

**ANALYTICAL / ENVIRONMENTAL
ASSESSMENT REPORT**

**MASTER PLAN
FUTURE DEVELOPMENT PLAN**

**AKIZUKI
AMMUNITION DEPOT
HIROSHIMA PREFECTURE, JAPAN**

MAR. 13, 1987

FINAL SUBMITTAL

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Prepared for:



**US Army Corps
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Japan Engineer District**

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Subject: AE Contract DACA79-82-C-0053
Preparation/Upgrade of Phase II
Master Planning Documents
Akizuki Ammunition Depot
Hiroshima Prefecture, Japan

Gentlemen:

Following is the Analytical/Environmental Assessment Report for Akizuki Ammunition Depot developed in accordance with the Scope of Work under subject contract.

The Analytical/Environmental Assessment Report is to be used in conjunction with the Tabulation of Existing and Required Facilities and the Future Development Plans as an integral part of the future development components of the Master Plan of the Army installation of concern.

We trust that this work has been completed to your satisfaction and will be of use to your installation.

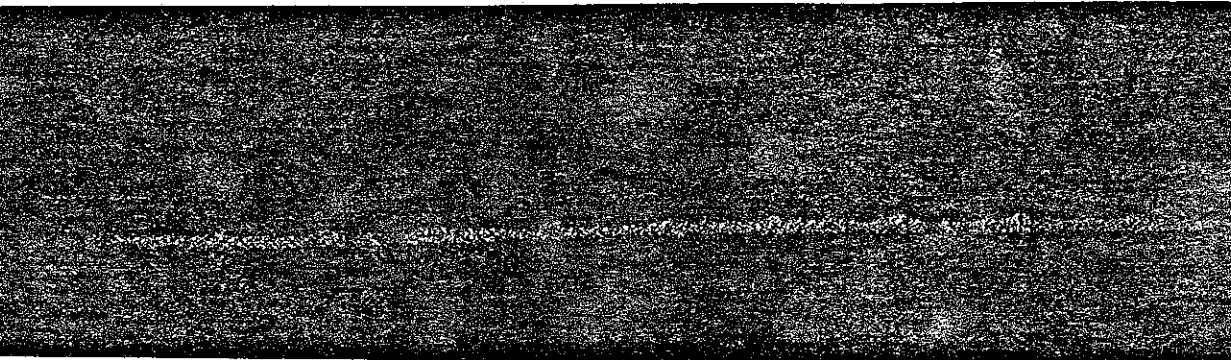
Cordially,



Joseph H. Onuma, President
Onuma and Onuma Associates, Inc.

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SECTION 1
INTRODUCTION

1.1 PURPOSE OF THIS REPORT

This Analytical/Environmental Assessment Report is one of several documents that together constitute the updated Master Plan for Akizuki Ammunition Depot, a U.S. Army installation.

The companion planning documents are:

- A report entitled "Analysis of Existing Facilities, Master Plan Basic Information Maps, Akizuki Ammunition Depot, Japan," dated January 1984;
- Basic Information Maps (8 maps), dated January 1984;
- Tabulation of Existing and Required Facilities, dated with this report;
- Future Development Plans (3 plans), dated with this report.

The Analytical/Environmental Assessment Report focuses on proposed facilities and future land uses. The report presents basic information on proposed upgrading projects and new facilities, and analyzes the probable impact of these facilities on key environmental elements, land uses and utilities.

1.2 ORGANIZATION OF THE REPORT

The Analytical/Environmental Assessment Report follows the format set forth in Army Regulation No. 210-20, "Master Planning for Army Installations," effective March 15, 1976. The report has four major sections:

1. Introduction
2. Environmental
3. Land Use Relationships
4. Utilities Systems

Sections 2 through 4 focus on changes and impacts that will be associated with the implementation of proposed upgrading projects and new facilities. Thus, the report does not repeat data and discussions already covered in the "Analysis of Existing Facilities" report which has chapters devoted to existing environmental conditions, land use relationships and utilities systems. The information contained in those chapters provides the basic background data for the environmental impact discussions presented in this report.

1.3 LOCATION AND GENERAL DESCRIPTION

Akizuki Ammunition Depot is located on Eta-Jima, an island four miles west of Kure City, Hiroshima Prefecture, Honshu, Japan and approximately 15 miles south of Hiroshima City. The installation consist of 138.4 acres of land, both level and mountainous and 38.9 acres of underwater land fronting the depot. All land acreage is usable, though not for all types of construction. The steep slopes, for instance, while not appropriate for building sites, can be well-used for cave-type ammunition storage.

Akizuki Ammunition Depot, originally a Japanese Naval Ordnance Center, came under U.S. control on 1 February 1949 and has been used as a U.S. Army ammunition storage area since that time.

The depot is staffed with U.S. Army ordnance and Japanese national personnel. Many of the Japanese nationals have been employed by the U.S. Army since the occupation following World War II, and they have extensive experience in handling conventional supplies. The work force, based on staffing reports of June 1986, consist of 11 U.S. military personnel, 5 U.S. civilians and 173 Japanese nationals. The residential population consist of 7 military personnel staying at the bachelor's enlisted quarters.

1.4 - MISSION

Akizuki Ammunition Depot is part of the U.S. Army Ammunition Depot Complex, Akizuki (USAADA), under the command of the U.S. Army Garrison, Honshu. Its mission is to issue, receive, store, inspect, renovate, maintain, and account for, all types of conventional ammunition and ammunition components, and testing and demilitarization of selective conventional ammunition. The mission is dictated by the Central Ammunition Management Office, Pacific, located at Ft. Shafter, Hawaii.


In keeping with this mission, the Commander's goal for Akizuki Ammunition Depot as for the whole of USAADA is: To make USAADA/196th Ordnance Battalion the best Ammo Depot/Battalion in the Army.

This goal is realized and effectuated by the following points:

- * Accomplish Daily Mission safely, securely and accurately.

 - * Enhance depot capabilities by active reduction of explosive safety violations through:
 - ** Aggressive facility upgrade program
 - ** Innovation and ingenuity
 - ** Deflect forces which create violations

 - * Improve the professionalism, leadership, health, morale, and welfare, of all personnel stationed at Akizuki.

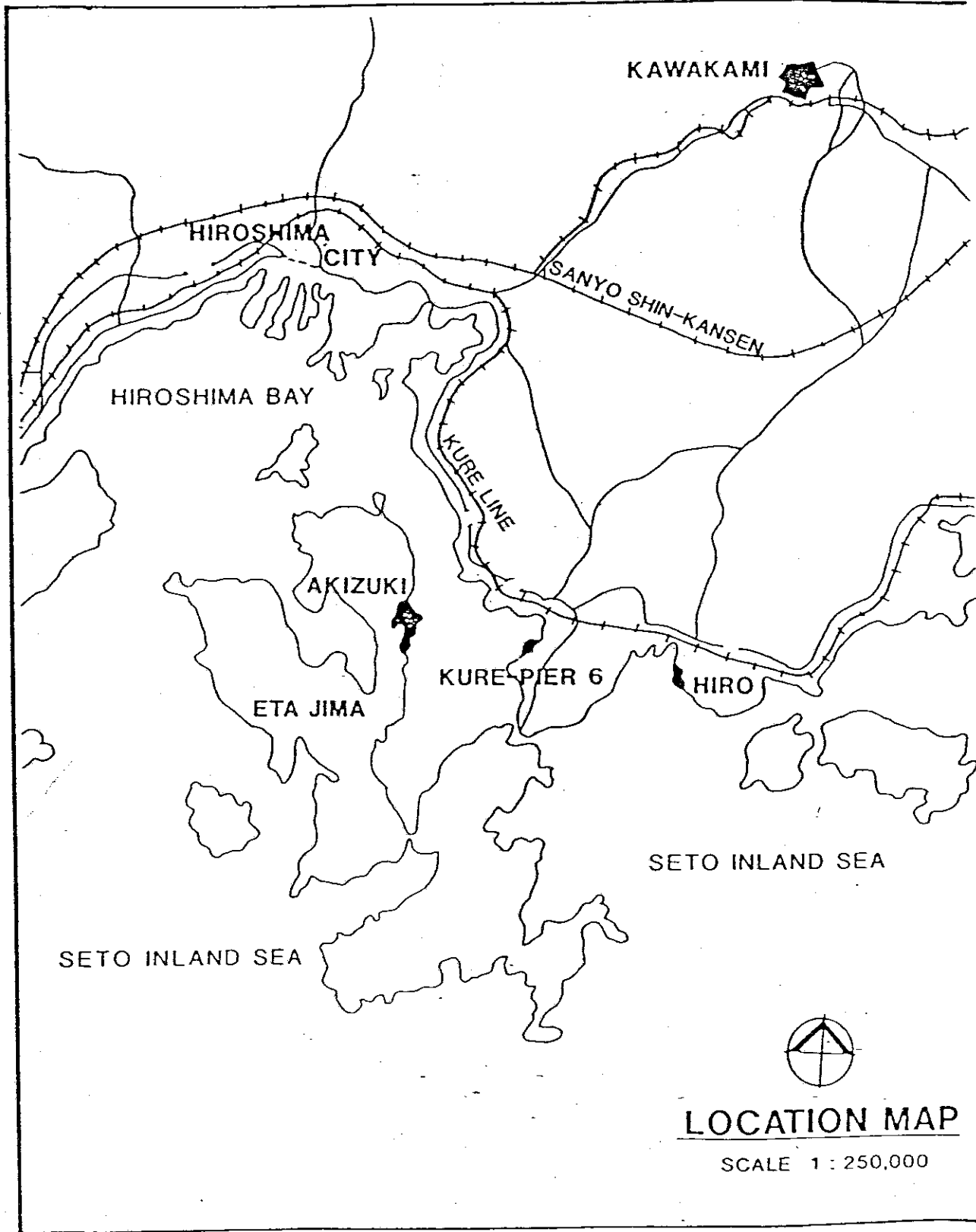
 - * Explore all quad-service ammo capabilities in the Pacific for potential operational economies and efficiencies.
- 

- * Develop conventional ammunition interfaces with GSDF & MSDF for improved joint operational effectiveness.
- * Akizuki motto: Providing professional and imaginative ammunition support.

1.5 INTER-RELATIONSHIP WITH ADJOINING ARMY FACILITIES

In developing the master plan future development documents for Akizuki Ammunition Depot, it is necessary to consider the neighboring U.S. Army ammunition facilities in the area. The Akizuki facility is one of five bases that are under the management of the Commander, U.S. Army Ammunition Depot, Akizuki. Four of these bases are within 16 miles of Hiroshima City. They are, Akizuki, Kawakami, Hiro and Kure Pier (see following location map). Kure Pier serves only as an administrative and troop support facility while the other three function as ammunition depots. In addition, a fifth base at Chibana in Okinawa, also serves as an ammunition depot. The following chart explains the functional interrelations of the ammunition depots.

	Storage Site	Port/Barge Operations	Renovation & Maintenance	ASP Operations
AKIZUKI	YES	YES	YES	NO
HIRO	YES	YES	NO	NO
KAWAKAMI	YES	NO	YES	NO
CHIBANA	YES	NO	YES	YES



LOCATION MAP

SCALE 1 : 250,000

SECTION 2
ENVIRONMENTAL SETTING

The Phase I report for Akizuki Ammunition Depot entitled "Analysis of Existing Facilities," includes a comprehensive description of existing environmental conditions at this installation. Section 2 of this report will therefore provide: (1) a description of proposed projects, and (2) a basic analysis of the probable impacts, both beneficial and adverse, of these projects on the environment.

2.1 PROPOSED PROJECTS

2.1.3 Reconstruction of Roads

2.1.4 Relocation of Field Offices

2.1.5 Pier Improvement and Berth Dredging

Cont.

2.1.6 Construct Surfaced Foot Path

2.2 ENVIRONMENTAL ELEMENTS AND EXPECTED IMPACTS

2.2.1 Historical Elements

There are no official historical sites or structures at Akizuki Ammunition Depot. Planned construction projects will therefore have no negative effects on historic resources.

2.2.2 Cultural Elements

a. Population Density and Trends

Future plans for the Ammunition Depot call for a shift of administrative personnel to the Kure installation. Therefore, no overall population increase is anticipated and perhaps a slight decrease will be experienced.

b. Regional Development

The several planned projects will provide construction jobs for local contractors and Japanese workers. Overall, however, these new facilities will not require any increase in the on-base permanent work force and will therefore have no long-range impacts on regional development.

c. Transportation Systems

The reconstruction of roads and dredging of ship berthing areas at the Depot will have a beneficial effect. The mission of this installation will be carried out more safely and efficiently once these improvements have been completed.

d. Cultural Patterns

The proposed projects are not of a scope or scale that would affect cultural patterns in the surrounding, off-post community.

e. Socio-Economic Conditions

The proposed projects are not expected to have any effect on social or economic conditions. Construction activities will have a beneficial impact on the local economy.

f. Existing Community Area Facilities

There will be no adverse impact on community facilities in the surrounding, off-post community.

2.2.3 Health

a. Air Quality

The planned facilities will not have an adverse impact on ambient air quality, which is at present favorable. Minor adverse impacts on air quality can be expected during construction.

b. Water Purity and Adequacy

There will be no adverse impact on freshwater resources, whether groundwater or surface waters.

c. Wastewater Disposal

No new additional sources of wastewater are proposed, and none of the planned facilities will adversely affect the existing septic tank wastewater disposal systems. Comprehensive plans for new wastewater collection, treatment and disposal systems for the Ammunition Depot are still pending.

d. Solid Wastes

No new additional sources of solid waste are proposed.

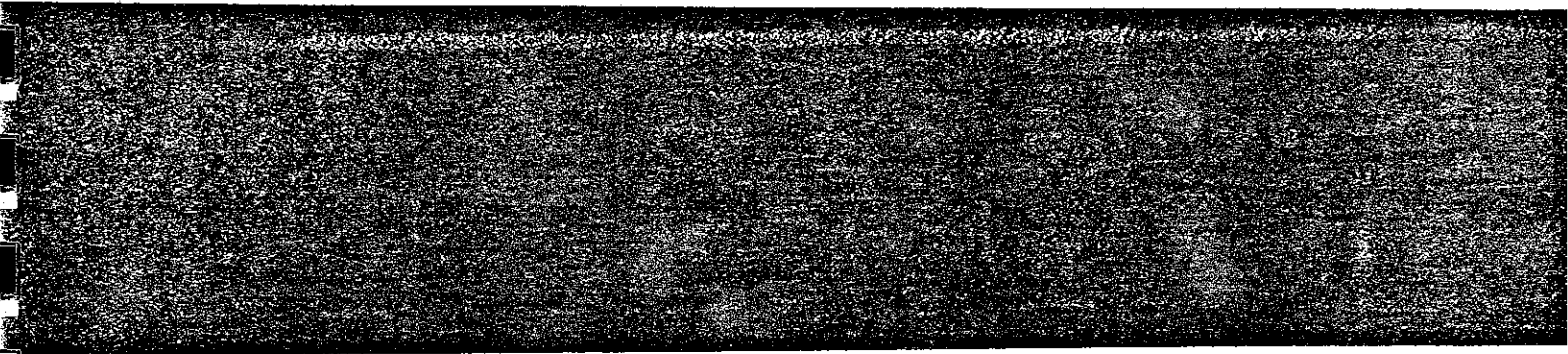
e. Insecticides and Herbicides

There will be no increase in the use of insecticides and herbicides associated with the planned new facilities.

2.2.4 Safety

a. Aircraft Operations

No new aircraft-related facilities are planned. The proposed facilities will not affect the existing small helipad.



c. Hazards

There are no industrial, nuclear or biological hazards associated with the proposed projects.

2.2.5 Sight

a. Topography

The topography of Akizuki Ammunition Depot is level to steeply sloping. Slope conditions here can be a constraint for some facilities. However, none of the planned projects will involve construction on steep slopes.

b. Tree and Vegetative Cover

Akizuki Ammunition Depot has considerably heavy vegetation. The proposed projects, however, will not have a significant adverse impact on these natural resources. Some of the existing vegetation will be removed during construction activities, but these impacts will be kept to a minimum feasible level.

2.2.6 Noise

a. Aircraft Operation

The planned facilities are not related to aircraft operations and are not expected to result in any increased use of the small helipad located at the installation. Thus, no increase in aircraft-related noise is expected.

b. Firing Operations

There are presently no open area rifle ranges or artillery ranges at Akizuki Ammunition Depot, and no such open area ranges are planned for the future.

c. Other Operations

None of the planned new facilities are significant noise generators.

2.2.7 Odor

None of the planned facilities are significant generators of offensive fumes or odors.

2.2.8 Other Life Forms

No significant changes are expected in the flora and fauna of Akizuki Ammunition Depot and environs.

SECTION 3
LAND USE RELATIONSHIPS

This section of the Analytical/Environmental Assessment Report focuses on land use relationships in terms of:

- Criteria for proposed siting of new facilities
- Significant changes in land use and land use relationships that are expected to result from the implementation of planned projects.
- Significant adverse impacts that may result from these changes.

Generally, the proposed siting of future facilities has not been constrained by special circumstances relating to climate, topography, retention of historic places, or other important environmental factors.

3.2 LAND USE IMPACTS

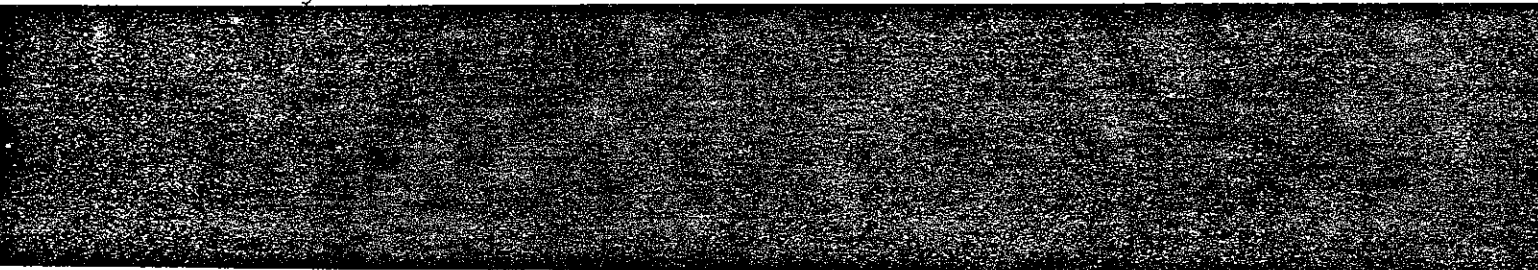
Planned projects for Akizuki Ammunition Depot are based on the continued use of this installation for receiving, storing, maintaining, inspecting and issuing ammunition.

In accordance with the instructions of AR210-20, the discussion of land use relationships in this section is organized in three subsections:

- Open Operational Areas
- Built-Up Cantonment Area
- Transportation Facilities

3.2.1 Open Operational Areas

Open operational areas at Akizuki Ammunition Depot consist of the ammunition storage areas.



3.2.2 Built-Up Cantonment Areas

Only a few acres of Akizuki Ammunition Depot can be considered as a "built-up cantonment area." This area is in the southern part of the installation. Uses here consist of administration and support facilities. The relocation of field offices to this area will further support this regionalization.

3.2.3 Transportation Facilities and Roads

The proposed road improvement project will result in a significant improvement in access to all of the installation's major facilities.

None of the proposed projects will result in negative impacts on the road system, small heliport or piers.

