areas for duds. Consequently entire personnel of this organization was sufficient to accomplish mission.
- 2. Conference with Air Operations officer and bombardier training office disclosed that both Y and Z targets are dry lake beds and all bombing practice with high explosive demolition bombs were to be confined to these lake beds. Regardless of this information the entire areas designated on the enclosed map in red, were searched for unexploded bombs.
- Twelve 100-1b. high explosive demo-bombs, unexploded, were found on target Y. These bombs were fuzed in the nose with the AN K-103 nose fuze, and in the tail with M 100Al tail fuze. The arming wires had not been pulled on six of these bombs and the fuzes had failed to arm. The remaining six bombs had fuzes in the various stages of arming, none of them completely armed. The twelve bombs were exploded in place.
- 4. Four unexploded 100-1b. high explosive demo-bombs were found on target Z. These bombs were fuzed in the same manner as those found on target Y. These bombs were also exploded in place.
- 5. None of the unexploded bombs found were in any manner marked by maintainence crews as noted in Par. 1 (e) of basic communication. Since the designated areas were most thoroughly searched, it is presumed that the markers referred to were either blown away or completely covered by sand.
- The great majority of bombs dropped on targets Y and Z were the sand loaded practice bomb M38A2, assembled with a spotting charge MIAI at the tail of the bomb. This spotting charge is composed of black powder, which produces a puff of white smoke at the point of impact to indicate where the bomb has struck. These bombs are of light case construction and do not penetrate the surface to any extent unless the target is muddy. If the target surface is hard and dry the bomb cases collapse. These bombs are readily distinguished by the blue color of the case and tail fins. All practice bombs were inspected to insure that all spotting charges had fired. The metal containers represent at least 5 tons of metal and it was impractical for this organization to attempt to remove practice bombs.
- 7. If it is necessary that sand loaded practice bombs be removed from these targets it is suggested that a detail of 50 men equipped with entrenching tools and sufficient transportation to remove the crushed cases to some other area, be assigned. Everything of an explosive nature has been removed from these targets.

MELVILLE, S. JABOBSON lat Lt. Ord. Dept. Commanding

CE 602 Victorville Aux. Landing Field #1, Hawes, Calif. ENGLT

lst Ind (B/L 5 June 46)

SUBJECT: Victorville Anxiliary Landing Field No. 1, Hawes, California

Office, Chief of Engineers, Washington, D. C., 13 June 1946

TO: The Division Engineer, South Pacific Division, San Francisco, California

The basic communication is forwarded in confirmation of teletype of 8 April 1943, file 843 SPELT, authorizing disposition of the subject installation and stating that the SPB-5 would not be submitted to the War Assets Administration.

BY ORDER OF THE CHIEF OF ENGINEERS:

Edward J. Fan Flik

Chief, Management & Disposal Division Real Estate

3622

J.M.





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HEADQUARTERS

SAN BERNARDINO AIR TECHNICAL SERVICE COMMAND

SBCON2A/CEB/rv

IN REPLY REFER TO:

SAN BERNARDINO ARMY AIR FIELD, CALIFORNIA.

SBATSC 601.53

DEC. 7 1945

SUBJECT: Declaration as Excess, Auxiliary Installations of Victorville

Army Air Field, Victorville, California

TO:

Commanding General

Air Technical Service Command Wright Field, Dayton, Ohio

ATTN: Air Installations Division, TSCON

- 1. In accordance with War Department Circulars No. 89, dated 20 March 1945, and No. 326, dated 25 October 1945, the auxiliary installations of Victorville Army Air Field, Victorville, California, consisting of a. Auxiliary Landing Fields, b. Bombing Targets, c. Demolition Targets, d. Mirage Lake Glider School, all as described below, are no longer required and are declared excess to the needs of this Command. It is requested that appropriate action be taken to dispose of the Government-owned facilities, to cancel all pertinent leases and transfers and to restore the original premises to the respective lessors or to the Public Domain.
- Auxiliary Landing Fields: (Regional Map VAAF File No. 256, revised 8 March 1945, inclosure No. 1).
 - (1) Field No. 1, located approximately 21 miles North. of VAAF in T 10 N, R 5 W, SB B&M, comprising 640 acres Public Domain; Government-owned facilities include 4 field mix surfaced runways, 3 buildings and 4 miles of 4-strand barbed wire fence.
 - Field No. 2, located 15 miles North of VAAF in T 9 N, R 4 W, SB B&W, comprising 640 acres in fee; Government-owned facilities include 4 field mix surfaced runways, 3 buildings, skeet range, and 4 miles of 4-strand barbed wire fence.
 - (3) Field No. 3, located II miles West of VAAF in T 6 N. R 7 W, SB B&M, comprising 640 acres in fee; Government-owned facilities include 4 field mix surfaced runways, 3 buildings and 4 miles of 4-strand barbed wire fence.

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Basic: Ltr fr SBATSC to CG, ATSC, 601.53, Subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California". (Cont'd)

- (4) Field No. 4, located 16 miles West of VAAF in T 6 N, R 8 W, SB B&M, comprising 640 acres leased land, (Lease No. W 868-Eng-2070, State of California, Lessor); Government-owned facilities, 4 field mix surfaced runways, 4 miles of 4-strand barbed wire fence and 2 small buildings installed by Marine Corps.
- b. Bombing Targets: (Regional Map VAAF File No. 256, revised 8 March 1945, inclosure No. 1).
 - (1) Target No. 1, located 8 miles East of VAAF in T 6 N, R 3 W, SB B&M, comprising 160 acres, Lease No. W 04-193-Eng-2623 (expired), Lessor, Carrie Kyles.
 - (2) Target No. 2, located 12 miles East of VAAF, T 5 N, R 3 W, SB B&M, comprising 640 acres, 440 acres in fee and 200 acres Public Domain; Government-owned facilities include field mix surfacing, portable power shed, target frame and 1 mile of 2-strand barbed wire fence.
 - (3) Target No. 3, located 16 miles East of VAAF in T 6 N, R 2 W, SB B&M, comprising 640 acres, 560 acres in fee and 80 acres Public Domain; Government-owned facilities are the same as Target No. 2.
 - (4) Target No. 4, located 16 miles East of VAAF in T 4 N, R 2 W, SB B&M, comprising 640 acres in fee; Government-owned facilities are the same as Target No. 2.
 - (5) Target No. 5, located 21 miles East of VAAF in T 6 N, R 1 W, SB B&M, comprising 691.96 acres Public Domain; Government-owned facilities are the same as Target No. 2.
 - (6) Target No. 6, located 16 miles East of VAAF in T 5 N, E 1 W, SB B&M, comprising 640 acres, 240 acres in fee, 320 acres Public Domain, 80 acres surplus, Lease No. W 04-193-Eng-5550, Lessor, William Bruce Young.
 - (7) Target No. 7, located 28 miles East of VAAF in T 5 N, R 1 E, SB B&M, comprising 640 acres, 400 acres in fee, 240 acres Public Domain; Government-owned facilities are the same as Target No. 2.

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Basic: Ltr fr SBATSC to CG, ATSC, 601.53, Subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California". (Cont'd)

- (8) Target No. 8, located 29 miles Southeast of VAAF in T 4 N, R 1 E, SB B&M, comprising 640 acres Public Domain; Government-owned facilities include 3 circular areas surfaced with field mix.
- (9) Target No. 9, located 34 miles East of VAAF in T 5 & 6 N, R 2 E, SB B&M, comprising 657.28 acres Public Domain.
- (10) Target No. 10, located 38 miles Southeast of VAAF in T 4 N, R 2 & 3 E, SB B&M, comprising 649.54 acres Public Domain; Government—owned facilities are the same as Target No. 2.
- (11) Target No. 11, located 42 miles East of VAAF in T 6 N, R 3 E, SB B&M, comprising 640 acres, 320 acres Public Domain and 320 acres leased—Lease No. W 04-193-Eng-5327, Lessor, State of California; Government-owned facilities are the same as Target No. 2.
- (12) Target No. 12, located 45 miles East of VAAF in T 4 & 5 N, R 4 E, SB B&H, comprising 617.12 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- (13) Target No. 13, located 45 miles Southeast of VAAF in T 3 N, R 4 E, SB B&M, comprising 636.30 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- (14) Target No. 14, located 49 miles East of VAAF in T 6 N, R 5 E, SB B&M, comprising 640.46 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- (15) Target No. 15, located 51 miles Southeast of VAAF in T 4 N, R 5 E, SB B&M, comprising 640 acres Public Domain (surplus).
- (16) Target No. 16, located 50 miles East-Southeast of VAAF in T 4 & 5 N, R 5 E, SB B&M, comprising 640 acres Public Domain; Government-owned facilities same as Target No. 2.

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Basic: Ltr fr SBATSC to CG, ATSC, 601.53, Subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California". (Cont'd)

- (17) Target No. 17, located 57 miles Southeast of VAAF in T 4 N, R 6 E, SB B&M, comprising 640 acres Public Domain; Government-owned facilities same as Target No. 2.
- (18) Target No. 18, located 61 miles Southeast of VAAF in T 3 N, R 6 & 7 E, SB B&M, comprising 627.42 acres Public Domain; Government-owned facilities same as Target No. 2.
- (19) Target No. 19, located 55 miles Southeast of VAAF in T 2 N, R 6 E, SB B&M, comprising 640 acres, 320 acres in fee and 320 acres Public Domain; Government-owned facilities include field mix surfaced targets, a frame target and 1 mile of 2-strand barbed wire fence.
- (20) Target No. 20, located 55 miles Southeast of VAAF in T 3 N, R 5 E, SB B&M, comprising 640 acres Public Domain; Government-owned facilities same as Target No. 2.
- (21) Target N-1, located 28 miles North of VAAF in T 10 N, R 2 W, SB B&M, comprising 644.75 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- (22) Target N-2, located 33 miles North of VAAF in T 11 N, R 3 W, SB B&M, comprising 640 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- (23) Target N-3, located 26 miles North of VAAF in T 10 N, R 3 W, SB B&M, comprising 640 acres Public Domain; Government-owned facilities are the same as Target No. 2.
- c. <u>Demolition Targets</u>: (Regional Map VAAF File No. 256, revised 8 March 1945, inclosure No. 1).
 - (1) Target "Y", located 50 miles Southeast of VAAF in T 4 N, E 4 E and E 5 E, SB B&M, comprising 2240 acres Public Domain.

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Basic: Ltr fr SBATSC to CG, ATSC, 601.53, Subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California". (Cont'd)

- (2) Target "Y" (1), located 45 miles Southeast of VAAF in T 4 N, R 4 E, SB B&M, comprising 1280 acres.
- (3) Target "Z", located 50 miles East of VAAF in T 5 N, R 4 E, SB B&M, comprising 2,762.95 acres Public Domain and 1449.12 acres leased—Lease No. W 04-193—Eng-4536, Lessor, Southern Pacific Land Company.
- d. Mirage Lake Glider School, (OCE Drawing No. 147-P, dated 27 September 1945, inclosure No. 2), located 10 to 13 miles West of VAAF in T 6 & 7 N, R 7 W, SB B&M, comprising 1,936.91 acres, 1,292.72 acres Public Domain and 644.19 acres leased. Tract Register with list of leases is shown on drawing. There is no Government construction.
- 2. The following pertinent information concerning said auxiliary installations of VAAF is submitted.
- a. <u>Location</u>: The auxiliary installations are located in San Bernardino County, California, except Landing Field No. 4 which is located in Los Angeles County; all are within a 63 mile radius of VAAF which is located 6 miles Northwest of Victorville, California.
- b. <u>Description</u>: All auxiliary facilities are described in the preceding paragraph 1.
 - c. Use: On inactive status.
- d. Recommendations: It is recommended that both the land and facilities be declared surplus and that the appropriate Division Engineer be directed to take over necessary accountability and protection of the above installations if no other governmental agency has use for the property.
 - e. Degree of Readiness: Not applicable.
- f. Use by Other Army or Federal Agencies: It is not known whether any other Army or Federal agencies have use for all or any portion of these auxiliary installations.
 - g. Date Available: Immediately.
- h. <u>Contractual Commitments</u>: None known to this Headquarters except those provided for in the leases.



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Basic: Ltr fr SBATSC to CG, ATSC, 601.53, Subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California". (Cont'd)

- i. Auxiliary Facilities: As described in preceding paragraph 1.
- j. Commitments to Other Army or Federal Agencies: Records of the Air Installations Office, SBATSC, disclose no commitments to other Army or Federal agencies.
 - Necessity for Service Detachment: Not applicable.
- 3. It is requested that this declaration of excess be processed as soon as practicable in order that appropriate directives may be published authorizing the Division Engineer to take over disposal of the property.

4. It is further requested that this Headquarters be advised of action taken on this declaration of excess,

Brigadier General

Commanding

2 Incls.

Incl 1 - Regional Map VAAF 256 (in dup).

Incl 2 - OCE Dwg 147-P (in dup).

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IMMEDIATE ACTION

ALSTATUTED CATSCATACATROX RECOVED FIR F.O. 10501

Basic: Ltr frm SBATSC to CG, ATSC dtd 7 Dec 45, subj: "Declaration as Excess, Auxiliary Installations of Victorville Army Air Field, Victorville, California"

(28)

1st Ind

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HQ ATSC Wright Field, Dayton, Ohio

DEC 28 1945

TO: Commanding General, Army Air Forces, Washington 25, D. C., ATTN: Office, Assistant Chief of Air Staff-4, Air Installations Division

- 1. This Headquarters approves request contained in preceding basic communication to the effect that the auxiliary installations of Victorville Army Air Field, Victorville, California, consisting of auxiliary landing fields, bombing targets, demolition targets, and the Mirage Lake Glider School, as specifically described therein, be declared excess to the needs of Air Technical Service Command, effective 7 December 1945.
- 2. It is noted that certain auxiliary landing fields to Victor-ville Army Air Base were declared excess to the needs of the Army Air Forces to the Commanding General, Army Service Forces, under date of 3 November 1945. This correspondence is forwarded to insure that the balance of the auxiliary facilities described in the basic communication be declared excess to the needs of this Command.
- 3. Information in accordance with paragraph 12a, War Department Circular No. 89, dated 20 March 1945, and paragraphs 10 and 11, AAF Regulation No. 85-3, dated 12 May 1945, is submitted in basic letter.
- 4. It is requested that this Headquarters be advised of the action taken in this matter.

FOR THE COMMANDING GENERAL:

2 Incls-n/c
(1 cy ea Incl w/d)

Chief, Air Installations Division

cc: Division Engineer
Pacific Division

Chief, Management Wiggs 31 (3 len 44) deted 3 princey

Associate engineer Wiggs 31 (3 len 44) deted 3 princey

Associate engineer Wiggs 31 (3 len 44) deted 3 princey

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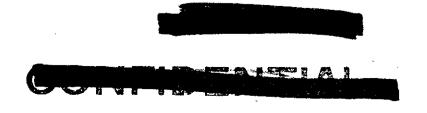
By: WELLAM G. WORKMAN

LA COL. G. S. C.

HISTORICAL RECORD OF VICTORVILLE ARMY AIR FIELD VICTORVILLE, CALIFORNIA FROM

1 JANUARY 1943 TO 1 MARCH 1944

DECLASSIFIED EO 11652





Detachment, 2053rd Ordnance Company

Aviation (Service)

The primary duty of the Ordnance Detachment was, and still is, the supply of bombs, practice, M38A2 to the Air Corps Training Squadrons. This duty not only consists of the actual delivery of the bombs to the planes but also their receipt and storage. From 1 January 1943 there were 293,981 bombs, practice, M38A2 or a total of 14,690 tons delivered to the Training 109 Squadrons.

In addition to this the Ordnance delivered 27,853 bombs, practice Navy Mk 15-2 water fillable 100 lb. or a total of 779 tons. Also 3,276 bombs, demolition M30, 100 lb. were used during 1943 by the bombardier students or a total of $163\frac{1}{2}$ tons. During the months of March, April and May the students also dropped a total of 271 flares, aircraft, parachute M26 unfused adapted for fuze M111, time, on night missions.

Another major function of the Ordnance Detachment is the operation of the Skeet, Pistol, Rifle and Machine Gun Ranges. In 1943 alone there were expended on these ranges a combined total of 815,273 rounds of small arms ammunition consisting of 83,528 rounds of caliber .22, 211,201 rounds of caliber.30, 336,644 rounds of caliber .45 and 183,900 rounds of 111 gauge shotgun ammunition.

There were also 126,850 Targets, pigeon clay expended on the Skeet

^{109.} Monthly Ammunition Reports, 1 Jan 43 to 1 Jan 44 (VAAF Post Ord Property Office File).

^{110.} Monthly Ammunition Reports, 1 Jan 43 to 1 Jan 44 (VAAF Post Ord Property Office file).

^{111.} Monthly Ammunition Reports, 1 Jan 43 to 1 Jan 44 (VAAF Post Ord Property Office File).

Range. It might also be added that all arms used in the firing of this ammunition were kept in constant repair and cleaned after each firing by

Ordnance personnel.

The Motor Repair Shop under the supervision of an Ordnance Officer and a staff of non-commissioned personnel is responsible for 2nd and 3rd echelon maintenance on more than three hundred military vehicles of all types ranging from bicycles to Biederman (truck tractors); and scooters 113 to semi-trailers. During the year 1943 there were 7500 separate operations performed on these various vehicles ranging from the replacing of windshield wipers to the installation of complete new motors and trans-114 missions.

Throughout the year the Ordnance received 301 carloads of Ordnance material and shipped out 23 carloads, having handled 324 carloads of Ordnance material without having any demurrage charges.

The year 1944 began with 2nd Lt. George B. Norris assuming command 116 of the Detachment with a strength of five officers, one Warrant 117 Officer J.G., and one hundred forty-nine enlisted men. Major Norman W. Reed continuing as Post Ordnance Officer with Detachment duties remaining unchanged.

^{112.} Monthly Ammunition Reports, 1 Jan 43 to 1 Jan 44 (VAAF Post Ord. Property Office File).

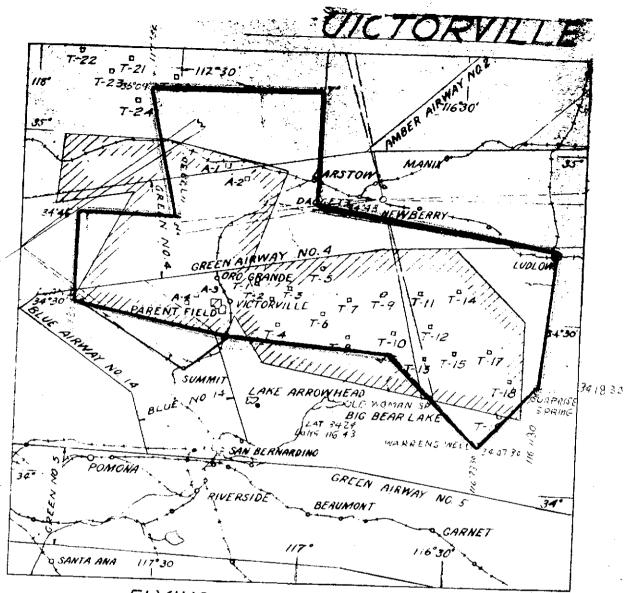
^{113.} Quarterly Density Report. 1 Jan 43 to 1 Jan 44 (VAAF Post Ord. Property Office File).

^{114.} Work Order Files, 1 Jan 43 to 1 Jan 44. (VAAF Motor Repair Shop).

^{15.} Bills of Lading, 1 Jan 43 to 1 Jan 44. (B/L Files - QM Property Office Files

^{116.} Par 15, SO 1, VAAF, Victorville, California, 1 Jan 1944.

^{117.} Morning Report, 1 Jan 1944, Det, 2053rd Ord Co. Avn (Sv).

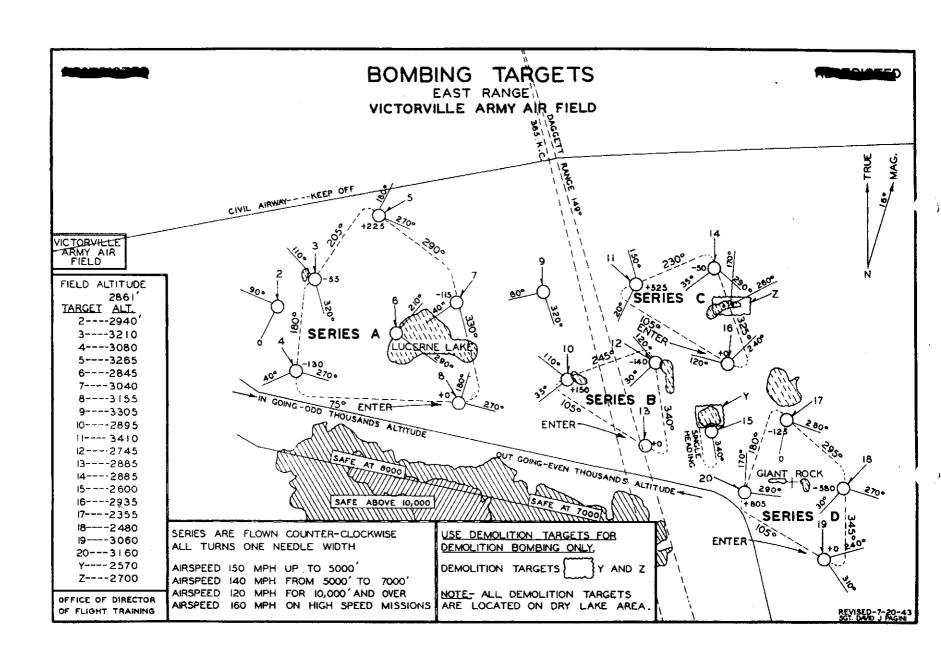


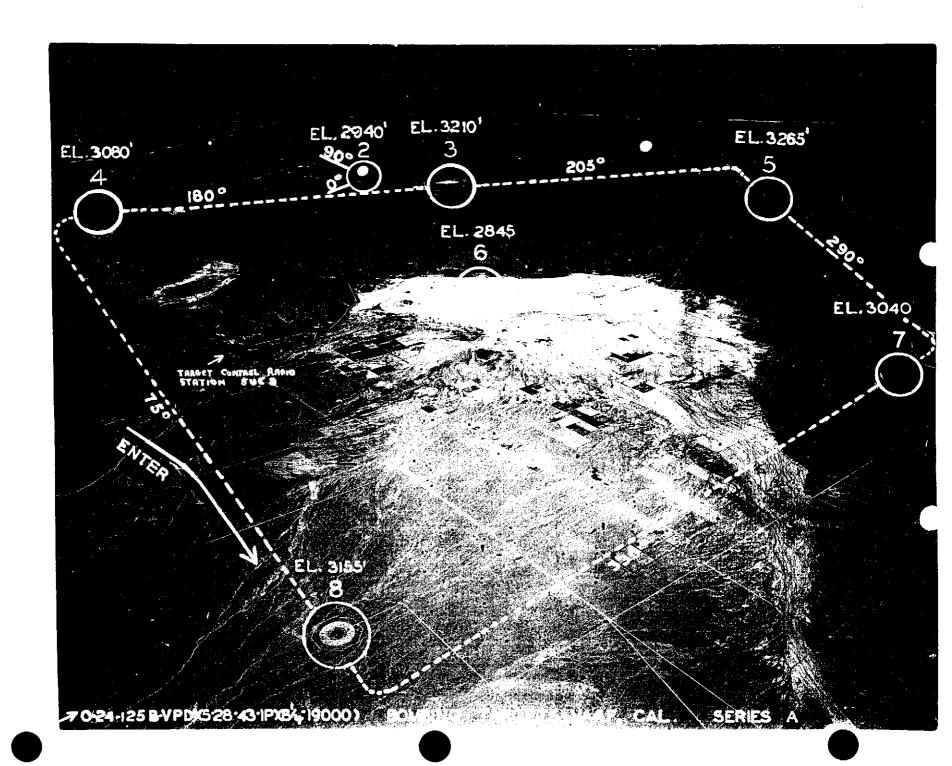
FLYING TRAINING AREA

DANGER AREA

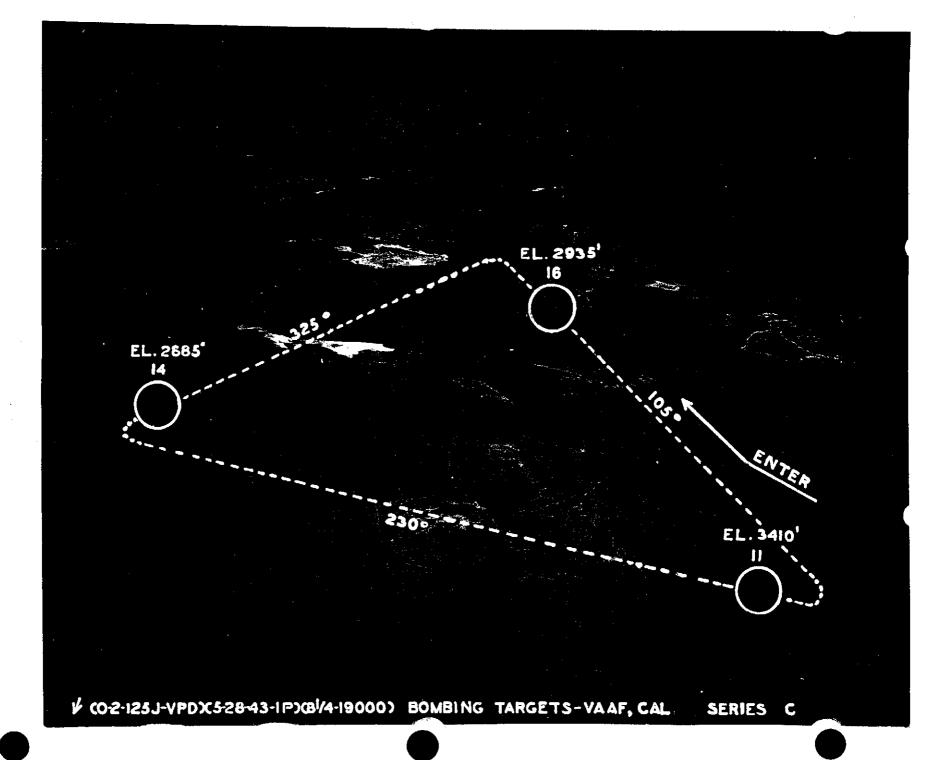
II M. REGIONAL AERO CHART BASE

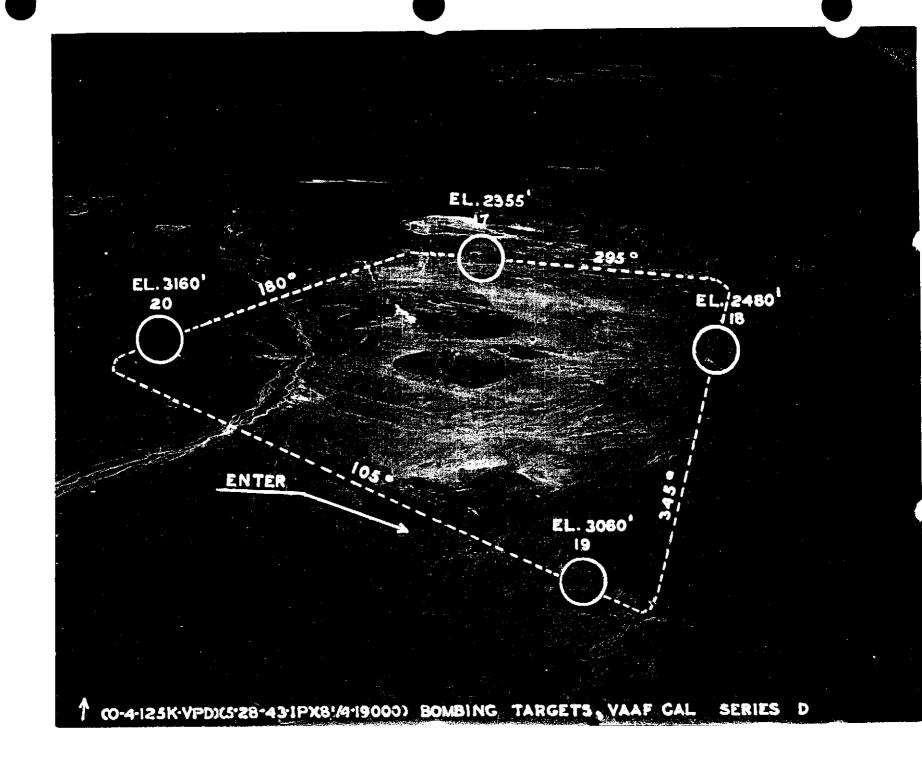
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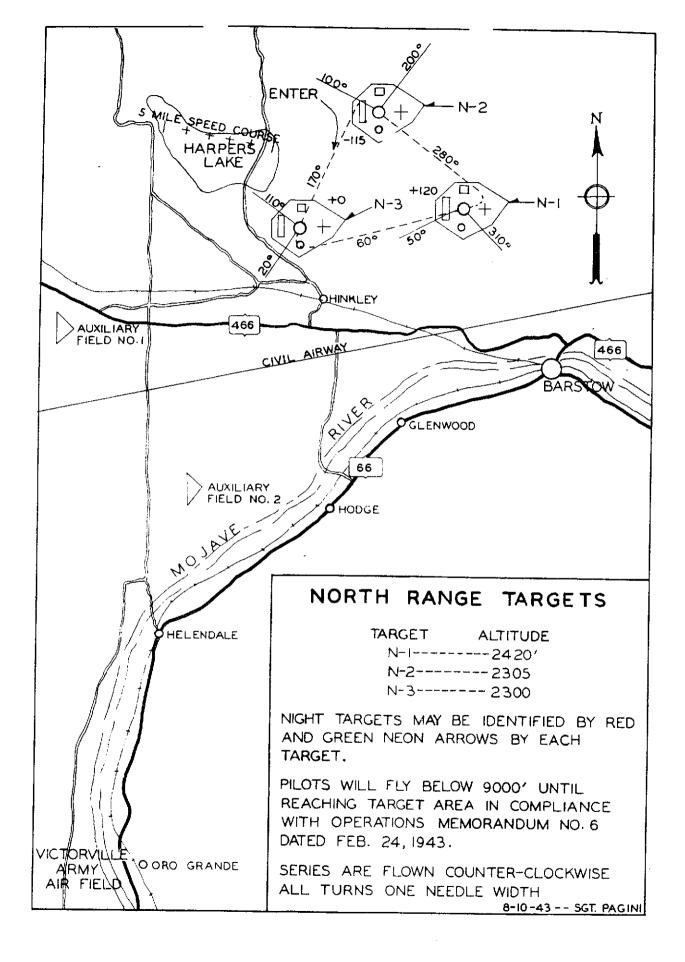












APPENDIX G

REAL ESTATE DOCUMENTS

APPENDIX G

REAL ESTATE DOCUMENTS

TABLE OF CONTENTS

G-1 Land Acquisition and Disposal Report, Not Dated (B-17).

G-2 Real Property Management and Disposal Report, dated June 1954 (B-18).

cc: C.of E. CG, AAFTC Utiliza. & Assign. Br. Mr. E. L. Edmundson/bs/2984 Installa. Data Br. Wrtn. 7 June 1945. AFDIN 3C/4 APDIN 30/4 Abandonment of Tarmets Nos. 6, 9, and 15, and Y and Z. Victorville Arey Air Field, California. Commanding General, Army Service Perces, Vashington 25, D. C. Atta: Director of Plans and Operations. There are inclosed communications from the Communicag Coneral, army Air Forene Training Command, reporting as surplus five turgets. emunerated below, at Victorville Army Air Field, Galifornia. The design nation of the targets and the nature of the interest sequired by the Waited States are as follows: Parget No. 6, comprising 340 scree, acquired in fee, 320 acres of public domain. 80 acres under lesse No. 1-04-198-eng-5550. b. Target No. 9, comprising \$40 sores of public domain, transferred to the war Separtment by Public Land Order Be. 125. Target No. 15, comprising 640 scree of public domain, transferred to the War Department by Public Lend Order No. 125. d. Target "Y", situated 50 miles ESS of Victorville Army Air Field, in Sections 34 and 35, TWP 48, R48, and Section 19 and % of Section 30, Tor 4N, Renge 5%, San Bernardine County, California. Acreage not known. Land owned in fee by the government. Target "Z", comprising 2,560 acres of public land which has not been withdrawn for use by the War Department, and approximately 1,449.13 acres held under Lease No. W-04-193-eag-4656. 2. The basic communications from the Commanding Officer, Victorville Army Air Field, together with indorsements, set forth the information required by paragraphs 12 and 13, Cir. 89, WD, 1965. It is requested that the aforementioned installations be declared surplus in accordance with the referenced circular. ible for surplus statution. It. Col. FOR THE SPINISHED AND ALL AND THE SECOND SECTION OF THE PROPERTY AND THE P acres of lovernment land in this propertie public no de maria ents. The 80 seres of leased landshape on contract CONTRACTOR OF THE PARTY OF THE in air in the will the MOTE: This action in accordance with Die r ULA Br. .. 21 May 45,

subj: "Surplus Property, Victorville, California,"

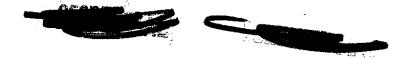
OFFICE SYMBOL

GRADE AND
SURNAME OF
COORDINATING
OFFICERS

OFFICERS

G-2

18—29242-2 U. 5. GOVERNMENT PRINTING OFFICE



HEADQUARTERS VICTORVILLE ARMY AIR FIELD VICTORVILLE, CALIFORNIA

Cl3-PGB/kr

26 April 1945

SUBJECT: Abandonment of Demolition Target "Z".

TO: Commanding General, Army Air Forces, Washington 25, D. C., (THRU: Commanding General, Army Air Forces Western Flying Training Command, 1104 West Eighth Street, Santa Ana, California).

- 1. In compliance with War Department Circular No. 306, dated 18 July 1945, Demolition Bombing Target "Z", Victorville Army Air Field is reported as no longer necessary for current requirements.
- 2. The following information is submitted in accordance with Paragraph 12, War Department Circular No. 306, dated 18 July 1944:
- a. Demolition Target "Z" is located approximately 52 miles East of Victorville Army Air Field on property located as follows:

Sections 4, 5, 6, 7, 8 and 9, TWP 5N, R5E, San Bernardino Base and Meridian, San Bernardino County, California. This property comprises 2560 acres of Public Land which has not been withdrawn for use by the War Department and approximately 1,449.12 acres held under Lease No. W-04-193-eng.-4536.

- b. The property is desert land and there are no improvements.
- c. Site has been used for bombing target, but is no longer required, due to a change in training program.
 - d. Surplus status is recommended.
 - e. Property could be used by Federal Agencies.
 - f. Is available for surplus status as of 20 April 1945.
 - g. There are no commitments on any of this land.
 - h. There are no auxiliary facilities.
 - There are no commitments to other Army or Federal Agencies.
 For the Commanding Officer;

/s/ ROBERT C. DAVIDSON
Captain, Air Corps
Adjutant



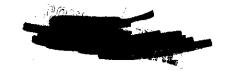
684 lst Ind. (26 Apr 45) HQ AAFWFTC, 1104 W 8, Santa Ana, Calif. 8 May 45.

AGC 9H-LG-AW

- TO: Commanding General, AAF Training Command, Texas and Pacific Railway Building, Fort Worth 2, Texas.
- l. This headquarters concurs in the declaration of surplus of Demolition Bombing Target "Z" (DT-4) of Victorville AAF.
 - 2. The site is located at Lat. 34° 33', Long 116° 28'.

For the Commanding General:

/s/ FRED D. HALL,
Maj AC,
Actg Asst Adjutant General.



Ltr Hq Victorville AAFld, Calif. 26 Apr 45, subj "Abandonment of Demolition Target "Z"

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2nd Ind

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Headquarters, AAF Training Command, Fort Worth 2, Texas 19 May 1945

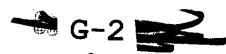
TO: Commanding General, Army Air Forces, Washington 25, D. C., ATTENTION: Assistant Chief of Air Staff, Materiel and Services, Air Installations Division

In compliance with the provisions of Circular 89, War Department, 1945, Demolition Bombing Target "Z" (DT-4) of Victorville Army Air Field, California is reported surplus to the needs of this Command effective 20 April 1945.

FOR THE COMMANDING GENERAL:

Copies furnished: CG, AAF AFACT CG, AAFWFTC

/s/ ROBERT C. RICE Colonel, AGD Asst. Adj. Gen.



APPENDIX H

NEWSPAPERS/JOURNALS

Not Used

APPENDIX I

INTERVIEWS

CONVERSATION RECORD	TIME	DATE
	0930 PST	22 January 1998
TYPE	<u> </u>	
···		
X VISIT	CONFERENCE	TELEPHONE
		INCOMING
NAME OF PERSON CONTACT WITH	ODCANTANGTON	OUTGOING
Bill Myers	ORGANIZATION San Bernardino	TELEPHONE NO. (401) 789-8347
Bob Hall	Sheriff's	(401) 709-8347
	Department	
SUBJECT Victorville Precision Bom	bing Ranges	
Summary Messrs. Hall and Myers as San Bernardino Sheriff's Bomb Squ with the detectives at the Sheriff shown a map of the Victorville be had any knowledge of ordnance being they explained that they recommilitary munitions due to the large County. Most the munitions recombefore they are notified, so the location of the ordnance. Mr. Myers stated that a 5-in vicinity of bomb target 6, 7 or 8 target contained the rocket, but sticking out of the ground. He stated that a 100-lb. pra about seven years ago. Mr. Myers stated that he had N-3, but he did not notice any or	ad. Members of the f's Department. In the best of the first present for the first present the first present for the first pres	he assessment team me The detectives were re asked if any they these sites. Is per year regarding nce in San Bernardino ved a number of times rmining the origin n recovered in the to identify which g a number of fins covered from target 1 ea surrounding target
ACTION REQUIRED		
ACTION TAKEN		
NAME OF PERSON DOCUMENTING CONVERSATION	ORGANIZATION	TELEPHONE NUMBER
George Ofslager	CEMVR-ED-DO	(309) 794-602
SIGNATURE	TITLE TO THE TOTAL AND THE TOT	DATE
Het Vilear	QA Spec (Ammo	
- raginger	1	1998
/ "		

COMMEDIA MILON DE CODE	M-1-1	
CONVERSATION RECORD	TIME	DATE
	0845	Thu 29 Jan 1998
TYPE		
X VISIT	CONFERENCE	TELEPHONE
		INCOMING
		OUTGOING
NAME OF PERSON CONTACT WITH	ORGANIZATION	TELEPHONE NO.
MSGT Hepner	95 th CEG/CED	(805) 277-2162
TSGT Glinka	Edwards AFB, CA	(333)211 2232
	1	
SUBJECT		
Victorville Precision Bomb Target	ts	
SUMMARY	···	
MSGT Hepner and TSGT Glin	ka have been wi	th the 95 th
CEG/CED for a few months an	d 5 % years res	nectively
Although they have responde	4 to OE incides	to at Cases are
(formerly Victoreille 325)	~ co om inciden	cs at George AFB
(formerly Victorville AAF),	Hermer contd	recall ever
responding to OE incidents	at any of the V	ictorville PBRs.
Neither had any knowledge of	f any OE incide	nts occurring at
the Victorville PBRs. Both	stated the EOD	s at Fort Irwin
would normally respond to a	ny incidents in	the area of the
PBRs.	•	
ACTION REQUIRED		
· • · · · · · · · · · · · · · · · · · ·		
ACTION TAKEN		
NAME OF PERSON DOCUMENTING COVERSATION		
	ORGANIZATION	TELEPHONE NUMBER
Christopher J. Churney	CEMVR-ED-DO	(309) 794-6011
	Chem Engineer	DATE
LALTALIA ("WILLAME)	LUDOM KNOTINGAY	29 .Tan 1999

CONVERSATION RECORD	TIME	DAT	E	
	0930	Wed 28 Jan 19		3 Jan 1998
TYPE		•		
X VISIT	CONFERENCE]		TELEPHONE
L.,			$\vdash \vdash \vdash$	INCOMIN
			$\vdash \vdash$	OUTGOIN
NAME OF PERSON CONTACT WITH	ORGANIZATION		TEL	EPHONE NO.
CPT Grimes, 1SG Fortney	759 th EOD		1	0) 380-4092
SFC Woods	Ft. Irwin, CA			-
SUBJECT				
Victorville Precision Bomb Target	ts			
SUMMARY			-	
CPT Grimes, 1SG Fortney a	nd SFC Woods w	ere d	ques	stioned by
the SI team whether they had	d any specific	knov	wled	dge of OE
presence at any of the Vict	orville PBRs.	Nei	thei	r of the
could recall the 759th respo	onding to any O	E in	cid	ents in t
Victorville area. They had	no knowledge	u -n:: '	OF L	caine
discovered on any of the PB				
team to B.J. Allen, a forme		OE S	an I	redo yles
Office, and the EODs at Edw	ards AFB.			
ACTION REQUIRED				
ACTION REQUIRED				
ACTION REQUIRED				
ACTION REQUIRED				
ACTION TAKEN	ORGANIZATION		TELE	PHONE NUMBER
	ORGANIZATION CEMVR-ED-DO			
ACTION TAKEN NAME OF PERSON DOCUMENTING COVERSATION				09) 794-601
ACTION TAKEN NAME OF PERSON DOCUMENTING COVERSATION Christopher J. Churney	CEMVR-ED-DO		(30	09) 794-601

CONVERSATION RECORD	TIME	DATE
	11:00 AM	2 March 1998
TYPE		
VISIT	CONFERENCE	TELEPHONE INCOMING X OUTGOING
NAME OF PERSON CONTACTED Glenn Brooks	ORGANIZATION Former Airman	TELEPHONE NO. (405) 732-8877
SUBJECT Victorville PBRs		
SUMMARY:		

Mr. Brooks said that he was part of the initial enlisted cadre and arrived at Victorville AAF in September of 1941. He was in the aircraft maintenance branch and remembered working on the Beechcraft AT-7 and AT-11 as well as the Lockheed P-38. He said the P-38s arrived straight from the plant in early 1942. The P-38 pilots carried both .50 caliber and 20mm machine guns, but these were fired only at the Muroc Dry Lake range near what is now Edwards AFB.

He knew specifically of 4 Victorville AAF bombing ranges that were in dry lakes. He said there were large circles around the target center to assist the bombardier cadets. Mr. Brooks said the AT-11s were used for this training, and all they ever dropped were 100 lb sand filled bombs with a small smoke charge. As a maintenance man, he used to go up on some of the training missions. He was certain there were never any HE bombs or any kinds of rockets used when he was there. He added that the 100 lb practice bombs were stored out in the open, and that small arms and spotting charges were the only items stored in one small igloo on the AAF.

Mr. Brooks left Victorville AAF as a 2LT in April of 1943 and went on to spend an additional 30 years in the Air Force.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION Ronald Plante	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-1481
signature	TITLE	DATE
Necfale	QASAS	2 March 1998

1:00 PM	4 341 1000
<u>i</u>	4 March 1998
CONFERENCE	TELEPHONE INCOMING X OUTGOING
ORGANIZATION Former Bombardies Cadet	TELEPHONE NO. (410) 747-5991
1	
	ORGANIZATION Former Bombardie:

Mr. Cooper said that he joined the Army Air Forces as an aviation cadet but washed out of flight school and then trained as a bombardier. He was in class 43-3 at Victorville Army Air Field, graduating in March of 1943. He trained in the AT-11 and flew practice bombing missions to ranges all around the Victorville area, including some on the dry lake bed of Lake Lucerne (PBR #6). Mr. Cooper said all he ever dropped were 100 pound sand filled bombs with a spotting charge. He never saw an HE bomb at Victorville and was unaware of any other cadets dropping HE bombs. He recalled that the standard procedure was to drop one practice bomb on a target, and then follow specific compass headings to other targets to drop additional practice bombs one at a time.

After completing bombardier training, Mr. Cooper joined a B-17 crew for further training in Utah and eventually flew missions over Germany as a lead bombardier with the $91^{\rm st}$ Bomb Group.

ACTION REQUIRED
None

NAME OF PERSON DOCUMENTING CONVERSATION ORGANIZATION TELEPHONE NUMBER
Ronald Plante CEMVR-ED-DO (309) 782-1481
SIGNATURE TITLE DATE
ALL PARTE QASAS 4 March 1998

CONVERSATION RECORD	TIME 8:00	DATE 23 Jan 98
TYPE X VISIT	CONFERENCE	TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACT WITH Jerry Bronson	ORGANIZATION BLM, Barstow Fiel Office	TELEPHONE NO. 1d (760) 252-6075
SUBJECT Former Victorville Bomb	oing Ranges.	

SUMMARY

Mr. Bronson is the North Zone Supervisor for the Law Enforcement Rangers for the BLM, Barstow Field Office.

During discussion with Mr. Bronson, he made comments about finding ordnance items in the area close to Victorville target N-3. He also commented that the rangers have found ordnance items in the past (didn't remember exact locations) but, he commented that they never touched any of the items, they would always call the EOD unit at Fort Irwin to remove the items.

ACTION REQUIRED
NONE

ACTION TAKEN
NONE

NAME OF PERSON DOCUMENTING COVERSATION ORGANIZATION TELEPHONE NUMBER
Jodi L. Bausman CEMVR-ED-DO (309) 794-6157

SIGNATURE DATE
ENG. Tech. 23 Jan 98

APPENDIX J

PRESENT SITE PHOTOGRAPHS

APPENDIX J

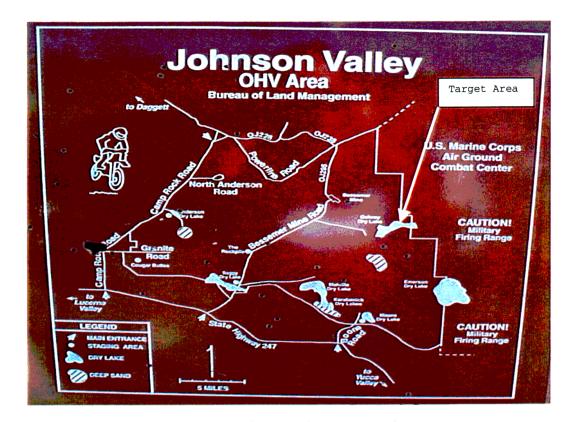
PRESENT SITE PHOTOGRAPHS

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- J-1 Map at entrance to Victorville bombing target area.
- J-2 Part of Base Fuze AN-M100A1 found around base of target. Area "A"
- J-3 Base of target. Note areas on rocks where bombs have impacted. Area A
- J-4 Shrapnel found by one of the several craters in the target area. Area "A"
- J-5 Another large piece of shrapnel in target area. Area A.
- J-6 More shrapnel in target area. Area "A"
- J-7 An assortment of shrapnel, bomb fuze parts, and a piece of the vane cup from the AN-M100A1 fuze. Area "A".
- J-8 Standing at the southeast corner of the site, pointing northwest toward target. Area $^{\circ}C''$.
- J-9 A large piece of shrapnel found just south of target in the Galway dry lake bed. Area "A"
- J-10 An impacted M38A2 100 pound practice bomb located in section 8 of the dry lake bed. Area "B" $\,$
- J-11 Impacted M38A2 100 pound practice bomb with an empty M1A1 spotting charge. Found on southern part of section 8. Area "C"
- J-12 Survey marker marking the southeast corner of section 5 where target is located. Area "A" $^{\circ}$
- J-13 View of Galway dry lake bed looking north. Area "B"
- J-14 Looking northeast at boundary marker which separates site from Twenty Nine Palms aerial range. Area "B"
- J-15 On eastern section of site viewing the white markers separating site from Twenty Nine Palms. Area "C"
- J-16 Part of an AN-M100A1 tail fuze located on north side of target near a crater in section 5. Area "A"

J-17 Target mound which is located in the southeast corner of section 5. Area "A" $\,$

 $J\text{--}18\,$ more shrapnel and part of AN-M100A1 fuze located near a crater west of target. Area "A"



J-1 Map at entrance to Victorville bombing target area.



J-2 Part of Base Fuze AN-M100A1 found around base of target. Area "A" $\,$



J-3 Base of target. Note areas on rocks where bombs have impacted. Area "A"



 $\mbox{J-4}$ Shrapnel found by one of the several craters in the target area. Area "A"



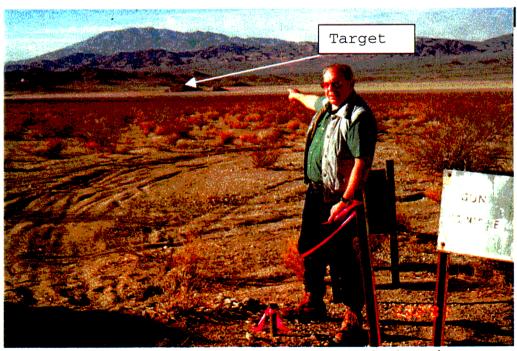
J-5 Another large piece of shrapnel in target area. Area "A"



J-6 More shrapnel in target area. Area "A"



J-7 An assortment of shrapnel, bomb fuze parts, and a piece of the vane cup from the AN-M100A1 fuze. Area "A"



J-8 Standing at the southeast corner of the site, pointing northwest toward target. Area "C"



J-9 A large piece of shrapnel found just south of target in the Galway dry lake bed. Area "A"



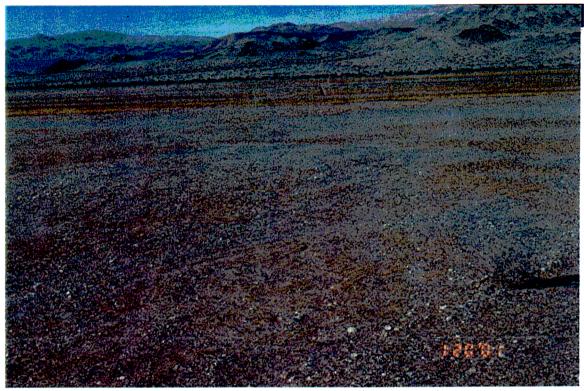
J-10 An impacted M38A2 100 pound practice bomb located in section 8 of the dry lake bed. Area "B"



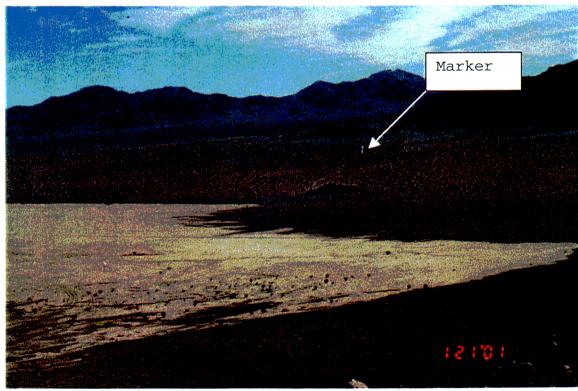
J-11 Impacted M38A2 100 pound practice bomb with an empty M1A1 spotting charge. Found on southern part of section 8. Area "C"



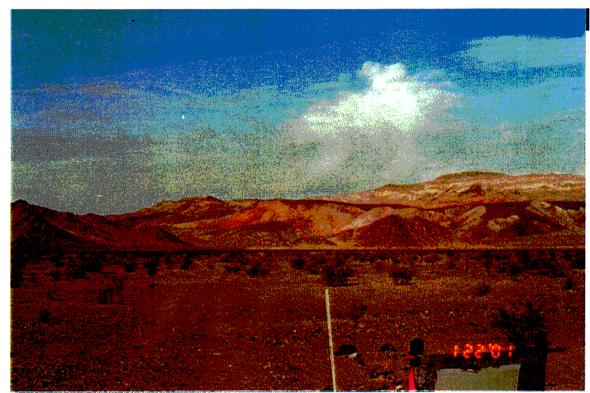
J-12 Survey marker marking the southeast corner of section 5 where target is located. Area "A"



J-13 View of Galway dry lake bed looking north. Area "B'



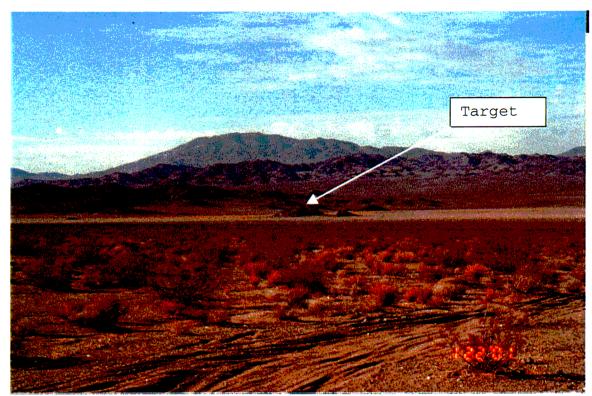
J-14 Looking northeast at boundary marker which separates site from Twenty Nine Palms aerial range. Area "B"



J-15 On eastern section of site viewing the white markers separating site from Twenty Nine Palms. Area "C"



J-16 Part of an AN-M100A1 tail fuze located on north side of target near a crater in section 5. Area "A"



J-17 Target mound which is located in the southeast corner of section 5. Area "A"



J-18 More shrapnel and part of AN-M100A1 fuze located near a crater west of target. Area "A"

APPENDIX K

HISTORICAL PHOTOGRAPHS

(NOT USED IN THIS REPORT)

APPENDIX L

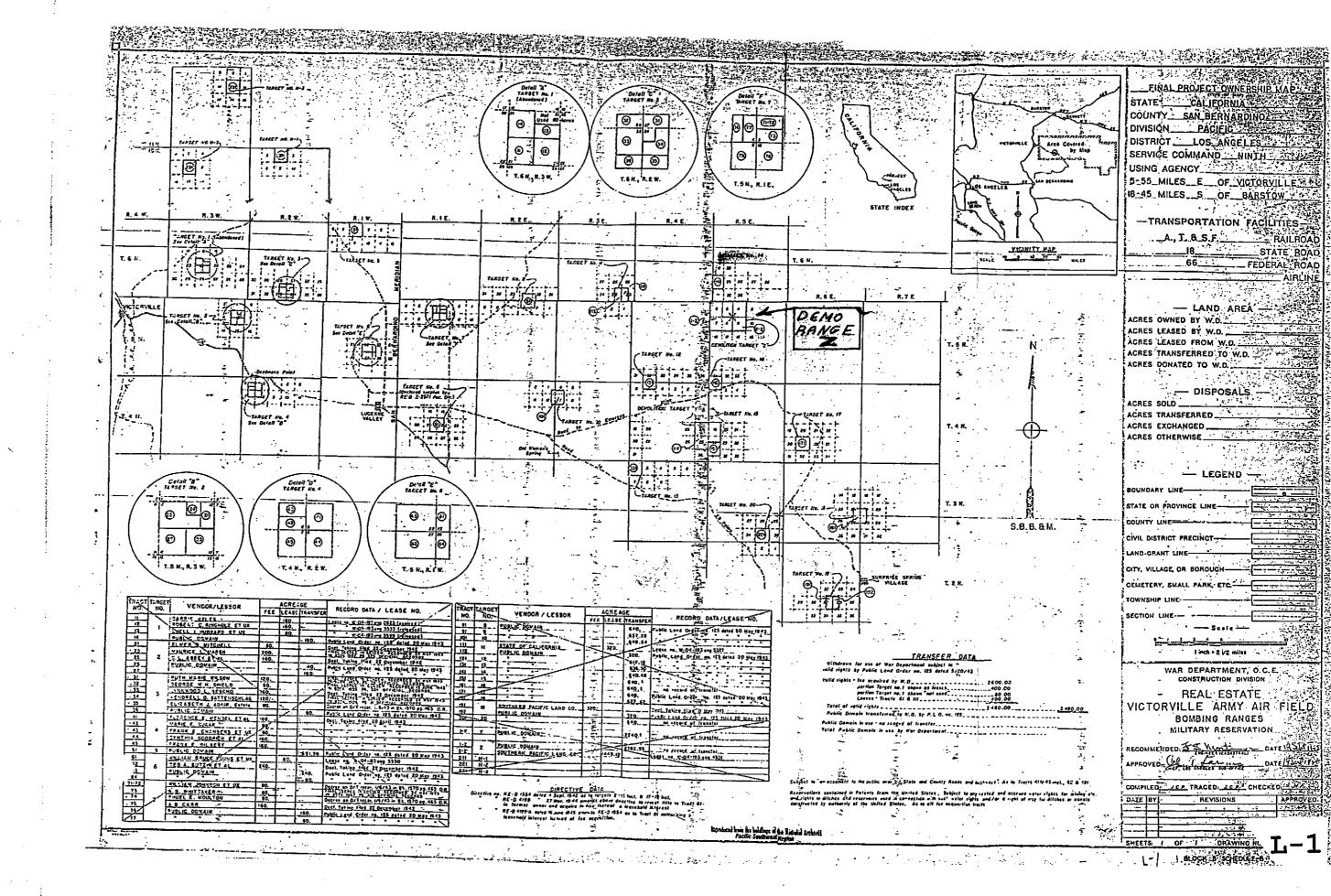
REFERENCE MAPS/DRAWINGS

APPENDIX L

REFERENCE MAPS/DRAWINGS

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L-1 Drawing, Real Estate, Victorville Army Air Field bombing Ranges, dated September 1945 (B-19).



APPENDIX M

ARCHIVES SEARCH REPORT CORRESPONDENCE

Not Used

APPENDIX N

PROJECT AREA BIBLIOGRAPHY

APPENDIX N PROJECT AREA BIBLIOGRAPHY

Document	Project	oject OE Document Document Document		Description		
ID	Area(s)	Classification	Name	Date	Source	and Comments
1	Area A	Confirmed	Photo J-2 J-4 J-7	17-JUN-01		Photo's of frag from HE ordnance practice bomb and related scrap
2	Area A	Confirmed	Document F-5	April 1945	,	Confirmed finding live HE bombs during cleanup

APPENDIX O

DISTRIBUTION

APPENDIX O

DISTRIBUTION

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I - Final Report

II - Findings Report
III - Routed Final Report

PLATES

REPORT PLATES

- 1. VICTORVILLE PBR BOMBING RANGES
- 2. SITE MAP
- 3. PROJECT AREAS
- 4. OWNERSHIP 1998
- 5. PHOTOGRAPH LOCATIONS

