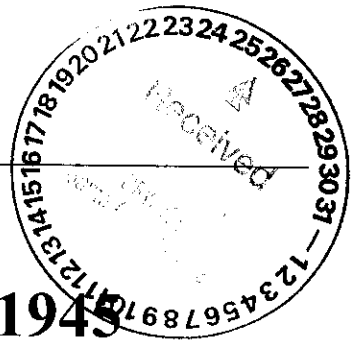

# Final Report
# Operational History 1941-1945
# Rialto Ammunition Back-Up Storage Point

## RIALTO, CALIFORNIA

*Prepared for*
**U.S. Army Corps of Engineers**
**Los Angeles District**


*Prepared by:*
**Science Applications International Corporation**
**18350 Mt. Langley Suite 210**
**Fountain Valley, California 92708**
**(714) 964-6926**


An Employee-Owned Company


**Contract No.: GS-10F-0076J**
**Task Order: 9T3N154PG**


**January, 2004**

Disclaimer

The findings, opinions and conclusions contained in this report are solely those of SAIC. These findings, opinions, and conclusions do not necessarily reflect the position of the United States of America, or any of its departments or agencies. This report is a privileged and confidential attorney work product and may not be released except at the direction of an attorney for the U.S. Army Corps of Engineers with authority to waive the privilege.

**DEPARTMENT OF THE ARMY**
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. Box 532711, Los Angeles, CA.90053-2325

## Statement of Limited Waiver of Attorney Work Product Privilege

## Final Operational History 1941-1945 Rialto Ammunition Backup Storage Point, Rialto, CA, January, 2004

In August 2002, United States Army Corps of Engineers (USACE) and the United States Department of Defense (DoD) were made aware of potential litigation threatened from parties impacted by perchlorate releases in the vicinity of the Formerly Used Defense Site (FUDS) known to the USACE as Rialto Ammunition Storage Point (Rialto ASP). As a result, USACE, at the direction of its attorneys, undertook a detailed body of research into the history of operations at the former Rialto ASP during WWII. This research was and is attorney work product. The research and any documents, compilations, statements, or reports produced as a result of the research were and are privileged from disclosure or discovery as attorney work product.

Subsequently, the United States Environmental Protection Agency (EPA) requested that the Corps of Engineers produce all records it held on the former Rialto ASP facility under CERCLA § 104(e). As those records then extant were publicly available and would have been produced to any requesting party under the Freedom of Information Act, USACE complied with the 104(e) request. At the time of compliance with the EPA 104(e) request, USACE notified EPA that it was conducting the research described in the paragraph immediately above, as attorney work product.

More or less contemporaneously, the Santa Ana Regional Water Quality Control Board (Regional Board) ordered USACE to conduct an investigation into the Rialto ASP facility. The USACE declined to do this investigation, citing lack of waiver of sovereign immunity. The USACE advised the Regional Board, however, that it was conducting the research described above, as attorney work product.

The research described above has now been completed. This research constitutes a major portion of pretrial preparation in the event of litigation over the Rialto ASP facility. Moreover, one of the parties affected by the perchlorate contamination in the vicinity of Rialto ASP has filed suit. Thus the potential litigation anticipated when the research was commenced is now actual litigation.

The research has produced a document called Final Operational History 1941-1945 Rialto Ammunition Backup Storage Point, Rialto, CA, dated January 2004. In addition to this document, a substantial body of notes and other records has been prepared. Under existing case

law all of these materials are privileged and need not be disclosed under the Freedom of Information Act nor may discovery of these the materials be compelled.

The perchlorate contamination in the vicinity of former Rialto ASP has had a substantial impact on the public water supply and water providers in that area. Moreover, concern over the potential that such contamination will continue to impact even more of the water supply of the region has generated a very high level of public interest in the problem. This public interest is reflected, *inter alia*, in the regulatory requests for information received by USACE. This public interest is further reflected by the EPA and Regional Board requests for documentation produced by USACE as privileged Attorney Work Product.

Therefore, based upon the unique circumstances applicable to this matter, it has been determined that the attorney work product privilege is hereby waived as to the Final Operational History 1941-1945 Rialto Ammunition Backup Storage Point, Rialto, CA, January, 2004. This waiver is expressly limited to the specific document itself and does not include any electronic version or copy of the document nor does the waiver include any research, notes, memoranda, or other documents or materials assembled in the course of pre-litigation preparation for the potential litigation, which is now extant. Copies of the document will be provided to the to requesting regulatory agencies.

This waiver is a limited and narrow exception to the universal practice by the U.S. Army Corps of Engineers to assert and defend the attorney-client privilege and the attorney work product privilege as it relates to information developed in anticipation of potential litigation.

Point of Contact for this statement and the underlying document is Allan Curlee. He may be reached at 916-557-5296.

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## LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| aka | also known as |
| asl | above sea level |
| bgs | below ground surface |
| Cal EPA | California Environmental Protection Agency |
| C-AMA | California-Arizona Maneuver Area |
| CBI | China-Burma-India Theater of War |
| CON/HTRW | Containerized hazardous, toxic, and radioactive wastes |
| cu yd | cubic yard |
| CR | Contact Reference |
| DERP | Defense Environmental Restoration Program |
| DOD | Department of Defense |
| DTC | Desert Training Center |
| DTSC | Department of Toxic Substances Control |
| E | East |
| EPA | Environmental Protection Agency |
| FSU | Field Storage Unit |
| FUDS | Formerly Used Defense Sites |
| GSA | General Services Administration |
| I | Interview Reference |
| INPR | Inventory Project Report |
| LAPE | Los Angeles Port of Embarkation |
| MCL | Maximum Contaminant Level |
| MIDAS | Munitions Items Disposition Action System Database |
| N | North |
| P | Photograph Reference |
| ppb | parts per billion |
| ppm | parts per million |
| PRG | Preliminary Remediation Goal |
| PRP | Potentially Responsible Party |
| RABSP | Rialto Ammunition Back-Up Storage Point |
| RCRA | Resource Conservation and Recovery Act |
| RPHL | Recommended Public Health Level |
| RWQCB | Regional Water Quality Control Board |
| S | South |
| SAIC | Science Applications International Corporation |
| SOP | Standard Operating Procedure(s) |
| sq ft | square foot |
| TNT | Trinitrotoluene |
| UCLA | University of California at Los Angeles |
| U.S. | United States |
| USACE | United States Army Corps of Engineers (Corps) |
| USGS | United States Geologic Survey |
| UST | Underground Storage Tank |
| W | West |
| WWII | World War II |
| yd | yard |
| yr | year |

# FINAL REPORT

# OPERATIONAL HISTORY 1941-1945

# RIALTO AMMUNITION BACK-UP STORAGE POINT
**Rialto, San Bernardino County, California**

## EXECUTIVE SUMMARY

Rialto Ammunition Back-Up Storage Point, Formerly Used Defense Site (FUDS) No. J09CA057200, was established within 2,822.15 acres of undeveloped land acquired by the U. S. Army, primarily in 1941 and 1942, in a remote, unincorporated area of San Bernardino County, California. The Army established within this site a temporary storage facility for ordnance-loaded railcars. The facility comprised 20 igloos, 40 bunkers for storage of the ordnance-loaded railcars, and four fuze and powder magazines. The site was served by the Pacific Electric Railway and the Atchison, Topeka, and Santa Fe Railroad, which linked it to the Los Angeles Port of Embarkation at Long Beach, California.

During World War II, the Rialto Ammunition Back-Up Storage Point was operated by the Army Service Forces, Ninth Command, Transportation Corps, as a sub-depot of the Los Angeles Port of Embarkation at Long Beach. The Rialto Ammunition Back-Up Storage Point served as an inspection and temporary storage facility for ordnance-loaded railcars in transit from depots across the United States to Victory Pier at the Los Angeles Port of Embarkation (LAPE), where ordnance was loaded onto ships sailing for the China-Burma-India (CBI) Theater of War. Through Rialto Ammunition Back-up Storage Point's mission as a back-up storage facility, the number of ordnance-loaded railcars at Victory Pier was kept to a minimum. For example, the Captain of the Port permitted only two railcars loaded with 500-pound bombs at Victory Pier at the same time. Additional ordnance-loaded railcars would be stored on tracks at the Rialto Ammunition Back-Up Storage Point until dispatched to Victory Pier.

Of the 3.5 million tons of ordnance shipped from the Los Angeles Port of Embarkation, most was directly shipped from the depots to the port, with less than ten percent shipped via the Rialto Ammunition Back-Up Storage Point.

Operation of the Rialto Ammunition Back-Up Storage Point, which began in December 1942 and ended in September 1945, was conducted according to the stringent safety requirements developed by the Army. That a total of 320,820 long tons of ordnance was shipped through Rialto Ammunition Back-Up Storage Point without one accidental fire or explosion, suggests that Los Angeles Port of Embarkation and Army safety requirements were met. In addition to serving as a temporary back-up facility for ordnance-loaded railcars en route to the Los Angeles Port of Embarkation, the igloos and magazines were used in 1943 by the 622$^{nd}$ Ordnance Ammunition Company to store small arms ammunition for the combat training of troops of the Army Ground Forces. The training was conducted in the Desert Training Center (DTC), which had headquarters at Camp Young near Indio, California.

After cessation of operations in September 1945, the storage area was subsequently sold to companies that could make beneficial use of the explosive storage facilities. Military improvements that have been beneficially used by nonmilitary entities include the water well, igloos, railcar storage bunkers, and two bomb shelters. Most of the property is currently zoned as industrial and occupied by various businesses, including pyrotechnic companies.

As perchlorate, which is a constituent of certain munitions and explosives, has been detected above Action Levels in municipal water supply wells located downgradient of the former Rialto Ammunition Back-Up Storage Point, the California Regional Water Quality Board, Santa Ana Region, issued a Perchlorate Investigation Order to the U.S. Army Corps of Engineers on 24 October 2002. Similar orders were issued to other entities that subsequently used the site: Goodrich (formerly BF Goodrich), American Promotional Events, Mid-Valley Sanitary Landfill, Aerojet, Denova Environmental, PyroSpectaculars, Emhart Industries, Zambelli Fireworks Manufacturing Company, General Dymanics, and Raytheon Company.

Research for this report was undertaken to determine whether a release of perchlorate-containing material occurred at the site during the period of Army operation, 1941 to 1945. No evidence was found through interviews and in review of historic records that at the Rialto Ammunition Back-Up Storage Point any activity occurred other than inspection and temporary storage of ordnance-loaded railcars, and small arms ammunition storage for the Desert Training Center (DTC). Evidence reviewed indicated that ordnance was not manufactured, treated, or disposed of by open burning or open detonation at the site during the period of Army operation from 1941 to 1945.

This report concludes that the principal activity of the Rialto Ammunition Back-Up Storage Point was inspection and storage of railcars loaded with ordnance, either on the tracks or in bunkers, and coordination with the Los Angeles Port of Embarkation as to when to dispatch the railcars to Victory Pier. The standard practice was to leave the ordnance in the sealed railcars during their temporary storage at Rialto Ammunition Back-Up Storage Point. A secondary use of the facility was storage of small arms ammunition for use by troops of the Army Ground Forces undergoing desert warfare training in the Mojave Desert area of the DTC.

Perchlorate-containing munitions - flares and some incendiary bombs - made up less than five per cent on a weight basis of all munitions shipped to the Los Angeles Port of Embarkation; perchlorate was not a component of the small arms ammunition stored for the training of troops in the DTC. Thus, given the low frequency of handling munitions and that perchlorate was a minor munitions constituent, the probability is virtually zero that perchlorate was released to the environment as a result of operations at the Rialto Ammunition Back-Up Storage Point during its period of operation from 1941 to 1945.

# FINAL REPORT

# OPERATIONAL HISTORY 1941-1945

# RIALTO AMMUNITION BACK-UP STORAGE POINT
**Rialto, San Bernardino County, California**

## 1.0 INTRODUCTION

### 1.1 Project Background

Under Contract No. GS-10F-0076J, Task 9T3N154PG, the U.S. Army Corps of Engineers, Los Angeles District, requested the assistance of Science Applications International Corporation (SAIC) in researching the operational history of the Rialto Ammunition Back-Up Storage Point, Formerly Used Defense Site (FUDS) No. J09CA057200, an Army facility for temporary storage of ordnance-loaded railcars, during the period of its operation, 1941 to 1945.

During its operation, the Rialto Ammunition Back-Up Storage Point was known by other names, and the names reflect the understanding of its use by the Army Service Forces and the Army Ground Forces. Personnel at the Los Angeles Port of Embarkation referred to the facility as the Rialto Ammunition Back-Up Storage Point or RABSP; personnel associated with the Desert Training Center operated by the Army Ground Forces knew the facility as the Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation (I-1, I-2, I-3). Other names include:

Fontana Ordnance Back-Up Storage,
Ammunition Back-Up Storage Facility, Fontana,
Ammunition Back-Up Storage Facility, Rialto,
Los Angeles Ammunition Back-Up Storage Facility,
Los Angeles Back-Up Ammunition Depot,
Los Angeles Ordnance Depot,
Los Angeles Back-Up Storage Facility, Ammunition Back-Up Storage, and
Rialto Military Reservation.

The 2,822.15-acre property, located in an unincorporated area near the City of Rialto, California, was acquired by the U.S. Army in December 1941 and early 1942 from several different landowners, through direct purchase or declaration of taking. The U.S. Army developed about 740 acres of this site as the Rialto Ammunition Back-Up Storage Point to support the Los Angeles Port of Embarkation as a back-up ordnance storage facility. Military improvements to the property included 20 igloos, 40 bunkers for storage of ordnance-loaded railcars, four magazines for storage of fuzes and explosives, two bomb shelters, and various administrative and support structures. Additional installations included perimeter and security fencing, 16 watchtowers, 23.5 miles of rail track, a sewage plant, and a water supply well.

At Victory Pier, Los Angeles Port of Embarkation, ordnance was loaded from the railcars onto ships supplying the China-Burma-India Theatre of War. The number of ordnance-loaded railcars at the port at any given time was limited based on explosive content. Additional ordnance-loaded railcars were held on the tracks at the Rialto Ammunition Back-Up Storage Point until needed by the Port. Less than ten percent of the ordnance carried by rail to the Los Angeles Port of Embarkation was routed through the Rialto Ammunition Back-Up Storage Point. In addition to temporary storage of ordnance-loaded railcars, the facility provided storage for small arms ammunition used by troops of the Army Ground Forces training at the Desert Training Center in the Mojave Desert. This small arms ammunition was stored in the igloos at Rialto Ammunition Back-Up Storage Point during 1943.

Operations ceased in September 1945; on 13 November 1945, the property was declared surplus. It was transferred on 9 July 1946 to the custody of the Farm Credit Administration for disposal. From 1950 to 1957, the West Coast Loading Company, a division of Kwikset Locks Corporation, owned and operated 160 acres of the property for the manufacture of pistol and parachute flares. Subsequently, from 1957 to 1964, BF Goodrich owned and operated the 160-acre site. BF Goodrich performed solid rocket propellant research for the

Air Force and Navy. Other property owners have included American Promotions and government contractors such as Hughes Missile Systems and Ordnance Associates.

Most of the property is currently zoned industrial and occupied by a sanitary landfill (Mid-Valley) and various businesses, including pyrotechnics companies. Some portions of the property have been developed for residential use. Military improvements that have been beneficially used by others include the water well, the igloos, and the railcar bunkers.

In 1997 and 1998 the City of Rialto, the City of Colton, and West San Bernardino County Water District sampled groundwater from municipal supply wells in the Rialto Groundwater Sub-basin. Laboratory analyses indicated that perchlorate was present in seven wells, with the level in two wells exceeding an interim Action Level. More than 22 groundwater production wells owned by the cities of Rialto and Colton, the Fontana Water Company, and the West San Bernardino County Water District have subsequently been shut down because of contamination with perchlorate.

Since perchlorate, which is a constituent of certain munitions, has been detected in municipal water supply wells located downgradient of the former Rialto Ammunition Back-Up Storage Point, the California Regional Water Quality Board, Santa Ana Region, issued a Perchlorate Investigation Order to the U.S. Army Corps of Engineers on 24 October 2002. Similar orders were also issued to other entities, including Goodrich (formerly BF Goodrich), American Promotional Events, Mid-Valley Sanitary Landfill, Aerojet, General Dynamics, Denova Environmental, PyroSpectacular, Emhart Industries, Zambelli Fireworks Manufacturing Company, and Raytheon Company.

The U.S.Army Corps of Engineers' counsel was advised of the state regulatory order and was notified by several parties of their intent to file legal actions against the Army and the United States with respect to groundwater contamination in the general vicinity of the former Rialto Ammunition Back-Up Storage Point. As a result, counsel determined that there was a need for a consultant to gather and analyze historic operational information for the former Rialto Ammunition Back-Up Storage Point so as to assist counsel for the U.S. Army Corps of

Engineers and the United States in preparation for legal actions. SAIC was contracted to provide historical research and analysis of whether the standard operating procedures used and activities that occurred at the Rialto Ammunition Back-Up Storage Point during its period of operation, 1941 to 1945, were protective of the environment, whether there is evidence of ordnance or explosive release, for example through burning, detonation, or burial, and whether and to what extent perchlorate was a constituent of the types of munitions handled and stored there.

## 1.2 Research Strategy

SAIC initiated this research through a review of existing documents concerning the site: *Archives Search Report, Ordnance and Explosive Waste, Chemical Warfare Materials, Rialto Ammunition Storage Point, San Bernardino County, California, Project J09CA057201,* August 1995; Inventory Project Research Report (INPR) for the Rialto Ammunition Storage Point, Site No. J09CA057200, dated 28 September 1992 and signed 20 January 1993; and Supplemental INPR for Rialto Ammunition Storage Point, Site No. J09CA057200, dated 23 March 1999. The Supplemental INPR identified an additional project for removal of underground storage tanks; this project was completed in 2000.

SAIC identified as a potential significant resource Record Group 336, Office of the Chief of Transportation, with records on the Los Angeles Port of Embarkation, which operated in conjunction with the Rialto Ammunition Back-Up Storage Point. This Record Group and additional Record Group 156, Records of the Office of the Chief of Ordnance, and Record Group 287, Publications of the Federal Government, yielded extensive records on the operation of Rialto Ammunition Back-Up Storage Point. Inspection of these records was made at the National Archives and Records Administration, Laguna Niguel and Washington D.C. Local resources accessed included the California Room, San Bernardino Library, the Rialto Historical Society, the Santa Ana Regional Water Quality Control Board, and the files of the U.S. Army Corps of Engineers.

Aerial photograph research was conducted at UCLA (the Spence Collection), Whittier College (The Fairchild Collection), Rupp Aerial Photographs, Inc., the Army Corps of Engineers, El Monte, and through the United States Geologic Survey. As the records indicated that restrictions were enforced on photographing military facilities during World War II, the lack of aerial photographs available for the period of operation of Rialto Ammunition Back-Up Storage Point was anticipated.

Attempts to contact former employees of the Rialto Ammunition Back-Up Storage Point were mainly unsuccessful, as the men had passed away and surviving spouses were unfamiliar with the facility. Three important exceptions were Mr. R. K. Weyand, former Officer in Charge of the Safety and Ammunition Inspection Branch at the Office of the Port Ordnance Officer, Los Angeles Port of Embarkation, and Mr. Ralph V. Thompson, Staff Sergeant, and Mr. Aaron P. Holt, Tech Sergeant, E-7, both of the 622nd Ordnance Ammunition Company.

Mr. Weyand, who served from July 1943 until March 1946, was responsible for munitions supply to the CBI Theater of War. Mr. Holt and Mr. Thompson were associated with the Desert Training Center (DTC) where troops of Army Ground Forces were trained in desert warfare in the Mojave Desert. As members of the 622nd Ordnance Ammunition Company, they were responsible for supply of small arms ammunition to troops training at the DTC. The 622nd Ordnance Ammunition Company was relocated to the Rialto Ammunition Back-Up Storage Point for nine months in 1943, where the Company was responsible for storage of ammunition in the igloos and issuance of ammunition to the troops training at the DTC. Interviews of these three persons, who together provide a comprehensive understanding of operations at Rialto Ammunition Back-Up Storage Point, are provided in Appendix D. Analysis of their statements for corroboration with documentary and other evidence is presented in Section 3.

Information on the handling and storage of munitions was obtained from historic documents: the Army Ordnance Safety Manual, 1941 and 1945 editions, and the Standard Operating Procedures for the Safe Handling and Control of Explosives, Ammunition, and Chemical

Warfare Toxic Agents at the Los Angeles Port of Embarkation and at the Rialto Ammunition Back-Up Storage Point, as presented in Appendix B.

No person was identified with expert knowledge on the chemical constituents of munitions used in World War II. Information on munitions constituents was obtained from historic documents and current databases such as MIDAS. Findings, presented in Section 3, underscore the paucity of data on the chemical constituents of munitions used in World War II, especially with respect to perchlorate. The Department of Defense has initiated research into the chemical composition of military munitions used in World War II. When completed, the findings will be applicable to any site where there is a potential perchlorate release from military munitions.

## 1.3 Report Organization

This report on the Operational History, 1941 to 1945, of the Rialto Ammunition Back-Up Storage Point presents research findings as specified in the Scope of Work. To provide a context for understanding operations at the site, the report briefly describes the real estate history and improvements made to the site. Organization of the report is as follows:

**Section 1.0 Introduction**

This section explains the basis for the report, the research focus, and research strategy. It also serves as a *vade mecum* to the report.

**Section 2.0 Site Characteristics**

The location of the site and a summary description of its topography and hydrology are provided.

**Section 3.0 Site Operations**

A summary chronology and description of site acquisition and improvements introduce this section. The operation of the site and its association with the Los Angeles Port of Embarkation and the Desert Training Center are then described in detail based on

documentary and anecdotal evidence. Cessation of operations and disposal of the property are briefly described.

**Section 4.0 Conclusions**

Conclusions based on the research findings are presented in this section.

**Appendix A Aerial Photograph Interpretation**

Aerial photographs covering the period of operation, 1941 to 1945, and both before (1933, 1938) and after Army operations (1948, 1952, 1955), and their interpretation, are provided. In the text, photographs are referenced by a "P" preceding their number, e.g., P-1, P-2.

**Appendix B Standard Operating Procedures**

A copy of Standard Operating Procedures at the Rialto Ammunition Back-Up Storage Point, illustrated with examples of safe practices, is provided.

**Appendix C Records Reviewed**

A list of documents reviewed is presented. In the text, documents are referenced by their number.

**Appendix D Interviews and Contacts**

A list of former Rialto Ammunition Back-Up Storage Point employees whom SAIC attempted to contact is provided, together with contacts made during the course of this research. The interviews with Mr. R. K. Weyand, former Ordnance Officer at the Los Angeles Port of Embarkation during the period 1943 to 1946, and with Mr. Ralph V. Thompson and Mr. A. Holt, formerly of the 622$^{nd}$ Ordnance Ammunition Company which encamped at the site in 1943, are presented. Interviews are referenced in the text by an "I" preceding their number, e.g., I-1, I-2.

**Appendix E Exhibits**

Exhibits referenced in the text are provided.

# 2.0 SITE CHARACTERISTICS

## 2.1 Site Location

As shown in Figure 2-1, the site of the former Rialto Ammunition Back-Up Storage Point is located within the northern limits of the City of Rialto, San Bernardino County, California. The site lies seven miles northwest of the City of San Bernardino and north-northeast of the City of Fontana, in San Bernardino County. The central business district of Rialto is located just east of the site. Secondary roads are well developed in the area. Interstate 15 lies to the west and northwest, and Interstate 215 lies to the northeast.

The property is bounded by Linden Avenue (east), Riverside Avenue (north), Sierra Avenue (west), and Highland Avenue (south). Specifically, the site is located in parts of Sections 17, 20, 21, and Sections 28, and 29, Township 1 North, Range 5 West, San Bernardino Base and Meridian. A former railroad spur of the Atchison, Topeka, and Santa Fe Railway Company passed to the Santa Fe main railroad line through Sections 27 and 34, Township 1 North, Range 5 West.

The reference for the point shown in Figure 2-1, within the former storage area of Rialto Ammunition Back-Up Storage Point, at the intersection of Locust Avenue and West Lowell Street is at Latitude North 34° 9' 15"; Longitude West 117° 24' 32"; elevation 1637 feet above mean sea level. Figure 2-1 does not show the former railroad spur to the site.

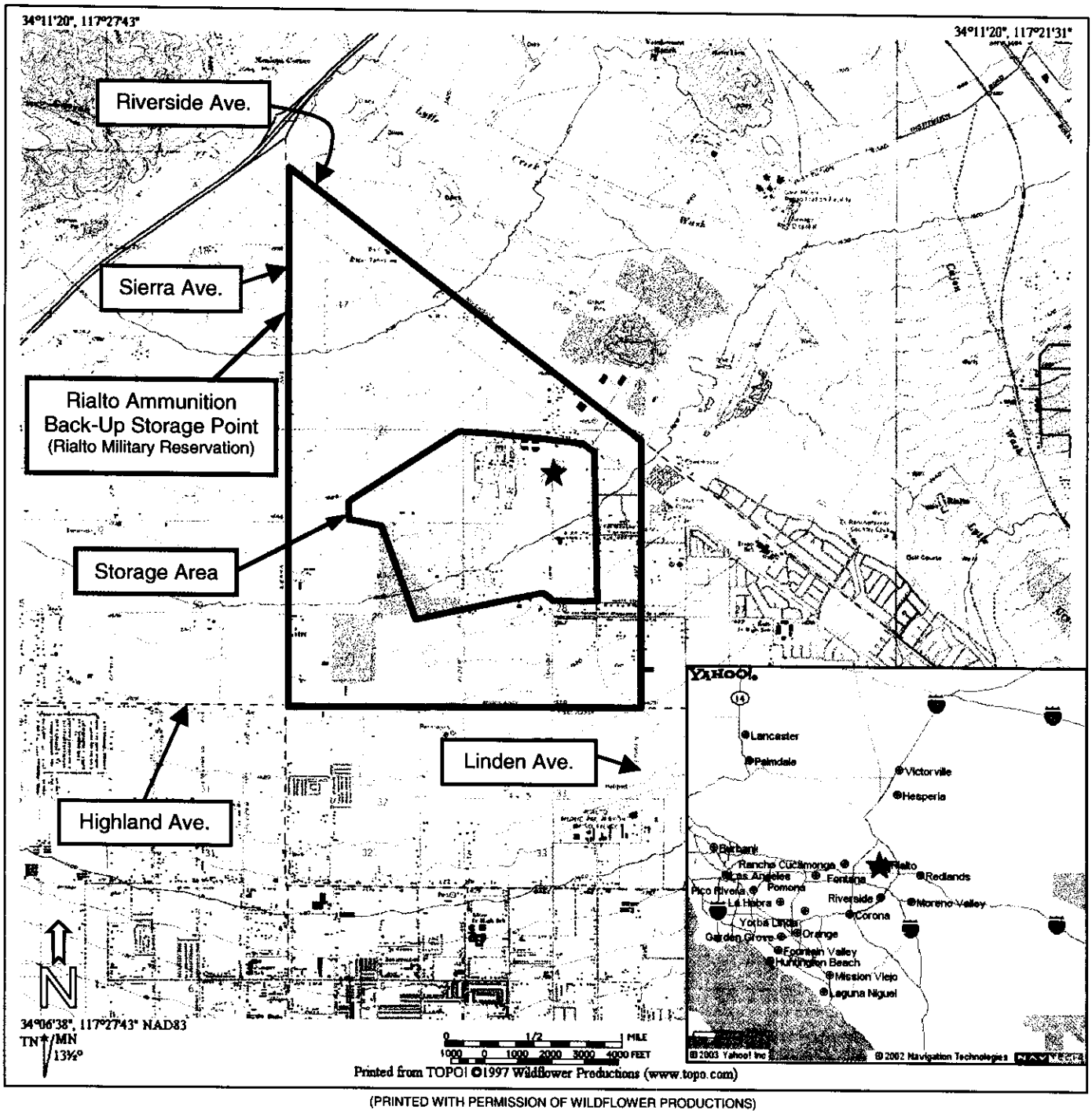
## 2.2 Site Physical Characteristics

Terrain at the site slopes moderately and uniformly at a three percent grade to the southeast. Northwest of the site terrain is much steeper with local relief greater than 2,000 feet. Surface drainage channels are poorly developed. Lytle Creek, located northeast of the site, is a wide wash with ill-defined intermittent channels and prominent braiding of creek bed sediments. Much of the drainage of surface water is probably internal through granular soils.

Soil at the site is typical of alluvial fans and terraces with surface soil and subsoil mostly sandy silty clay, with gravel washed from Lytle Creek apparent throughout the northern part of the site (270).

The hydrogeology of the site is complex and incompletely characterized. Depth to groundwater at the site is about 300 feet below ground surface, and flow is to the south and southeast. The site lies within the Upper Santa Ana River Watershed in the Rialto-Colton groundwater basin. Horizontal groundwater flow from the basin is impeded by the San Jacinto Fault which separates the basin on the northeast from the Lytle and Bunker Hill Basins, and on the northwest, southeast, and southwest by groundwater barriers which have been identified from large groundwater elevation differences historically measured in groundwater production wells (252).

The site is located in a seismically active region with active faults within 30 miles: San Andreas, San Jacinto, Cucamonga, Glen Helen and Whittier-Elsinore fault zones. The San Jacinto fault and Cucamonga fault zones are within three miles of the site. No active or potentially active faults have been identified on the site (286).

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U.S.G.S. TOPO, DEVORE, CALIFORNIA

Township 1 North, Range 5 West, parts of Sections 17, 20, 21 and 28 and 29

★ Latitude N 34° 09' 15", Longitude. W 117° 24' 32"
Elevation 1637 ft.

**Figure 2-1. Rialto Ammunition Back-up Storage Point Site Location Map**

# 3.0 SITE OPERATIONS 1941-1945

## 3.1 Chronology of Ownership and Operation

Rialto Ammunition Back-Up Storage Point was operated during World War II by the Army Service Forces, Ninth Command, Transportation Corps, as a sub-depot of the Los Angeles Port of Embarkation at Long Beach. Rialto Ammunition Back-Up Storage Point served as an inspection and storage facility for ordnance-loaded railcars until they were dispatched to Victory Pier at the Los Angeles Port of Embarkation, where ordnance was loaded onto ships sailing for the China-Burma-India Theatre of War (83). Storage of ordnance-loaded railcars at the Rialto Ammunition Back-Up Storage Point enabled the number of ordnance-loaded railcars at Victory Pier to be kept to a minimum. The chronology of site ownership and operation is summarized below, with details provided in subsequent sections.

- *31 December 1941-9 February 1942*: acquisition of 2814.55 acres of land near Rialto.
- *February 1942*, onwards: improvements made to construct the igloo storage area, classification yard, and administration buildings.
- *16 November 1942*: Rialto Ammunition Back-Up Storage Point is activated.
- *2 December 1942*: operations begin with the first railcar received.
- *January to August 1943*: storage of small arms ammunition in the igloos for DTC operations in the Mojave Desert.
- *May 1944*: 220 railcar holding area constructed.
- *30 November 1944*: 7.6 acres acquired as a no-fee easement for railroad spur.
- *September 1945*: operations cease.
- *16 October 1945:* Rialto Ammunition Back-Up Storage Point put on "caretaker" status.
- *13 November 1945*: Rialto Ammunition Back-Up Storage Point declared surplus by the Army Service Forces and transferred to the War Assets Administration for disposal.
- *9 July 1946*: the Farm Credit Administration assumed custody and responsibility for disposal of the land and improvements.

## 3.2 Acquisition

Through War Department Real Estate Directives RE-D 536 (31 December 1941), 536-L (9 February 1942), 534 (9 February 1942), and 536-I (30 November 1944), the Army acquired 2,822.15 acres of mostly undeveloped land in a remote, unincorporated area of San Bernardino County, California. (The area became incorporated into the City of Rialto in 1967.) As shown on the Real Estate map (Exhibit 1), 2814.55 acres were acquired 31 December 1941 through 9 February 1942 in fee by deed or Declaration of Taking from 77 landowners listed on the Real Estate map (Exhibit 1), and 7.60 acres were acquired on 30 November 1944 as a no fee easement for an Atchison, Topeka, and Santa Fe railroad spur to the site.

The property is described in historic documents as located three miles northwest of the City of Rialto, two and a half miles north of the City of Fontana, seven miles northwest of the City of San Bernardino, 67 miles by road, and 70 miles via railroad, from Victory Pier at Long Beach (84, 145). A real estate map prepared for the disposal of the property in 1946 (Figure 3-1), shows the site with respect to boundaries, leased areas, and the area on which the Rialto Ammunition Back-Up Storage Point was developed (146).

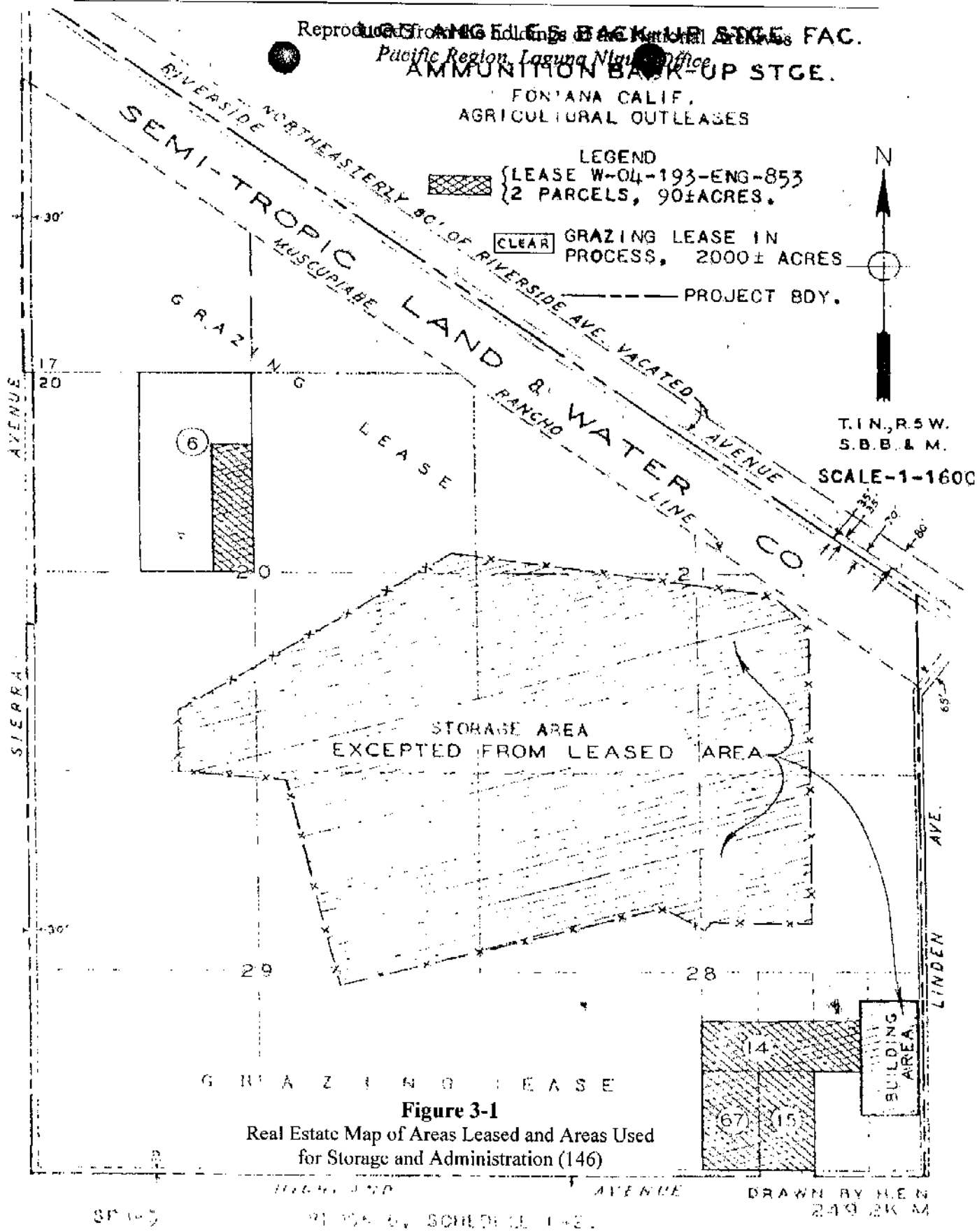



**Figure 3-1**
Real Estate Map of Areas Leased and Areas Used for Storage and Administration (146)

## 3.3 Improvements to the Site

Photographs of the land acquired in 1942 (Figure 3-2, P1, P2) and the area developed for storage (Figure 3-3, P5a, P5b) illustrate that improvements for operation of the Rialto Ammunition Back-Up Storage Point were made on only about 740 acres of the 2,822.15-acre military reservation. Improvements to the site were made by the Army Corps of Engineers and its subcontractors, and were primarily to construct temporary storage for ordnance-loaded railcars.

Improvements began in February 1942 with grubbing brush and grading in the location of the former Airfield, shown in a 1938 photograph (P2), and no longer extant in 1942. As shown in Figure 3-4, General Plot Plan, dated August 1942, initial improvements included 20 earthen-covered concrete igloos, 26 feet 6 inches wide and 81 feet deep (179), accessed by dirt roads and rail, and built according to the distance-quantity requirements for ordnance storage specified in the United States Government Ordnance Safety Manual, 1941 edition. Rail track and fencing, and a classification yard for inspection of railcars were also installed. As shown in Figure 3-4, south of the fenced storage area and adjacent to Linden Avenue, five buildings were constructed initially: the Administration Building, gasoline station, garage, locomotive shop, and sewage treatment plant. The chicken house, shown on the General Plot Plan, was an existing structure. Except for the two-story Administration Building, these buildings were one-story, wood and frame construction (84).

The General Layout Plan (Exhibit 2), prepared in 1946 for disposal of the site, shows the complement of improvements made to the site. As additional storage space, four fuze and powder magazines were built and bunkers with a capacity to store 220 railcars loaded with explosives were constructed in the area to the north of the igloos. Shown in Figure 3-3, and still visible in an aerial photograph taken in 1948, are the railcar bunkers (or turnouts) constructed as eight rows, each with a railroad spur (P5a, 5b). Each of 40 bunkers was approximately 100 feet wide by 700 feet long and was built by excavating into the existing grade (85).

Reproduced from the holdings of the National Archives
*Pacific Region, Laguna Niguel Office*

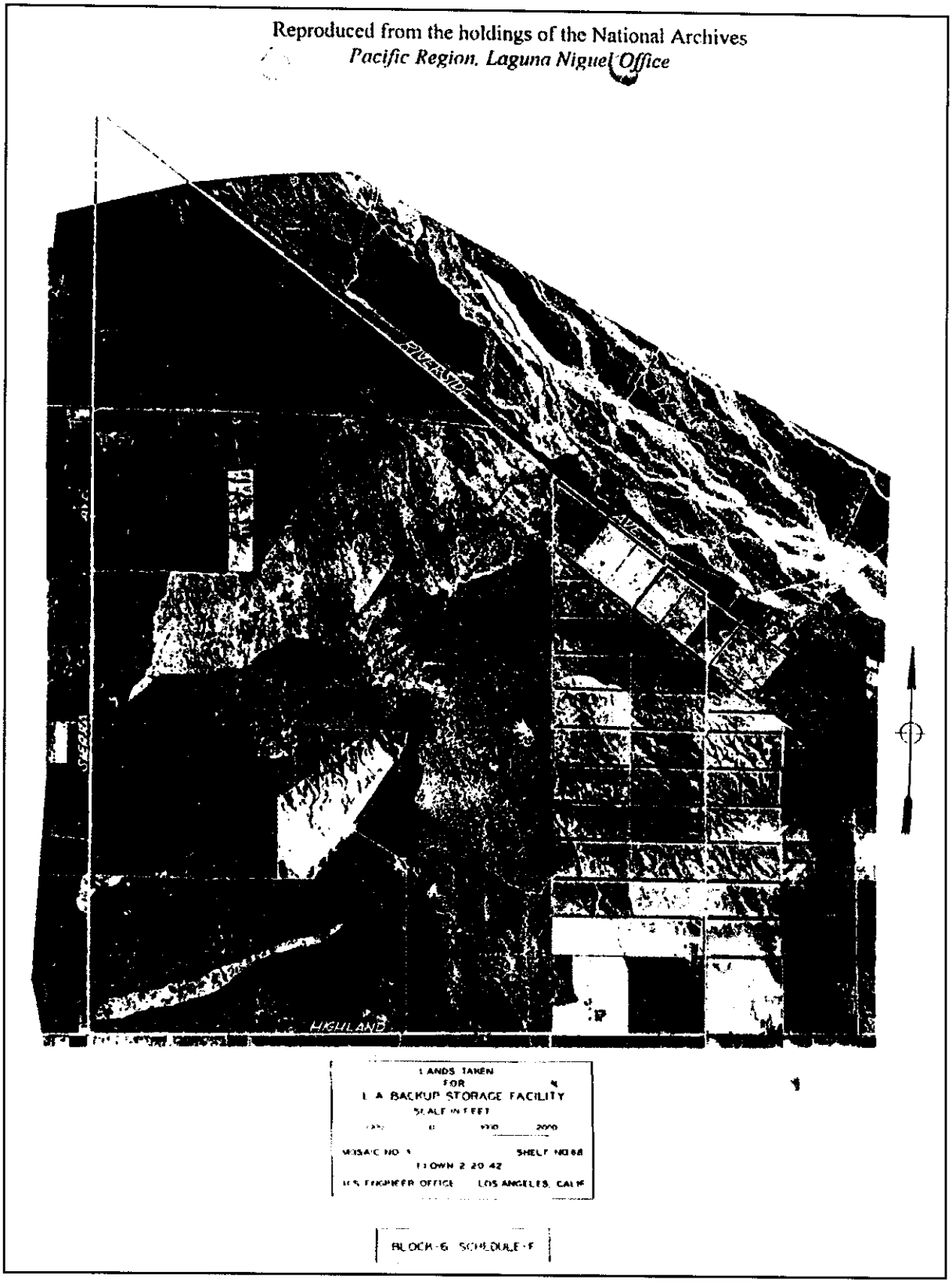



**Figure 3-2**
Aerial Photograph of Land Acquired for
Rialto Ammunition Back-up Storage Point
(146)

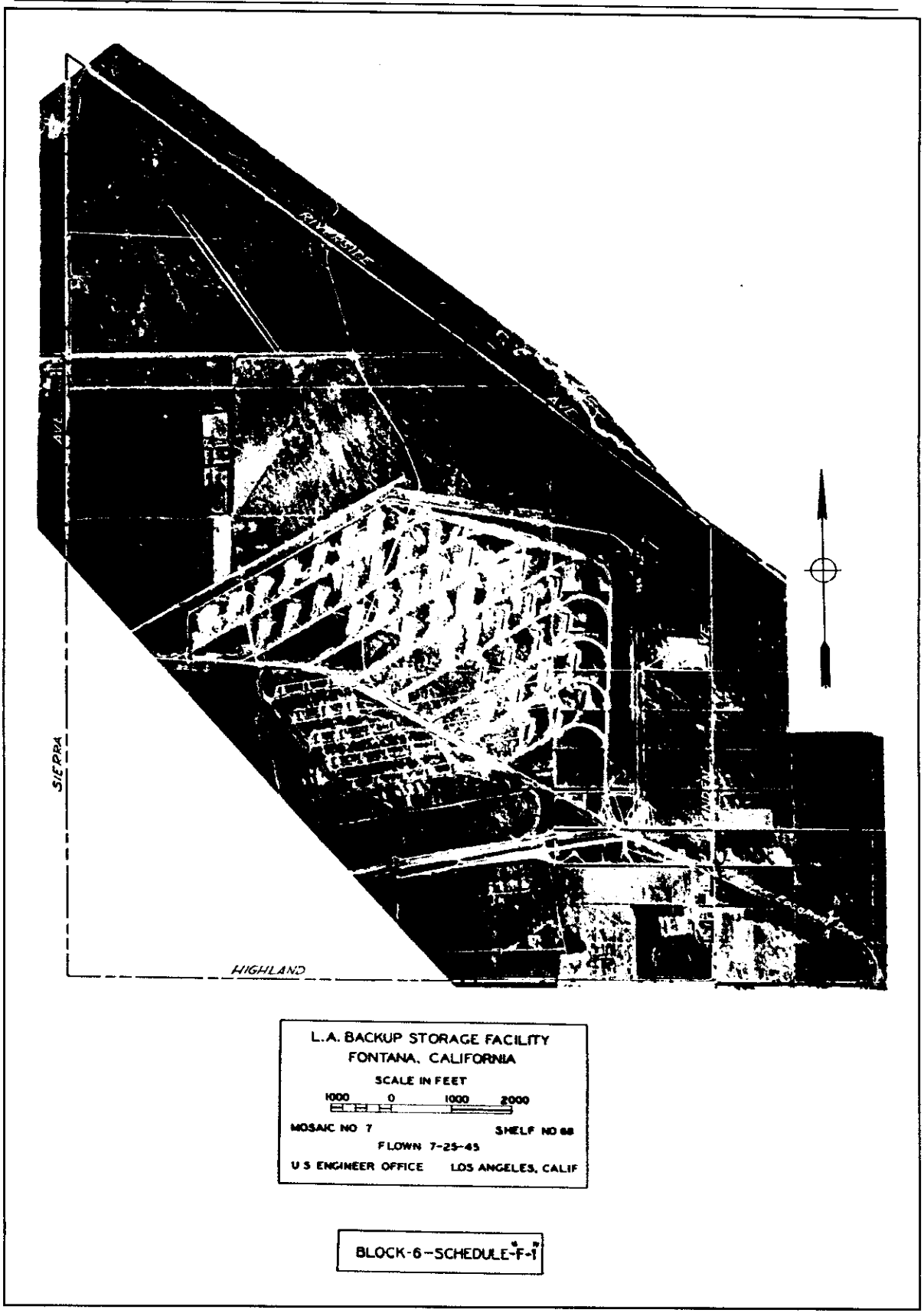



**Figure 3-3**
Aerial Photograph of Site with Improvements, July 1945 (146)

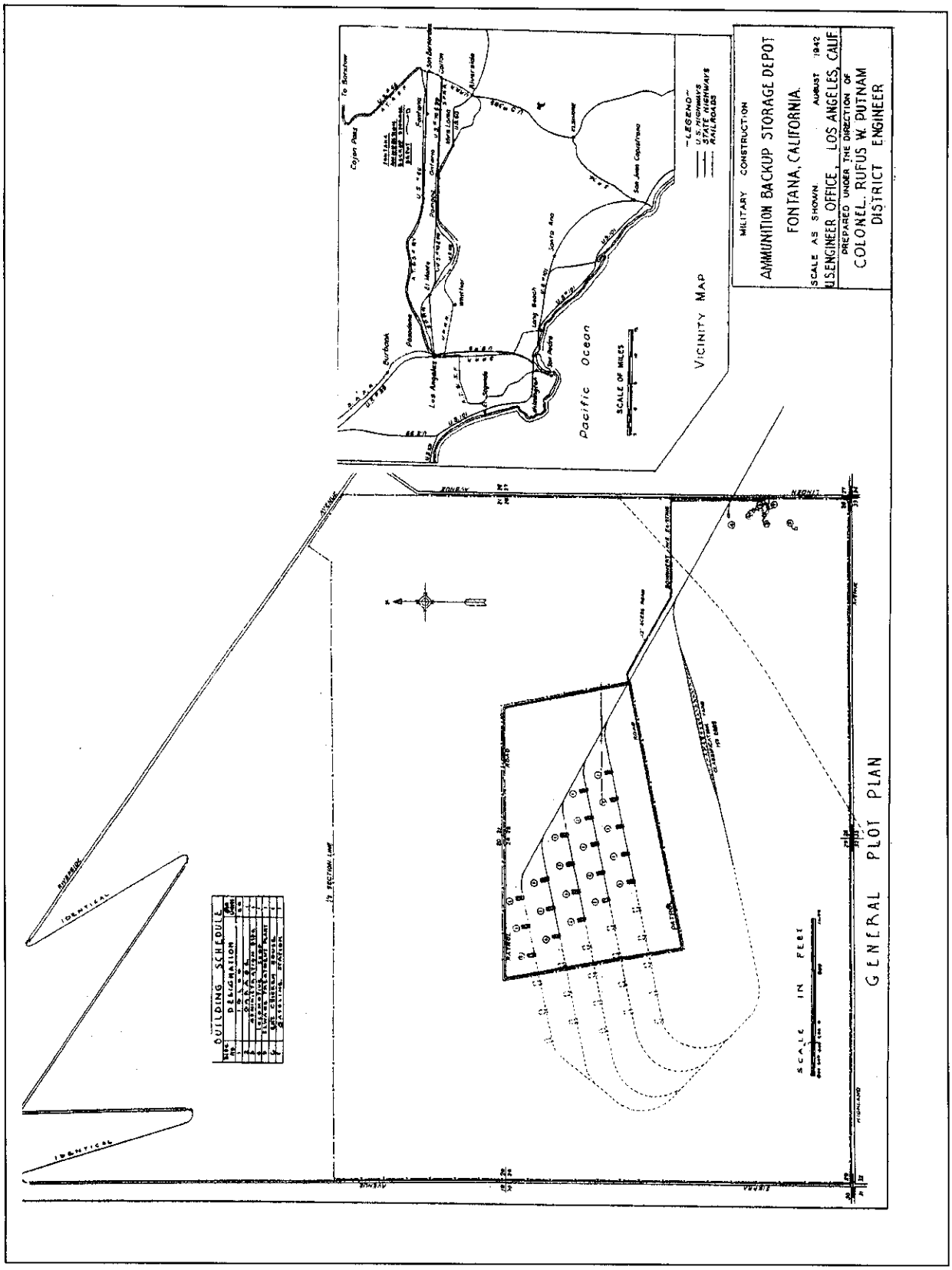



**Figure 3-4**
General Plot Plan, August 1942 (155)

Major improvements to the site included 23 buildings for administration, fire prevention, and maintenance of the site, 16 watch towers, a well, a railcar inspection pit, two concrete underground shelters, a classification yard, rail trackage (23.5 miles total), a locomotive shop, seven underground storage tanks, perimeter and critical fencing, and a power and light distribution system. The existing farm house was converted to a dispensary. Improvements are listed on the General Layout Plan (Exhibit 2) and in a site audit completed prior to disposal of the site in 1946 (46, Exhibit 3). A suspect railcar track, where railcars suspected of having been damaged or tampered with would have been shunted, is shown on the General Layout Plan, and in Figure 3-3. Photographs of the igloos and specific operations of the Rialto Ammunition Back-Up Storage Point are provided in Appendix B to illustrate the standard operating procedures for inspection and storage of ordnance-loaded railcars (81).

## 3.4 Standard Operating Procedures

Operations of the Rialto Ammunition Back-Up Storage Point, also known as Fontana Ammunition Storage Point, and by other names listed in Section 1.1, are best understood in the context of the Los Angeles Port of Embarkation, for which it served as a back-up ordnance storage facility. The account presented is based on review of historical documents associated with the Rialto Ammunition Back-Up Storage Point, and on interviews with Mr. R. K. Weyand, who served as Ordnance Officer at the Los Angeles Port of Embarkation from July 1943 until March 1946, and Mr. Holt and Mr. Thompson, both of whom served in the 622$^{nd}$ Ordnance Ammunition Company, temporarily stationed at the site in 1943.

In January 1942, the Los Angeles Port of Embarkation was established by the Army, with berths and storage areas at Wilmington leased from the Los Angeles and Long Beach Harbor Commissioners. At inception, the Los Angeles Port of Embarkation's mission was to expedite the movement of cargo and troops through the port to the China-Burma-India Theatre of War (45). Cargo included general supplies, planes, tanks, subsistence, guns, and ammunition, with ammunition comprising about a third of all materiel shipped.

The control of ammunition to be shipped presented a difficult problem in that, unlike inert supplies, safety considerations required that the amount stored had to be limited based on the explosive content and the loading capacity of ships in port. At Victory Pier, Los Angeles Port of Embarkation, where ammunition was loaded onto vessels, ammunition holding time was determined by the Captain of the Port and based on the explosive content of ammunition in the railcars. For example, a common shipment to the China-Burma-India Theatre of War was an order of 500-pound general purpose bombs with high explosive content. The Captain of the Port allowed only two railcars loaded with 500-pound bombs at Victory Pier at the same time. In order to limit the amount of explosives stored at the pier, yet efficiently meet overseas needs, ordnance-loaded railcars were stored on the tracks at the Rialto Ammunition Back-Up Storage Point until called for at the Port when a ship was ready for loading (I-1). Ammunition was thus brought by rail to the Los Angeles Port of Embarkation in increments, as needed (80). This system was the World War II equivalent of the late 20th century just-in-time chain of supply: keeping stock on hand to a minimum and shipping only as much as needed.

Because of its remote desert location, proximity to railroads, and distance (70 miles) from the Los Angeles Port of Embarkation, the Rialto/Fontana area was chosen to establish a back-up ammunition storage area. The location of the Rialto Ammunition Back-Up Storage Point with respect to the Los Angeles Port of Embarkation and associated facilities is shown in Figure 3-5.

As illustrated in the organization chart (Exhibit 4), the Rialto Ammunition Back-Up Storage Point was operated as a sub-depot or command of the Los Angeles Port of Embarkation under the Army Service Forces, Ninth Command, Transportation Corps, from its activation on 16 November 1942, with the first railcar received on 2 December 1942, until closure in September 1945 (45). It was accessed by the Atchison, Topeka, and Santa Fe Railway and by the Pacific Electric Railway.

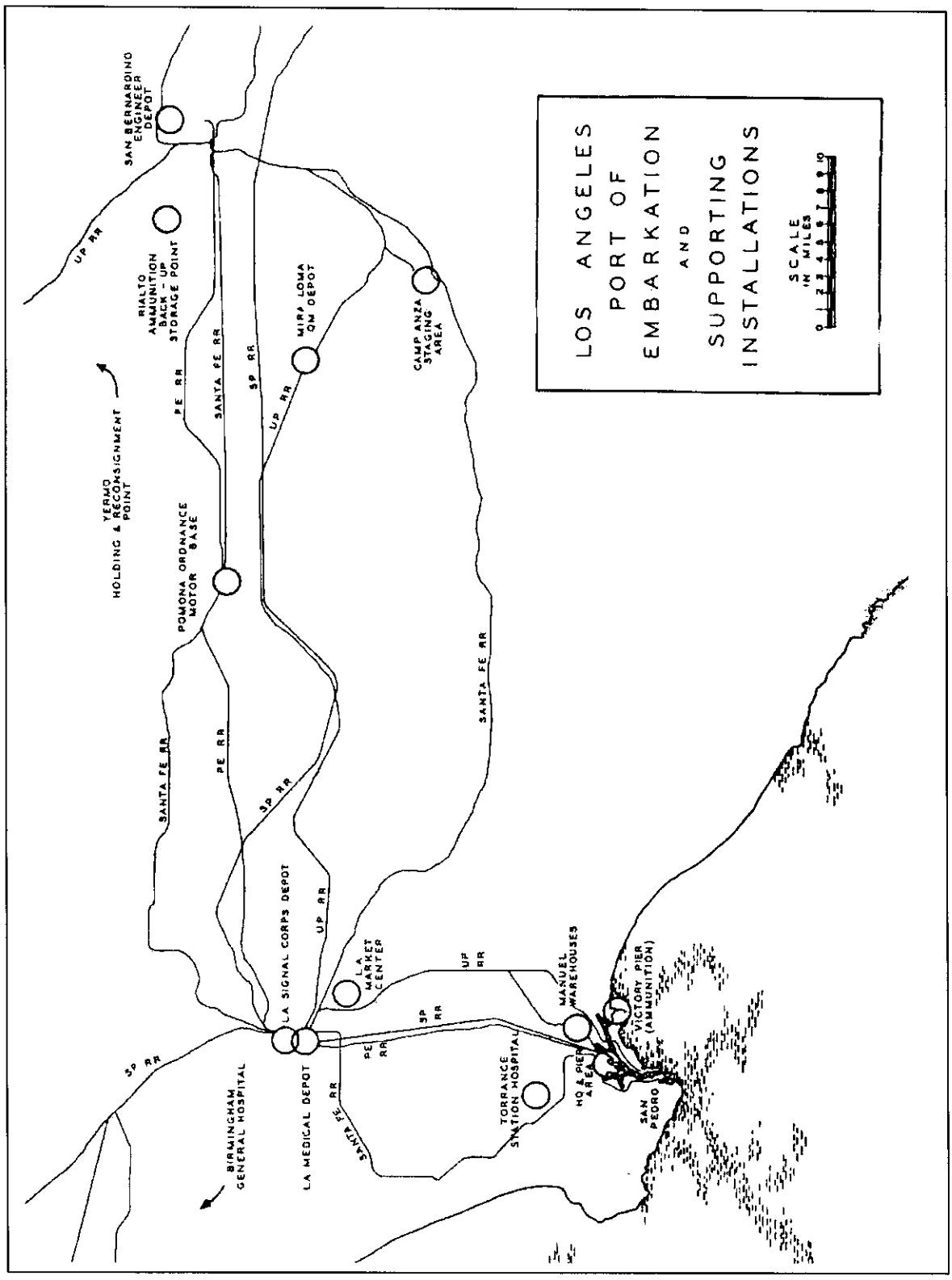



**Figure 3-5**
Location of Rialto Ammunition Back-Up Storage Point in relation to the Los Angeles Port of Embarkation

The primary role of the Rialto Ammunition Back-Up Storage Point was to serve as a back-up or holding location for ordnance-loaded railcars destined for Victory Pier, Port of Los Angeles, until the railcars were ordered to the port. Additional operations at the Rialto Ammunition Back-Up Storage Point were: inspection of railcars for condition of the contents and detection of attempts at sabotage; recoopering damaged bracing and dunnage; consolidation of partial shipments; and receipt and dispatch of railcars as directed by the Port Transportation Division. No evidence was found that the role of the Rialto Ammunition Back-Up Storage Point included handling damaged munitions; responsibility for damaged munitions, which were rarely found, was with the Los Angeles Port of Embarkation.

Details of the operations of the Rialto Ammunition Back-Up Storage Point are described in the interview with Mr. R. K. Weyand, Ordnance Officer at the Los Angeles Port of Embarkation from July 1943 until March 1946 (I-1). Mr. R. K. Weyand's primary responsibility was to maintain the ammunition supply levels for the China-Burma-India Theatre of War during World War II. Mr. Weyand's testimony is corroborated by documentary evidence from the Los Angeles Port of Embarkation and the testimony of Mr. Holt and Mr. Thompson.

On the first of each month, Mr. R. K. Weyand would receive from the China-Burma-India Theater a radio communication on the how much ammunition and ordnance had been expended. With knowledge of the amount of ammunition and ordnance originally provisioned, and what was in transit from the port, Mr. R. K. Weyand was able to determine how much to order from one of depots around the United States, shown in Figure 3-6. Mr. R. K. Weyand recalled that Navajo and Sierra were the two depots most frequently supplying munitions, principally bombs (100, 200, and 500-pound general purpose bombs) and 155 mm artillery shells. Small arms were supplied by the Edgewood Arsenal. Boosters and fuzes were packed and shipped separately from the associated bombs.

An essential skill Mr. R. K. Weyand developed and deployed was scheduling the arrival of ordnance-loaded railcars to coincide with the arrival of supply ships at Victory Pier. The orders to the depots were arranged so that the ordnance-loaded railcars arrived at Victory Pier

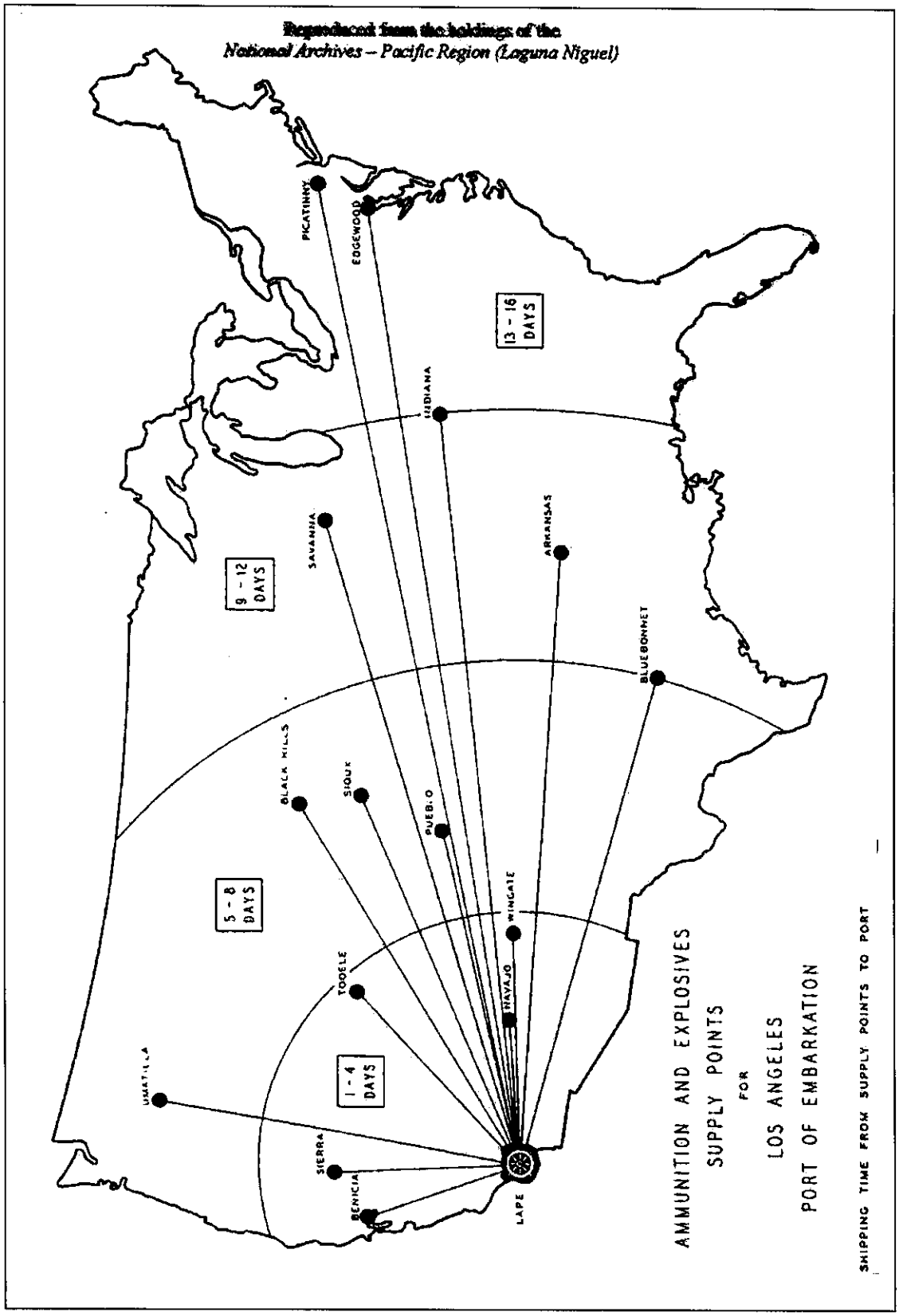



**Figure 3-6**
Ammunition Depots Supplying,
Los Angeles Port of Embarkation (154)

when the dock crew was ready to load the supply ship, such that the number of ordnance-loaded railcars at Victory Pier was kept to a minimum. Mr. R. K. Weyand recalled that there were rarely more than two ordnance-loaded railcars at Victory Pier.

Most of the ordnance-loaded railcars came directly to Victory Pier. However, if a ship was late in arriving at the port, or a delay occurred in loading, or if the port had reached the maximum number of ordnance-loaded railcars allowed by the Captain of the Port, then the ordnance-loaded railcars would be diverted to the Rialto Ammunition Back-Up Storage Point, where they would be stored on the tracks or in the bunkers, until called to the port. Mr. R. K. Weyand emphasized that the practice was not to unload ordnance from railcars at the Rialto Ammunition Back-Up Storage Point. He recalled only two occasions when ordnance was unloaded from a railcar and stored in a magazine at the Rialto Ammunition Back-Up Storage Point. That unloading the railcars was not a common practice is corroborated in the Statistics sections of the Monthly Historical Reports for the Rialto Ammunition Back-Up Storage Point, which show that very few railcars were unloaded/loaded compared with the number of railcars in transit through the site. An example of historic transit data is shown on page 3-26.

Holding railcars on the tracks at the Rialto Ammunition Back-Up Storage Point for more than seven days incurred demurrage costs, which the Port Commander greatly discouraged. Thus, Mr. R. K. Weyand stated that through direct transport of ordnance-loaded railcars to Victory Pier, with a high accuracy in scheduling coincidence of railcar arrival with loading ordnance onto a supply ship, storage of ordnance-loaded railcars at the Rialto Ammunition Back-Up Storage Point was minimized and demurrage costs avoided. Construction of the railcar bunkers in May 1944 provided additional railcar storage and also reduced demurrage costs.

Of the 3.5 million tons of munitions shipped through the Los Angeles Port of Embarkation during World War II, Mr. Weyand stated that less than ten per cent were routed through the Rialto Ammunition Back-Up Storage Point. This statement is contrary to the SOP for Rialto Ammunition Back-Up Storage Point, which specified that all munitions were to be routed to

the port through Rialto (Appendix B). However, that less than ten per cent of the munitions shipped from the Los Angeles Port of Embarkation were routed via Rialto is corroborated by statistical data from the port that show a total of 320,830 long tons, i.e., less than ten per cent of the total munitions shipped from the port, were routed via Rialto Ammunition Back-Up Storage Point (81, and page 3-27).

After the arrival of ammunition at the Rialto Ammunition Back-Up Storage Point from the supply depots, the railcars were inspected for evidence of tampering, sabotage, and damaged packing. During World War II, wooden crates were used to transport munitions and wooden dunnage was used to separate munitions to prevent sympathetic detonations (277). Mr. R .K. Weyand stated that wooden bracing and dunnage inside a railcar could be damaged by railcars banging together when being switched to different tracks. Bracing for 155 mm ordnance was especially susceptible to damage because the shells were shipped standing on end. At the Rialto Ammunition Back-Up Storage Point damaged bracing and dunnage would be repaired by recooperers, i.e., carpenters, who climbed inside the railcar to repair the bracing around the ordnance or replace broken dunnage.

Mr. R. K. Weyand was shown a Monthly History Report for Rialto Ammunition Back-Up Storage Point, dated October 1944, which stated:

*Recoopering is done between or around the igloos, one box at a time. Damaged material is destroyed out in the area. There is no designated burning ground. Small quantities have been burned in a pit. However, this is now a target range* (84).

Mr. R. K. Weyand emphatically stated that the "damaged material" referenced above refers not to munitions, which would not have been detonated or burned at Rialto Ammunition Back-Up Storage Point, but to damaged wooden bracing material of broken dunnage which could not be repaired. The dunnage and bracing damaged beyond repair would have been burned, as burning was less expensive than having the wood hauled away. Mr. Holt's testimony corroborated that of Mr. Weyand in stating that only wood was burnt at the site and that any munitions would have been disposed of not at the site, but in the Mojave Desert.

To guard against sabotage, a seal was fixed to the door of a railcar after an interior inspection. Before moving the railcar to Victory Pier, numbered car seals were placed on the doors. Information on car numbers, seal numbers, and expected and actual times of departure from Rialto Ammunition Back-Up Storage Point was forwarded by the most expeditious means to the Port Transportation Division, Ordnance or Chemical Office, Los Angeles Port of Embarkation, where seals were checked and railcars were inspected. The coordination of the Los Angeles Port of Embarkation with the Rialto Ammunition Back-Up Storage Point is illustrated in a flow chart, with text, presented as Exhibit 4, Appendix E.

In addition to temporary storage of ordnance-loaded railcars prior to shipment through the Los Angeles Port of Embarkation, an additional function of the facility was to provide storage of ammunition used by troops of the Army Ground Forces training for desert warfare at the Desert Training Center in the Mojave Desert, California. Three igloos and an open storage area were used January through March 1943 to store chemical warfare supplies for troops training in the Mojave Desert. Exercises were to prepare troops for combat in North Africa under simulated Theater of War operations. During February 1943, the 261st Ordnance Maintenance Company was stationed at Rialto Ammunition Back-Up Storage Point with five officers, one warrant officer and 145 enlisted men; during March the 622$^{nd}$ Ammunition Ordnance Company with three officers and 190 enlisted men was stationed there. The Ordnance personnel received training in the handling of ammunition and explosives when 72 cars of simulated ammunition for the Desert Training Center were received and unloaded with the assistance of personnel working at the Rialto Ammunition Back-Up Storage Point (173).

Details about the use of the igloos and fuze magazines at the Rialto Ammunition Back-Up Storage Point to store ammunition for troops training in the Desert Training Center were provided by Mr. Robert Thompson and Mr. Aaron Holt, both of whom served in the 622$^{nd}$ Ordnance Ammunition Company as Staff Sergeant and Tech Sergeant, E-7, respectively (I-2, I-3).

As combat in World War II shifted from North Africa to Italy, operations of the Desert Training Center - known from November 1943 as the California-Arizona Maneuver Area (C-AMA) - wound down and ceased on 1 May 1944. When operations at the Desert Training Center began to wind down, the 622nd Ordnance Ammunition Company was relocated in April 1943 to Fontana, within the perimeter of the military reservation which encompassed Rialto Ammunition Back-Up Storage Point. The Company remained at that location until August 1943 when they sailed from the San Francisco Port of Embarkation for the Pacific Theater of War (I-2, I-3).

The 622nd Ordnance Ammunition Company of 186 enlisted men and six officers encamped at the eastern boundary of the military reservation, specifically in an area near the Bonhert Avenue entrance to the Rialto Ammunition Back-Up Storage Point storage area. The encampment was bounded on the north and south by a line of eucalyptus trees, by the reservation perimeter gated fence (fence type Fen-D-M) on the east at Linden Avenue, and on the west by the guarded fence (critical fence type Fen-F-M) which secured the storage area of the Rialto Ammunition Back-Up Storage Point. The cleared area on the east of the installation shown in previous Figure 3-3, page 3-6, may indicate the location of the encampment (I-2).

The 622nd Ordnance Ammunition Company was responsible for receiving, storing, and issuing .30 to .50 caliber ammunition used by troops of the Army Ground Forces for small arms training in the Desert Training Center. About once per week, a shipment of ammunition, primarily small arms ammunition and sometimes other munitions such as landmines, mortars, and bazooka rockets, would arrive at the Fontana Ammunition Storage Point, after transportation by the Pacific Electric Railroad to the Army rail distribution center at Colton (I-2, I-3).

A diesel locomotive was on site to move the ordnance-loaded railcars along spur tracks to the storage igloos in the Rialto Ammunition Back-Up Storage Point. A diesel locomotive positioned a freight car so that the sliding doors of the railcar were adjacent to the open doors of the igloo. Then the ammunition would be unloaded directly into the igloo for storage. The

ammunition was shipped in metal-lined wooden boxes. When issued to troops, the ammunition was transported by truck to the units of the Army Ground Forces training in the Mojave Desert within the Desert Training Center.

"Rialto" was not used in the site name by the 622nd Ordnance Ammunition Company, as their encampment at the military reservation was adjacent to the City of Fontana, and not at that time incorporated into the City of Rialto. Use of the name "Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation" reflects the use of the Rialto Ammunition Back-Up Facility by the 622nd Ordnance Ammunition Company as a storage facility for small arms ammunition for use in training in the Mojave Desert within the Desert Training Center, rather than as a back-up location for holding ordnance-loaded railcars until dispatched to Victory Pier at the Los Angeles Port of Embarkation.

Neither Mr. Thompson nor Mr. Holt recalled any accidents involving ammunition. Mr. Thompson said that safety was "their watchword." He did not know of any burning at the site, nor of any detonation of explosives on the site and referenced Mr. Holt, whom he regarded as a munitions expert, for further information. Mr. Holt's rank as a Master Sergeant with a grade of E-7 and his work as a munitions demolition expert during his tenure at the Desert Training Center and throughout his Army career underscore his munitions expertise. Mr. Holt stated that defective munitions were taken to the Mojave Desert for disposal. He was familiar with chemicals used in munitions and did not recall that any of the munitions stored in the igloos and magazines contained perchlorate. The composition of munitions used during the training maneuvers conducted in the Desert Training Center is a current research project of the Department of Defense. Data is not yet available to confirm or refute Mr. Holt's statement about the perchlorate content of munitions stored in the igloos and magazines at the Rialto Ammunition Back-Up Storage Point.

### 3.4.1 Safety in Storage and Handling of Ordnance

Precautionary measures against sympathetic detonations, fire, damage, and sabotage were taken at every stage of transportation and storage. The Standard Operating Procedures (SOP)

for the Safe Handling and Control of Explosives, Ammunition (other than Small Arms), and Chemical Warfare Toxic Agents at Los Angeles Port of Embarkation and Rialto Ammunition Back-Up Storage Point are shown in Appendix B (81). The practice of these standard operating procedures relative to safe handling of ammunition is illustrated in Appendix B through photographs included as a part of the SOP. The SOP followed procedures required by Army regulations and published by the U.S Government as an Ordnance Safety Manual (156). Of note is that a civilian fire department was on duty at all times and the State Forestry Department loaned a 500-gallon pumper equipped with a 250-gallon water tank for fighting brush fires (84).

The Monthly Historical Reports from the Rialto Ammunition Back-Up Storage Point were reviewed for reports of release of explosives or incidents relating to munitions: none were found. The exceptional safety record of both the Los Angeles Port of Embarkation and Rialto Ammunition Back-Up Storage Point is testimony to the practice of the safety procedures outlined in the SOP: the shipping of 100,227 tons of ordnance during 1943, 130,721 tons during 1944, and 89,882 tons during 1945 (through September) via the Rialto Ammunition Back-Up Storage Point to the Port was accomplished without a single explosion or fire, (81).

Review of historic records and anecdotal accounts did not provide evidence of open burning of explosives, open detonation of munitions, or use of flares at Rialto Ammunition Back-Up Storage Point during the operating period 1941 to 45 (I-1, I-2, I-3).

### 3.4.2 Munitions Stored at Rialto Ammunition Back-Up Storage Point

Analysis of records of operations at the Rialto Ammunition Back-Up Storage Point and evidence from the interview of Mr. Weyand lead to the conclusion that ordnance was rarely unloaded from the railcars and stored in the magazines; rather the sealed ordnance-loaded railcars were stored on the tracks and in the bunkers until called to the port. An inventory of munitions which were routed through or stored at the Rialto Ammunition Back-Up Storage Point was not discovered.

To gain insight into what kind of munitions which passed through the Rialto Ammunition Back-Up Storage Point may have been stored there, and which may have contained perchlorate, records were reviewed for munitions in transit to the Los Angeles Port of Embarkation through Rialto Ammunition Back-Up Storage Point. Information on munitions specific to Rialto Ammunition Back-Up Storage Point was scant.

Table 3-1 shows munitions referenced in historic records of railcars routed via Rialto Ammunition Back-Up Storage Point. This list is consistent with the account of Mr. R. K. Weyand who stated that supply for the China-Burma-India Theatre principally comprised general purpose bombs (100, 250, and 500-pound) and 155 mm artillery shells. Pyrotechnics (incendiary bombs, photoflash bombs, and flares) were infrequently shipped and comprised less than an estimated five percent by weight of munitions shipped through the Los Angeles Port of Embarkation (I-3). Based on research on munitions fillers (*vide infra*), none of the munitions shown in Table 3-1 contained perchlorate.

In terms of munitions stored to supply troops of the Army Ground Forces training in the Mojave Desert within the Desert Training Center, the accounts of Mr. Thompson and Mr. Holt, both members of the 622$^{nd}$ Ordnance Ammunition Company stationed at Rialto Ammunition Back-Up Storage Point from April 1943 until August 1943, state that small arms munitions were primarily stored in the igloos; at times, landmines, shoulder-launched 2.3-inch bazooka rockets, and mortars were also stored there. These munitions were not shipped to the Los Angeles Port of Embarkation, but transported by truck east to the Desert Training Center in the Mojave Desert (I-2, I-3).

One historic document noted that 183,000 pounds of black powder, which consisted of charcoal, sulfur and saltpeter (potassium nitrate) and was conventionally stored in drums or metal-lined wooden crates, were transferred from Rialto Ammunition Back-Up Storage Point in October 1945, after operations had ceased (282, 288, 290). This document is cited because it provides the only specific reference to ordnance stored at the Rialto Ammunition Back-Up Storage Point (282). Of note, is that perchlorate was not a constituent (288).

Figures 3-7 and 3-8 depict ordnance-loaded railcars routed to the Los Angeles Port of Embarkation. Figure 3-7 shows a railcar loaded with ammunition and Figure 3-8 shows the use of dunnage in railcars to prevent sympathetic detonations of 100-pound bombs.

The munitions listed in Table 3-1 and shown in Figures 3-7 and 3-8 are representative of World War II ordnance. Composition has been estimated based on records of chemical compositions of fillers and incendiary devices and igniter compositions (135). All types of bombs had a container or body, a fuze or fuzes, a booster and a stabilizing device. Different types of fuzes were placed in the nose and/or base of a bomb depending on the target and damage intended. A primer flashed from the actions of mechanical parts in a fuze and ignited a small amount of explosive, usually black powder, which set off a detonator that caused the bomb filler, such as TNT, to explode. During World War II most bombs had warheads filled with TNT.

#### 3.4.2.1 Munitions Used in World War II

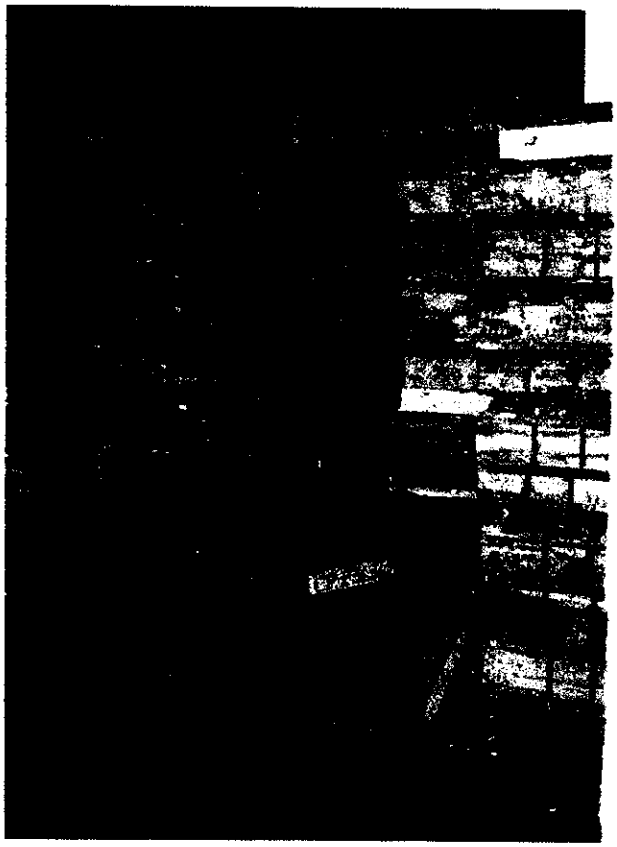
Given the paucity of data on munitions stored specifically at Rialto Ammunition Back-Up Storage Point, additional research was undertaken to determine the types of munitions used during WWII, and those which could have been transported or stored at the site. Of particular interest was whether perchlorate was a constituent of the munitions fillers or other munitions components. Research was undertaken at the Army Military Institute, the Library of Congress, the Soldier Biological and Chemical Command History Office, and the various NARA repositories associated with the regions where arsenals supplied the Los Angeles Port of Embarkation with munitions.

Military explosives during World War II included propellants, high-explosive bursting charges, and low explosives like black powder and tetryl used for fuzes. For the most part, the United States military used single-base smokeless powders, consisting of nitrocellulose and stabilizers, as propellants because the single base powders were less sensitive and safer for personnel. At the beginning of World War II, aerial and underwater ordnance used TNT bursting charges. By 1943, Torpex (a mixture of RDX (Royal Demolition Explosive,

## Table 3-1 World War II Ordnance Shipped through Rialto Ammunition Back-Up Storage Point**

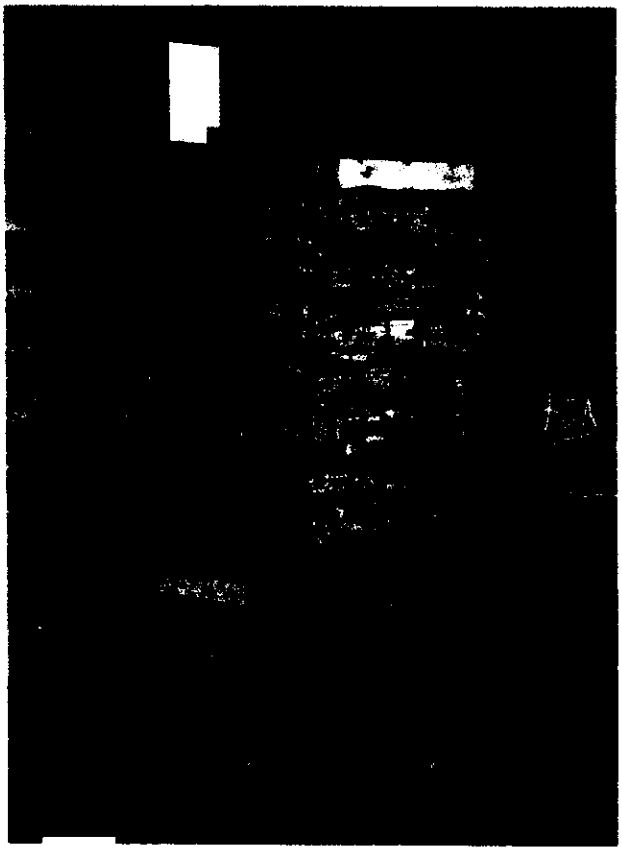
| Ordnance | | Diameter | Length (inches) | Weight (pounds) | Warhead (pounds) | Fill | Fuze | *Remarks* |
|---|---|---|---|---|---|---|---|---|
| Bomb | M1 | | | | | TNT | | *Cluster fragmentation* |
| Bomb | Mark 17 | 15 in | 52.5 | 325 | 234 | TNT | | *Aircraft depth bomb With hydrostatic nose and base fuzes* |
| Bomb | | | | | | Gasoline and Napalm | | *Incendiary* |
| Bomb | Mark C/R | 17.7 | 67.2 | 650 | | TNT | | *Aircraft depth bomb With hydrostatic nose and base fuzes* |
| Bomb | M30 | | | 100 | | TNT | | *Demolition unfuzed* |
| Bomb | M43 | | | 500 | | TNT | | *Demolition* |
| Bomb | M43 | | | 500 | | TNT | | *General Purpose with Band, Trunnion* |
| Bomb | M44 | | | 1000 | | TNT | | *General Purpose with Band, Trunnion* |
| Fuze | M103 | | | | | | Nose | *Bomb fuze* |
| Fuze | M100A1 | | | | | | Tail with .025 sec. delay | *Bomb fuze* |
| Fuze | M102A1 | | | | | | Tail with .025 sec. delay | *Bomb fuze* |
| Shell | M71 | 90mm | | | | High Explosive | M43 TM | *Cartridge for 90-mm AA gun M-1 with M43A2 TM fuze* |
| Shell | M38A1 | 105mm | | | | High Explosive | M43A2 TM | *Cartridge for 105-mm AA gun with M43A2 TM fuze* |
| Shell | M54 | 37mm | | | | High Explosive | M56 PD | *Cartridge for 37-mm M54 with XD Tracer and fuze PD M56* |
| Shell | M55A1 | | | | | High Explosive | | *With tracer, flares and signals* |
| Shell | | 3 in | | | | High Explosive | | *AA gun* |
| Mortar | Light | 60mm | | | | TNT | | *Sheet powder propulsion* |
| Mortar | Heavy | 81mm | | | | TNT | | *Sheet powder propulsion* |
| Rocket | Target | | | | | | | *AA N2 C/R* |
| Grenade | | | | | | TNT | | |

** Noted in the 1942 Memoranda to the Port Transportation Officers as being shipped to the Rialto Ammunition Back-Up Storage Point

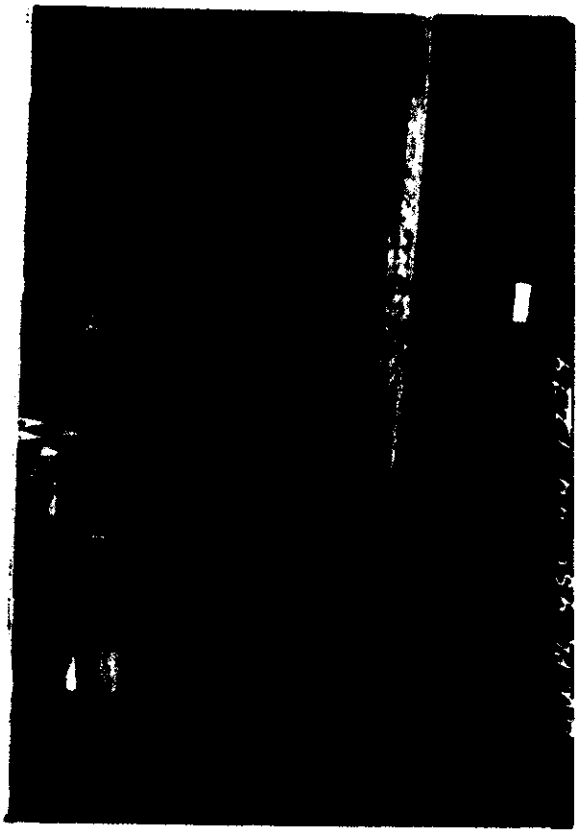


L.A.P.E. 9 S C
3458 9-18-44
AMM ON RR CARS

**Figure 3-7**
Ammunition Crates LAPE Railcar Loaded with Ammunition (68)

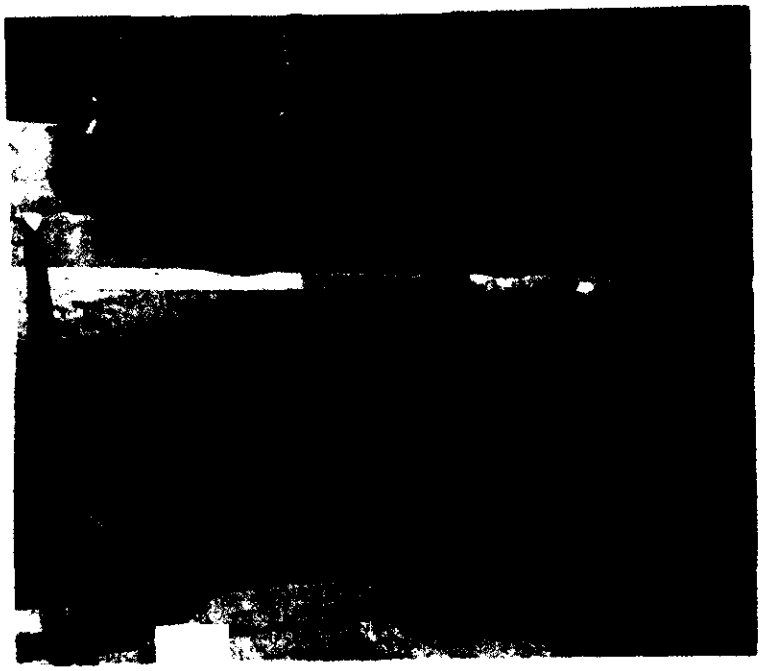


L.A.P.E. 9 S C
3459 9-18-44
AMM ON RR CARS



L.A.P.E. 9 S C
1279 3-18-44
LOADING & BRACING
AMM. IN R.R. CARS

**Figure 3-8**
Ammunition Crates LAPE Railcar Containing 100# Bombs (66)



L.A.P.E. 9 S C
1280 3-18-44
LOADING & BRACING
OF AMM. IN R.R. CARS

1,3,5-trinitro-1,3,5,-triazine), TNT, and aluminum powder) became the standard torpedo warhead because it was more powerful.

A list of munitions and fillers was derived from an Ordnance Field Guide published in 1946; the list is presented as Exhibit 6 in Appendix E (281). From this list and other military publications reviewed, it is apparent that the fillers of general purpose bombs, both low and high explosive, including fragmentation bombs and semi-armor piercing bombs, did not contain perchlorate (278, 280, 281, 276).

For several years prior to about July 1943, the standard bomb loading consisted of a main charge of 50/50 amatol (50% Trinitrotoluene (TNT) and 50% Ammonium Nitrate), with TNT nose and tail surrounds. This loading was used for most of the demolition bombs. For a short period during WWII there was a shortage of TNT and it was necessary to use amatol having a content of only 35 percent TNT. However, this was a temporary expedient to carry over a critical period, and as soon as TNT became available again, loading bombs with standard explosives was quickly resumed. In 1944, the availability of TNT increased to such an extent that amatol loading ceased. All 100 and 250-pound general purpose bombs were loaded with 100 percent TNT. Of the 500, 1,000, and 2,000-pound general purpose bombs, 75 percent were loaded with 100 percent TNT. The other 25 percent were loaded with Composition B (40 percent TNT, 60 percent RDX), with TNT nose and tail surrounds (284, 288). Other explosive fillers included Tetryl (trinitrophenylmethylnitramine), Explosive D (ammonium picrate), Tetrytol, Pentolite, Dynamite, and black powder (285, 288).

Pyrotechnics describes a class of munitions used to brightly illuminate an area or to burn an area. It includes incendiary bombs, photoflash bombs, and parachute flares and signals. As shown in the list in Appendix E of incendiary bomb fillers and explosive charges, perchlorate was not a constituent. Fillers included thermite (a mixture of ferrous oxide and aluminum), or gelled gasoline, which was composed of gasoline made viscous by the addition of sodium palmitate (this mixture was also known as napalm). Tetryl was used as an explosive charge (281, 289). The Corps compiled a list of munitions potentially used during World War II for training troops in the California-Arizona Maneuver Area; the list shows three incendiary

bomb fillers, IM 23, IM 28, and IM 136 with perchlorate as a constituent at 50, 10, and 49 percent on a weight basis (134, 135). Where perchlorate was used in these munitions it was in gram quantities or trace amounts. Potassium chlorate and potassium perchlorate are shown as a constituent of photoflash bombs, flares, and signals (281, 289).

Based on this analysis, a conclusion is that, of the munitions that might have been stored at the Rialto Back-Up Ammunition Storage Point, perchlorate was an extremely minor constituent, principally found in pyrotechnic munitions such as flares, photoflash bombs, and some incendiary bombs. There is no record that pyrotechnic munitions were stored at the site.

### 3.4.3 Statistics

Monthly Historical Reports from the Commanding Officer at Rialto Ammunition Back-Up Storage Point to the Port Commander, Los Angeles Port of Embarkation, provide information on personnel; railcars received, unloaded, shipped, loaded; storage space; facilities; and any problems encountered. Mr. R. K. Weyand recalled only two occasions when ordnance was unloaded from a railcar and stored in a magazine at the Rialto Ammunition Back-Up Storage Point. He stated that the loading and unloading referenced in the statistics referred to consolidation of partial shipments into one railcar (I-1).

***Persons Operating the Facility:***

Initially there were three officers, of whom the Commanding Officer and 1st Lieutenant were stationed at Rialto Ammunition Back-Up Storage Point; the Chemical Warfare Officer was assigned from the Los Angeles Port of Embarkation. From August 1944, all three officers were assigned from the Los Angeles Port of Embarkation. The Commanding Officer served as Ordnance Officer. The 1st Lieutenant served as Transportation Officer and the Chemical Warfare Officer was also the Security and Property Officer. A complement of civilians, ranging in number from about 64 to 138, supported the officers in operating the facility.

***Storage Space***

The amount of storage space was a constant until the addition of bunkers for 220 railcars in May 1944.

Office Space: 1,000 sq. ft.

Warehouse Space: 1,975 sq. ft.

Magazine Explosives Space (20 igloos and 4 fuze and powder magazines): 37,200 sq. ft.

Open Storage for bomb dunnage and dunnage lumber: 15,000 sq. ft.

***Accomplishments***

Data on railcars received and shipped comprised this section and the numbers varied. Below are data for March 1944. Total railcars received December 1942, when operations began, was 47; monthly average for 1943 was 248 (25).

| | |
|---|---|
| Number of [rail]cars received for the month of March: | 461 |
| Number of [rail]cars unloaded for the month of March: | 1 |
| Number of [rail]cars loaded for the month of March: | 1 |
| Number of [rail]cars shipped for the month of March: | 493 |

These data are representative of operations in that the numbers of cars loaded and the numbers of cars unloaded are low relative to the numbers of cars shipped and received. This suggests that handling of munitions may not have occurred on a daily basis, thus reducing the possibility of a release. This reasoning is supported by a monthly historical report dated October 1944 from Rialto Ammunition Back-Up Storage Point wherein it is stated that [storage] igloos were not used to a great extent, and by Mr. R. K. Weyand's account that unloading of ordnance for storage in a magazine occurred only twice in his recollection; this data on unloading and loading refers to consolidation of partial shipments into one railcar (I-1).

***Issues***

This section included such subjects as clearance of brush from the igloo area, or temporary storage of two Japanese bombs removed from a vessel at Victory Pier (31).

***Total amount of ordnance shipped to Los Angeles Port of Embarkation through the Rialto Ammunition Back-Up Storage Point:***

*1943: 100,227 long tons*
*1944: 130,721 long tons*
*1945: 89,882 long tons (through September)*
*Total: 320, 830 long tons* (81)

This amount is consistent with Mr. R. K. Weyand's statement that less than ten percent of the 3.5 million tons of ordnance shipped from the Los Angeles Port of Embarkation was routed through the Rialto Ammunition Back-Up Storage Point.

## 3.5 Closure and Disposal

Operations ceased in September 1945. The Army put the Rialto Ammunition Back-Up Storage Point on caretaker status 16 October 1945, and declared the site surplus 13 November 1945. Custody of the property was transferred from the War Assets Administration to the Farm Credit Administration 9 July 1946.

Two thousand acres outside the fenced storage area were leased for sheep grazing from 1 April 1946 until 31 October 1950. The storage area was subsequently sold to companies which could beneficially use the explosives storage facilities. Most of the property is zoned as industrial and occupied by various businesses, including pyrotechnic firms. Military improvements that have been beneficially used by nonmilitary entities include the water well, the igloos and bunkers, and a bomb shelter. There was no evidence that the seven underground storage tanks were beneficially used. The City of Rialto removed one tank, four were removed by others, and Ecology Control Industries, under contract to the U.S. Army Corps of Engineers, removed the remaining two underground tanks in 2000; a Closure Report was approved 27 November 2000.

## 4.0 CONCLUSIONS

Based on review of extensive historical records and interviews with persons with a working knowledge of the installation, no evidence was found that Rialto Ammunition Back-Up Storage Point was operated as other than a temporary storage facility for ordnance-loaded railcars in transit to the Los Angeles Port of Embarkation during World War II, and for storage of small arms ammunition for troops of the Army Ground Forces training in the Mojave desert. There is no evidence of ordnance manufacture, treatment, or disposal.

Less than ten percent of the 3.5 million tons of munitions transported to the Los Angeles Port of Embarkation was routed through the Rialto Ammunition Back-Up Storage Point. The standard practice was to leave the munitions stored in the sealed railcars rather than unloading railcars and storing munitions in igloos and magazines at the Rialto Ammunition Back-Up Storage Point.

The principal activity at the Rialto Ammunition Back-Up Storage Point was inspection and temporary storage of ordnance-loaded railcars (on the tracks or in bunkers) until shipment to the Los Angeles Port of Embarkation. Thus, with a low frequency of handling munitions, the probability of an accidental release is low.

Railcars routed through Rialto Ammunition Back-Up Storage Point were inspected for damage to the wooden packaging: bracing and dunnage. Repairs to bracing and dunnage were made inside the railcars by recooperers. Staff burned wooden bracing and dunnage that could not be repaired. No evidence was found of open burning of munitions or detonation of ordnance or explosives.

The exceptional safety record of no explosions or ordnance-related fires throughout the three-year period of operation of Rialto Ammunition Back-Up Storage Point is testimony that the facility was operated in accordance with the Army's stringent requirements for Ordnance Safety.

Historical records and anecdotal accounts of types of munitions routed through the Rialto Ammunition Back-Up Storage Point, knowledge of the composition of these munitions and constituents of the fillers and igniters used, and knowledge that perchlorate was a minor constituent in military munitions until near the end of World War II, support the conclusion that the amount of perchlorate, as a munition constituent routed through, or stored at the site, was very small.

Given that:

- munitions were stored in sealed railcars;
- the standard practice was *not* to unload railcars and store munitions in the magazines;
- perchlorate was not a constituent of most munitions and only a minor consituent of some pyrotechnics;
- pyrotechnics comprised less than five percent of all munitions shipped from the Los Angeles Port of Embarkation;
- no evidence was found of shipment of pyrotechnics through Rialto Ammunition Back-Up Storage Point;
- small arms ammunition stored in the igloos for troops undergoing training in the Mojave Desert either did not contain perchlorate or contained only gram quantities, then,

the probability of a release of perchlorate from the Rialto Ammunition Back-Up Storage Point is virtually zero.

# Appendix A

# Aerial Photograph Interpretation

# APPENDIX A

## Aerial Photograph Interpretation

## Rialto Ammunition Back-Up Storage Point
## Rialto, California

Aerial Photograph Interpretation

Rialto Ammunition Back-Up Storage Point

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# Aerial Photograph Interpretation

# Rialto Ammunition Back-Up Storage Point

## 1.0 INTRODUCTION

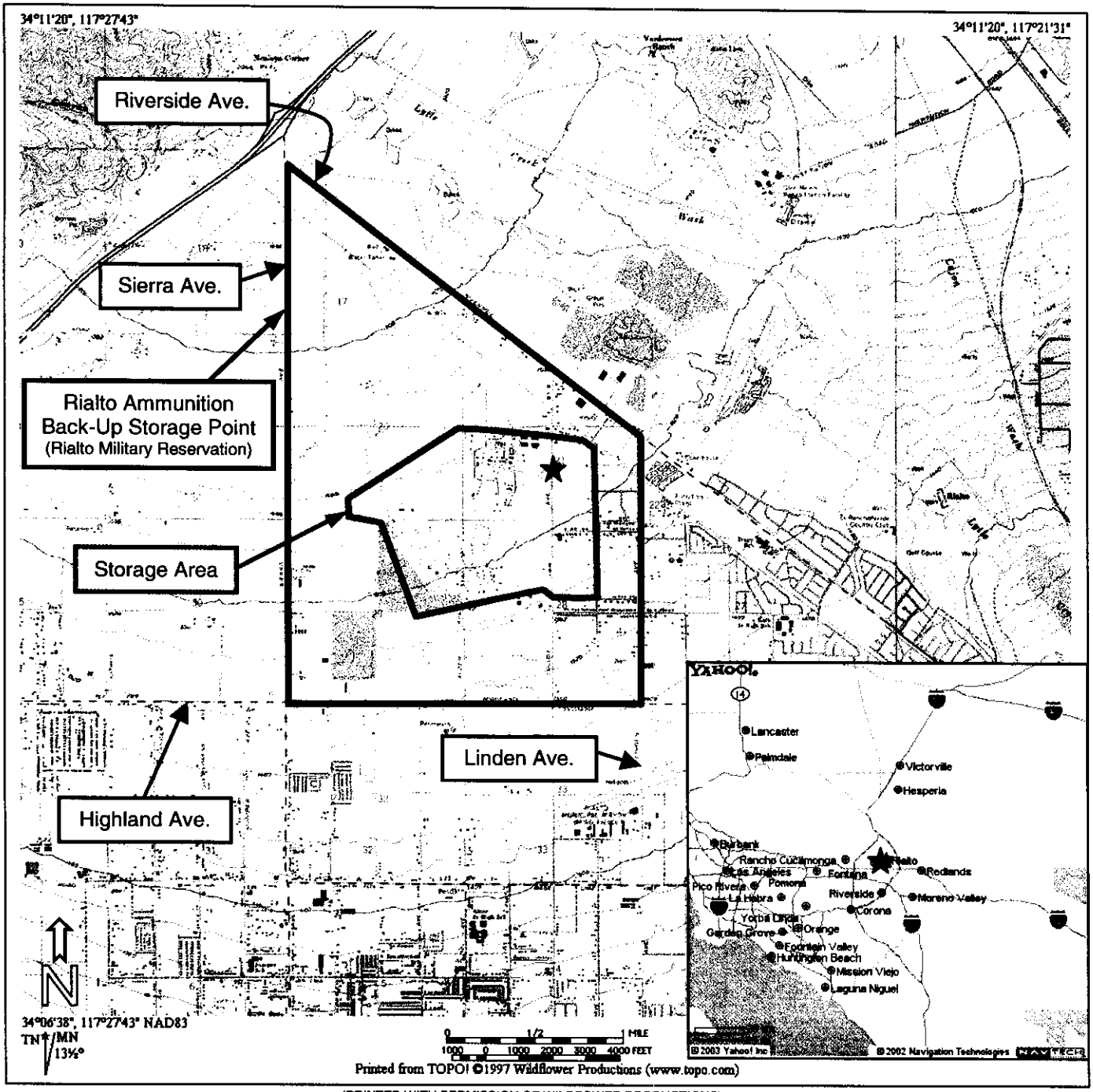
An aerial photographic analysis of Rialto Ammunition Back-Up Storage Point was performed by SAIC. Figure A-1 illustrates the location of Rialto Ammunition Back-Up Storage Point on a color copy of a Rialto, California, topographic map, electronic version provided by TOPO! Interactive Maps, © 1997 Wildflower Productions. The analysis was conducted to chronologically identify the development of, and changes to, Rialto Ammunition Back-Up Storage Point, with a focus on the location of the storage area.

Seven dates of aerial photography were acquired to represent the period from 1933 to 1955. Six dates of black-and-white aerial photographs, and one oblique photograph were selected for inclusion in this report.

Because of the restrictions on photographing military installations during World War II, the availability of aerial photographs of Rialto Ammunition Back-Up Storage Point in the period of its operation, 1941-45, is limited. Only one aerial photograph was found. Thus, in order to illustrate the size and scope of the operation during its period of activity, photographs are included of the site taken after it ceased operations in 1945 as the Rialto Ammunition Back-Up Storage Point (photograph series 1948-1955).

A copy of an historic reproduction of an aerial photograph of the site taken in July 1945 is provided as Figure 3-3, Section 3.0, page 3-6. Because the reproduction processes have made features indistinct, this photograph was not included in this interpretation. Neither the original photograph nor the negative was found.

The methodologies used to interpret the photographs are described in Section 2.0. Analysis of the aerial photographs is presented in Section 3.0, together with the photographs. Table A-1 presents a Summary of Interpretation Results; Table A-2 summarizes the chronological changes with respect to specific features. A list of all aerial photographs reviewed, with sources, is presented in Table A-3.




(PRINTED WITH PERMISSION OF WILDFOWER PRODUCTIONS)

U.S.G.S. TOPO, DEVORE, CALIFORNIA
Township 1 North, Range 5 West, parts of Sections 17, 20, 21 and 28 and 29

★Latitude N 34° 09' 15", Longitude W 117° 24' 32"
Elevation 1637 ft.

**Figure A-1. Rialto Ammunition Back-Up Storage Point Site Location Map**

## 2.0 METHODOLOGY

A search of government and commercial sources was undertaken to obtain aerial photographs of the Rialto Ammunition Back-Up Storage Point, spanning the period 1930 to 1958. Photographs were reviewed and selected from archived photographs at the Whittier College - Fairchild Aerial Photography Collection, Spence Collection - UCLA Geography Department, Rupp Aerial Photography, Inc., and NAPP (The National Aerial Photography Program). The analysis was performed by viewing aerial photographs at various magnifications in conjunction with interpretation of background information from collateral sources.

Photographic enlargement prints covering Rialto Ammunition Back-Up Storage Point were reproduced to illustrate the findings at the site. Findings are annotated to the enlargement prints, with additional comments and/or descriptions included in the accompanying text and tables. Significant features identified in the analysis will be annotated until they are no longer visible, unless otherwise specified. Due to factors inherent in the photographic printing process, the prints do not exhibit the level of detail that is visible in the original aerial photographs. Therefore, some features identified from the aerial photography may not be clearly discernable, or even visible in the photographic prints presented in this report.

## 3.0 AERIAL PHOTOGRAPHY SITE ANALYSIS

This section presents the findings from the aerial photograph interpretation. Table A-1 presents the interpretive analysis by photographic year. Table A-2 presents a summary of specific features by year. Table A-3 lists the aerial photographs reviewed, with their sources, as part of the research conducted for this project. For the period of Army operation, December 31, 1941 to September 1945, only one aerial photograph (No. 3), of a railroad spur to the facility, was found. This dearth of aerial photographs reflects the wartime restriction on photographing military installations.

## Table A-1. Summary of Interpretation of Aerial Photographs

| Photo Number | Comments | Date |
|---|---|---|
| 1 | Visible in this photograph is a cleared, triangular-shaped area where an airstrip would be developed. Construction of the Rialto Ammunition Back-Up Storage Point began on the location of this cleared landing strip in 1942. Highland Avenue and Riverside Avenue are visible to the south and northeast, respectively, of the cleared area. | 1933 |
| 2 | The airstrip is visible in this 1938 photograph. A road leading to the entrance of the airstrip from Highland Avenue is visible. Land to the east, west, and south of this site appears to be under cultivation. | 1938 |
| 3 | This photograph is of an area to the southeast of the Rialto Ammunition Back-Up Storage Point, which would have been operational for three months on the date of this photograph. Visible in this photograph are tracks of the Atchison, Topeka, and Santa Fe railroad spur. The spur leads to and ends at the Rialto Ammunition Back-Up Storage Point. | 1943 |
| 4 | The confluence of Lytle Creek and Cajon Creek Wash is seen in the foreground of this oblique view of the Rialto Ammunition Back-Up Storage Point, after Army operations ended in September 1945. This view is from the area of confluence of Lytle Creek and Cajon Creek Wash, east of the site. The igloos, and bunkers for railcar storage, are shown in the background. | 1945 |
| | Post Army Operations | |
| 5a | The igloos, railcar bunkers, railcar tracks, and railcar classification yard remain visible three years after Army operations ceased in 1945. | 1948 |
| 5b | Reduced definition of dirt tracks and the apparent growth of vegetation around the former storage igloos suggest a reduction of activity at the site, anticipated as Army use of the site ceased in 1945. The former railcar classification yard and former railcar bunkers are visible. | 1948 |
| 6 | Clearly defined dirt tracks in the area of the former storage igloos suggest use of the igloos after Army operations ended in 1945. There is a new building in the former railcar bunker area. | 1952 |
| 7 | The area of the former storage igloos continues to be utilized based on the clearly defined dirt tracks in the area. New buildings in the former railcar bunker and storage igloo areas suggest increased operations by new site owners. | 1955 |

# Table A-2 Feature Summary

Table A-2 lists features noted in the aerial photographs reviewed for Rialto Ammunition Back-Up Storage Point.

| Features Noted | 2/5/33 No. 1 | 3/ 15/38 No. 2 | 3/12/43 No. 3 | 11/3/45 No. 4* (1) | 7/6/48 No. 5a* | 7/6/48 No. 5b* | 7/13/52 No. 6* | 9/12/55 No. 7* |
|---|---|---|---|---|---|---|---|---|
| Triangular construction area | ✓ | | | | | | | |
| Airstrip (Fontana Airport) location where the Rialto Ammunition Back-Up Storage Point was developed | | ✓ | | | | | | |
| Spur of Atchison, Topeka and Santa Fe railroad leading to the site | | | ✓ | | ✓ | ✓ | (✓) | (✓) |
| Tracks in the area of the former storage igloos | | | | | (✓) | (✓) | (✓) | (✓) |
| Storage Igloos | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Railcar Bunkers | | | | ✓ | ✓ | ✓ | ✓ | (✓) |

✓ - Clearly visible. (✓) - Diminished but still visible.
* - Photographs taken after Army operations ended in September 1945.
(1) – As this photograph is an oblique view, not all features are visible.

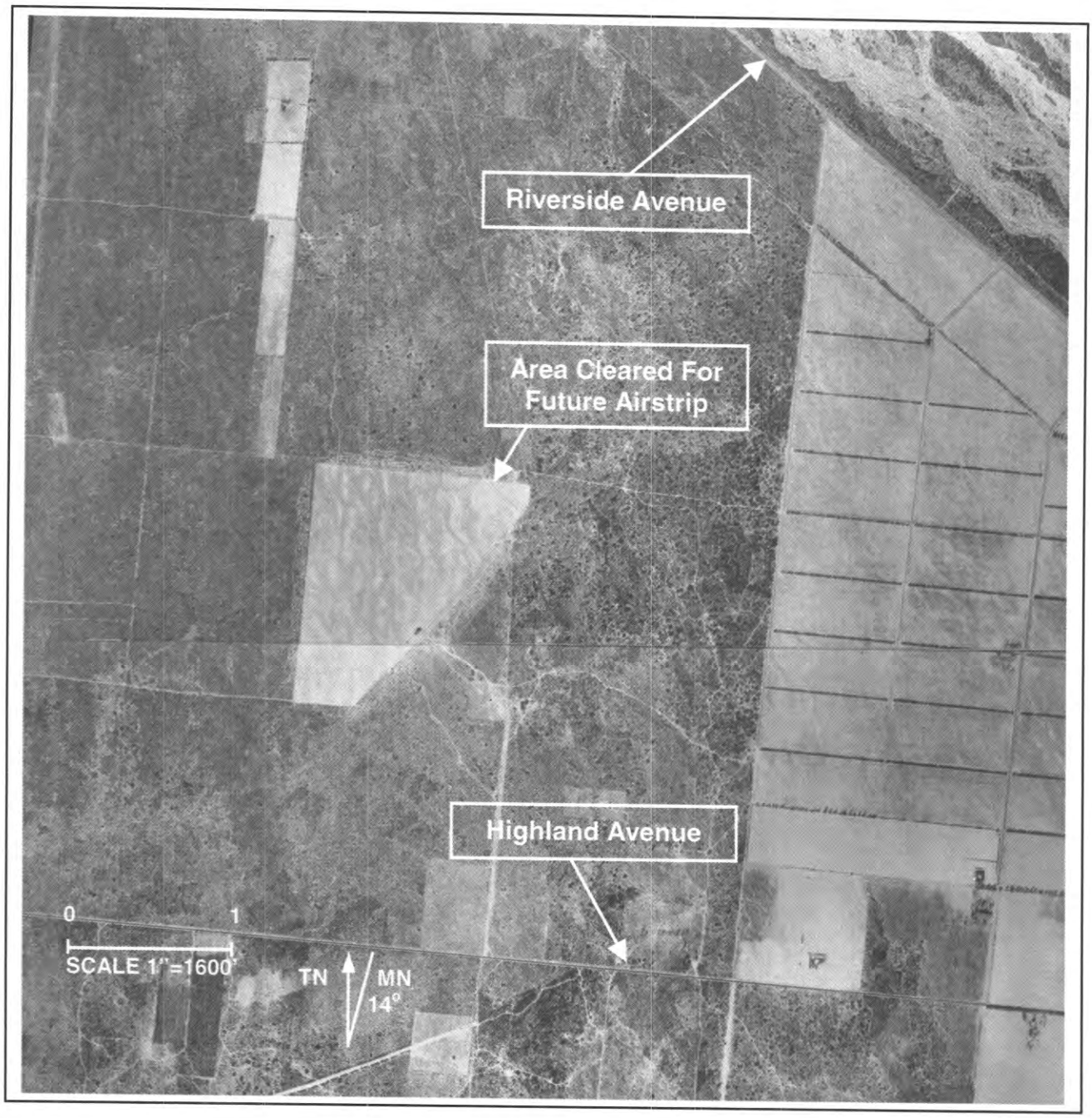
## 4.0 REFERENCES

Table A-3 lists aerial photographs reviewed for Rialto Ammunition Back-Up Storage Point.

**Table A-3**
**Aerial Photographs Reviewed**

| Photo Number | Source | Scale | Flight Number | Date Flown | Frame Number(s) |
|---|---|---|---|---|---|
| The following photographs were reviewed and included in this analysis. | | | | | |
| 1* | Fairchild Aerial Photos | 1"=1200' | C-2510 | February 5, 1933 | 72 and 74 |
| 2 | Fairchild Aerial Photos | 1"=2400' | C-5042 | March 15, 1938 | 15 |
| 3 | Fairchild Aerial Photos | 1"=1200' | C-8305 | March 12, 1943 | 40 |
| 4 | Spence Collection | oblique | | November 3, 1945 | |
| 5a* | USGS/EROS[1] | | | July 6, 1948 | ARB000380300022 |
| 5b* | USGS/EROS[1] | | | July 6, 1948 | ARB000380300022 (enlarged) |
| 6* | Fairchild Aerial Photos | 1"=2000' | C-17979 | July 13, 1952 | 8:20 & 8:19 |
| 7 | Fairchild Aerial Photos | 1"=1000' | C-22250 | Sept 12, 1955 | 2:5 |
| The following photographs were reviewed, but not included in this analysis. | | | | | |
| **Photo Number** | **Source** | | **Flight Number** | **Date Flown** | **Frame Number(s)** |
| | Fairchild Aerial Photos | | C-910 | 1930 | 8-10, 15-18, 26-29 |
| | Fairchild Aerial Photos | | C-2387 | October 22, 1932 | 6-12 |
| | Fairchild Aerial Photos | | C-2510 | February 5, 1933 | 64-66, 73, D:24-26; E:23-25 |
| | Fairchild Aerial Photos | | C-2689 | August 3, 1933 | A:5-6; B:3-5 |
| | Fairchild Aerial Photos | | C-3163 | August 28, 1934 | B:3-8 |
| | Fairchild Aerial Photos | | C-3668 | September 8, 1935 | 52-55 |
| | Fairchild Aerial Photos | | C-4061 | June 11, 1936 | 29-31 |
| | Fairchild Aerial Photos | | C-5042 | March 15, 1938 | 13,14,16 |
| | Fairchild Aerial Photos | | C-8305 | March 12, 1943 | 36, 37, 38, 39,41 |
| | Fairchild Aerial Photos | | C-17979 | July 13, 1952 | 8: 21; 26:1-2; 27:26-27 |
| | Fairchild Aerial Photos | | C-18537 | November 19, 1952 | S:7-9 |
| | Fairchild Aerial Photos | | C-19200 | May 6, 1953 | 7:60-61 |
| | Fairchild Aerial Photos | | C-22250 | September 12 1955 | 2:2,3,4,6,7,8; 3:5-10; 4:112-119, 152-154; 8:3-9; 12:1-2; 14:1-2 |
| | Fairchild Aerial Photos | | C-22307 | November 11, 1955 | 5:23-27; 6:22-25; 7:25-27 |
| | Fairchild Aerial Photos | | C-23023 | 1958 | SBD: 3:12-13; 7:17-19 |
| | Fairchild Aerial Photos | | C-23231 | October 16, 1958 | 1:19-20 |
| | Spence Collection | | | 1926 - 1955 | Rialto, Fontana, Mira Loma |
| | Spence Collection | | | 1956 - 1968 | Rialto, Fontana, Mira Loma |
| | Fairchild Aerial Photos | | | 1945 Flood Photos | Cajon and Lytle Creeks |

Notes:
1. USGS/Earth Resources Observation Systems (EROS) Data Center
* Stereo photographs

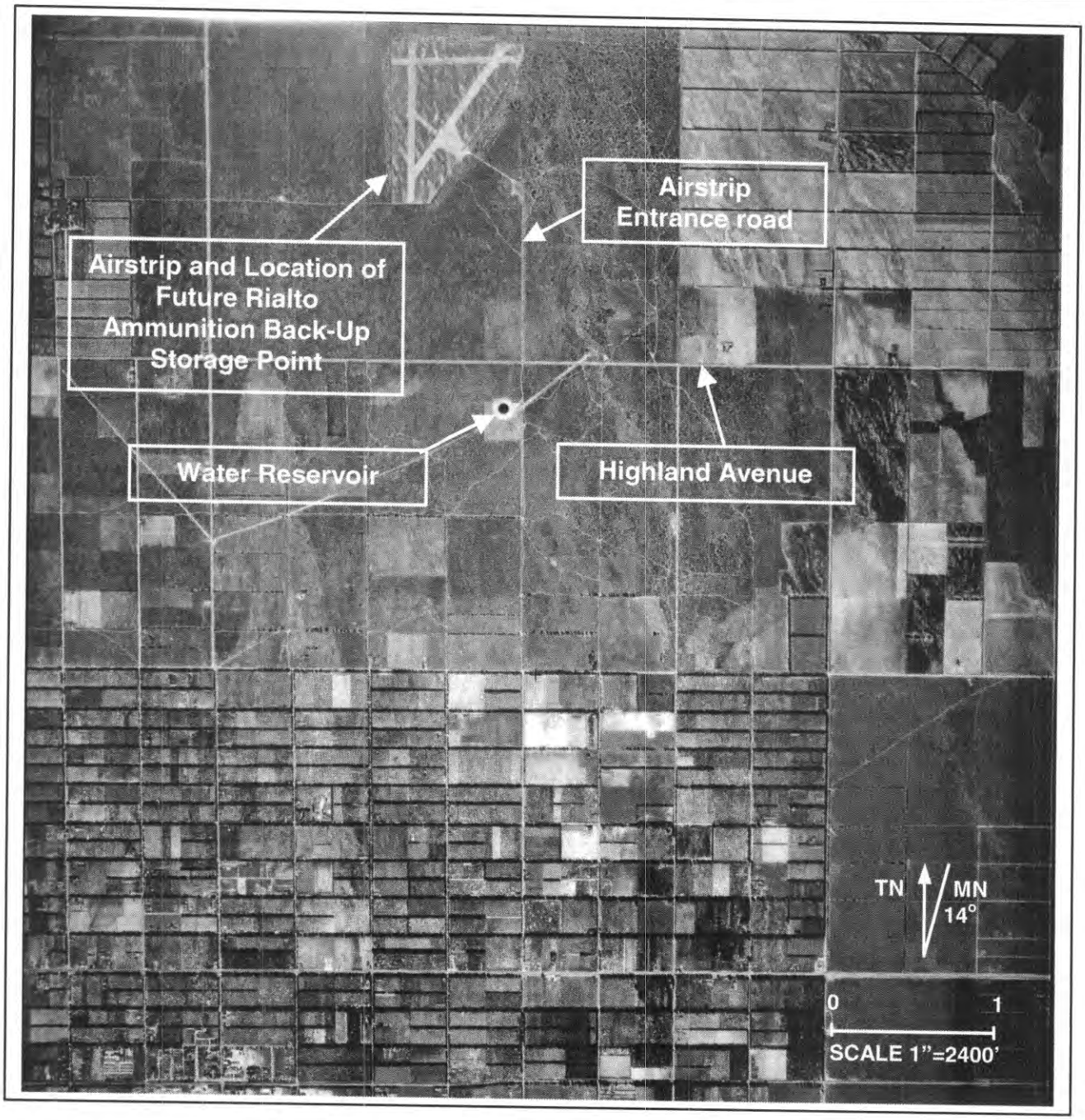



A. Visible in this photograph is a cleared, triangular-shaped area where an airstrip would be developed.

B. Construction of the Rialto Ammunition Back-Up Storage Point began on the location of this cleared landing strip in 1942.

C. Highland Avenue and Riverside Avenue are visible to the south and northeast, respectively, of the cleared area.

## Photograph No. 1 February 5, 1933

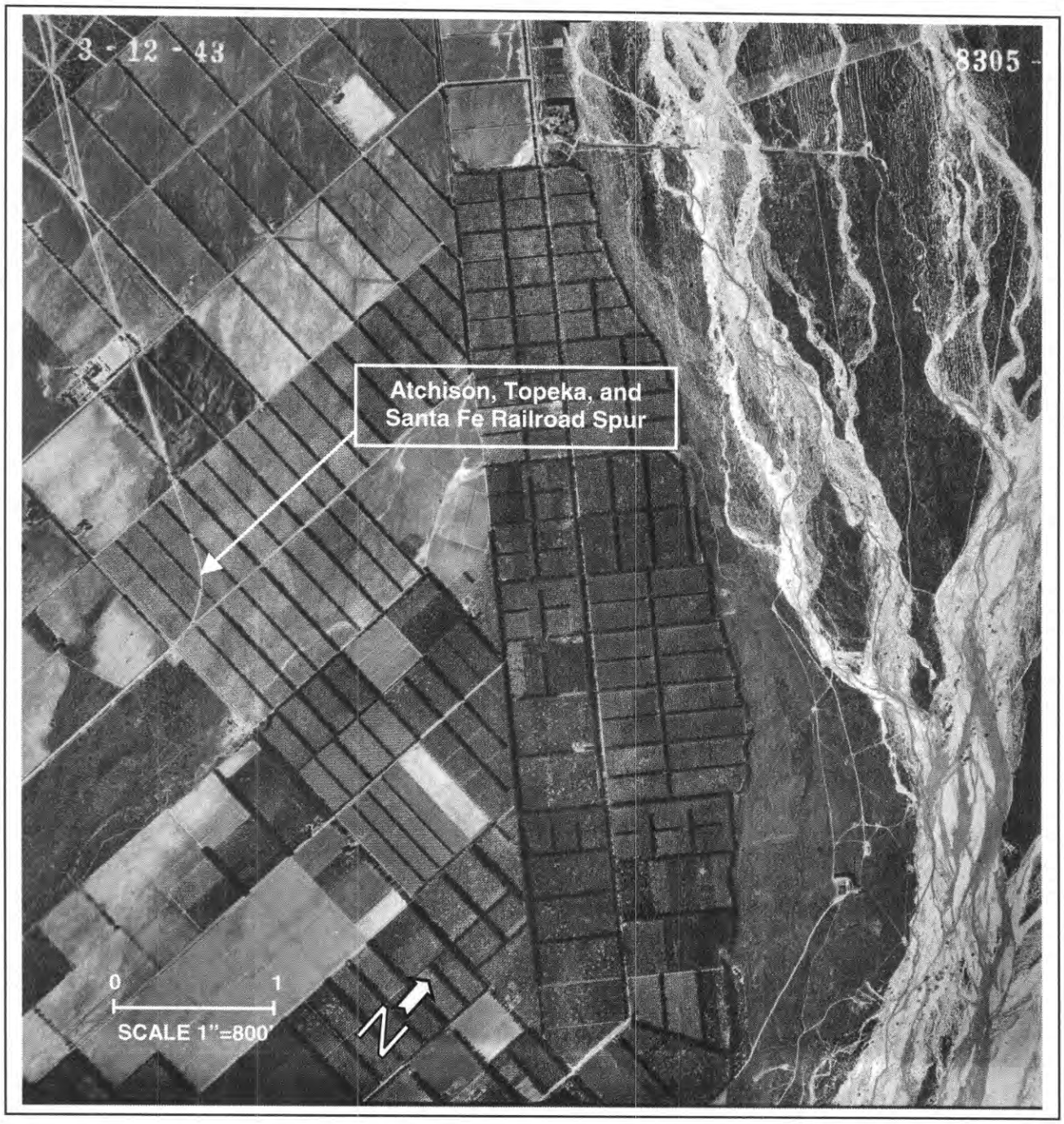



A. The airstrip is visible in this 1938 photograph.

B. A road leading to the entrance of the airstrip from Highland Avenue is visible.

C. Land to the east, west, and south of this site is under cultivation.

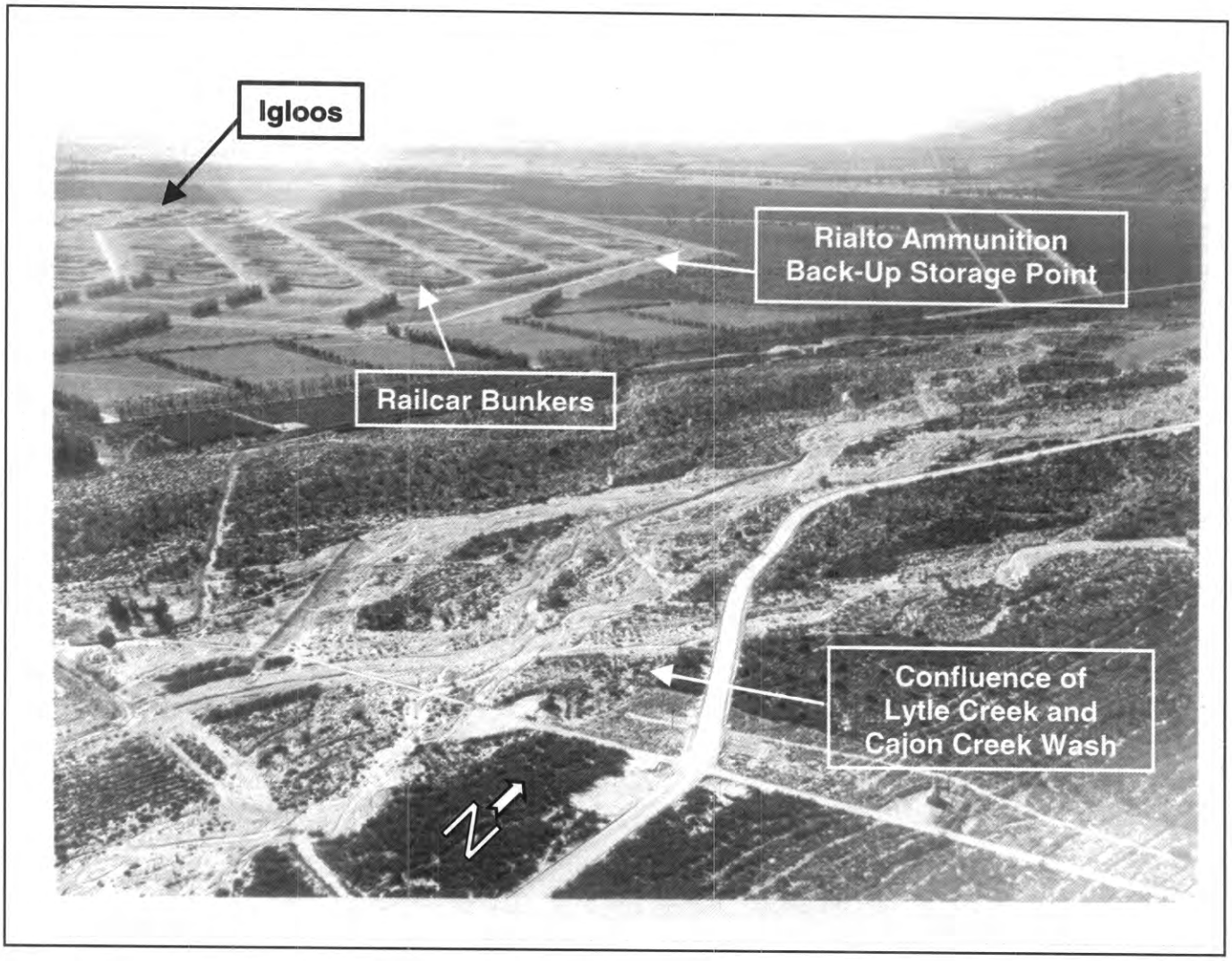
**Photograph No. 2 March 15, 1938**




A. This photograph is of an area to the southeast of the Rialto Ammunition Back-Up Storage Point, which would have been operational for three months on the date of this photograph.

B. Visible in this photograph are tracks of the Atchison, Topeka, and Santa Fe railroad spur. The spur leads to and ends at the Rialto Ammunition Back-Up Storage Point.

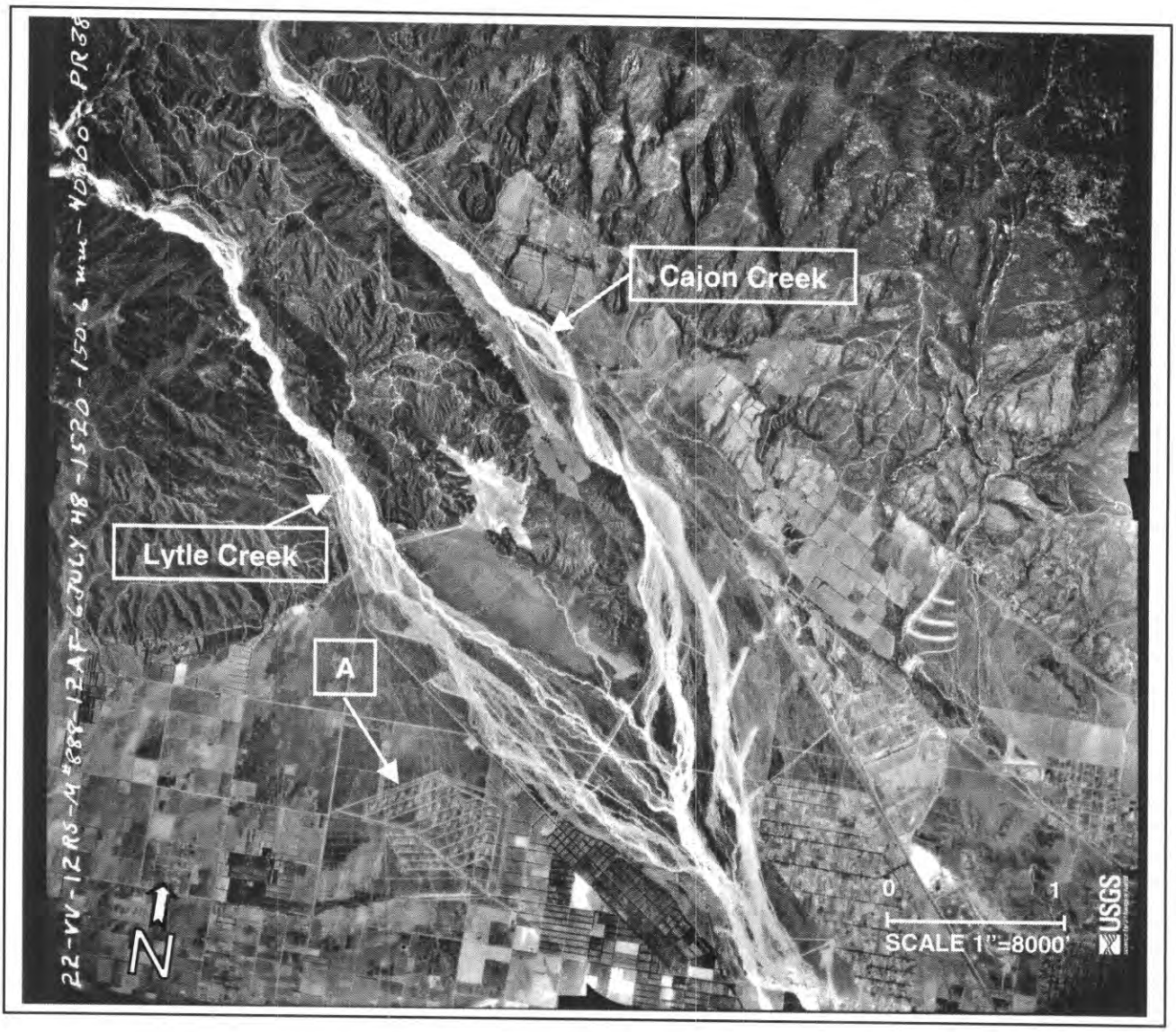
**Photograph No. 3 March 12, 1943**




A. The confluence of Lytle Creek and Cajon Creek Wash is seen in the foreground of this oblique view of the Rialto Ammunition Back-Up Storage Point, taken after DoD operations ended in September 1945.

B. This view is from the area of confluence of Lytle Creek and Cajon Creek Wash, east of the site. The igloos, and bunkers for railcar storage, are shown in the background.

**Photograph No. 4 November 3, 1945**




A. The igloos, railcar bunkers, rail tracks and railcar classification yard remain visible 3 years after Army operations ceased in 1945.

Enlargement of the Rialto Ammunition Back-Up Storage Point area is shown on the next page, A-12.

**Photograph No. 5a July 6, 1948**

**Enlargement of Photograph 5a showing Rialto Ammunition Back-Up Storage Point**

A. Reduced definition of dirt tracks and the apparent growth of vegetation around the former storage igloos suggest a reduction of activity at the site, anticipated as military use of the site ceased in 1945.

B. Former railcar classification yard.

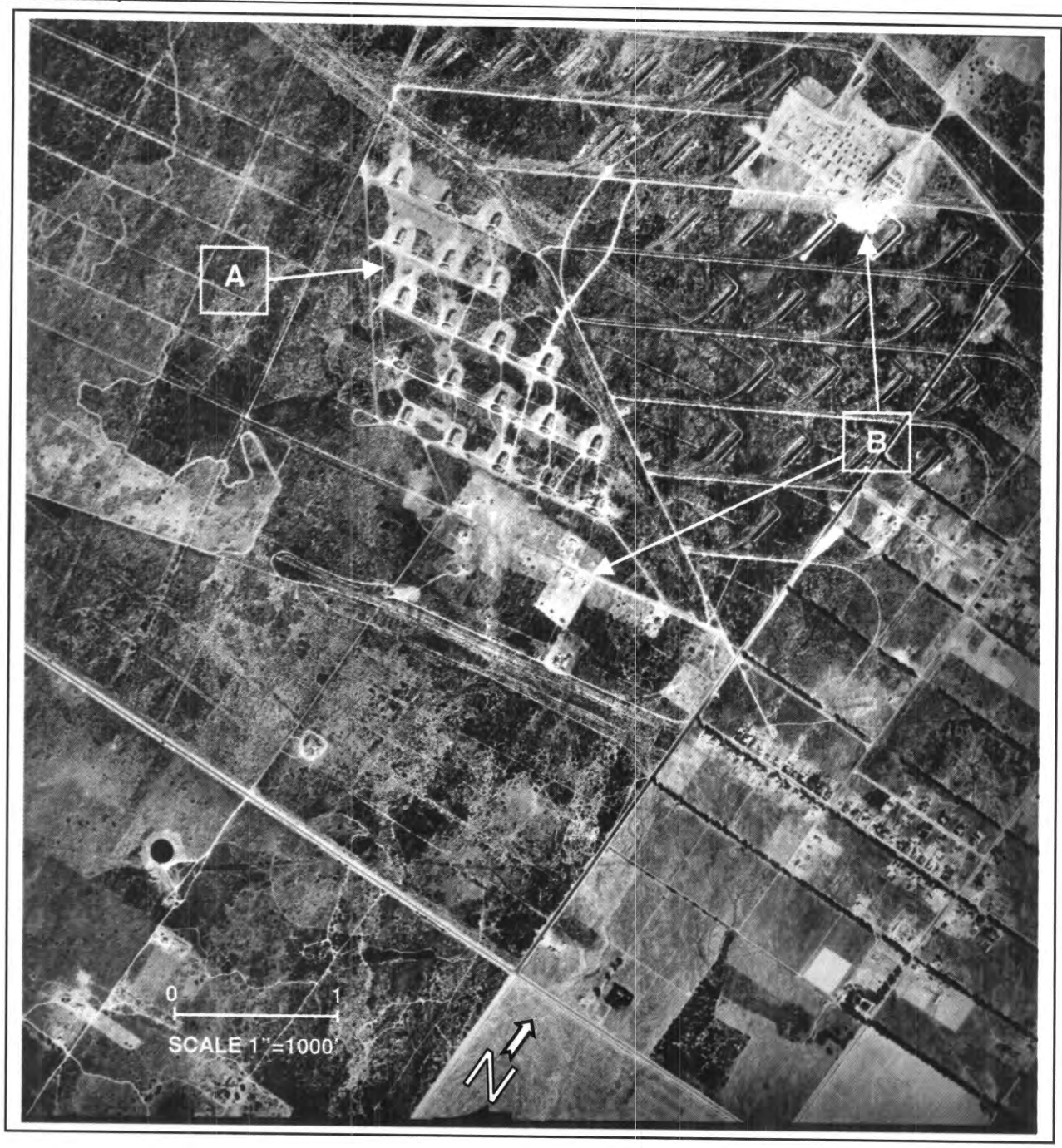
C. Former railcar bunkers.

## Photograph No. 5b July 6, 1948

A. Dirt tracks in the area of the former storage igloos suggest use of the igloos after Army operations ended in 1945.

B. A new building is apparent in the former railcar bunker area.

**Photograph No. 6 July 13, 1952**




A. The area of the former storage igloos appears to be utilized based on the clearly defined dirt tracks between and around the former igloos.

B. New buildings in the former railcar bunker and railcar classification yard areas suggest increased operations of the new site owners.

**Photo No. 7 September 12, 1955**

# APPENDIX B

## Standard Operating Procedures

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# EXPLOSIVES HANDLING

## INDEX

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ARMY SERVICE FORCES
Los Angeles Port of Embarkation
Wilmington, California

October 1945

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Pacific Region (Laguna Niguel)

# * INTRODUCTION

1. This pamphlet illustrates the role played by the Los Angeles Port of Embarkation in shipping ammunition and explosives overseas. It portrays photographically the safety precautions which reduce explosive handling risks to the absolute minimum.

2. In general, the supply of explosives and ammunition was based upon Army Service Forces directives establishing the per day per weapon allowances from which were derived the Theater ammunition levels of supply on a 180 day basis. These authorized allowances varied from 0.2 rounds for .45 revolvers to 70 rounds for .30 machine guns. The primary procurement difference--that control of general cargos was delegated to the Port of Embarkation, while ammunition was controlled and allocated by the Army Service and Air Forces--is apparent by consideration of the methods of maintaining proper supply levels of general cargo and ammunition by procurement and shipment of materiel.

a. Procurement of general cargo.

To procure general cargo, the appropriate Port Technical Service processed the Theater requisitions, established the shipping period and, except for controlled items, prepared extract requisitions upon the proper depots.

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b. Procurement of ammunition.

To procure ammunition, the Theater prepared a monthly Ammunition Radio from which Explosives Control Section of the Port Ordnance Office prepared the Ammunition Supply Report to show approved levels of supply and ammunition both "on hand" and "afloat" enroute to the Theater. The various sections of this report were forwarded to the Office, Chief of Ordnance or the Commanding General, Army Air Forces. The Office, Chief of Ordnance, edited the report and sent it to Stock Control, Army Service Forces, for approval or disapproval. Reports from the latter office and Commanding General, AAF, were returned to the Office, Chief of Ordnance, who determined the availability of ammunition, shipper and other pertinent data.

3. The manner of ordering cargos to the Port illustrates further distinctions between the two types of materiel. Receipt of general cargo was controlled to maintain Port operating fluidity, reduce diversion of cargo enroute to holding points and unnecessary Port handling; however, two factors governed the release of explosives and ammunition to the Port: obtaining of components of supply required to load planned shipments; and the holding of minimum amounts of explosives in the Port area and Rialto Ammunition Back-Up Storage Point.

a. Ordering general cargo to Port.

(1) Only the cargo for phase shipment to Port, released by PTO to OCT, was issued ODT permits.

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(2) LCL rail shipments under 20,000 pounds and truck shipments less than 10,000 pounds for released phase pericd could be shipped without CDT permits.

(3) 20,000 pounds and under 10 cars of cargo were issued blanket CDT permit for shipment during proper period.

b. Ordering explcsives to Port.

(1) The explosive safety policy provided that only 12 hours loading requirements or 50 cars of explosives, whichever was less, would be in the Port area or on Victory Pier at any time.

(2) Upon PTD order, explosives were routed thru to the Rialto Ammunitien Back-Up Storage Point to reach that location prior to vessel loading.

(3) Under usual supply circumstances only that quantity of explosives for which shipping space was available were permitted at Rialto.

(4) Explosives were brought to Victory Pier after the completion of all preparations for vessel loading.

4. To standardize ammunition handling operations and insure safe practices, a Standing Operating Procedure was established. Amend-

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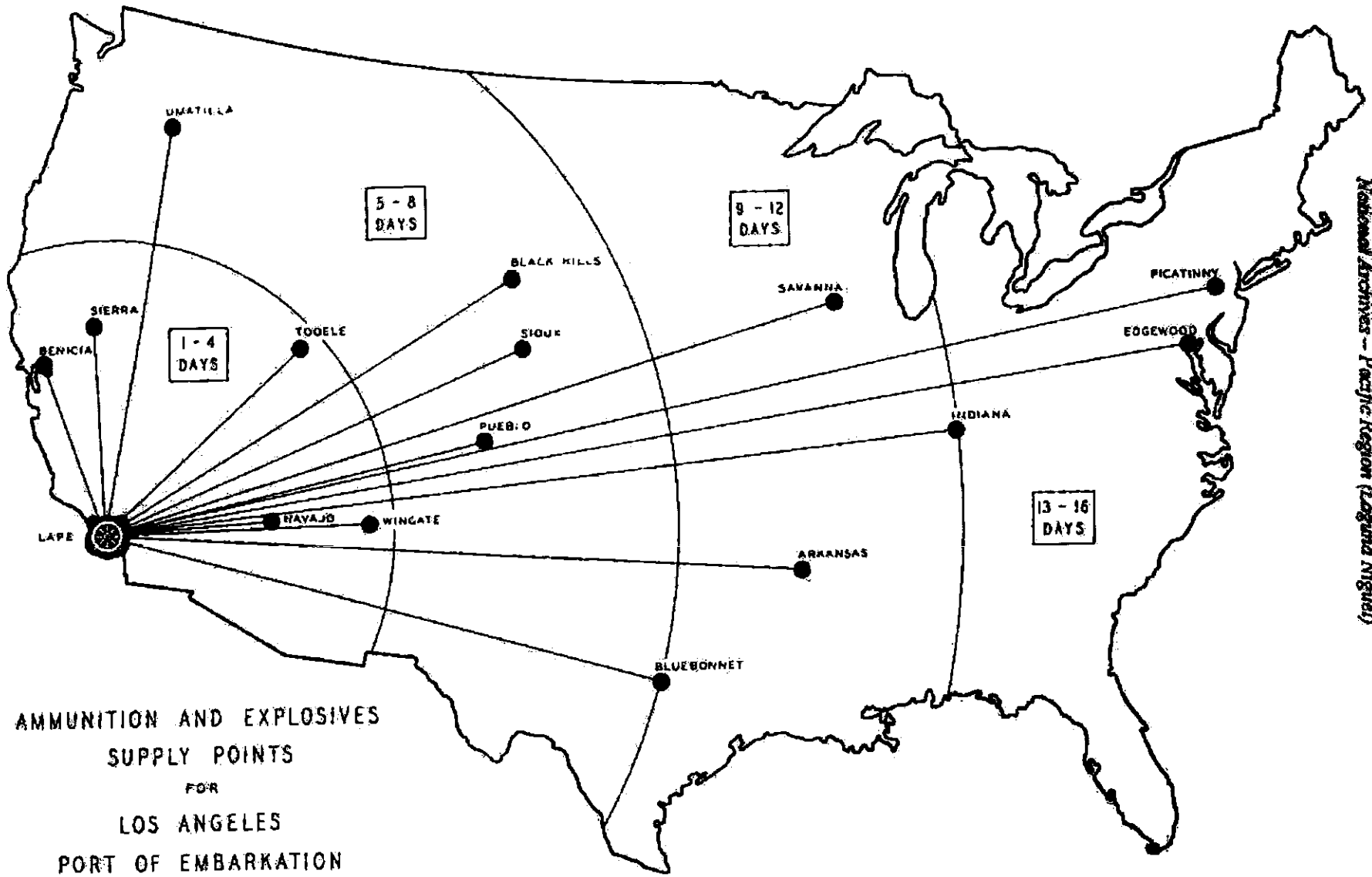
ments were made as experience indicated and the final issue of the Standing Operating Procedure is inclosed herein as Exhibit "Section CA", immediately following the photographic exhibit. The value of safety precautions is clearly indicated by the record achieved at LAPE of receiving and shipping 100,227 long tons of ammunition and explosives during 1943, 130,721 long tons during 1944 and 89,882 long tons through September of 1945 without a single explosion or fire incident.

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# RIALTO AMMUNITION BACK-UP STORAGE POINT

The Rialto Ammunition Back-Up Storage Point permitted use of additional safety measures and facilitated expeditious handling of ammunition and explosive cargos in the Port area. All ammunition and explosives shipped by LAPE were routed through Rialto except in case of military necessity.

Rialto, 77 rail miles from the Port area, performed several services relative to ammunition and explosives handling:

a. Temporary storage until Port called cargo to Victory Pier to load designated vessels.

b. Segregation of cargos in accordance with loading requirements.

c. Combination of LCL shipments into carload lots.

d. Control of cargos to facilitate arrival in Port at specified time.

e. Inspection of ammunition and dunnage immediately prior to entrance to Harbor.

Characteristic operations at Rialto and Victory Pier relative to the safe-handling of ammunition are illustrated in pictorial sequence following:

# National Archives and Records Administration
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**Record Group:** Records of the Office of the Chief of Transportation, RG 336

**Agency or Division:** Port of Embarkation, Los Angeles

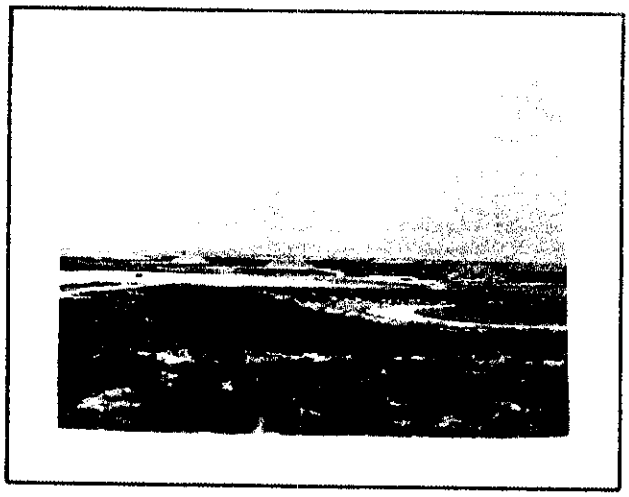
**Series:** Central Subject Files, 1941-1946

**Folder Title:** 471 Ammunition Handling (photographs) 1944

**Box Number:** 14

# AMMUNITION STORAGE RESERVATION

Ammunition forwarded to the Port is routed through Rialto Ammunition Back-Up Storage Point, unless military necessity requires direct shipment to the LAFE Ammunition loading point, Victory Pier. The photograph illustrates the belt of land 1800 feet wide around the working area which provides security against the entrance of unauthorized personnel, careless use of small arms, fires, and other explosive hazards. Visible in the picture are igloos and loaded rail cars spaced in compliance with distance regulations for storage of explosives. Additional igloos and rail facilities under construction will increase the ammunition storage capacity of this installation.



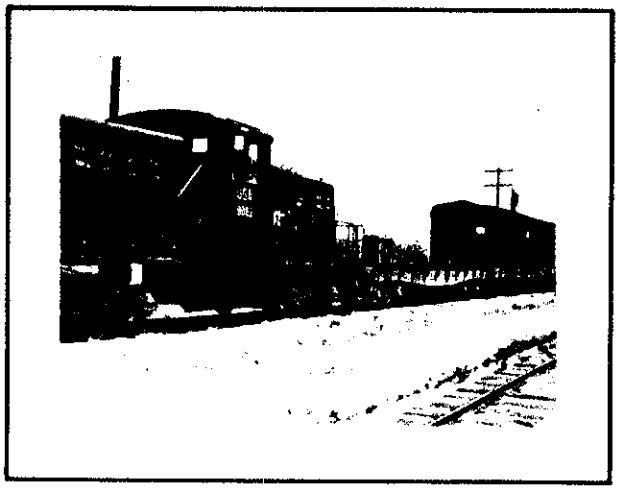
# GUARD TOWER

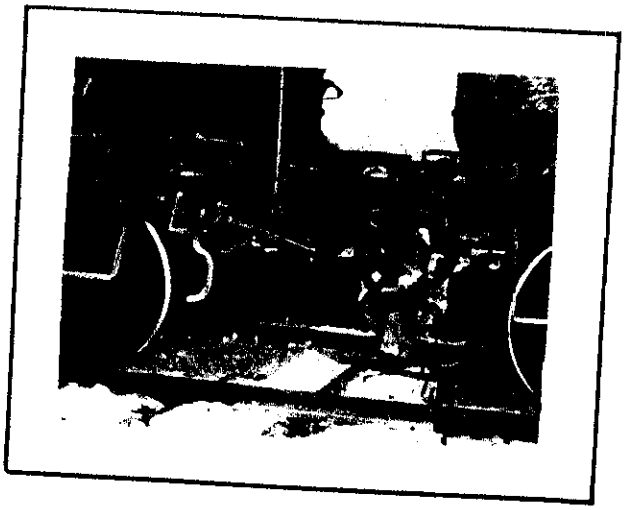
An auxiliary Military Police guard with field glasses views the storage area for fire and other hazards. These guards, stationed in 30 foot towers located at intervals around the storage area, are supplemented by exterior patrols and guards who inspect all personnel and materiel approaching the area. Matches, inflammables and sparking items are held by guards while the personnel are in the storage area. Fire breaks and clearing projects protect the restricted locations against desert brush fires.

## CAR INSPECTION - SWITCHING

INSPECTION A Rialto Ammunition Inspector examines a box car flooring and trucks for evidences of leaking freight, tampering, and sabotage. All incoming cars are thoroughly inspected before being moved to the storage area.

SWITCHING A diesel engine, the only type of railroad prime mover permitted by Fort security regulations in ammunition storage and handling areas, switches three loaded explosives cars. The use of a "buffer" car, between the engine and ammunition cars, reduces fire and other hazards. As a further security measure, a pressure pump, hose, and water tanks are installed on the buffer car.

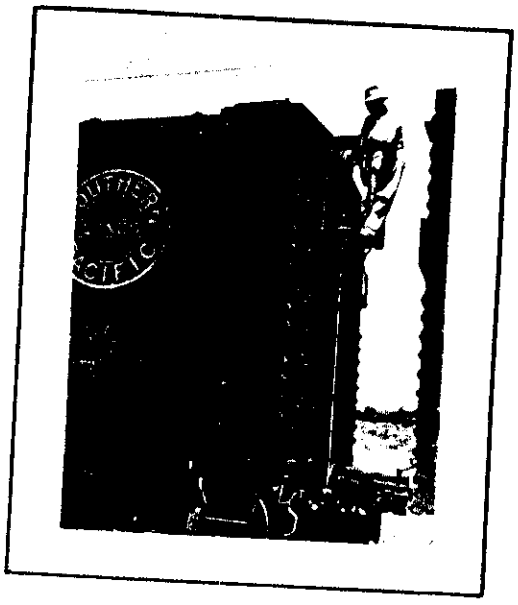


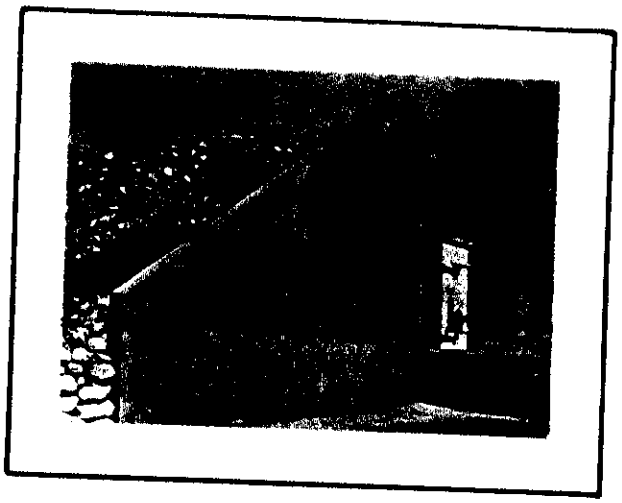


## MOVING CARS - DEAD STORAGE

MOVING CARS A brakeman couples the airhoses between two cars; one phase of the requirement that cars in the ammunition storage area be under complete mechanical control when moved. After coupling the airhoses the pressure is checked and the automatic air brakes tested.

DEAD STORAGE The hand brake of an ammunition car is set to prevent accidental movement while in storage. All hand brakes are set firmly in addition to the automatic air brakes. When necessary, derail switches are placed on the tracks.





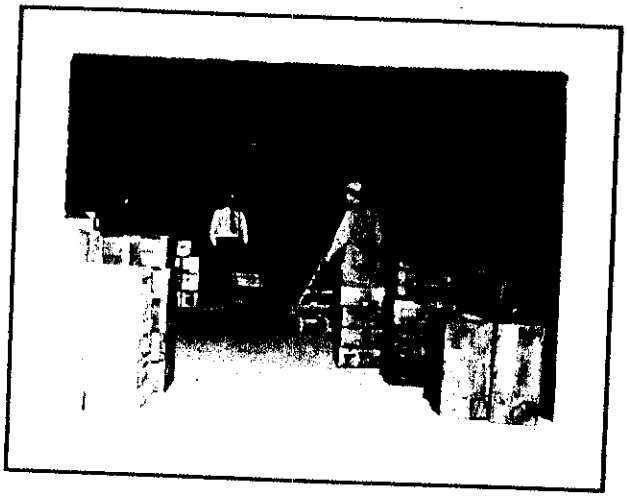
## IGLOOS

The upper photograph shows the massive concrete and earth construction of igloos to protect the store explosives from external hazards. If an igloo explodes, the blast is concentrated upward and away from the hazardous area.

In the lower picture the heavy steel door, being opened by an ammunition inspector, allows adequate air circulation but prevents unauthorized entry and reduces other explosive dangers.

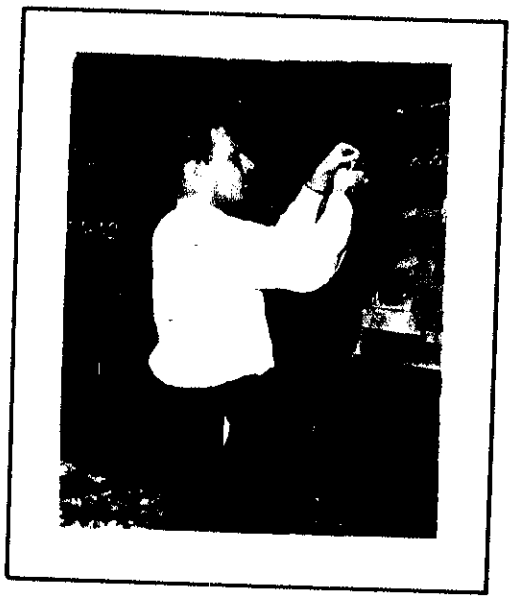
# IGLOO STORAGE

Warehousemen handling ammunition in igloos use rubber-tired hand trucks and special soled shoes to reduce sparking hazards. The photograph shows a Port officer and a Rialto ammunition inspector restacking cases of ammunition on clean dry dunnage in order to examine an older shipment.



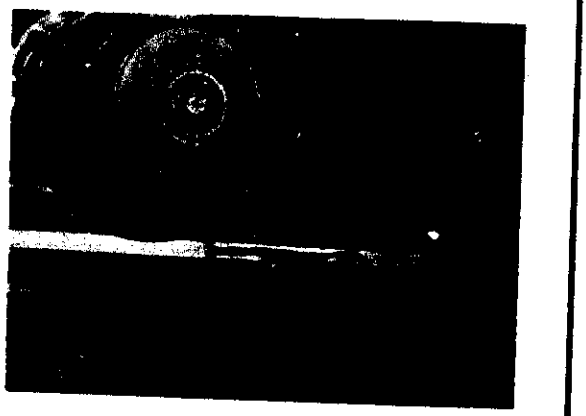
## CAR SEALS

An ammunition inspector affixes a Rialto storage seal to the door of an explosive car after interior inspection. Before the car is moved from the storage area to Victory Pier, it is again inspected, and numbered car seals placed on the doors. Use of these seals provides further security against sabotage, tampering, and pilfering. Information of car numbers, seal numbers, expected and actual times of departure from Rialto is forwarded by the most expeditious means to the Port Transportation Division: Ammunition Inspection Section, Ordnance Office and/or Chemical office.



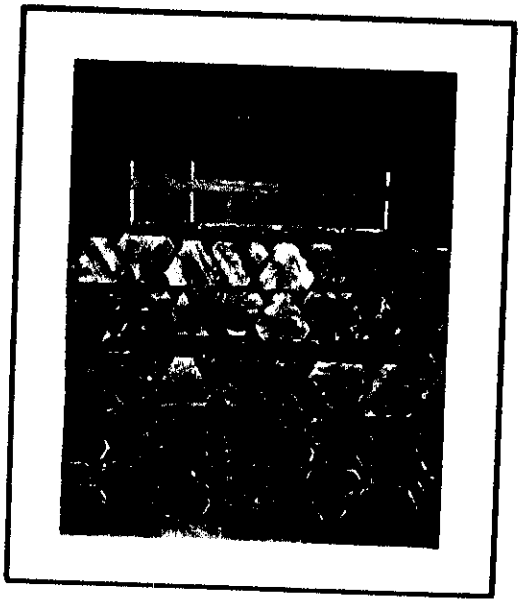
# OPENING AN AMMUNITION CAR

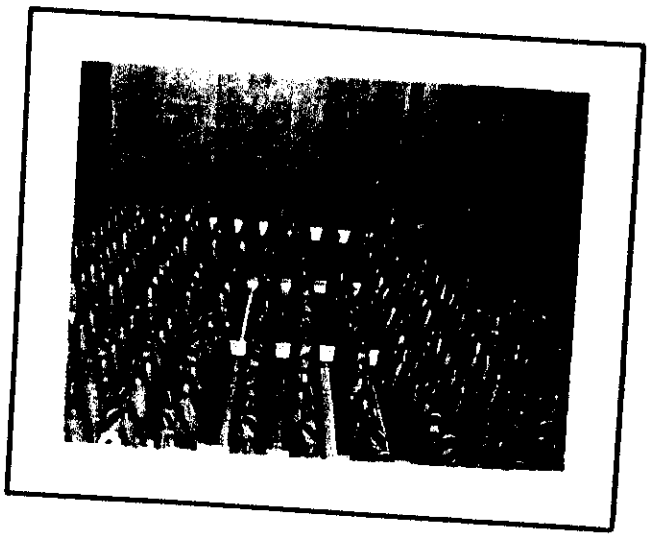
An ammunition inspector is breaking a Rialto seal, preparatory to opening a freight car to load explosives into a vessel. After the car is opened, a thorough inspection is made of the car and dunnaging before unloading is begun.



## DUNNAGING FREIGHT CARS

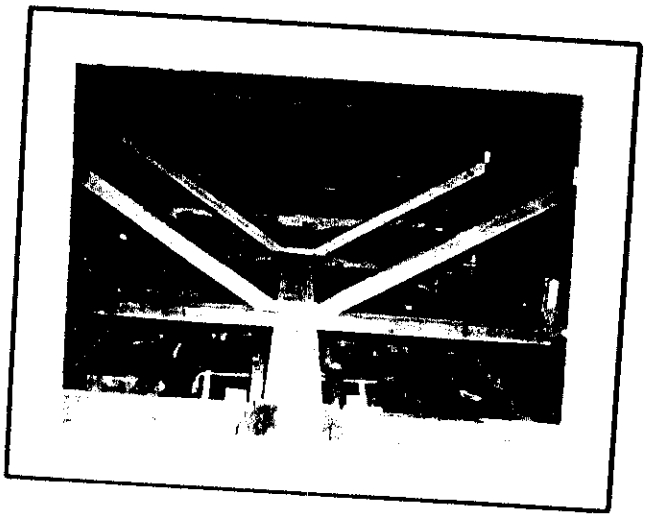
Explosives are tightly secured in freight cars to prevent movement and metal to metal contact during transit. These photographs illustrate methods used to dunnage several types of ammunition. In the top photograph, 1000 pound bombs are secured in heavy lumber cradles, and metal to metal contact prevented by two fiber rings around each bomb. The bottom photograph shows the method used in stacking 75 mm H.E. shells which are packed in boxes of three.





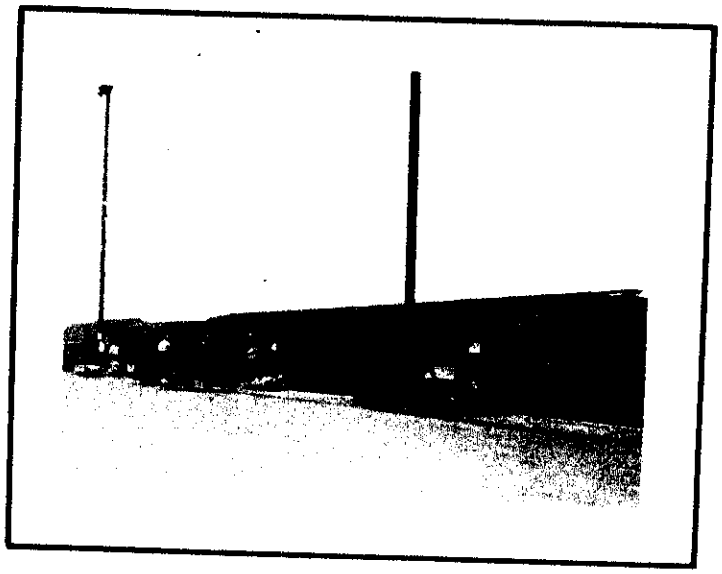
## DUNNAGING FREIGHT CARS (CONT)

The heavier 155 mm. howitzer shells weighing approximately 100 pounds are stacked vertically on the floor of the freight car with dunnage placed between each row to prevent movement of the shells. In the lower photograph, use had been made of overhead braces to secure 2000 pound bombs.



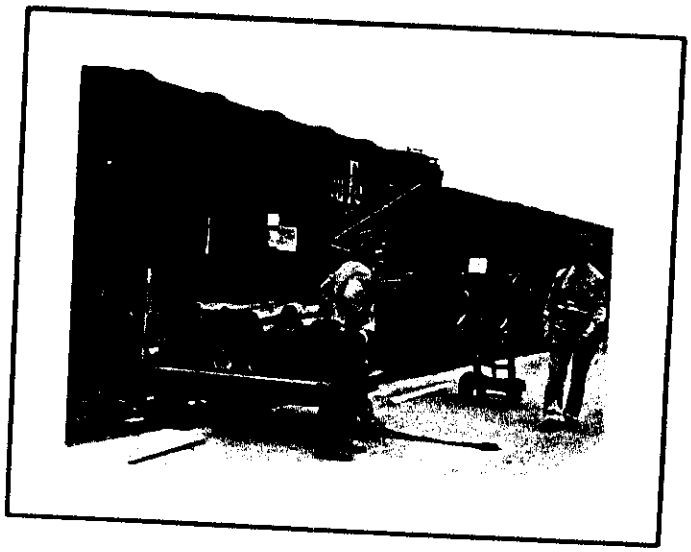
# UNLOADING AMMUNITION

An ammunition train has been placed on the low line along the pier apron, and discharging begun from the cars. Fire symbols are properly placed on all of the cars, and car signs designating the class of freight are visible on the car doors. Freight is being worked from the four far cars, while a workman is removing dunnage from the nearest car. Before car unloading began, the pier was cleared of all debris, and cleaned to reduce the hazard of the loading operations.



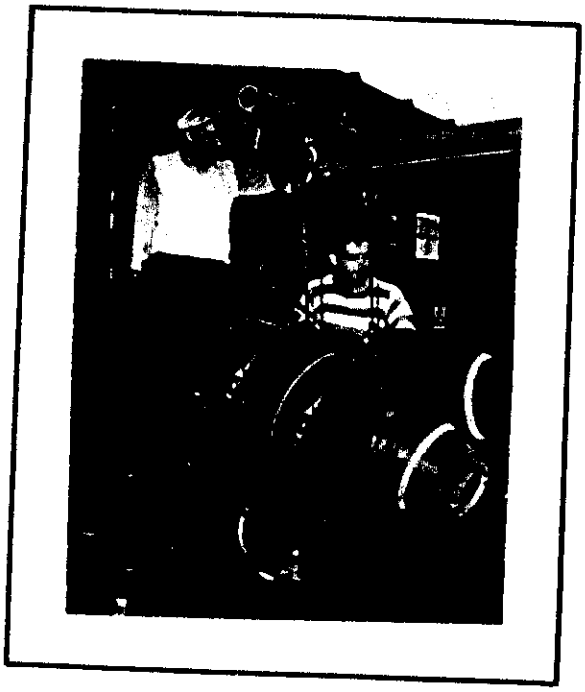
# WORKING LIGHT ARTILLERY SHELLS

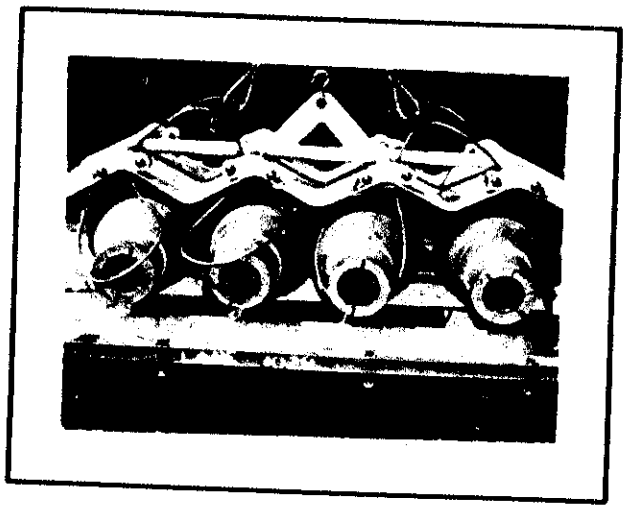
75 mm H.E. artillery shells, packed three to a case, and are loaded from the car to a trailer by hand, and then towed to the ship-side by a tractor. A longshoreman is waiting for a tractor, to hook up to the loaded trailer, while a patrolling MP, armed with a Thompson 45 sub-machine gun, guards and checks the area.



# UNLOADING BOMBS

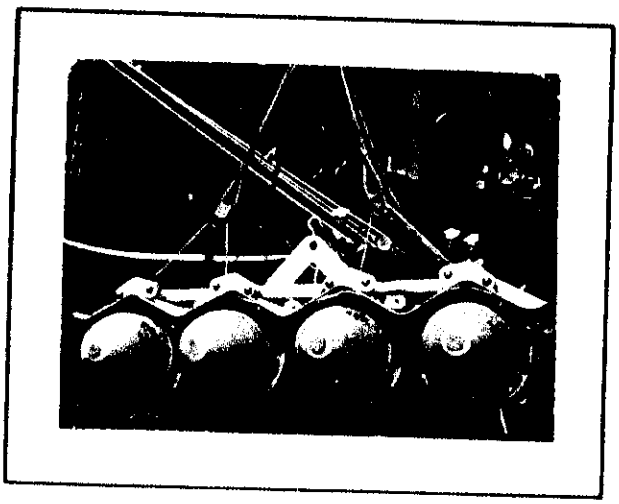
Two longshoremen have just secured tractor boom slings to two 1000 pound bombs, which are being lifted out of a freight car. The bombs then will be placed on a trailer for transportation to the shipside. The dunnage is removed from the car as the bombs are separately freed to be unloaded. To minimize the explosive hazard, the longshoremen use no hooks in this operation, and wear non-sparking soled shoes.





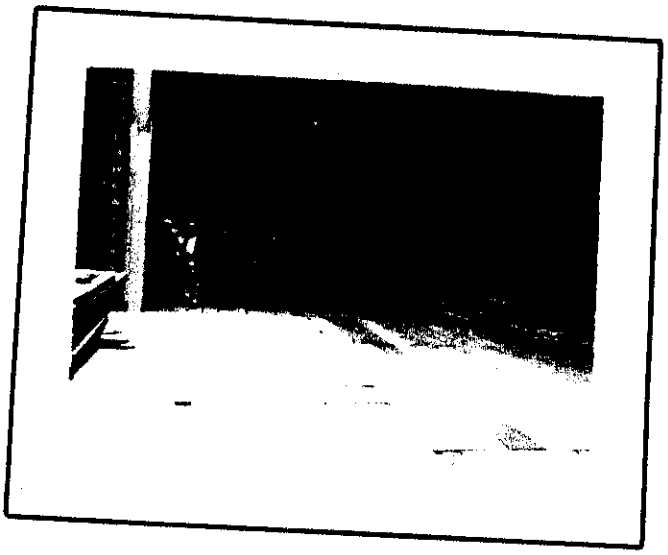
## BOMB SLINGS

In the photograph above a Hardy bomb sling is being placed on four 500 pounds bombs, which will then be swung aboard the vessel. Metal to metal contact, except for the wire rope, is prevented between bombs and the sling by the fiber rings on each bombs. The manner of placing the wire slings is illustrated by the lower picture; the two slings on the left are in position to be slipped around the bomb tail, the one on the right is in position. The rubber tired wheels on trailers handling ammunition to reduce the sparking hazards are shown in this picture. The picture below shows the bombs suspended by the sling being swung aboard the vessel. The pull of the cargo lines firmly tightens the slings around the individual bombs. In the background, lashed to the gunwale with light line, is a firehose, connected to a pressure pump, with the fire-valve "cracked open" to permit a slight continuous flow of water.



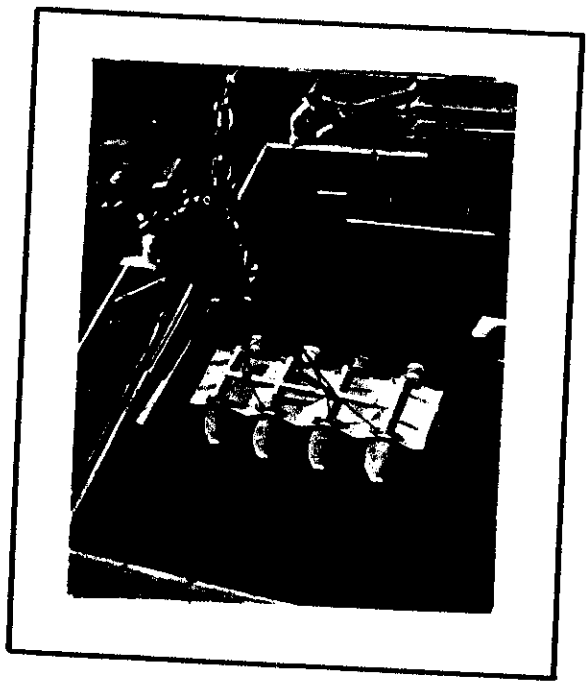
## DUNNAGING VESSELS

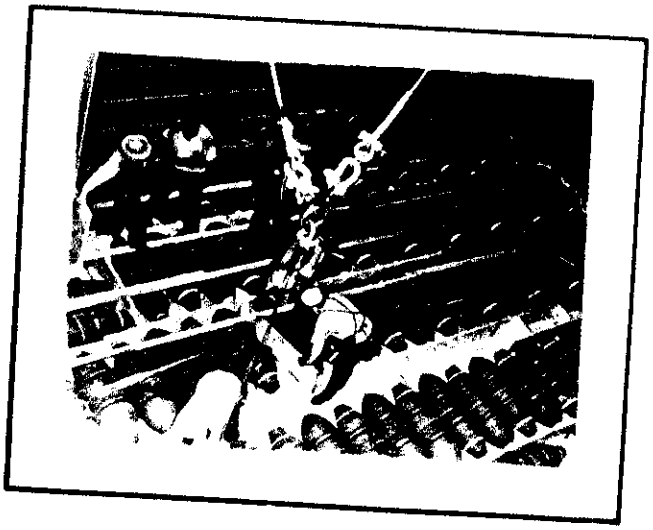
Safety regulations for ships loading ammunition require that the holds are thoroughly cleaned, and that the vessel is redunnaged. In the upper photograph, carpenters are tearing out the dirty dunnage used in the previous voyage, and then sweeping the hold to remove all dust, metal, and other items. Once a hold is loaded, such space usually is inaccessible, and great care must be used to remove all explosive and sparking hazards. When dunnaging is completed, all metal parts of the ship will be sheathed by dunnage from contact with the explosive cargo. The lower picture shows a hold completely cleaned, dunnaged, and prepared for the loading of ammunition. As ammunition is loaded, the ladder in the upper left will be sheathed, and the explosives secured in place by the stack of lumber visible at the left of the picture.



# LOADING 500 POUND BOMBS

Four 500 pound bombs are being lowered into a lower hold by a Hardy bomb sling, developed at LAPE. Extreme care is required during loading operations to insure that bombs are lowered into place without jarring. The West Coast method of winch operation is illustrated by the winchman, who operates both winches by means of wooden lever extensions.

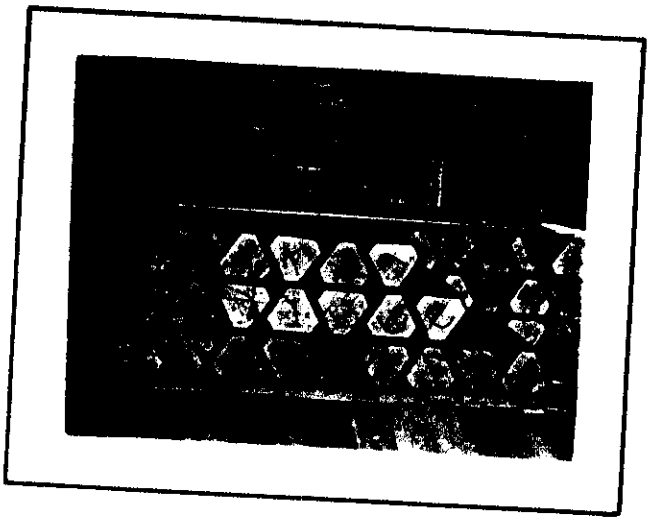


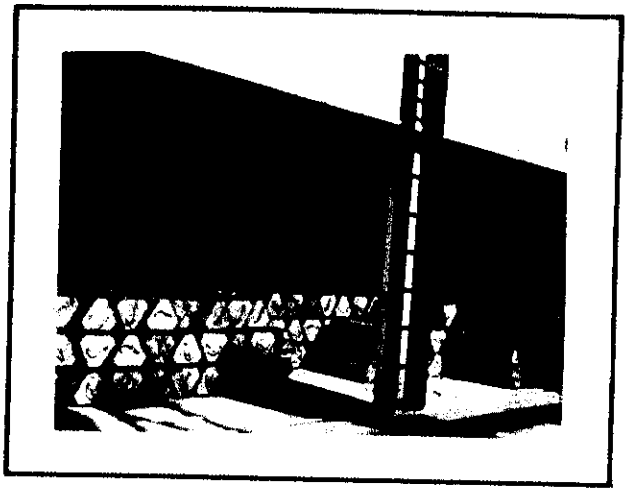


## STOWAGE OF AMMUNITION

A stevedore is freeing a bomb from the sling preparatory to stowing it in the hold. Two carpenters, in the lower center, are dunnaging a row of bombs, while others are preparing to lay dunnage over the completed tier of bombs preparatory to beginning the next tier.

In the lower picture, cased 75 mm HE artillery shells are being stowed in a 'tween decks hold. The cases stacked in the dunnaged hold have only wood to wood contact. Flooring is laid over cases stacked three high before the ammunition is again tiered up.

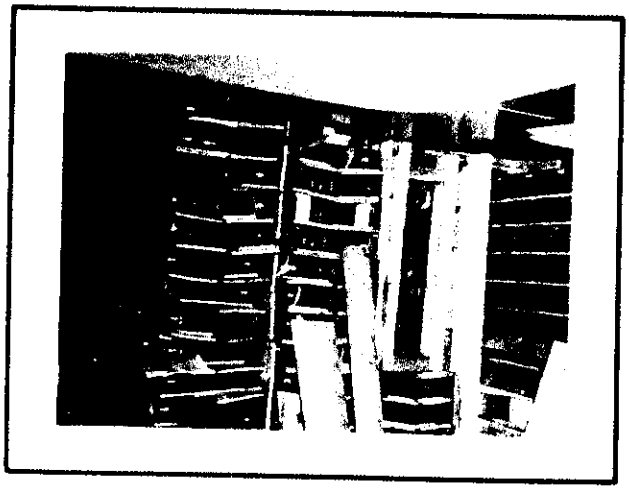




## 'TWEEN DECK STOWAGE

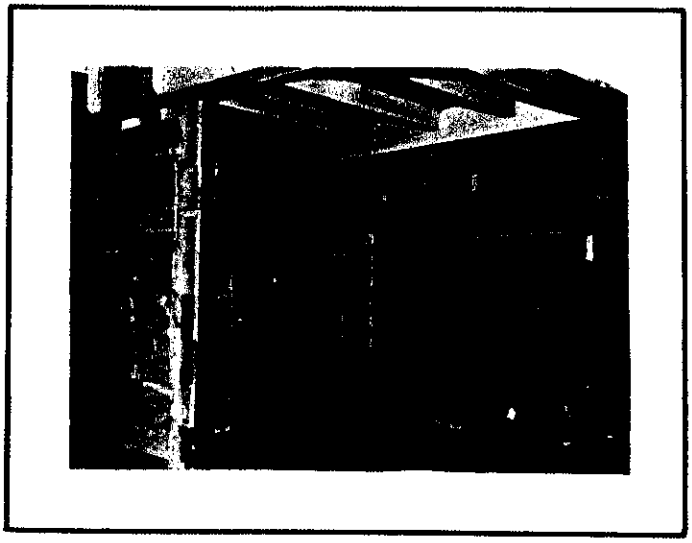
The above picture illustrates a method of 'tween deck stowage of 75 mm packed in triangular boxes containing 3 shells.

The larger 155 mm shells shown in the bottom picture require the construction of shelves of dunnage material. Rope is used to snub the shells together to prevent rolling.



# SEGREGATED STOWAGE OF EXPLOSIVE CARGO

Ammunition is loaded on vessels according to stowage plans, which are carefully designed to give the segregation of explosives required by Coast Guard and Army Regulations. The segregation of explosive, inflammable, and dangerous cargo is based upon the type and sensitivity of the cargo being laden. Here a magazine has been constructed in a 'tween deck hold for bomb fuses. It is necessary to store this type of sensitive cargo certain distances from the skin of the ship. Other cargo susceptible to temperatures (such as phosgene, a gas having a low boiling point) must be loaded in compartments remote from heated areas of the vessel.



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SPHP/A

MEMORANDUM NO. 125)
)
SECTION CA )

1 January 1945

STANDING OPERATING PROCEDURE FOR THE SAFE HANDLING AND CONTROL OF EXPLOSIVES. AMMUNITION (OTHER THAN SMALL ARMS WITHOUT EXPLOSIVE PROJECTILES); AND CHEMICAL WARFARE TOXIC AGENTS.

RESCISSIONS:

Memorandum No. 26 R, 18 September 1944, subject: "SOP for Safe Handling and Control of Explosives, Ammunition (Other Than Small Arms Without Explosive Projectives), and Chemical Warfare Toxic Agents" is rescinded and the following substituted therefor.

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1. Synopsis

Outlines essential planning and procedures pertaining to release, movement, receipt, inspection, storage, assembling, handling, loading, stowage, shipment, surveillance, and maintenance of ammunition, chemical ammunition, ammunition components and explosives (hereinafter referred to as "ammunition")in such a manner as to create the minimum hazard to life and property.

2. Objectives

a. To establish regulations for movement of ammunition to the Port.

b. To establish responsibility of various Port agencies with respect to safety precautions and special handling of ammunition at Rialto Ammunition Back-up Storage Point, Rialto, California, (hereinafter referred to as "Rialto") en route to Port, and at the Port.

c. To establish maximum number of rail cars of ammunition to be permitted in the LAPE area at one time.

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d. To establish regulations governing the tenure of ammunition in the LAPE area.

e. To confine loading of ammunition to only designated piers.

f. To establish procedure for preparation of ammunition stowage plans and consist, and distribution thereof.

g. To establish procedure of planning for, and loading ammunition on vessels.

h. To prohibit mixed cargo of ammunition and toxic chemical agents.

i. To establish method of effecting waiver of Coast Guard regulations.

j. To establish emergency tug assistance during presence of ammunition laden vessels in the LAPE area.

k. To establish procedure for evacuation of vessels and rail cars in event of emergency.

l. To establish proper use of Port igloos.

m. To provide for staff supervision over operations at Rialto.

3. Release of Ammunition

a. Carload shipments of ammunition destined for LAPE, will be released from point of origin by the Port Transportation Division, upon joint concurrence of Ordnance Office, Water Division, and the Chemical Warfare Office when concerned.

b. Ammunition (except that from Navy Ammunition Back-up Storage Point at Fallbrook, California) will be routed thru Rialto, except in case of military necessity.

4. Operations at Rialto

a. Commanding Officer, Rialto, will:

(1) Segregate cars to conform with quantity - distance safety factors.

(2) Provide security protection.

(3) Open and inspect cars for condition of lading and evidence of sabotage. Recooper broken cases. Correct defective lading.

(4) Notify Ordnance Office or Chemical Warfare Office respectively, of any overage, shortage, or damage of ammunition.

(5) Close car doors, and securely affix numbered seals before release to LAPE area.

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(6) Notify Port Transportation Division, Ammunition Inspection Section, Ordnance Office, and/or Chemical Office, as pertains, by the most expeditious means, of the car numbers, seal numbers and expected and actual time of departure of ammunition from Rialto.

b. Staff supervision of designated functions performed at Rialto will be exercised as follows:

(1) Port Ordnance Officer and Port Chemical Officer, as pertains, will exercise technical supervision over handling of ammunition and toxic agents.

(2) Port Transportation Officer will exercise technical supervision over operation of rail facilities and equipment.

(3) Director, Intelligence & Security Division will exercise technical supervision over maintenance of security.

c. Port Transportation Division will notify Intelligence & Security Division, Ammunition Inspection Section of Ordnance Office, Water Division, and Chemical Warfare Office when concerned, of expected and actual time of departure of ammunition from Rialto, and estimated and actual time of arrival at Pico Gate, Long Beach, at least 12 hours before actual arrival.

d. Ammunition Inspection Section of Ordnance Office, or Chemical Warfare Office, as pertains, will prepare and distribute to Ordnance or Chemical Ammunition Inspectors assigned to the inspection of cars at Pico Gate, complete list of car numbers and corresponding seal numbers of all arriving cars.

5. Inspection and Safety Regulations

a. Intelligence & Security Division will take necessary precautions to insure that no unauthorized persons enter the restricted area thru the Pico Gate via trains, trucks, or any other means.

b. Ammunition Inspectors will check car seals and car numbers against list referred to in par 4d above, before cars enter Pico Gate.

c. Ammunition Inspectors will order questionable or improperly sealed cars separated from the train and switched to "suspect track" between Victory Pier and Pier A, where such cars will be opened and inspected by Ammunition Inspectors for sabotage in accordance with TC Cir. No. 45-4, dated 15 June 1944, Subject: "Intelligence and Security, Ship and Dockside Facilities Protection."

d. Director of Transportation, thru Water Division and Port Transportation Division, will control car movement so that the maximum number of ammunition cars in Long Beach Harbor area, or in rail yards adjacent thereto, does not exceed fifty (50) cars at one time, in compliance with letter OCT, dated 11 January 1944, Subject: "Limitation of Number of Cars of Ammunition or Explosives to be Held at Piers or in Rail Yards Adjacent Thereto."

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Pacific Region (Laguna Niguel)

Transportation Division will insure that ammunition cars are hauled from restricted area.

Water Division will insure arrival of ammunition in restricted area at the approximate arrival time at berth of the ship on which same is to be loaded.

6. Operations at Long Beach Harbor Area

Ammunition (except Task Force, and TAT ammunition) will be loaded at Victory Pier and vessels fully or partially laden with ammunition may not be moved within the greater harbor of Los Angeles and Long Beach except to proceed to sea or for berthering at Berths 1 thru 7 inclusive (Pier A), ~~or Berths 12, 18, 19, 27 or 28, Long Beach Harbor area, as presently authorized by the Captain of the Port, U.S. Coast Guard.~~ Exceptions to the above will be made only in the event of military necessity and upon approval of the Captain of the Port, concurred in by the Director of Transportation, and Director of Intelligence & Security Division.

a. Pier Officer at berth concerned will be the direct representative of Port Commander and charged with responsibility of promptly complying with instructions issued by the Captain of the Port regarding safety precautions.

b. Port Transportation Division will:

(1) Accomplish switching, spotting, and removal of railroad cars on order of Pier Officer or other authorized person.

(2) Maintain Army diesel railroad engine for emergency handling of railroad cars.

(3) Assist in enforcement of 50 car limitation.

(4) Make arrangements with railroad concerned to handle cars of ammunition from Rialto to Victory Pier without delay en route.

(5) Handle LCL rail or truck shipments of ammunition and toxic gases in bulk arriving at LAPE, in conformity with disposition advice obtained from Ordnance Office or Chemical Warfare Office.

c. Fire or Disaster

(1) In the event of a fire or disaster involving ammunition, personnel of Intelligence & Security Division, Transportation Division, Ordnance Office, Chemical Warfare Office, and Port Surgeon Office, will be guided by SOP "In the Event of Disaster", LAPE, dated 27 November 1944. Captain of the Port and his personnel will be guided by COTP, LA, operational Plan "A".

# Appendix C

# Records Reviewed

## RECORDS REVIEWED

Records were reviewed in the following Record Groups at the National Archives and Records Administration:

| | |
|---|---|
| Record Group 77 | Records of the Office of the Chief of Engineers |
| Record Group 121 | Records of the Public Buildings Service |
| Record Group 156 | Records of the Office of the Chief of Ordnance |
| Record Group 270 | Records of the War Assets Administration |
| Record Group 287 | Publications of the Federal Government |
| Record Group 336 | Records of the Office of the Chief of Transportation |

1. Summary of the Minutes of the Weekly Port Loading Committee, Los Angeles Port of Embarkation, 15 February 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 001, Minutes and Meetings, July 1944-1945.

2. List of civilian personnel at field installations including the Rialto Ammunition Back-Up Storage Point, 31 December 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 206.62, Personnel Control, June 1944-1945.

3. Rialto Ammunition Back-Up Storage Point is placed in the category of surplus, 13 November 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 300.4, General Orders, June 1944-1945.

4. Photographic Service Laboratory is established to take photographs at Camp Anza and Rialto, 9 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

5. Standard Operating Procedure for handling of lend-lease ammunition through the Los Angeles Port of Embarkation and transfer to the Rialto Ammunition Back-Up Storage Point, 12 August 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

6. Standard Operating Procedure for Safe Handling of Explosives, including special handling of ammunition at the Rialto Ammunition Back-Up Storage Point, 18 September 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

7. Outline of responsibilities for safe handling of ammunition while munitions are at the Los Angeles Port of Embarkation and at the Rialto Ammunition Back-Up Storage Point, 4 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

8. Delegation of Staff Supervision of Operations at Rialto Ammunition Back-Up Storage Point, 12 August 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

9. Routing Instructions to Los Angeles Port of Embarkation to be followed by Port Technical Supply Officers regarding shipments forwarded to the port, 9 September 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 2, Folder 300.4, Office Memos 1944.

10. Directive index established as a codification for the Los Angeles Port of Embarkation, General Orders, Memoranda, Circulars, and sections of pertinent orders, 19 June 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.4, Office Memos 1944, Directive Index.

11. Rialto Ammunition Back-Up Storage Point placed on an inactive status, 16 October 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.4, Office Memos.

12. Rialto Ammunition Back-Up Storage Point Personnel, 1 October 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.7, Organizational and Functional File 1944.

13. Organization and function flowchart of Los Angeles Port of Embarkation, 1 September 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.7, Organizational and Functional File 1944.

14. Map of Los Angeles Port of Embarkation and Southern California's Supporting Installations. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.7, Organizational and Functional File 1944.

15. Standard operating procedure central purchasing, contracting, inspection of purchases and procuring supplies which require priorities, 18 April 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 3, Folder 300.7, Manual Standard Operating Procedure 1944.

16. Personnel organization and function flowchart of Los Angeles Port of Embarkation, 25 May 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 310.1, Port Organization Charts 1943.

17. Explanation of organizational changes within the Los Angeles Port of Embarkation including the Rialto section report, April 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 310.1, Port Organization Charts 1943.

18. Inter-Office Communication Slip requesting Los Angeles Port of Embarkation quarterly historical reports from various divisions, 27 May 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, July-December 1944.

19. Photograph: Victory Pier (Ammunition Loading) at Los Angeles Port of Embarkation. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, July-December 1944.

20. Army Regulations, Quartermaster Corps, Transportation by Commercial Means; General, 1 August 1929. Military History Institute, Army Regulations 1920-1947 (excerpts).

21. Short essay on problems at Los Angeles Port of Embarkation, including a Navy material shipment to Rialto Ammunition Back-Up Storage Depot. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, July-December 1944.

22. Quarterly Historical Report to the Executive Assistant at the Office of the Chief of Transportation, Washington 25, D.C., from the Director of Control, 24 April 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, January-June 1944.

23. Summary of the present and potential capacity at the Los Angeles Port of Embarkation, 31 March 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, January-June 1944.

24. Assigned personnel (by numbers) at various divisions of the Los Angeles Port of Embarkation, 7 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 4, Folder 314.7, January-June 1944.

25. Information on the movement of cars into the Rialto Depot requested by Control Division to be incorporated in the Historical Report, 2 June 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History (Misc.), October 1943-1944.

26. The number of explosives cars handled through Rialto to the Director of Control Division through the Director of Transportation for the Port Transportation Officer, 18 July 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History (Misc.), October 1943-1944.

27. History of the Los Angeles Port of Embarkation titled "Los Angeles Sub Port of Embarkation." National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History (Misc.), October 1943-1944.

28. Transmittal of the Historical Record for the Los Angeles Port of Embarkation to the War Department, Office of the Chief of Transportation, including the number of railroad cars loaded and received, 20 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History 1944.

29. Accomplishments reported for the month of November at the Rialto Ammunition Back-Up Storage Point and Table of Contents updated November 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History.

30. Transmittal of Historical Records for the Los Angeles Port of Embarkation to the War Department, Chief of Transportation, Washington, 25, D.C., about Rialto Ammunition Back-Up Storage Point, 16 November 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History.

31. Historical Report, Ordnance Branch to the Port Historical Officer, Control Division, Los Angeles Port of Embarkation including two Japanese bombs trucked to Rialto Ammunition Back-Up Storage Point for temporary storage, 17 June 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History Ordnance 1944.

32. Record of Educational, Business and Military Experience of Captain Ray F. Hosier -assigned to Rialto Ammunition Back-Up Storage Point as Commanding Officer. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History Ordnance.

33. Record of Educational, Business and Military Experience of First Lt. Robert A. Glick - assigned to Rialto Ammunition Back-Up Storage Point in various officer positions. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 5, Folder 314.7, History Ordnance.

34. A Summary of Statistical Data for Certified Demurrage, Los Angeles Port of Embarkation and Rialto Ammunition Back-Up Storage Point. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 6, Folder 314.7, Central Subject Files 1941-1946.

35. A Brief Resume of the History of Arlington Staging Area sent to Commanding Officer of Los Angeles Port of Embarkation, Wilmington, California, 3 September 1942. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 6, Folder 314.7, History.

36. Director of Operations, Quantitative Personnel Charts for the Los Angeles Port of Embarkation, 1 July 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 6, Folder 314.7, History.

37. Routing Sheet for Historical Report Correspondence, 11 April 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

38. Army Service Forces, Rialto Ammunition Back-Up Storage Point, Rialto, California. Historical Report for March 1944 to the Port Commander, Los Angeles Port of Embarkation, Wilmington, California, 31 March 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

39. Routing Sheet for Historical Report Correspondence, 6 March 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

40. Army Service Forces, Rialto Ammunition Back-Up Storage Point, Rialto, California. Historical Report for February 1944 to the Port Commander, Los Angeles Port of Embarkation, Wilmington, California, February 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

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42. Routing Slip to Control Division from Personnel Division, 7 June 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

43. Army Service Forces, Rialto Ammunition Back-Up Storage Point, Rialto, California. Historical Report for April 1945 to the Port Commander, Los Angeles Port of Embarkation, Wilmington, California, 4 July 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 7, Folder 314.7, History.

44. Data to the Director of Transportation, Los Angeles Port of Embarkation including data for Transportation Corps Historical Journal for month ending 31 December 1944, 10 January 1945. National Archives and Records Administration, Laguna Niguel, Record Group, 336, Box 8, Folder 314.7, History.

45. Essay about the history of Los Angeles Port of Embarkation. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History.

46. Los Angeles Port of Embarkation Organizational Chart, 8 July 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

47. Outline of History of the Los Angeles Port of Embarkation, 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

48. Organizational development history of Port area and Camp Anza. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

49. Los Angeles Port of Embarkation Organizational Chart, 1 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

50. Los Angeles Port of Embarkation Organizational Chart, including personnel, 1 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

51. Reorganization of the Los Angeles Port of Embarkation, 27 November 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

52. Los Angeles Port of Embarkation report names officers announced as heads of respective offices, 6 March 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

53. Organizational Chart Los Angeles Port of Embarkation, 6 March 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

54. Organizational Chart Control Division - Statistics Branch, 28 August 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

55. Historical worksheets on organization at Los Angeles Port of Embarkation, March 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

56. Data on Domestic Section, Ordnance Branch for Transportation Corps Historical. Report sent to Port Historical Officer, 8 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History 1943.

57. Data for Transportation Corps Historical Records sent to Ordnance Officer, Reports Section from Robert K. Weyand, First Lt., Ordnance Department, 6 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History Supplies Office 1943-1944.

58. Transmittal of Change of Information submitted for the Port Journal and sent to Control Division, Los Angeles Port of Embarkation, Chief, Statistical Branch, Attn: Capt. Francis R. Roache, 23 January 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History Supplies Office 1943-1944.

59. Historical Report for the month of November sent to the Port Historical Officer, 6 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History Supplies Office 1943-1944.

60. Data for Transportation Corps Historical Records sent to the Ordnance Officer, 10 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 8, Folder 314.7, History Supplies Office 1943-1944.

61. Los Angeles Port of Embarkation daily progress of staging, cargo, rail, etc. situations, 30 December 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 9, Folder 319.1, Daily Progress Reports December 1943-1944.

62. Los Angeles Port of Embarkation Statistics - explosives loaded, cars on demurrage, civilian personnel, military personnel, etc. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 10, Folder 319.25, Statistical Data (Work Books), March-April 1944.

63. Los Angeles Port of Embarkation Statistics: loading costs for explosives, cars on demurrage, etc. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 10, Folder 319.25, Statistical Data (Work Books), March-April 1944.

64. Storage Space - Los Angeles Port of Embarkation - area available for storage, 1 May 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 10, Folder 319.25, Statistical Data (Work Books), March-April 1944.

65. Los Angeles Port of Embarkation Statistics - cars on demurrage. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 11, Folder 400.1924, Progress Reports-Monthly, April 1944.

66. Photographs - ammunition cars containing 100# bombs, 7 June 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 25, Folder 569.6, Technical VIII, Photos.

67. Army Regulations, Supplies, Storage and Issue, 24 October 1942. Military History Institute, Army Regulations 1920-1947 (excerpts).

68. Photographs - carload of fuzes, 21 June 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 25, Folder 569.6, Technical VIII, Photos.

69. Photographs - Railroad cars of dynamite, 26 June 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 25, Folder 569.6, Technical VIII, Photographs.

70. Photographs - Sergeant Sacks showing firefighting equipment, 25 September 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 26, Folder 569.6, Technical XI, Photographs.

71. Photographs - fire trucks from fire branch, 25 September 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 26, Folder 569.6, Technical XI, Photographs.

72. Data for Transportation Corps Historical Records to Rialto – organization, problems, methods, etc., 10 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 314.7, History Camp Anza-Rialto.

73. Data for Transportation Corps Historical Records Rialto sent to Commanding Officer, Rialto Ammunition Back-Up Storage Point, Rialto, California, 1 January 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 314.7, History Camp Anza and Rialto.

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75. Camp Anza Staging Area and Rialto Ammunition Back-Up Storage Area - Station Complement for organization and functions. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 1, Folder 314.7, History Camp Anza and Rialto.

76. Photographs - Rialto Ammunition Back-Up Storage Point – loading and unloading ammunition. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 14, Folder 471 Ammunition Handling (Photographs).

77. Organization Los Angeles Port of Embarkation – functional flowchart and operational manual, 1 December 1943. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 14, Folder 500, Functional Manual Port of Embarkation, Los Angeles, 1944.

78. Los Angeles, 1944, Daily Progress – staging, cargo and rail situations, 30 May 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 14, Functional Manual Port of Embarkation, Los Angeles, 1944.

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80. An address by Colonel James K. Herbert, Commanding Officer, Los Angeles Port of Embarkation at Command and General Staff School - Practical Operation of a Port of Embarkation, 25 September 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 14, Folder 500, Functional Manual Los Angeles Port of Embarkation, Los Angeles, 1944.

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82. Photographs of railroad cars poorly braced, Photographs-Legal, 3 March 1944. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 17, Folder 596.6.

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84. Joint Army-Navy Ammunition Storage Board Report - Inter Office Communication Slip, 21 December 1945. National Archives and Records Administration, Laguna Niguel, Record Group 336, Box 14, Folder 471, Explosives Loading Storage Facilities, Joint Army-Navy Ammunition Storage Board, October 1944.

85. Supplemental INPR for Rialto Ammunition Back-Up Storage Point, Site No. J09CA057200, 1999. U.S. Army Corps of Engineer, Los Angeles District, Installation Support Branch.

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90. To the Chief Reviewing Appraiser, Memorandum about pipes and tanks. Maps of Los Angeles Back-Up Storage Facility, Ammunition Back-Up Storage, 7 August 1946. Science Applications International Corporation Archives.

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93. Los Angeles Ammunition Back-Up Storage facility. Reply to the Administrator, WAA Washington 25, D.C., Attn: Deputy Administrator, Sale of residual buildings, Los Angeles Ammunition Back-Up Storage Facility approximately 20% complete. Abstract of bids for sale of surplus buildings, 22 April 1947. Science Applications International Corporation Archives.

94. Los Angeles Ammunition Back-Up Storage Facility. Corporation Grant Deed to Kwikset Locks, Incorporated, a California Corporation from West Coast Loading Corporation, 1 April 1957. Science Applications International Corporation Archives.

95. Inspection of a depot by the War Department, Office of The Inspector General, 15 May 1942. National Archives and Records Administration II, Record Group 156 Office of the Chief of Ordnance, Entry 685, Safety and Security Division, General Records (c) arranged by broad subject or function, Box F-75 inspection through Intra-Office Memos, Folder Inspection manual, General excerpts.

96. Report of activities – Fiscal Year 1945 to the Commanding Officers, government owned – contractor-operated installations, 10 July 1945. National Archives and Records Administration II, Record Group 156 Office of the Chief of Ordnance, Entry 685, Safety and Security Division, General Records, Box F-84 General Administrative Correspondence 1940-1950, Reports – Security Field Manual.

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98. *Rialto tackles shortage of water*, Scott Vanhorne, San Bernardino County Sun, July 14, 2003.

99. Bureau of Ordnance Circular Letter regarding ammunition, bombs, depth charges, mines torpedoes, war heads, fuzes, and explosives – safety regulations, 20 December 1943. National Archives and Records Administration II, Record Group 156 Office of the Chief of Ordnance, Entry 685 Safety and

Security Division, General Correspondence, (a.) arranged according to War Department Decimal System, 1941-1950, Box F-40, 470 (1-300) c through 470 (1-270) s.

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104. Perchlorate in California Drinking Water: Status of Regulations and Monitoring Results, California Department of Health Services, June 13, 2003.

105. Ordnance Department Order, loading and bracing of ammunition shipments, 8 March 1944. National Archives and Records Administration II, Record Group 156, Entry 644, Box Pub 6.

106. History of the Safety Advisory Committees. National Archives and Records Administration II, Record Group 156 Records of the Office and Chief of Ordnance, Post WW I Divisions, Services and other units, Safety and Security Division General Records. General Administrative Correspondence 1940-1950, Accident Reports – Aircraft. Box F-70, Entry 685, Folder Advisory Committee Correspondence – General excerpt of document.

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202b. Letter to the Department of Agriculture from Paul Kenda.

202c. Letter to Mr. O. J. Faulkner, District Supervisor, Surplus Property Disposal, Federal Land Bank of Berkeley from C. H. McClain, Deputy Administrator, Surplus Property Disposal.

202d. Letter to Mr. W. E. Rhea, Land Bank Commissioner from Paul C. Williams, Chief, Urban and Rural Division, Office of Real Property Disposal.

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210b. To Land Bank Commissioner, Farm Credit Administration from E. C. Paules, Lt. Col., Corps of Engineers, Property Officer, 26 July 1946.

210c. To Mr. O. J. Faulkner, District Supervisor, Surplus Property Disposal, Federal Land Bank of Berkeley from C. H. McClain, Acting Director, Surplus Property Disposal, 2 August 1946.

210d. To Lt. Col. E. C. Paules, Corps of Engineers, Property Office, U. S. Engineer Office from C. H. McClain, Acting Director, Surplus Property Disposal, 2 August 1946.

210e. To Mr. Carl Colvin, Director, Surplus Property Disposal, Farm Credit Administration from O. J. Faulkner, Vice President and District Supervisor, Surplus Property Disposal, 12 August 1946.

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210g. To Mr. O. J. Faulkner, District Supervisor, Surplus Property Disposal, Federal Land Bank of Berkeley from McClain, 27 August 1946.

210h. Notice of Sale, Surplus Government Real Property. Signed by H. W. Browning, Vice President, Federal Farm Mortgage Corporation.

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210j. To Land Bank Commissioner, Farm Credit Administration from E. C. Paules, Lt. Col., Corps of Engineers, Property Officer, 18 September 1946.

210k. To Lt. Col. E. C. Paules, Corps of Engineers, Property Officer, U. S. Engineer Office from Floyd E. Prentice, Assistant Director, Surplus Property Disposal, 26 September 1946.

210l. To Mr. O. J. Faulkner, District Supervisor, Surplus Property Disposal, Federal Land Bank of Berkeley from Floyd E. Prentice, Assistant Director, Surplus Property Disposal, 26 September 1946.

210m Disposal of Surplus Agricultural and Forest Property - Los Angeles Backup Storage Facility, Project Report for month ending October 25, 1946, United States Department of Agriculture, Farm Credit Administration.

210n. Disposal of Surplus Agricultural and Forest Property - Los Angeles Backup Storage Facility, Project Report for month ending November 25, 1946, United States Department of Agriculture, Farm Credit Administration.

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210p. To Mr. R. E. Nebelung, Chief Reviewing Appraiser, Farm Credit Administration from R. E. Britt, Chief Appraisal Review Section, 13 December 1946.

210q. United States Department of Agriculture, Farm Credit Administration, Disposal of Surplus Agricultural and Forest Property, Project Report for month ending December 25, 1946, Los Angeles Backup Storage Facility.

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210w. To Mr. O. J. Faulkner, District Supervisor, Surplus Property Disposal, Federal Land Bank of Berkeley from Floyd E. Prentice, Assistant Director, Surplus Property Disposal, 23 January 1947.

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210y. Memorandum to files from Floyd E. Prentice, 10 March 1947.

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247. Response from Henry Gwiazda of National Archives and Records Administration II, Photograph, Cartographic Section, College Park, Maryland on 30 April 2003 to Science Applications International Corporation enquiry for Rialto Ammunition Storage Point records.

248. Response from Michael Brodhead of the United States Army Corps of Engineers, Office of History, Alexandria, Virginia, on 14 April 2003 to Science Applications International Corporation enquiry for Rialto Ammunition Storage Point records.

249. Response from Ken Paulson of the General Services Administration, Real Estate Division, San Francisco, California on 14 May 2003 to Science Applications International Corporation enquiry for Rialto Ammunition Storage Point records.

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October 2002. The Santa Ana Regional Water Quality Control Board folders on the Army Corps of Engineers, Former Rialto Ammunition Storage Point.

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253. BF Goodrich in Rialto. The Santa Ana Regional Water Quality Control Board folders on the Army Corps of Engineers, Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

254. Declaration of John Kase, former employee of the BF Goodrich Company. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

255. Meeting Invitation for Recipients of Perchlorate Investigation Orders, 21 March 2003,.the Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

256. Request for information regarding the former Rialto Ammunition Storage Point by the United States Environmental Protection Agency, 10 February 2003. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

257. Highlights from Monday's December Formerly Used Defense Sites Meeting, 16 December 2002. The Santa Ana Regional Water Quality Control Board boxes on the Rialto Ammunition Back-Up Storage Point

258. Perchlorate Assessment Policy by the Office of the Secretary of Defense, 13 November 2002. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point.

259. Meeting Notes – Formerly Used Defense Sites from the Santa Ana California Regional Water Quality Control Board to File, former Rialto Ammunition Storage Point (ASP), 16 December 2002. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

260. Department of the Army response letter to the California Regional Water Quality Control Board regarding certain work involving a class of chemical substances known as perchlorates, 21 November 2002. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

261. Contact was made with NARA Regional Branches ( NARA II, Great Lakes, Central Plains, Rocky Mt., Southwest, Alaska, Northeast, Mid Atlantic, and Southeast), Edgewood Arsenal, St. Louis National Personnel Records Center, and the Center for Military History for records from specific arsenals of shipments of munitions to LAPE via Rialto, receipts for damaged goods, and standard operating procedures for recoopering. No records of specific shipments, other than mustard gas from Edgewood Arsenal in 1944/45, were found. No records of munitions damaged in transit were found. A standard operating procedure for recoopering was not found in Army Field or Training Manuals reviewed.

262. Inland Empire Perchlorate Regulatory Task Force Re: Perchlorate Pollution of the Groundwater Sub-basins in the County of San Bernardino, California, 24 October 2002. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

263. Formerly Used Defense sites (FUDS) Middle Santa Ana River Watershed Management Area. The Santa Ana Regional Water Quality Control Board folders on the Former Rialto Ammunition Storage Point, Santa Ana Regional Water Quality Control District, Riverside, California.

264. "Standard Operating Procedure" processing potassium perchlorate at West Coast Loading Corporation, Rialto, California, 11 April 1956. Santa Ana Regional Water Quality Control Board, Original Administrative Record 3, WCLC/Kwikset/Black & Decker, Emhart, Ind., Inc./B & D, Inc. Index Enclosed. Revised 3 February 2003. Documents received by the Santa Ana Regional Water Quality Control Board from Kwikset Pursuant to Subpoena.

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270. Archives Search Report, Rialto Ammunition Storage Point, Project No. J09CA057201, August 1995, United States Army Corps of Engineers, St. Louis District, held at the U.S. Army Corps of Engineers, Los Angeles District, Installation Support Branch.

271. Appendix II, Storage chart for explosives and ammunition, 1943. National Archives and Records Administration II, Record Group 156 - Army Ordnance Entry 654H, Box F-115, Folder History of the OCO s/s Branch – Vol. III 1 July 43 to 31 Dec. 43.

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273. Memorandum to the Port Transportation Officer, subject: Diversion of the Following cars, as listed, into Fontana Ammunition Storage Point for storage in transit, 16 December 1942. National Archives and Records Administration II, Record Group 156 - Army Ordnance Entry 654H, Box 1-Balt.-No Port of Embarkation, Folder Los Angeles Port of Embarkation (orig.) v.1-History through 9/30/43.

274. Response from Joe Webb of the United States Army of Military History, Historical Support Branch (DAMH-HDS), Building 35, 103 Third Avenue, Fort McNair, DC 20319-5058 on 10 May 2003 to Science Applications International Corporation request for Rialto Ammunition Storage Point records.

275. Response from Kenneth D. Schlessinger of the National Archives and Records Administration, College Park, Maryland on 1 May 2003 to Science Applications International Corporation enquiry for Rialto Ammunition Storage Point.

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# Appendix D

# Interviews and Contacts

## INTERVIEWS and CONTACTS

Appendix D provides a record of interviews conducted and contacts made in conducting research on operations at the Rialto Ammunition Back-Up Storage Point during the period of its operation, 1941 to 1945. The telephone numbersof individuals not associated with a public agency have not been included.

## INTERVIEW INDEX

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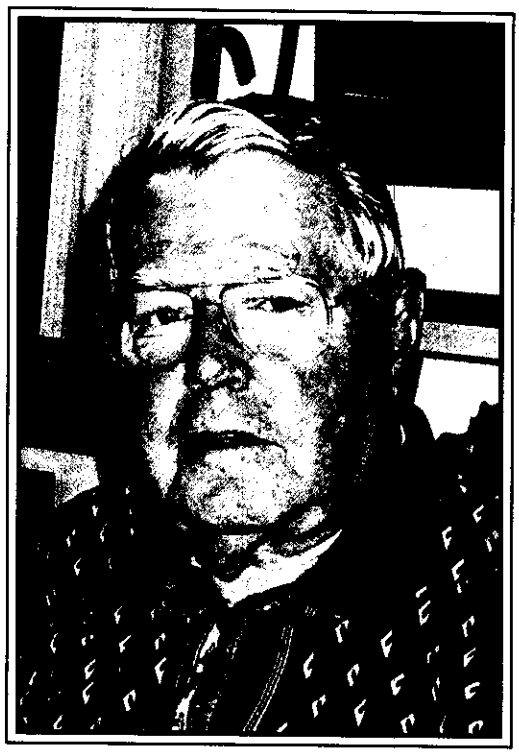
| **Mr. Ralph V. Thompson**<br>Staff Sergeant, 622nd Ordnance Ammunition Company<br>Fontana Ammunition Storage Point | **I-2** | **D-7** |
| **Mr. Aaron P. Holt**<br>Tech Sergeant, E-7, 622nd Ordnance Ammunition Company<br>Fontana Ammunition Storage Point | **I-3** | **D-12** |

Interview I-1



**Robert K. Weyand**

## Interview with Mr. Robert K. Weyand

September 1, 2003

Robert K. Weyand

Captain, Ordnance Department

Officer in Charge of Safety and Ammunition Inspection at LAPE

July 1943 – March 6, 1946

Inspection Branch Responsibilities:

Ammunition Inspection, Supply, and Automotive Inspection

Dr. Joyce Clarke and Grace Dirling of Science Applications International Corporation conducted an interview with Robert K. Weyand at his home in Prescott, Arizona. As a Captain in the United States Army assigned to the Los Angeles Port of Embarkation (LAPE), Mr. Weyand visited the Rialto Ammunition Back-up Supply Point as part of his responsibilities to supply ordnance to the China-Burma-India (CBI) Theater during World War II. Mr. Weyand's Army branch ordered munitions from the ordnance depots and planned the arrival of the shipments in railcars to coincide with the arrival of supply vessels at Victory Pier, Los Angeles Port of Embarkation, in Long Beach, California.

The primary responsibility of Mr. Weyand's unit was to maintain the ammunition supply levels of the China-Burma-India Theater during World War II. When he began his assignment at LAPE, an "automatic" munitions ordering system was operational. Mr. Weyand explained how the automatic procedures were used to maintain the supply of munitions to the CBI Theater. The auto supply basis was the original provisions list. On the first of each month, he would receive a teletype from the CBI Theater with an expenditure report telling him how much ammunition had been used. Since he knew the amount originally provisioned and the amount of ammunition en route to the Theater, he could determine the ammunition needed for replacement. An order would then be placed at one or more of the various ordnance depots located throughout the United States for the required ammunition.

Occasionally a special request would come in for a particular operation in the Theater. He recalled that Navajo and Sierra were the two depots most frequently supplying munitions, principally bombs (100, 250, and 500-pound general purpose bombs), and 155 mm artillery shells. Small arms were supplied by Edgewood arsenal. Boosters and fuzes would be shipped separately. Mr. Weyand estimated that pyrotechnics (incendiary bombs and flares), were infrequently shipped and made up less than five percent on a weight basis of the munitions shipped from LAPE. Mr. Weyand provided excerpts from his memoirs that described how requests for ammunition from the depots were sometimes turned down because of competing priorities. In this event, he would call his connection at the Pentagon to argue his need for the ammunition.

Mr. Weyand was proud of their ability to organize the ammunition shipments. They knew the time frame required for receiving a railcar shipment from each depot, and they knew when the supply ships would be in port and ship loading criteria for the ordnance. They set up the orders at the depots so that the explosives loaded on the railcars arrived in the port when the dock crew was ready to load the vessel. Most of the ordnance-loaded railcars came directly to the port from the depots. Mr. Weyand said, "If we could arrange it so that the railcars came directly to the port, we did it that way." However, if a ship was late in arriving at the port or a delay occurred in loading, the railcars would be diverted to the Rialto Ammunition Back-Up Storage Point. Mr. Weyand recalled that the holding of railcars at Rialto for more than 7 days incurred demurrage, and was a rare occurrence.

Ordnance-loaded railcars could be diverted to Rialto if the port had reached the maximum number allowed by the port safety officer. The U.S. Coast Guard Captain of the Port was responsible for the safety of the LAPE and the Victory Pier area, and had jurisdiction over the amount of explosive content that could be in the harbor at any one time. The Captain of the Port limited the number of ordnance-loaded railcars at the pier based on explosive content. Mr. Weyand recalled that a common shipment to the CBI Theater was an order of 500-pound general purpose bombs with high explosive content. Only two railcars loaded with 500-pound bombs were allowed at Victory Pier at the same time. If extra railcars with ammunition shipments came from the depots, they were stored at Rialto until called down to the port. The ammunition was left in the sealed railcars that remained on the tracks at the Rialto Ammunition Back-Up Storage Point; it was uncommon for munitions to be unloaded from the rail cars into the igloos. Mr. Weyand was asked about the monthly LAPE statistics which showed between 1 and 9 railcars unloaded and loaded. He said that these data probably referred to consolidation of partial shipments into one railcar.

Looking at a General Site Plan for the Rialto Ammunition Back-Up Storage Point, Mr. Weyand pointed to the classification track area. After arriving at Rialto, the railcars were inspected in the classification area to allow the shipments to be classified according to amount of explosive content and sensitivity. Placement in the storage areas was determined

by explosive content. Mr. Weyand had designed special identification labels for the railcars carrying explosives. The labels were important to alert firefighters, and anyone else needing the knowledge, as to the explosive content of each car. Mr. Weyand was asked about the suspect car track shown on the plan. He said that cars suspected of sabotage would be routed to a suspect track for inspection.

The railcars were also inspected for signs of "humping" (a railroad term for the cars banging together when switching onto different tracks). Excessive humping caused shifting, and sometimes breakage, of the dunnage and bracing inside a railcar. Mr. Weyand said that the bracing around 155 mm ordnance was especially vulnerable to this type of damage because the shells were shipped standing on end. If cars had signs of humping, those cars would be examined. If the dunnage needed repairs, those cars had to be recoopered before the cars were sent to the Port.

Sometimes, the damaged wooden dunnage could be repaired by recooperers (carpenters who worked on crates and bracing) who climbed inside the railcar to repair the bracing around the ordnance, or replace broken dunnage. At other times, the humping damage consisted of dunnage broken beyond the skills of the recooperers to repair. The damaged wooden dunnage would be burned within the Rialto military reservation. According to Mr. Weyand, burning the dunnage material was much cheaper than having it hauled away as trash. He also said that when he had to ship returning ordnance from the Port to other places, he had recooperers working at the Port.

When asked if the personnel at Rialto would have burned damaged munitions, Mr. Weyand answered with an emphatic, "No." He also said that neither would they have detonated damaged ordnance in close proximity to the storage of munitions. Then he described how the Bomb Disposal Unit from Riverside, which he had organized prior to working at the Port of Embarkation, took damaged flash bombs out to the desert near Palm Springs to detonate them. Another incident Mr. Weyand described was when his unit took a damaged 500-pound bomb with a damaged nose and dropped it into the Redondo Trench off the Coast. It washed

back to shore and had to be redropped into the Trench further out to sea. He described a third incident when his unit blew up a bomb on the seaward side of the Silver Strand in San Diego.

Mr. Weyand stated that ammunition was seldom unloaded from the railcars at Rialto. During the three years that he was at LAPE, he recalled that ammunition was unloaded and stored in a magazine, then reloaded into railcars and called down to the port, just two times. The Port Commander was "death on demurrage costs," which were charges incurred if the shipment was not unloaded from the railcars within 7 days. The Port Commander thought better planning should eliminate those extra costs. Mr. Weyand and his unit were good at scheduling the shipments. Victory Pier was just "one straight pier with limited space" for ships. Two supply vessels at most fit the dock space; usually just one ship would be at Victory Pier for loading at any given time.

When the LAPE was closed down after the end of World War II, Mr. Weyand received a Commendation Medal from the Army. During the time he was in charge of ammunition supply and ammunition inspection, they had shipped over 3.5 million tons of ammunition and explosives without a single accident or incident.

Interview I-2

**Ralph V. Thompson at Fontana Ammunition Storage Point in 1943**

## Interview with Mr. Ralph V. Thompson

November 12, 2003

Ralph V. Thompson
Staff Sergeant, 622nd Ordnance Ammunition Company
Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation
[aka Rialto Ammunition Back-Up Storage Point]
April 1943 – August 1943

Dr. Joyce Clarke and Grace Dirling of Science Applications International Corporation conducted a telephone interview with Mr. Ralph V. Thompson, who was in his home in Oceanside, California. Mr. Thompson was a member of the 622nd Ordnance Ammunition Company assigned to the Fontana Ammunition Storage Point (aka Rialto Ammunition Back-

Up Storage Point) from April 1943 until his unit was shipped overseas four months later. In August 1943, Mr. Thompson and the 622nd Ordnance Ammunition Company traveled by train from Fontana to the Camp Stoneman processing center in Pittsburg, California, and sailed out from the San Francisco Port of Embarkation on August 13, 1943, bound for the Pacific Theater.

While Mr. Thompson was stationed at the Ammunition Storage Point he met a Fontana resident, Helen Bruce, and married her in June 1943. When he returned to the United States after his discharge on December 11, 1945, he, and his wife and young son, made their home in the Fontana area. They lived in the vicinity of the Rialto Ammunition Back-Up Storage Point until he retired from the Fontana Unified School District in 1980.

*Note added by the interviewers to provide context for the operation of the 622nd Ordnance Ammunition Company with respect to the Desert Training Center.* In 1942, when Mr. Thompson joined the 622nd Ordnance Ammunition Company, he was stationed at Camp Young in the Mojave Desert, east of Indio, headquarters for the Desert Training Center (DTC), where troops of the Army Ground Forces trained for combat in North Africa under a simulated Theatre of Operations. As combat in World War II shifted from North Africa to Italy, operations of the DTC - known from November 1943 as the California-Arizona Maneuver Area (C-AMA) - wound down and ceased on 1 May 1944. Thus, when operations at DTC began to wind down, the 622nd Ordnance Ammunition Company was relocated to Fontana, within the perimeter of the military reservation which encompassed Rialto Ammunition Back-Up Storage Point.

Mr. Thompson said that the word "Rialto" was not used in the site name by the 622nd Ordnance Ammunition Company, as their encampment at the military reservation was adjacent to the City of Fontana, and not at that time incorporated into the City of Rialto. Use of the title "Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation" reflects the use of the Rialto Ammunition Back-Up Facility by the 622nd Ordnance Ammunition Company as a storage facility for small arms ammunition used in training in the Mojave Desert under DTC, rather than a back-up location for temporarily holding ordnance-

loaded railcars until dispatched to Victory Pier at the Los Angeles Port of Embarkation, as described by Mr. R. K.Weyand (I-1).

The 622nd Ordnance Ammunition Company of 186 enlisted men and six officers encamped at the eastern boundary of the military reservation, specifically in an area near the entrance to the Rialto Ammunition Back-Up Storage Point on Bonhert Avenue. The encampment was bounded on the north and south by a line of eucalyptus trees, by the reservation perimeter gated fence (fence type Fen-D-M) on the east at Linden Avenue, and on the west by the guarded fence (critical fence type Fen-F-M) which secured the storage area of the Rialto Ammunition Back-Up Storage Point. Mr. Thompson shared photographs which showed the encampment tents and paths outlined with stones ubiquitous in the area. He recalled a communications center and dispensary to the south. He remembered that the dispensary, where a Major Marguilles was in charge of the medical facility, was a former farm house. Civilians manned the guard towers and guard stations along the perimeter of the storage area of the Rialto Ammunition Back-Up Storage Point.

Mr. Thompson explained that the 622nd Ordnance Ammunition Company was responsible for receiving, storing, and issuing .30 to .50 caliber ammunition used by troops of the Army Ground Forces for small arms training in the Desert Training Center. The .30 caliber bullets were used for rifles and some machine guns. The .50 caliber ammunition was used in machine guns.

He recalled that about once per week a shipment of ammunition would arrive at the Fontana Ammunition Storage Point transported by Pacific Electric Railroad from the Army rail distribution center at Colton. A diesel locomotive was on site to move the ordnance-loaded railcars along spur tracks to the storage igloos in the Fontana Ammunition Storage Point. Mr. Thompson explained how a diesel locomotive positioned a freight car so that the sliding doors of the railcar were adjacent to the open doors of the igloo. Then the ammunition would be unloaded directly into the igloo for storage. The ammunition was shipped in metal-lined wooden boxes. When issued to troops, the ammunition was transported by truck to the units of the Army Ground Forces training in the Mojave Desert within the DTC.

At times, the ammunition available for training was limited. At such times, Mr. Thompson recalled "38 boxcars of wooden ammunition" used repeatedly for training exercises to teach the men the proper and safe way to package, transport, and store ammunition. The soldiers learned how to correctly pack ammunition in railcars using dunnage and the simulated ammunition. Another creative ammunition-conserving incident he remembered was when a dummy insert was inserted into a 37 mm cannon so that it could fire a .22 caliber bullet. When the 622nd left for Camp Stoneman, they sent the wooden boxes of simulated ammunition out to the railheads for distribution to other units. He does not know the subsequent disposition of the wooden ammunition.

Mr. Thompson stated that no munitions other than for small arms were stored in the igloos. He recalled no flares or pyrotechnics being stored in the igloos. He said that there was no rifle range on the property and that they had to go to a range in Claremont to qualify in submachine gun use. At other times, they trained at the rifle range and infiltration course known as Cable Canyon Rifle Range, located five miles to the northeast of the encampment near a facility that became known as Camp Ono.

In 1948, Mr. Thompson went back to the site of the Fontana Ammunition Storage Point to see what had happened to the facility, where operations had ceased in September 1945 after the end of World War II. He was surprised to see what he described as revetments in the area north of the igloos and assumed that these revetments provided an overflow storage capacity for when the igloos were full. It was explained by the interviewers that the revetments Mr. Thompson described, and which a newspaper referred to as "depressions," were actually the bunkers built for storage of ordnance-loaded railcars en route to the Los Angeles Port of Embarkation. These railcar holding areas were installed after the 622nd Ordnance Ammunition Company had left for overseas duty.

Mr. Thompson does not recall any accidents involving ammunition. He said that safety was "their watchword." He did not know of any burning out in the open or any detonation of explosives on the site. Mr. Thompson worked in an office with personnel issues as part of his responsibilities with the 622nd. Mr. Thompson suggested Master Sergeant Aaron Holt as a

person who would know more about the ammunition received and stored in the igloos. He recalled that Master Sergeant Holt was an ammunition expert.

Interview I-3

Mr. Aaron Porter Holt IV in 1938

**Interview with Mr. Aaron Porter Holt IV**

November 13, 2003

Aaron Porter Holt IV
Master Sergeant, E-7, 622nd Ordnance Ammunition Company
Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation
[aka Rialto Ammunition Back-Up Storage Point]
April 1943 – August 1943

Dr. Joyce Clarke and Grace Dirling of Science Applications International Corporation conducted a telephone interview with Mr. Aaron P. Holt, who was in his home in Purdy, Missouri. Aaron Holt's wife Edryss and daughter Esther were present and participated to the extent that Mr. Holt needed their assistance to hear. Edryss Holt had accompanied her husband to California while he was stationed there.

Mr. Holt was a member of the 622nd Ordnance Ammunition Company assigned to the Fontana Ammunition Storage Point (aka Rialto Ammunition Back-Up Storage Point) from April 1943 until his unit was shipped overseas in August 1943. Mr. Holt and the 622nd Ordnance Ammunition Company traveled by rail from Fontana to the Camp Stoneman staging area in Pittsburg, California, where the unit prepared to ship out from the San Francisco Port of Embarkation on August 13, 1943, bound for New Guinea in the Pacific Theater.

While Mr. Holt was stationed at the Fontana Ammunition Storage Point his wife Edryss lived in a house trailer in Fontana. When he left for the South Pacific Mrs. Holt returned to their home state of Illinois.

In 1941, when Aaron Holt joined the Army at the Savannah Munitions Depot, he was part of the 52nd Ordnance Ammunition Company. The 622nd Ordnance Ammunition Company was formed from the 52nd, making him an original member of the 622nd Company. Mr. Holt was assigned to Camp Young in the Mojave Desert, east of Indio, headquarters for the Desert Training Center (DTC), where troops of the Army Ground Forces trained for combat in North Africa. When operations at the Desert Training Center began to wind down, the 622nd Ordnance Ammunition Company was relocated to Fontana within the perimeter of the military reservation which encompassed Rialto Ammunition Back-Up Storage Point.

Mr. Holt said that the site was not referenced as the "Rialto" site by the 622nd Ordnance Ammunition Company, which called the site "Fontana Ammunition Storage Point for the Los Angeles Port of Embarkation." ( *Note added by interviewer*. This nomenclature reflects two distinct uses of the site: as a storage facility for small arms ammunition used by troops training in the Mojave Desert within the Desert Training Center; as a back-up location for temporarily holding ordnance-loaded railcars until dispatched to Victory Pier at the Los Angeles Port of Embarkation for shipment to the China-Burma-India Theater of War.)

While a member of the 622nd Ordnance Ammunition Company, Mr. Holt was an expert in demolition work and was attached to the Headquarters section. He stayed close to company

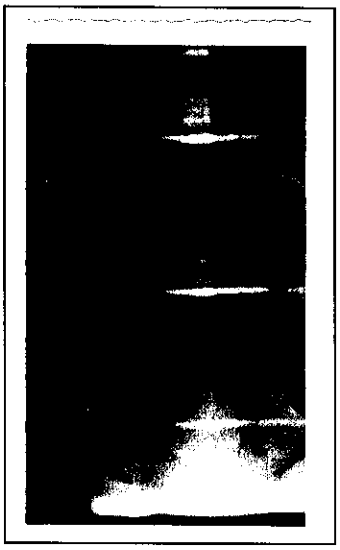
headquarters because he was "on call" for any "duds" discovered during training exercises conducted within the Desert Training Center in the Mojave Desert. For example, if artillery shells did not go off when fired, he was sent from Fontana to the desert area to investigate the problem and repair the weapon, if possible. He was also asked to test small arms in the desert. When asked if "duds" were identified at the Fontana Ammunition Storage Point, Mr. Holt replied, "No." He was asked if material was burned at the Fontana Ammunition Storage Point and replied that at times broken wooden crates that could not be repaired were burned. Mr. Holt stated that any defective munitions that needed to be detonated by the 622nd were taken for detonation in the Mojave Desert within the area of the Desert Training Center.

Mr. Holt recalled that mainly ammunition for small arms - .30 caliber rifle ammunition and .50 caliber machine gun ammunition - was stored in the igloos at the Fontana Ammunition Storage Point. Additionally, larger munitions, such as shoulder-launched 2.3 inch bazooka rockets, land mines, 81 mm mortars, 60 mm mortars, and 6 and 8 inch shells, were sometimes stored in the igloos. Mr. Holt said that he was not aware of perchlorate in any munitions stored at the Fontana Ammunition Storage Point and he noted that the 2.3 inch rockets used TNT, and later Composition C, as fill. Subsequent to the interview, Mr. Holt provided photographs he had taken of munitions stored in igloos at the site. These photographs are reproduced on page D-15.

Mr. Holt explained that he did not load and unload ordnance into igloos for the 622nd Company. His responsibilities included being on call to fix defective small arms and making sure incompatible ordnance was not stored in the same place. For example, items considered highly explosive, such as hand grenades, could not be stored with other highly explosive items like 2.3 inch bazooka rockets.

Mr. Holt also recalled that bombs for the Army Air Corps were at one time stored in the Fontana Ammunition Storage Point. He said that the bombs were stored in an area by themselves and recalled that some bombs were brought in by rail from the Savannah Munitions Depot. However, the 622nd Company did not handle them and he did not recall their size.

Mr. Holt recalled that when he was in New Guinea a fuze "blew up with him" and caused major injuries. He was taken to a Marine field hospital, and from there was taken to the port, but was not allowed to ship home on the hospital ship because he had "jungle rot" on his legs. Although he could not walk, he managed to roll himself into the hold of a freighter ship where he stayed with no food and water for two days until another serviceman found him. The freighter brought him into the San Francisco harbor. Next he was sent to a hospital in North Carolina by train. His recovery in the North Carolina hospital took 18 months. Ironic as it may seem after that ordeal, Mr. Holt has never received his Purple Heart because of a "paperwork" error.



**Photograph 1. Ammunition stored in igloos, Fontana, CA**

Upper four are 81-millimeter mortars. The two on the bottom are 60-millimeter mortars.

**Photograph 2. Ammunition stored in igloos, Fontana, CA**

Ammunition putatively identified as small arms ammunition.

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# Contact Records

**CR-1**

| Name | Title/Position | Phone |
|---|---|---|
| Joe Webb | Researcher/U.S. Army Center of Military History, Historical Support Branch | (202) 985-2703 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/18/2003 and 5/02/2003 | |
| | | |
| Commentary: | | |
| Left message. No response. | | |

**CR-2**

| Name | Title/Position | Phone |
|---|---|---|
| Jim Knight | Librarian/U.S. Army Center of Military History, Historical Resources Branch Library | (202) 685-4114 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/11/2003 | James.Knight@HQDA.Army.Mil |
| | | |
| Commentary | | |
| Jim said he does not have anything on smaller sites. Most of their information focuses on large installations. | | |

**CR-3**

| Name | Title/Position | Phone |
|---|---|---|
| Michael J. Brodhead or Dr. Paul Walker | Historian/Office of History, U.S. Army Corps of Engineers, Alexandria, MD | (703) 428-6559 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/14/2003 | |
| | | |
| Commentary | | |
| Michael has one page of real estate information consisting of: location, type, net area, cost and land ownership, and cost data. | | |

**CR-4**

| Name | Title/Position | Phone |
|---|---|---|
| Joe Sanchez | Archives Technician/NARA San Bruno | (650) 876-9018 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/11/2003 | joseph.sanchez@nara.gov |
| | | |
| Commentary | | |
| Joe E-mailed that they have the following records for Rialto:<br>RG 121, Records of the Public Buildings Service (PBS)<br>Accession Number: 121-85-001<br>Los Angeles Backup Storage Facility (San Bernardino County) [W-CA-132]<br>Boxes 12-20 (Location: 3215B/C). | | |

**CR-5**

| Name | Title/Position | Phone |
|---|---|---|
| Henry Gwiazda | National Archives II, Photograph, Cartographic Section, College Park, MD | (301) 837-1780 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/14/2003 | Henry.gwaizda@nara.gov |
| | | |
| Commentary | | |
| Henry's E-mail response: "We received your E-mail and will assign it early next week, though the likelihood of our having post-1945 plans of any U.S. Dept. of the Army's facilities is very low." | | |

**CR-6**

| Name | Title/Position | Phone |
|---|---|---|
| Ken Schlessinger | National Archives, Modern Military Records Branch, College Park, MD | (301) 837-2957 |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/12/2003 | |
| | | |
| Commentary | | |
| Mr. Schlessinger recommended visiting the facility to search the archives. | | |

**CR-7**

| Name | Title/Position | Phone |
|---|---|---|
| Bette Hughbanks | President of Rialto Historical Society, Rialto | (909) 875-1750<br>Wed 2-4p. & Sat 10a-2p |
| | | |
| Contact made by | Date | E-mail |
| Doug Brown | 4/09/2003 | |
| | | |
| Commentary | | |
| All documented information pertaining to Rialto Storage Depot is acquired from the California Room (San Bernardino County Library). The museum itself represents the Rialto area from its beginning (pre-1900) to about 1920. The other volunteers assisting Bette had no knowledge of the perchlorate or Ammunition Depot issues. | | |

**CR-8**

| Name | Title/Position | Phone |
|---|---|---|
| Vivian Tutaan | Records Clerk, Cal EPA Department of Toxic Substances Control, Glendale Office | (818) 551-2976<br>Fax (818) 551-2800 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/8/2003 | |
| | | |
| Commentary | | |
| An information request was faxed, along with a map of the site, as requested by Ms. Tutaan. In response to a follow-up telephone call by SAIC, Ms. Tutaan stated that no file for the Rialto Ammunition Back-Up Storage Point exists at the Glendale office. A letter confirming this fact will be forthcoming. | | |

**CR-9**

| Name | Title/Position | Phone |
|---|---|---|
| Melissa | Photograph Historian, Fairchild Aerial Photograph Collection, Whittier College, California | (562) 907-4220<br>Fax (562) 907-4220 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/8/2003 (telephone)<br>Visited 4/11/2003 | |
| | | |
| Commentary | | |
| Buck Toler and Joyce Clarke of SAIC visited Whittier College and reviewed the Fairchild Collection of historic aerial photographs for the Rialto Ammunition Back-Up Storage Point area. No photographs of the site during its period of operation were found. Photographs of the site and surrounding area before 1941 and after 1945 were found. | | |

**CR-10**

| Name | Title/Position | Phone |
|---|---|---|
| Julie Johnson | Records Clerk, Cal EPA Department of Toxic Substances Control, Cypress Office | (714) 484-5300<br>Fax (714) 484-5318 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 5/8/2003 | |
| | | |
| Commentary | | |
| A fax was sent requesting a file search for available files on the Rialto Ammunition Back-Up Storage Point. A follow-up telephone call to Mrs. Johnson revealed that this facility is not in the DTSC database and no files exist at the DTSC Cypress for this site. | | |

**CR-11**

| Name | Title/Position | Phone |
|---|---|---|
| Annette Subriar | Office Assistant, California Regional Water Quality Control Board, Riverside Office | (909) 782-4499<br>Fax (909) 781-6288 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/8/2003 | |

Commentary

SAIC called the RWQCB to request a review of the material in their file on the Rialto Back-Up Ammunition Storage Point and to see if a copy of the document titled "The Rialto Ammunition Back-Up Storage Point" was available in their files. This document was referenced in the Phase I Environmental Site Assessment for the development of the Target distribution center prepared by Kleinfelder, Inc. in 2002 as an "undated and unsigned document" reportedly written by the Chief of Ammunitions Section Ordnance Office of the Los Angeles Port of Embarkation. A message was left on Ms. Annette Subriar's telephone voice mail.

Ms. Felipi Carillo returned the call on April 9, 2003. She found the Rialto File and upon review she could not find the document in question. An appointment was made for April 14, 2003 to review the RASP file at the RWQCB office in Riverside, California.

The files of the U.S. Army Corps of Engineers, Former Rialto Ammunition Storage Point, were reviewed at the Riverside Office of the RWQCB by SAIC on April 14, 2003. Copies were made of relevant documents.

**CR-12**

| Name | Title/Position | Phone |
|---|---|---|
| Kamron Saremi, P.E. | Project Engineer, Rialto Ammunition Storage Point Regional Water Quality Control Board, Santa Ana Region, Riverside Office | (909) 782-4303 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | May 14, 2003 | ksaremi@rb8.swrcb.ca.gov |

Commentary

The Project Engineer for this site is Kamrom Saremi, P.E. (909) 782-4303. SAIC had a meeting with Mr. Kamron. He made the following points regarding the Rialto Site:

- The U.S. Army Corps of Engineers Rialto Ammunition Back-Up Storage Point file and other PRP files were being compiled and researched regarding the perchlorate issue in the Rialto Colton Groundwater Basin area. The RWQCB staff doing this work is Debi Ney (909) 782-3237, a program analyst with the Regional Board.

- Mr. Saremi was asked about the document referenced in the Kleinfelder Phase I Environmental Site Assessment (Target Site) - the undated, unsigned document titled "The Rialto Ammunition Back-Up Storage Point." He said that this document is actually the two documents that are presented in the appendix of the Kleinfelder report - "The Rialto Ammunition Back-Up Storage Point" and "B.F. Goodrich in Rialto." These two documents are the total documents and were not extracted from a larger document. [SAIC already had these documents on file.] According to Mr. Saremi, these documents were both based on an interview (Declaration) conducted with John Kase. Mr. Saremi and a RWQCB attorney took the declaration at Mr. Kase's home in Irvine. Mr. Saremi gave SAIC this Declaration and a supporting letter from the attorney. He said that he would give SAIC Mr. Kase's telephone number if his supervisors approved. Mr. Saremi said that he would follow-up on this request and inform SAIC as soon as he had the necessary permission and the telephone number of Mr. Kase.

Mr. Saremi stated that recently (during the last 3 or 4 weeks) the Quickset PRP attorney has taken depositions from some old-timers with West Coast Landing.

SAIC made follow-up telephone calls to Mr. Saremi to acquire permission from the RWQCB to interview Mr. John Kase, as well as to obtain his telephone number. Mr. Saremi granted permission to SAIC and offered Mr. Kase's telephone number. However, when Mr. Saremi called Mr. Kase's home, his wife informed him that Mr. Kase had passed away the previous Fall.

**CR-13**

| Name | Title/Position | Phone |
|---|---|---|
| Ms. Debi Ney | Program Analyst, California Regional Water Quality Control Board, Riverside Office | (909) 782-3237 |
| Contact made by | Date | E-mail |
| Buck Toler | 4/14/2003, 4/16/2003, 4/17/2003, and 5/1/2003 | |

Commentary

Debi Ney was contacted by SAIC on 4/16 and 4/17. She stated that she is in the process of indexing over 50 boxes of documents received by RWQCB regarding the perchlorate groundwater issue in the Rialto area. She stated that the documents contained in these files are those received by the RWQCB that are in addition to the case files on the shelves - for all PRPs involved with the perchlorate contamination issue. According to Ms. Ney, no box of additional documents exists for the Army Corps of Engineers and the Rialto Ammunition Storage Site. Ms. Ney e-mailed SAIC the indices for the 10 boxes of documents that she has compiled so far. About 40 boxes remain to be indexed, which contain documents pertaining to the County Landfill PRP. Boxes of documents for all other PRPs have been indexed. SAIC staff reviewed these indices and sent a fax to Ms. Ney requesting to review several of the documents thought to be pertinent to the Rialto site.

Ms. Ney stated that there are case files for each of the PRPs for the Rialto perchlorate groundwater contamination issue, including the U.S. Army Corps of Engineers, Former Rialto Back-Up Ammunition Storage Point. Ms. Ney stated that there are 10 identified PRPs with a potential 11th PRP, General Dynamics, in the process of being added. Ms. Ney stated that in the future it would be best to go through Ms. Ney to look at documents in these boxes. However, if she is not available, Annette Subriar should be contacted for access to these files. Because of the great current interest in these files, they cannot be removed from the building for copying, as is customary with most case files and documents. A portable copy machine must be brought in to make any copies.

Two other matters were briefly discussed:

- She asked what, if any, was the connection between the Army and B.F. Goodrich at this site. I told her that Dr. Joyce Clarke, SAIC Project Manager for this project, might have information regarding this issue.

- She mentioned that she was aware of a search now in progress by the U.S. Army Corps of Engineers on the Rialto Back-Up Ammunition Storage Point. She believed that a final report was due to be received by the RWQCB in a couple of months. She also believed that interim information was to be submitted to the RWQCB prior to completion of the final report.

**CR-14**

| Name | Title/Position | Phone |
|---|---|---|
| Ann Sturdevant | Sr. Water Resources Control Engineer, Regional Water Quality Control Board, Riverside Office | (909) 782-3237 |
| Contact made by | Date | E-mail |
| Buck Toler | 5/1/2003 | |
| | | |
| Commentary | | |
| Ms. Sturdevant is the Supervisor for Ms. Debi Ney and Mr. Kamron Seremi, who are both involved with the Rialto-Colton Groundwater Basin perchlorate contamination issue. Ms. Sturdevant met with SAIC in the absence of Ms. Ney during the May 1, 2003 visit to the RWQCB to review the documents in the PRP boxes. She made two reports available to SAIC that had been requested. | | |

**CR-15**

| Name | Title/Position | Phone |
|---|---|---|
| Joe Bono | President, Fontana Historical Society | |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/26/2003 | |
| | | |
| Commentary | | |
| Mr. Bono referred to the "storage area" along Locust Ave., between Highland Ave. and Casa Grande as the "Stoveworks" because the company operating the facility was a stove manufacturing company. As was the case during an interview conducted with Mr. Bono by SAIC in 1997, it appears that Mr. Bono was getting this location confused with another location in San Bernardino where a company called Western Stove was manufacturing incendiary bombs for the Army. Although Mr. Bono called the facility the Stoveworks, he apparently was referring to the correct Rialto site in this interview. He stated that he read in the newspaper that the County had been recently cleaning the area (the County Landfill) up at great expense. Mr. Bono said there is a research library (the Fontana Historical Society located on Wheeler Ave. in Fontana) that may contain some relevant information. When asked if he knew of any persons knowledgeable of the site, particularly during its period of operations during WWII, he said that the "old-timers" that he knew of have been "dropping like flies." He said that anyone alive during the WWII era probably did not know much anyway because of the secrecy of the facility and the WWII mentality of "loose lips sink ships." Mr. Bono said that people were not inquisitive when it came to WWII secret military activities.<br><br>Mr. Bono said that he knew of no new information since he was last interviewed in 1997 nor did he know of any new persons that he could refer SAIC to that might be helpful. | | |

**CR-16**

| Name | Title/Position | Phone |
|---|---|---|
| Hazel Putnam | Rialto Resident and Librarian, Fontana Historical Society Research Library | |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/25/2003 | |
| | | |
| Commentary | | |
| Ms. Putnam has been involved with various aspects of the Fontana Historical Society over the last 20 years, most recently as librarian at the Research Library. She was aware that the Army had some activities in North Rialto, but she knows nothing about these activities. She knows of no articles or research on the Rialto Ammunition Back-Up Storage Point held in her library. They do keep issues of old local newspapers. Ms. Putnam stated that in the 4 years since she was last interviewed about the RABSP facility, no new information or new persons with any knowledge of the site have come forward that she was aware of. | | |

**CR-17**

| Name | Title/Position | Phone |
|---|---|---|
| Mr. Kenneth Kaz | Environmental Specialist IV, Waste System Division, San Bernardino County | (909) 386-8768 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 5/2/2003 | |
| | | |
| Commentary | | |
| This telephone number at the Waste Systems Division, San Bernardino County is now the telephone number of Mr. Doug Owens. A message was left inquiring the whereabouts of Mr. Kenneth Kaz and/or other Environmental Specialist that may now be responsible for or have knowledge of the Rialto Back-Up Ammunition Storage Area site and surrounding area. | | |

**CR-18**

| Name | Title/Position | Phone |
|---|---|---|
| Ms. Judy Scholl | Owner, Art Shell Aviation, Inc. | |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 5/2/2003 | |
| | | |
| Commentary | | |
| Ms. Scholl operates an aviation business from the Rialto Airport located south of Highland Ave. and approximately 4 miles from the subject property. She is considered to be a knowledgeable person in the community. She had no information regarding the Rialto Back-Up Storage Point. One of her employees, Mr. Scott McNeely, who grew up in North Rialto, had discussed with SAIC the recreational history of the site, i.e., children playing in the area or families driving off road vehicles, such as motorcycles, on the property. SAIC attempted to interview Mr. McNeely to determine whether any new information had been discovered since 1997. Mr. McNeely still works for Ms. Scholl but was unavailable for interview. Ms. Scholl suggested that Mr. Rich Scanlon would be an excellent person to contact regarding the historical activities at the subject site. Mr. Scanlon could not be reached at this telephone number. | | |

**CR-19**

| Name | Title/Position | Phone |
|---|---|---|
| Battalion Chief Peel | Battalion Chief, Rialto Fire Department | (909) 820-2693 |
| | | |
| Contact made by | Date | E-mail |
| Buck Toler | 4/30/2003 | |

Commentary

Mr. Peel stated that he was not aware of any incidents involving the discovery of ordnance that the Rialto Fire Department had responded to in the last few years. He did, however, state that he attended a meeting about 6 to 9 months ago, in which it was reported that a man with a metal detector had walked the proposed target site and found one unexploded mortar and exploded ordnance artifacts.

In 1997, Mr. Shawe, who was at that time Assistant Fire Marshall for the Rialto Fire Department, was interviewed by SAIC regarding the subject site. He indicated at that time that he knew of two reports of ordnance discovery in the residential development north of Casa Grande Ave. Both discoveries appeared to be unexploded mortar rounds and were discovered by contractors during grading. Both pieces were approximately 1 to 2 feet below grade. Mr. Shawe stated at that time that the Fire Department has records dating back into the 1950's, although there was a push in 1997 to dispose of old documents. It is possible that some of these records have been disposed of. Mr. Peel was asked about the missing Fire Department records. He said he could not answer questions concerning these records and to do so, would take a significant amount of investigation on his part. He suggested that I speak to Ms. Nora Barajas of the Fire Prevention Bureau of the Rialto Fire Department regarding an update of any discovered ordnance at the site and the status of the records. She is in Monday through Thursday during the daytime.

Chuck Shawe, former Assistant Fire Marshall, Rialto Fire Department, is no longer with the Rialto Fire Department.

**CR-20**

| Name | Title/Position | Phone |
|---|---|---|
| Bradley L. Baxter | Director of Public Works, Rialto | (909) 421-7229 |
| David Ullery | Utility Operations Supervisor, Public Works, Rialto | (909) 421-7243 |
| Contact made by | Date | E-mail: |
| Joyce Clarke, SAIC | 7/31/2003; 8/4/2003; 8/5/2003; 8/7/2003; 8/11/2003 | baxterb@ci.rialto.ca.us<br>dullery@ci.rialto.ca.us |

Commentary:

Mr. Baxter was contacted in person, 31 July 2003, at the Groundwater Research Associates' Conference on perchlorate in Sacramento. A request was made to see materials relevant to the Rialto Ammunition Back-Up Storage Point. Mr. Baxter recommended calling him in Rialto, which was done on Monday August 4. Mr. Baxter returned the call and said he would call when his assistant had located the materials, which, he said, included bills of lading and an 1800-page EIR. No calls were received from Mr. Baxter, who was again personally contacted Thursday August 4, at a one-day workshop on perchlorate, held at the University of California, Riverside. At that point, Mr. Baxter suggested we visit the Rialto Public Works office to look at the material on Monday August 11.

We reached the Rialto Public Works office about 9:10 a.m. August 11 and were welcomed by Mr. David Ullery. He first brought out a Groundwater Monitoring Plan because he could not find the EIR Mr. Baxter had referenced. He searched and eventually brought us a Phase II (offsite) Evaluation Monitoring Program Report for Mid-Valley Sanitary Landfill, prepared for the County of San Bernardino Waste System Division by Geologic Associates in June 1998. This report had some information of interest on the hydrology of the area (photocopies made) plus a brief account of the history of the site, which referenced the subject site. Mr. Ullery stated that the person who had been conducting research on the site and may know the location of the EIR was no longer at that office. He was uncertain as to the nature of the bills of lading and Mr. Baxter could not locate the bills of lading. Mr. Ullery recommended that we visit the History Association's Office (open on Wednesday and Friday).

No new information on the subject site was obtained.

## Rialto Ammunition Back-Up Storage Point Personnel from 1942 to 1945

An attempt was made to interview people who were stationed at the Rialto Ammunition Back-Up Storage Point from 1942-1945. A list of personnel working at the Rialto facility was developed from Army records. A search in Whitepages.com and in Infospace.com was conducted for each name on the personnel list. If more than five results were given for a particular name, that name was dropped. Names with five or less addresses and phone numbers listed were put on a call list. The telephone numbers of names on the call list were called until someone answered the phone or for three separate times on three different days. These attempts to interview people who worked at the Rialto Storage Point were not successful in locating a former staff member.

Additional names were found to add to the Rialto Personnel Lists in Tables D-1 and D-2 below, and a second attempt was made to call the names from the two personnel lists. One name was gleaned from a newspaper article. A search method was implemented using search engines at Intelius.com and Ancestry.com. Intelius.com search results give an approximate age for some of the names in the search results. Each name was run through Intelius.com first. If the age of the person was 78 years or older, that name was added to the preliminary list. The next step was to run the selected names on the preliminary list through the Social Security Death Index at Ancestry.com to avoid calling the homes of already deceased people. Names not on the Social Security Death Index became a new call list. From this call list some new contacts developed, as well as three interviews.

Table D-1 Rialto ABSP Personnel List – 1942-1945

| CR # | LAST NAME | FIRST NAME | TITLE | RESPONSIBILITY | DATES | COMMENTS |
|---|---|---|---|---|---|---|
| | Angell | John F. | 2nd Lt., QMC | Commanding Officer of Work Detail | 11/9/43 | Died 12/15/1998 SSDI |
| 39 | Barton | Darrell E. | 1st Sergeant | | 4/1943 – 8/1943 | In the hospital and not well enough to be interviewed - Spoke to Wife Tillie |
| 25 | Beckham | John B. | Prin. Ammunition Inspector | | 1/4/44 | Died 1/11/1992 SSDI |
| | Bowman | William | | Ammunition handler, Brakeman | March 1944 | Too many to determine |
| | Butler | Sam W. | Capt. | | 4/1/45-7/1/45 | Died 4/8/1972 SSDI |
| | Chilton | James R. | Area Superintendent | | 1/4/45 | Too many to determine |
| 33 | Fitzgerald | George M. | | History Report | 10/44 | Too many to determine |
| 27 | Gillette, | Warren C. | | Ammunition handler, Locomotive Engineer | March 1944 | Died 5/1993 SSDI |
| 32 | Glass | David E. | 1st Lt. CWS | Chemical Warfare Officer, Security and Property Officer | March 1944 | |
| | Glick | Robert A | 1st Lt | Adjutant; Personnel Property and Security Officer | April-Oct 1943 | Died 11/8/2001 SSDI |
| 28 | Henderson | Leroy V. | | Truck driver, Railway brakeman | March 1944 | Deceased Daughter-in-law |
| | Henderson | T. W. | | LAPOE | 12/1943 | Died 6/9/1996 SSDI |
| | Hicks | Don | Crew Chief | Fire Dept. | 4/1/45-7/1/45 | Too many to determine |
| 40 | Holt | Aaron P. | Master Sergeant | Ammunition expert | 4/1943 – 8/1943 | Interviewed by telephone November 12, 2003 |
| | Hosier | Ray F. | Capt. Ordnance Dept., Asst. Ordnance Officer | Officer in charge of ammunition section | 6/17/44 | Died 2/16/1989 SSDI |
| | Jacobsen | Wesley C. | Property and Area Officer | | 4/1/45-7/1/45 | |
| 31 | Johnson | Harper I. | 1st Lt. Ordnance Dept. | Adjutant, Executive Officer, Transportation Officer | March 1944 | |
| | Lay | Mr. Verna C. | Civilian patrolman | | 2/28/44 | Died 7/15/1966 Calif Death Index |
| | Martin | Paul E. | | Ammunition Inspector | 1/4/44 | Too many to determine |
| 24 | Maynard | Millard | Capt. | | 4/1/45-7/1/45 | Died 1954 Daughter-in-law |
| 37 | Moody | William O. | | Firefighting Crew | 5/16/1945 | |
| | Neiger | Ruel R. | Lt. | LAPOE Port Transportation Officer | 11/27/1942 | Died May 1954 SSDI |
| | Nelson | Stanford C. | Capt. Operating Agency | C.O. Ammunition Back-Up Storage Depot | 3/6/43 | Died 12/15/1998 SSDI |
| 21 | Perlet | Harry F. | | History Report | 10/44 | Died in 1993 Spouse & Son |
| 26 | Perrigo | Willie L. | Ammunition Handler Brakeman | | 1/4/45 | Died 6/2003 Spouse |
| | Storey | Glen | Fire Chief | | 4/1/45-7/1/45 | Died 7/1987 |

| CR # | LAST NAME | FIRST NAME | TITLE | RESPONSIBILITY | DATES | COMMENTS |
|---|---|---|---|---|---|---|
| | | | | | | SSDI |
| | | | | | | |
| 41 | Thompson | Ralph V. | Staff Sergeant | Personnel, office work | 4/1943 – 8/1943 | Interviewed by telephone November 13, 2003 |
| 34 | Way | John M. | Capt. Ordnance Dept. | Commanding Officer, Personnel Officer | March 1944 | Too many to determine |
| 29 | Weyand | Robert K. | 1st Lt. | LAPOE Port Ammunition Officer | 12/43 | Interviewed 9/1/2003 |
| 30 | Wurl | Edgar M. | Lt. | Port Operations Officer | 12/10/43 | Died 12/11/1991 SSDI |
| 38 | Yates | James A. | | Firefighting Crew | 5/16/1945 | |

**CR-21**

| Name | Title/Position | Phone |
|---|---|---|
| Harry F. Perlet | US Army | |
| (Spouse) | Rialto ABSP | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/20/2003 | |
| | | |
| Commentary: | | |
| Mrs. Perlet answered the phone in New Jersey. Her husband was most likely the Harry F. Perlet who was in Rialto at RABSP in 1944. The name is unusual. Only four turn up in a search over the entire US. Mr. Perlet was on the joint Army/Navy Munitions Board during the War and traveled all over, according to Mrs. Perlet. However, he died in 1993. She could not tell me anything about what he did because she said that "everything he did was very "hush hush; it was wartime." She stayed home with a new baby and did not travel with him at the time. | | |

**CR-22**

| Name | Title/Position | Phone |
|---|---|---|
| Harry F. Perlet | | |
| (Son) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/20/2003 | |
| | | |
| Commentary: | | |
| Harry F. Perlet in Florida is the son of Mrs. Perlet (CR-21) and the deceased Mr. Perlet from New Jersey. Harry Perlet said that his father was a fire protection engineer when he went into the Army during WWII and became a munitions expert in the service. After his tour in the service, he became an attorney. | | |

**CR-23**

| Name | Title/Position | Phone |
|---|---|---|
| George Angelini | Train Historian | |
| | Rialto Historical Society | |
| Contact made by | Date 8/27/03 | E-mail: |
| Grace Dirling, SAIC | | |
| | | |
| Commentary: | | |
| At the Rialto Historical Society museum, Mr. Angelini explained the railroad system through Rialto during the 1940s and 1950s showing the routes on a large wall map. He pointed out the route from Los Angeles to Rialto and the RABSP. | | |

**CR-24**

| Name | Title/Position | Phone |
|---|---|---|
| Millard F. Maynard | Captain at RABSP | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/27/2003 | |
| | | |
| Commentary: | | |
| Mrs. Maynard answered the phone. Her father-in-law died in 1954. She read me lines from his Army papers that stated he was Captain Millard F. Maynard , "an executive officer of the ABSP", and he had the "usual duties of an officer who was second in command." The papers also stated that he was the "Unit Commander."<br><br>Mrs. Maynard's husband was also in the Army during WWII and was also a Captain. The son (her husband) was stationed in Europe during WWII. She said that the two men had the same exact name and lived in the same town and were both in the Army. Her husband worked for the Army Corps of Engineers. | | |

**CR-25**

| Name | Title/Position | Phone |
|---|---|---|
| John B. Beckham | Ammunition Inspector | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 4/11/2003 | |
| | | |
| Commentary: | | |
| Mrs. Beckham answered the phone. She was the wife of John B. Beckham, Jr. and the daughter-in-law of John B. Beckham. She said that her father-in-law had been in California during the 1940s. John B. Beckham, Jr. was born in San Bernardino in 1945 while his father was working in Rialto. However, both John B. Beckham and John B. Beckham, Jr. are deceased. | | |

**CR-26**

| Name | Title/Position | Phone |
|---|---|---|
| Willie L. Perrigo | Ammunition Handler | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/29/03 | |
| | | |
| Commentary: | | |
| Mrs. Perrigo explained that her husband died just two months ago. | | |

**CR-27**

| Name | Title/Position | Phone |
|---|---|---|
| Warren C. Gillette | Ammunition Handler and Locomotive Engineer | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 4/11/2003 | |
| | | |
| Commentary: | | |
| Mrs. Gillette answered the phone and said that her husband had worked on the railroad. She also said that he was in the Army in 1944 and was stationed in California at that time. However he is deceased. | | |

**CR-28**

| Name | Title/Position | Phone |
|---|---|---|
| Leroy V. Henderson | Truck Driver and Railroad Brakeman | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 4/11/2003 | |
| | | |
| Commentary: | | |
| Mrs. Henderson answered the phone. She was the daughter-in-law of Leroy V. Henderson. She said that her father-in-law had worked driving trucks and on the railroad. Mrs. Henderson said that her father-in-law had been in the Army in the 1940s and was stationed in California at that time. However he is deceased. | | |

**CR-29**

| Name | Title/Position | Phone |
|---|---|---|
| Robert K. Weyand | Port Ordnance Officer | |
| (Spouse) Lenore | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/29/2003 | |
| | | |
| Commentary: | | |
| Lenore Weyand explained that her husband was out but she was sure that he would like to speak with us concerning his experiences as an Ammunitions Officer at the Los Angeles Port of Embarkation during WWII. Mr. Weyand had been to RABSP many times as part of his duties as an Ordnance Officer at the Port. | | |

**CR-30**

| Name | Title/Position | Phone |
|---|---|---|
| Edgar M. Wurl | Port Operations Officer | |
| (Spouse) | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/28/2003 | |
| | | |
| Commentary: | | |
| Mrs. Wurl said that her husband was an officer in the Army during WWII and that he was in Rialto CA for a short time. However, he died 12 years ago in 1991. | | |

**CR-31**

| Name | Title/Position | Phone |
|---|---|---|
| Harper I. Johnson | 1st Lt. Ordnance Dept. | |
| | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 8/29/2003 | |
| | | |
| Commentary: | | |
| Not the right person: Mr. Johnson said that he was in the Signal Corps during WWII and not ever stationed in California. He was happy to know that there was another person named Harper Johnson in the US. Mr. Johnson was not the Army 1st Lt. stationed at Rialto ABSP. | | |

**CR-32**

| Name | Title/Position | Phone |
|---|---|---|
| David E. Glass | 1st Lt. CWS | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 8/28/2003, 8/29/2003, 9/5/2003 | |
| | | |
| Commentary: | | |
| Not the right person: Mrs. Glass returned the call to explain that this Mr. David E. Glass was in the Navy Air Force during WWII and not the gentleman at Rialto ABSP. | | |

**CR-33**

| Name | Title/Position | Phone |
|---|---|---|
| George M. Fitzgerald | | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 8/21/2003 | |
| | | |
| Commentary: | | |
| Mrs. Fitzgerald said that her husband was deceased. Her husband was in the Army during WWII in the 14th Armored Division stationed in Germany and Western Europe. She did not think that he would have been at the Rialto ABSP. | | |

**CR-34**

| Name | Title/Position | Phone |
|---|---|---|
| John M. Way | Captain | |
| | Ordnance Department | |
| Contact made by | Date | E-mail |
| G. Dirling | 8/29/2003 | |
| | | |
| Commentary: | | |
| Not the right person: This Mr. John M. Way was in the Navy during WWII and was not stationed at the Rialto ABSP. | | |

**CR-35**

| Name | Title/Position | Phone |
|---|---|---|
| Jean Morgan Randall | Lifelong Resident of Rialto | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 9/8/2003 | |
| | | |
| Commentary: | | |
| Jean Randall said that she knew about the Army storing ammunition at the Rialto ABSP, but very little else about the place. Robert Weyand had sent her some information that he had written about the Army facility at Rialto when he was in the service in the 1940s. She said that the Rialto Historical Society had been trying to acquire information about the site. | | |

**CR-36**

| Name | Title/Position | Phone |
|---|---|---|
| Virginia Brockwell | Spouse of Sherwood Brockwell<br>Bomb Disposal Officer | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 9/9/2003 | |
| | | |
| Commentary: | | |
| Virginia Brockwell was not familiar with the Rialto ABSP. Her husband Sherwood Brockwell had been the Bomb Disposal Officer stationed at Bomb Disposal Headquarters in Riverside during WWII. Mrs. Brockwell said that her husband disposed of ammunition and bombs but not at Rialto. Once he took bombs out to the desert to detonate them. She said that he was sent to Japan immediately after the war ended to dump ammunition into Tokyo Bay. | | |

**CR-37**

| Name | Title/Position | Phone |
|---|---|---|
| William O. Moody | Firefighting Crew | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 9/9/2003 | |
| | | |
| Commentary: | | |
| Not the right person: The Army did not allow this William Moody to enlist during WWII because his brother was missing in action. Mr. Moody served during the Korean War. | | |

**CR-38**

| Name | Title/Position | Phone |
|---|---|---|
| James A. Yates | Firefighting Crew | |
| | | |
| Contact made by | Date | E-mail |
| G. Dirling | 9/10/2003 | |
| | | |
| Commentary: | | |
| Not the right person: This Mr. James A. Yates was not at Rialto. He was in the Army Air Force during WWII. | | |

**CR-39**

| Name | Title/Position | Phone |
|---|---|---|
| Darrell E. Barton | 1st Sergeant | |
| | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 11/13/03 | |
| | | |
| Commentary: | | |
| Mr. Barton was not at home. Mrs. Tillie Barton said that Mr. Barton was stationed at the Fontana Ammunition Storage Point during 1943, but he is in the hospital now and cannot speak with us. Mrs. Barton does not know when her husband will be back at home. His illness is serious. | | |

**CR-40**

| Name | Title/Position | Phone |
|---|---|---|
| Aaron P. Holt | Master Sergeant | |
| | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 11/13/03 | |
| | | |
| Commentary: | | |
| Mr. Holt was not available. His daughter, Esther Foster, set up a time when Mr. Holt could be interviewed by telephone. | | |

**CR-41**

| Name | Title/Position | Phone |
|---|---|---|
| Ralph V. Thompson | Staff Sergeant | |
| | | |
| Contact made by | Date | E-mail: |
| Grace Dirling, SAIC | 11/13/03 | |
| | | |
| Commentary: | | |
| Mr. Thompson was stationed at the Fontana Ammunition Storage Point from April 1943 until August 1943. Mr. Thompson agreed to a telephone interview and set a time for the recorded call. | | |

# APPENDIX E

## Exhibits