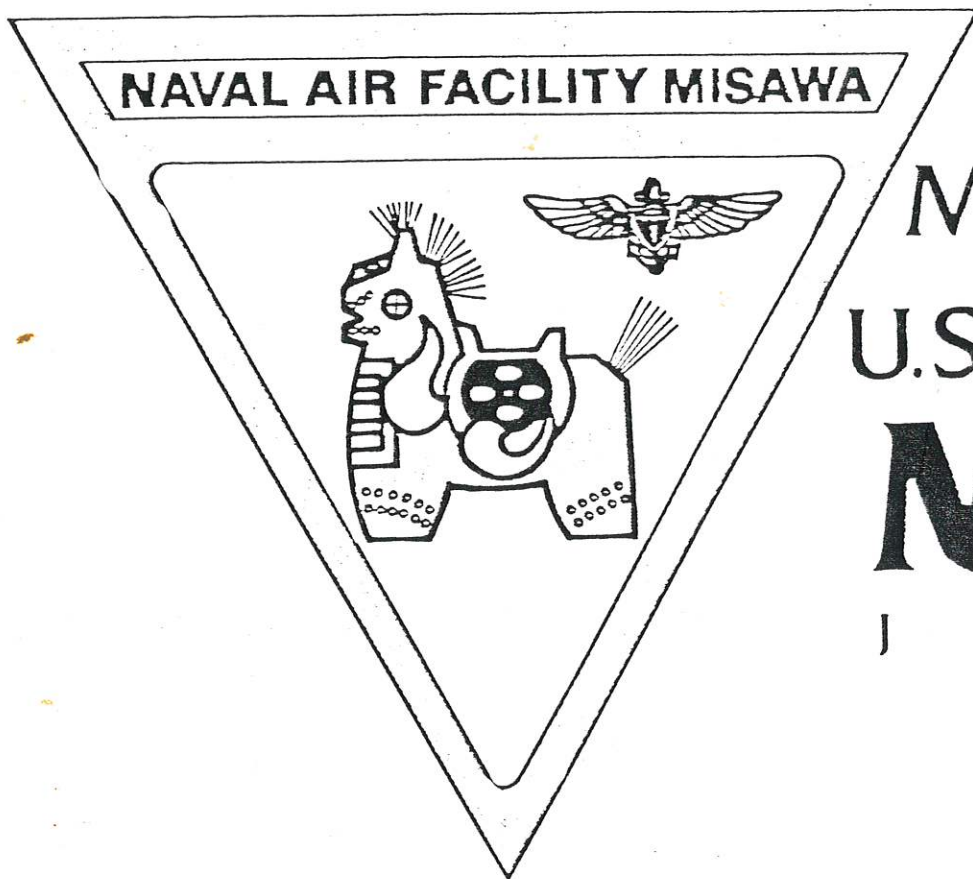


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MASTER PLAN
U.S. Navy Facilities
Misawa
J A P A N

Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Facilities Planning Department

1989.3.

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MASTER PLAN FOR U.S. NAVY ACTIVITIES AT MISAWA,
JAPAN

EXECUTIVE SUMMARY

This plan is an update of the existing master plan for the U.S. Naval Air Facility (NAF) Misawa, Japan, which received CNO approval in July 1977. This master plan update covers the U.S. Navy activities and installations located in the Misawa area which include NAF Misawa, the Ripsaw Range, Naval Security Group Activity (NAVSECGRUACT), Misawa, and the Hachinohe POL Depot, including the POL pipelines from Hachinohe to Misawa. This plan provides guidelines on land use and facility development for the mid-range time frame (three to eight years). Its purpose is to promote orderly development of Navy facilities based on military requirements, current planning criteria and environmental concerns. This plan was prepared by the Pacific Division, Naval Facilities Engineering Command (PACNAVFACENCOM).

NAF Misawa is a tenant of the U.S. Air Force (USAF) at Misawa Air Base (MAB). The U.S. Navy uses land and facilities at MAB under U.S. Air Force Permits which are periodically modified to meet U.S. Navy requirements.

Ripsaw Range at Amagamori, an installation controlled by NAF Misawa, is located about 10 miles north of MAB. It is an air-to-ground target range of about 1,900 acres and is used for fixed and mobile bombing and strafing by U.S. Navy, U.S. Air Force and Japan Air Self Defense Force aircraft. Negotiations are on-going to transfer the Range from the U.S. Navy to the USAF on condition that the U.S. Navy be given priority scheduling on the use of the Range based on 24-hour notice. The Navy also reserves the right to priority scheduling on any facility to replace Ripsaw Range and transfer of the range back to the Navy on written request if priority scheduling is denied.

Note: During production of this master plan, control of property, maintenance and operations of the Ripsaw Range was transferred from the Navy to the U.S. Air Force. Text and graphics contained herein should be treated accordingly.

Hachinohe POL Depot is under the control of the U.S. Naval Supply Depot, Yokosuka. The Depot has a marine terminal, fuel storage tanks, pumping stations and fuel lines for the receiving, storing and delivering of POL to USAF and USN forces at MAB.

Naval Security Group Activity (NAVSECGRUACT), Misawa. NAVSECGRUACT Misawa facilities are under the plant account of the USAF. However, because NAVSECGRUACT Misawa is a Navy activity at Misawa, a brief overview of that activity is provided in Section I of this plan.

INTRODUCTION

Overview

Background. Misawa is located 325 miles north of Tokyo near the northern end of Honshu, in Aomori Prefecture of Tohoku District. The U.S. Navy activities and installations in the Misawa area include NAF Misawa and NAVSECGRUACT Misawa, both at MAB, the Ripsaw Range at Amagamori and the Hachinohe POL Depot at Hachinohe (See Figure B-1).

Note: During production of this master plan, control of property, maintenance and operations of the Ripsaw Range was transferred from the Navy to the U.S. Air Force. Text and graphics contained herein should be treated accordingly.

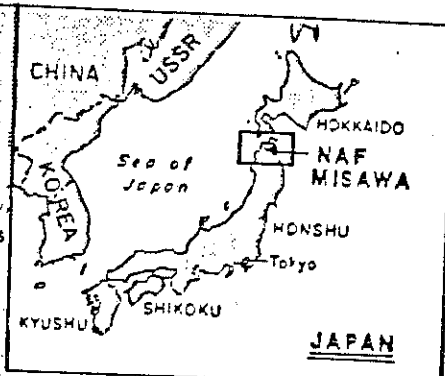
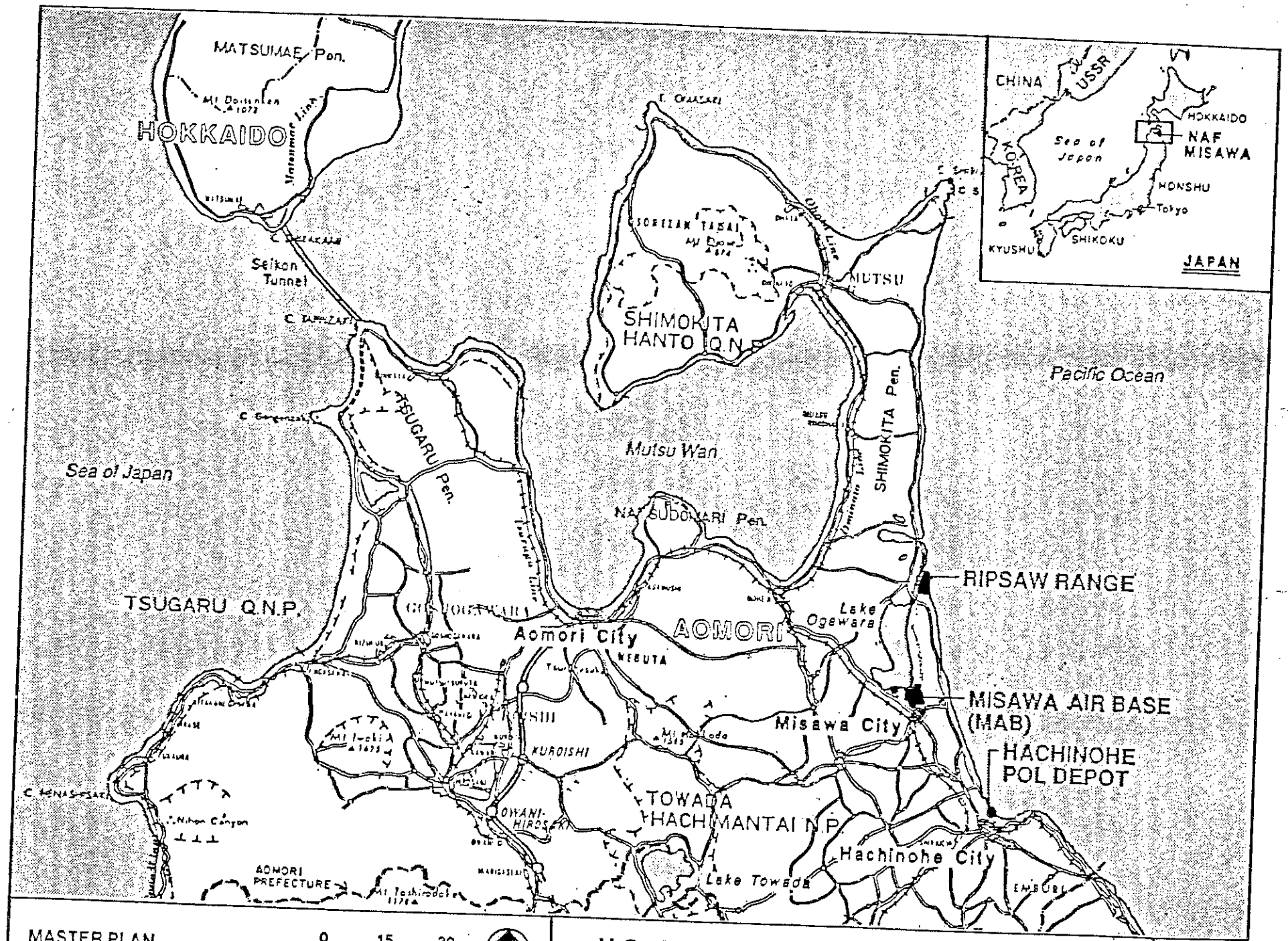
Development of the Misawa area started during the feudal period with agriculture, fishing and horse-raising activities which are still continued to the present. At the onset of the Sino-Japanese War in 1930, the emperor's cavalry was stationed in Misawa. Misawa's transformation to an air base came in 1938 when the Imperial Army built an airstrip in the heavily-wooded terrain for use as a base for long-range bombers. The base was taken over by the Imperial Navy Air Corps in 1942. In 1944, the base was used for training Kamikaze Special Attack Forces. Shortly before the end of World War II, U.S. B-29 bombers all but destroyed it. American occupation of Misawa began in September 1945, and with the arrival of U.S. Army Engineers, the base was restored for use by the

U.S. Army Air Corps. The city of Misawa also was developed at that time with the establishment of the Japanese Navy Corps. The Japanese Air Self Defense Force joined the Americans at MAB in 1954. Misawa became the seventh city of Aomori Prefecture on 1 September 1958. The present population of Misawa is 41,900.

About 16 miles to the southeast of Misawa lies Hachinohe, a port city of 241,300 located alongside the Pacific Ocean. The U.S. Navy has a POL Depot at Hachinohe with facilities for receiving and storing fuels and for transporting fuel to MAB via two overland pipelines.

Purpose. The Plan's objective is to provide a realistic and orderly development scheme for the U.S. Navy activities and installations in the Misawa area in Japan. The Plan provides a land use scheme as a guide for future development and identifies sites for all significant programmable facility requirements to support the activity's mission and tasks. The Plan is based on requirements generated by the most recent Shore Facilities Planning System (SFPS) documents.

Use of the Master Plan. This Plan is intended to be a viable document that can be adjusted to accommodate changes. The narrative portion of the Plan provides a sufficiently broad analysis to insure the orderly development of all mid-range and long-range facility projects.



MASTER PLAN
 U.S. NAVY FACILITIES MISAWA

0 15 30
 SCALE IN MILES

NORTH

U.S. NAVY ACTIVITIES & INSTALLATIONS IN
 MISAWA AREA

Figure
 B-1

Related Publications. This master plan is an update of the existing Master Plan, U.S. Naval Air Facility Misawa, Japan, Pacific Division, Naval Facilities Engineering Command, dated January 1977, which was approved by CNO on 11 July 1977. Two supporting documents prepared by PACNAVFACENGCOM which also provide pertinent information to be used in conjunction with this master plan are:

- 1) Japan Regional Profile, prepared in 1980, which provides an overview of Navy/Marine Corps activities and functions in Japan, along with a detailed description of natural and man-made environmental factors. It also discusses the interrelationships among the Navy, the Marine Corps, other DOD activities, and the local community.

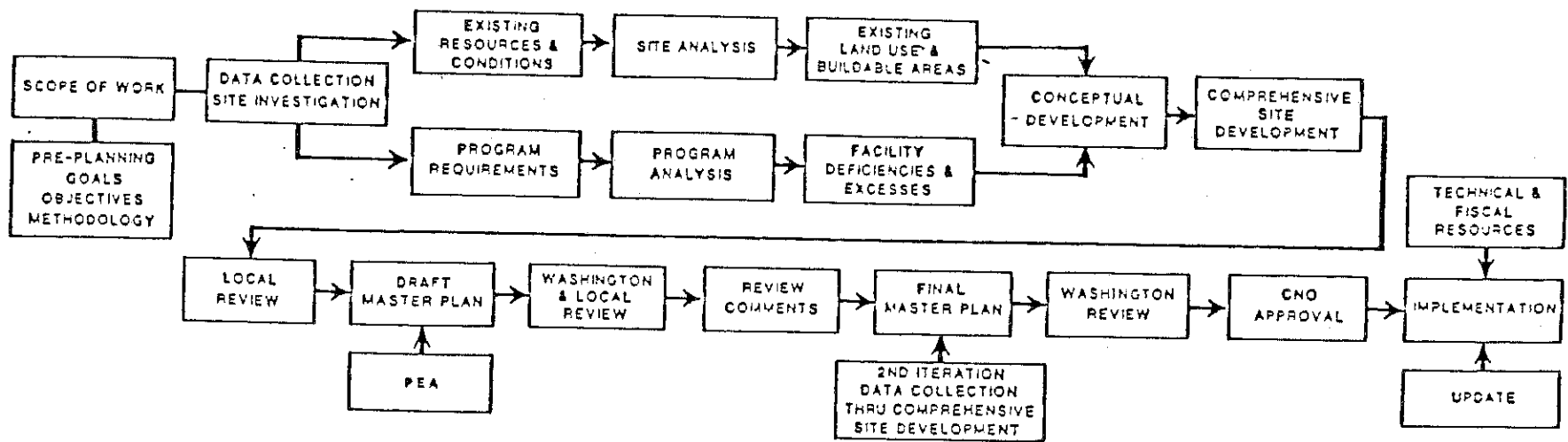
- 2) Military Property Requirements in Aomori (MILPRO-MORI), prepared in 1985, which indicated a mid-range land use plan for U.S. Forces requirements which optimizes utilization of real property in the Aomori Prefecture of Japan. It also analyzed the logistics support systems required to provide adequate support to U.S. Forces in the Aomori region.

Methodology

The methodology for preparing this master plan is shown on Figure B-2 and includes the following steps:

Data Collection. Data collection consisted of the accumulation of all available information about the activity and surrounding area including the planning documents, maps, and environmental data. Historical data and land use constraints (natural and man-made) were also considered. Finally, the best available projections of future requirements were obtained. This data was supplemented by discussions with appropriate personnel at the activity and the chain of command.

Development of Planning Objectives. The development of planning objectives was accomplished in coordination with the activity and the chain of command following review of the basic data.



Evaluation and Analysis. An on-site evaluation of existing conditions was made by the planning team with personnel from each activity. Problem areas were reviewed and alternative solutions were discussed. An analysis was made of the data gathered from existing documents, from the on-site visit, and from discussions with personnel from each activity. The ability of each activity to accommodate future requirements was evaluated.

Conclusions/recommendations were developed to support the activity's mission and planning objectives, giving priority consideration to environmental and fiscal constraints.

Final Master Plan. The results of the efforts of the above steps were synthesized and included in the draft master plan which was distributed to all interested commands within the Navy for review comments and discussion. Review comments on the draft plan have been incorporated. Upon approval by the Chief of Naval Operations (CNO), the Plan will become the guide for all future Navy development at NAF Misawa.

OVERVIEW: JAPAN

Introduction

This section is a brief summary of information contained in the Regional Profile, Navy/Marine Corps Activities, Japan, produced by PACNAVFAENGCOM in November 1980. The Profile was developed to provide a Japan-wide data base for this and other master plans of Navy/Marine Corps activities located in mainland Japan.

Location

Japan consists of a chain of islands generally oriented north to south along the western rim of the Pacific Ocean. The four main islands (Hokkaido, Honshu, Kyushu, and Shikoku) lie between 30° and 45° north latitude, which is a distance of approximately 1,500 miles (see Figure C-1). Japan has a land area of 145,730 square miles.

Geology

The Japanese islands are essentially the summits of mountain ridges that have been uplifted near the outer edge of the Asian continental shelf. The islands lie in a zone of extreme crustal instability at the juncture of mountain arcs that run through the Ryukyu Islands, Bonin Island, Kuril Islands, Sakhalin Island, and Japan. Associated with these mountain arcs are volcanic zones which include, in Japan, over 150 major volcanoes and thousands of hot springs. A tenth of the world's active volcanoes are found

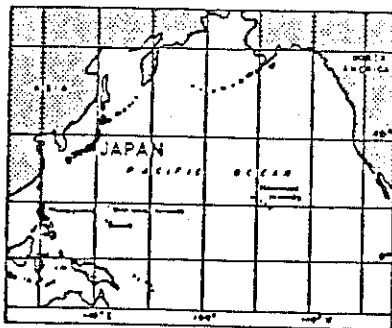
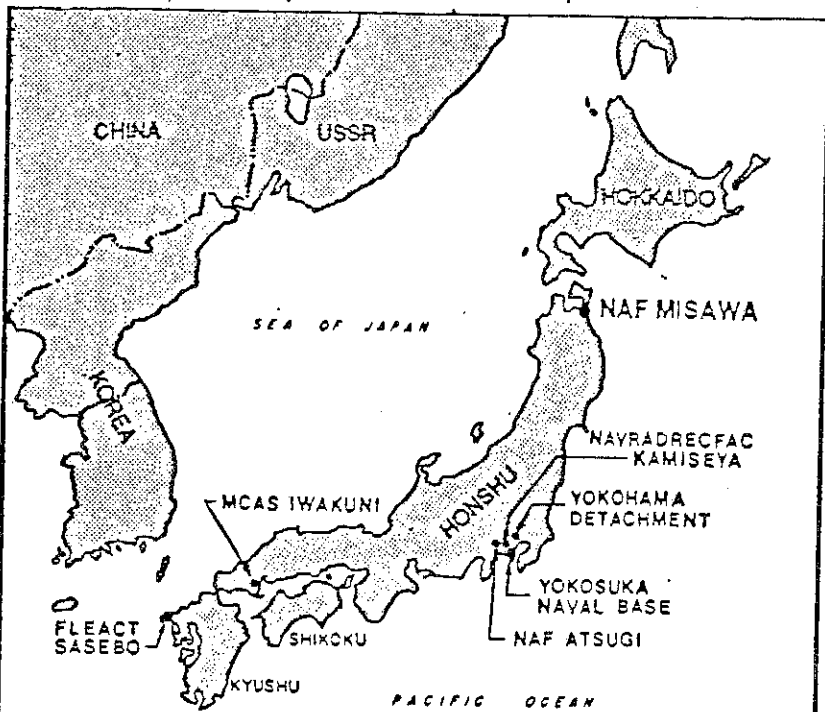
in Japan. More than 1,500 earthquakes are recorded yearly. Minor tremors occur almost daily in one part of the country or another, causing a slight shaking of buildings. Major earthquakes occur infrequently, the most famous in this century being the great Kanto earthquake of 1923, in which 130,000 people died. Because of the danger they pose, Japan has become a world leader in research on causes and prediction of earthquakes. The development of advanced technology has permitted the construction of skyscrapers even in earthquake-prone areas. Extensive civil defense efforts focus on training in protection against earthquakes, in particular against accompanying fire, which represents the greatest danger. Undersea earthquakes also expose the Japanese coastline to danger from tidal waves (tsunamis).

Topography

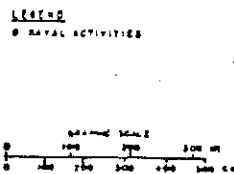
Approximately 80 percent of Japan is mountainous, with the highest elevation at Mount Fuji (12,385 ft.) (see Figure C-2). Plains areas are small and scattered.

Climate

The islands of Japan are located at the northern end of the monsoon area which includes the Korean Peninsula, China, Southeast Asia and India. Japan lies in the temperate zone. The climate is generally mild, although it varies from north to south, largely due to the continental air currents from the northwest in the winter months and the oceanic air currents from the southwest in the summer months (see Figure C-3).



REGIONAL MAP



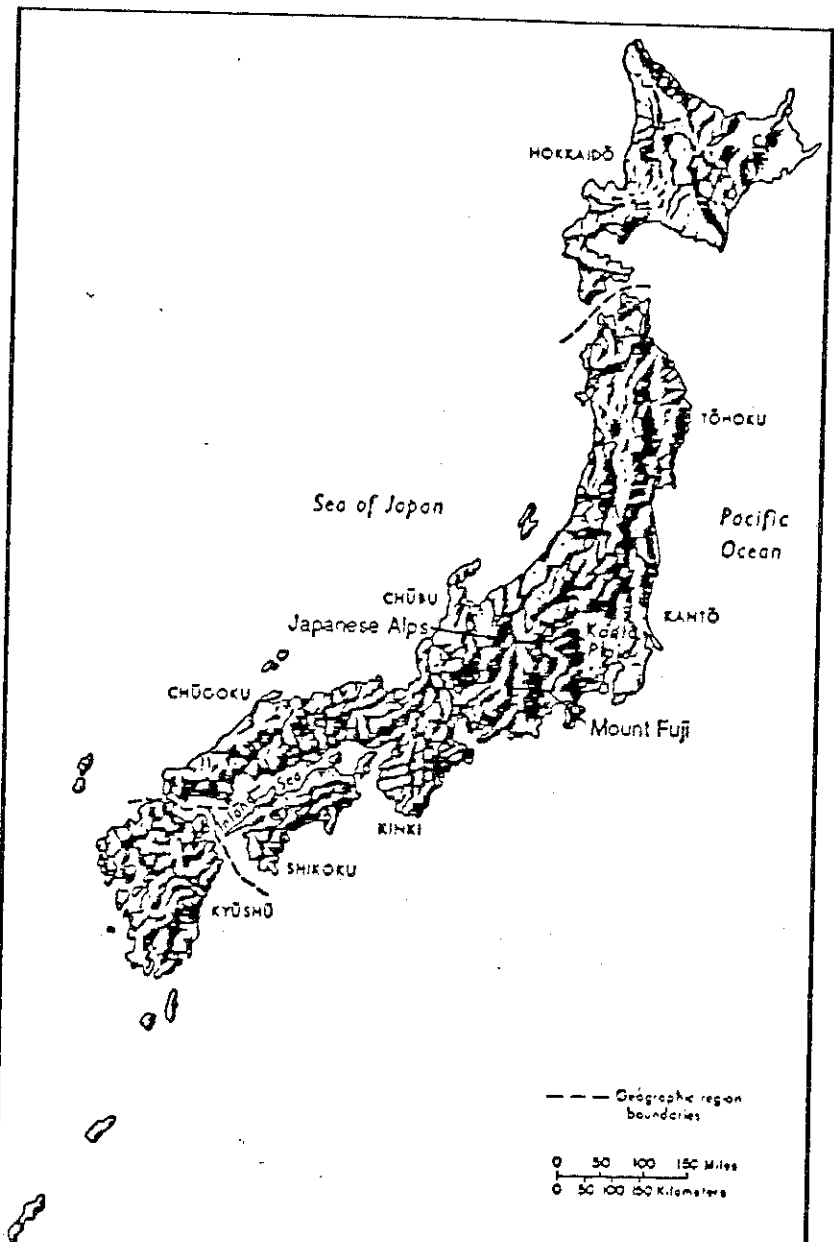
NAF MISAWA LOCATION MAP

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



NORTH

Figure
C-1



LANDFORMS AND GEOGRAPHIC REGIONS

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



NORTH

Figure
C-2

Population

Japan is the sixth most populous nation in the world, with a population in excess of 116 million as of 1983. High birth and natural increase rates were characteristic of the country before the Second World War. Both birth and death rates declined sharply after the war. Although the growth rate has decreased, about one million persons are being added annually.

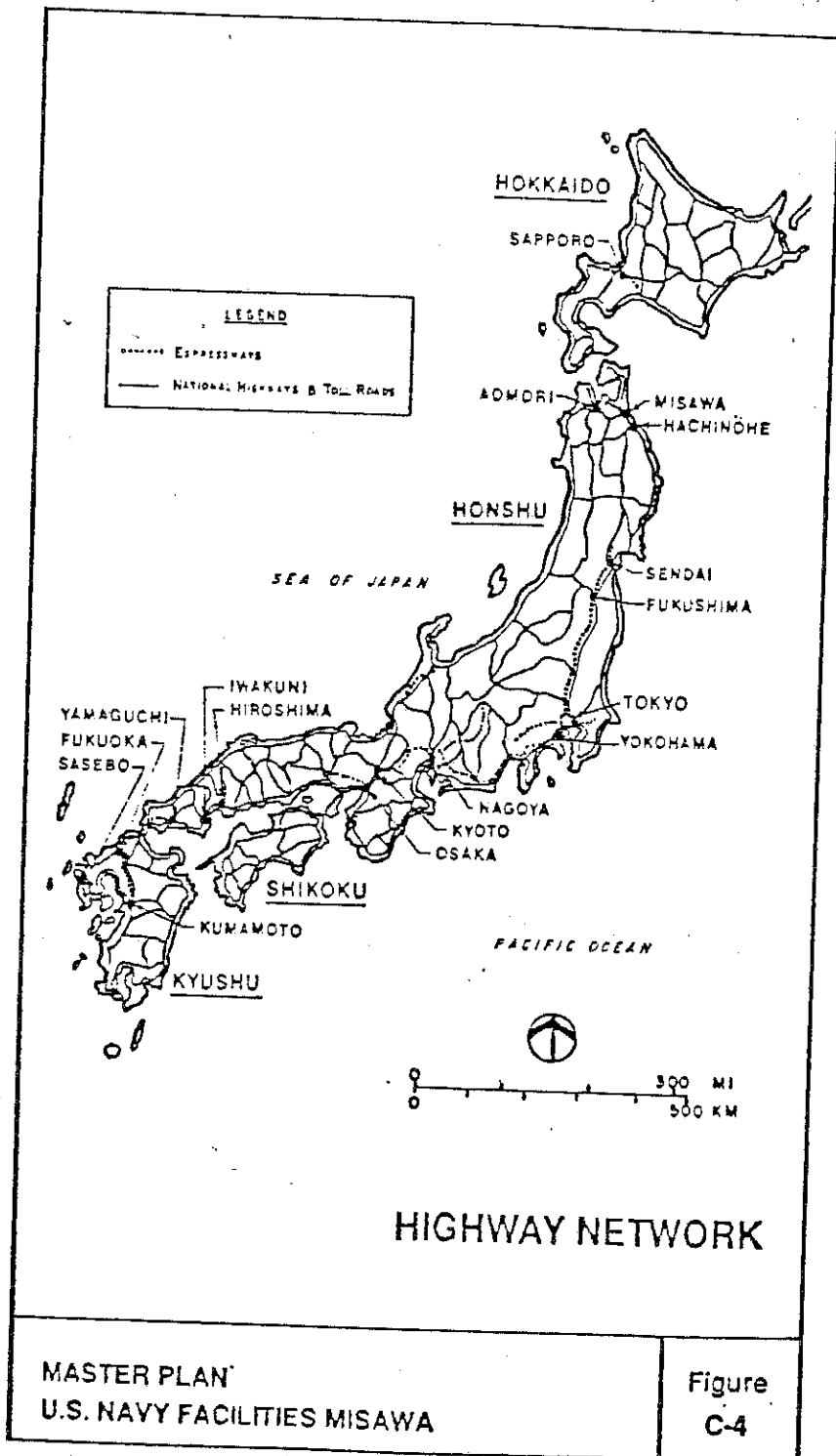
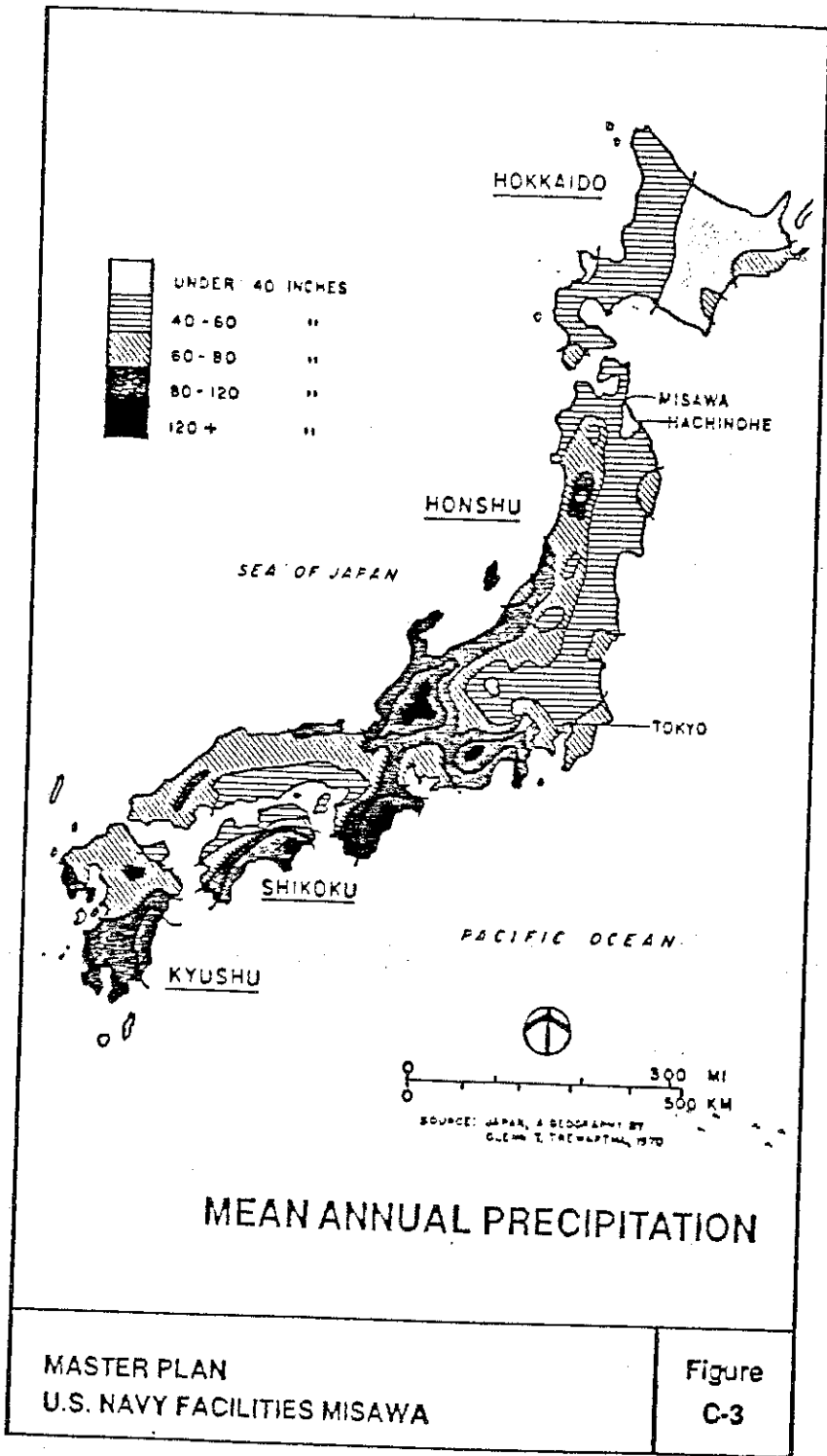
Population density in Japan is relatively high at 315 persons per square kilometer, compared to 23 for the U.S. and 90 for China. Approximately 76 percent of the Japanese population live in urban areas.

Transportation

As of 1986, the railroad network in Japan had about 18,500 miles of track, with the Japan National Railways (JNR) operating about 75% of the network. Many small privately owned lines are connected with the national system. In 1987, the JNR was privatized and its network was divided among seven private railroad lines. There are 1,550 miles of expressways in the national highway network (see Figure C-4). Extensive subway systems operate in six large cities. Japan has nearly 1,000 shipping ports, including over 100 major ports, and over 2,800 fishing ports. There are three international airports (Narita and Haneda in the Tokyo area and Osaka) and numerous domestic airports.

Economy

Japan is dependent on foreign sources for many of the minerals essential to modern industry. However, Japan's reservoir of industrial leadership and technicians, its intelligent and industrious working force, its high investment rate, and its intensive promotion of industrial development and foreign trade have resulted in the development of a mature industrial economy. Japan, along with North America and Western Europe, is one of the three major industrial complexes among the market economies. Japan is also the world's second largest foreign aid donor.



AOMORI REGIONAL PROFILE

Introduction

This section is, in part, a summary of information contained in the Military Property Requirements in Aomori (MILPRO-MORI) document, prepared by PACNAVFACEGCOM in January 1985. The study was conducted to determine the facilities and real estate required to support planned U.S. Forces in the Aomori Prefecture of Honshu.

Location

Aomori is one of six prefectures comprising the Tohoku District (see Figure D-1). Aomori is the northernmost prefecture in the District and forms the northern tip of the island of Honshu, located between latitudes 40° - 41° 31'N and longitudes 140° - 142°E. It is bounded on the west by the Sea of Japan, on the north by the Tsugaru Straits, on the east by the Pacific Ocean, and on the south by Iwate and Akita Prefectures. The Tsugaru Peninsula to the west and the Shimokita Peninsula to the east jut out from the mainland and surround Mutsu Bay, located at the northern centermost portion of the prefecture. The prefecture contains an area of 3,712 square miles or 2.4 percent of the total land area of Japan.

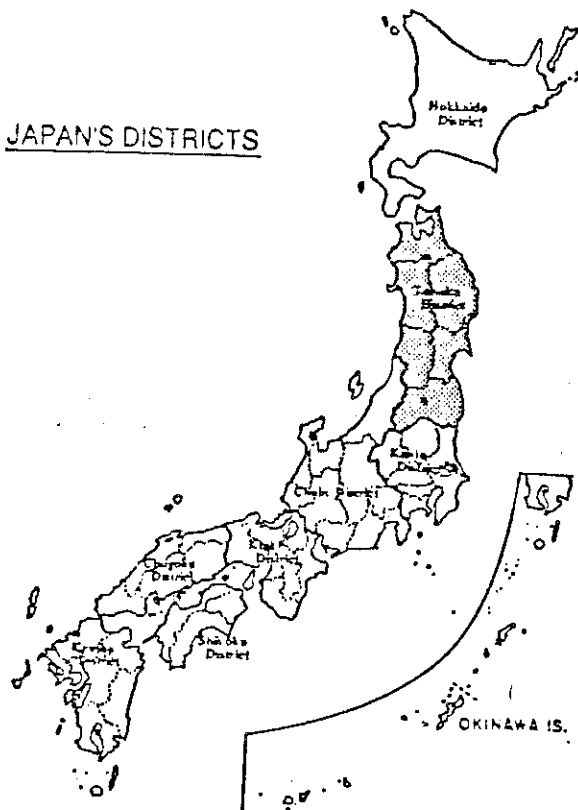
Natural Environment

Topography. The northern Honshu area consists primarily of three mountain ranges running in north to south axes separated by major valleys and basins (see Figure D-2). The Central Mountain Range (Ou-sammyaku) forms the backbone of northern Honshu. This range is flanked by the Western Mountain Range (Dewa-sammyaku). The ridges of the Central Mountain Range are generally higher than those of the Western Mountain Range and much higher than the highlands to the east.

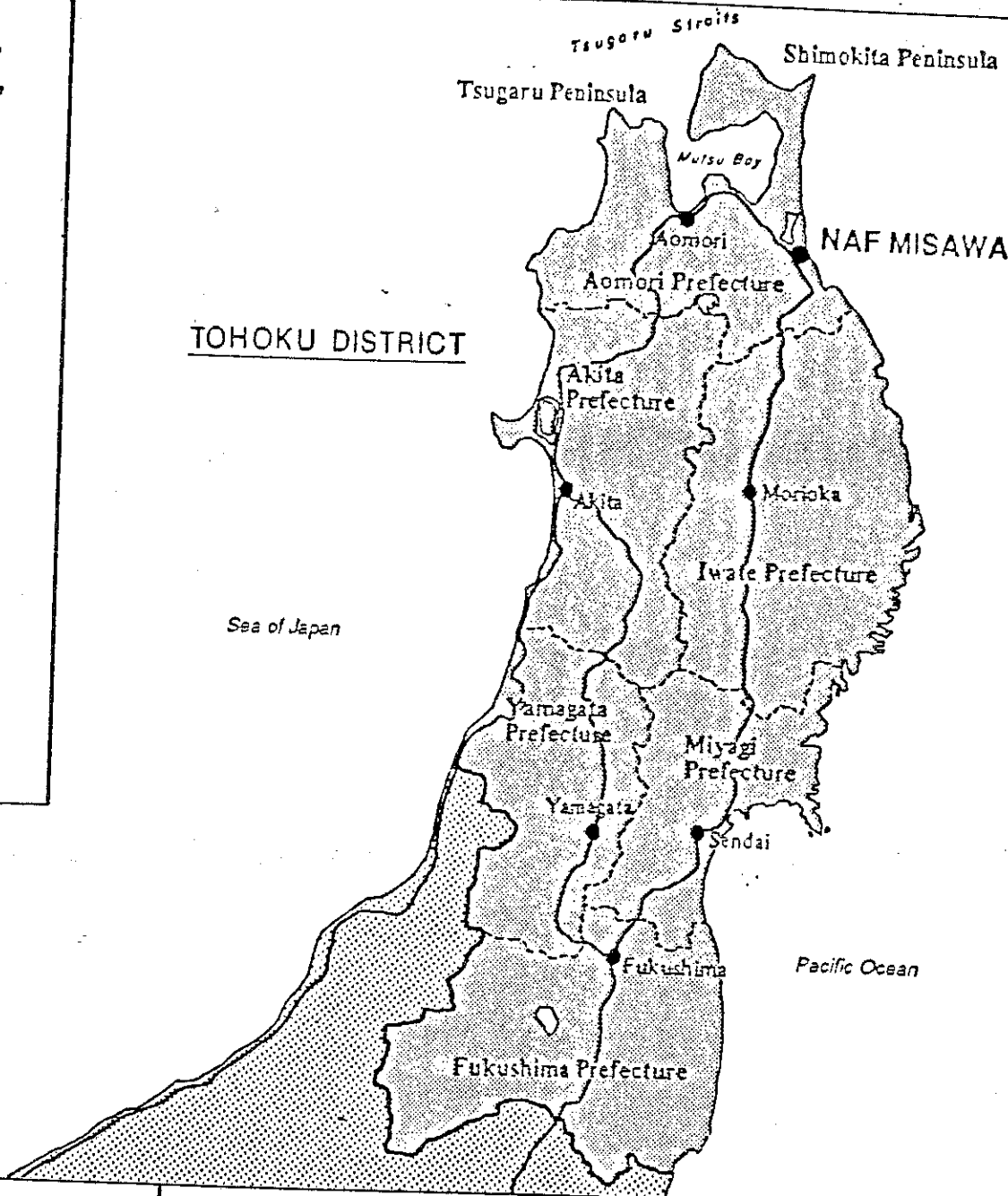
The Central Mountain Range peak elevation in the Tohoku district is 7,700 feet. The highest peak in Aomori Prefecture is Mt. Hakkoda, at 5,200 feet. The terrain is especially rugged near the headwaters of streams. The ridge tops are quite broad.

The Hachinohe Plain or Sanbongihara Uplands, in eastern Aomori Prefecture, is an extensive undulating to hilly plain sloping eastward from the Ou Mountain Range to the Pacific Ocean. The valleys of the Mabechi River and several smaller streams cross the plain, which is poorly drained. Naval Air Facility, Misawa (NAF Misawa) is located in this area. It is located three miles inland from the Pacific Ocean coastline. Lake Ogawara-numa lies northwest of the base and a game reserve lies north of the base.

JAPAN'S DISTRICTS



TOHOKU DISTRICT

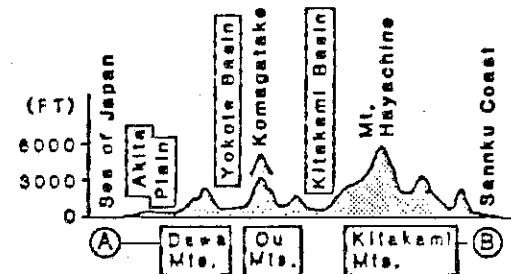
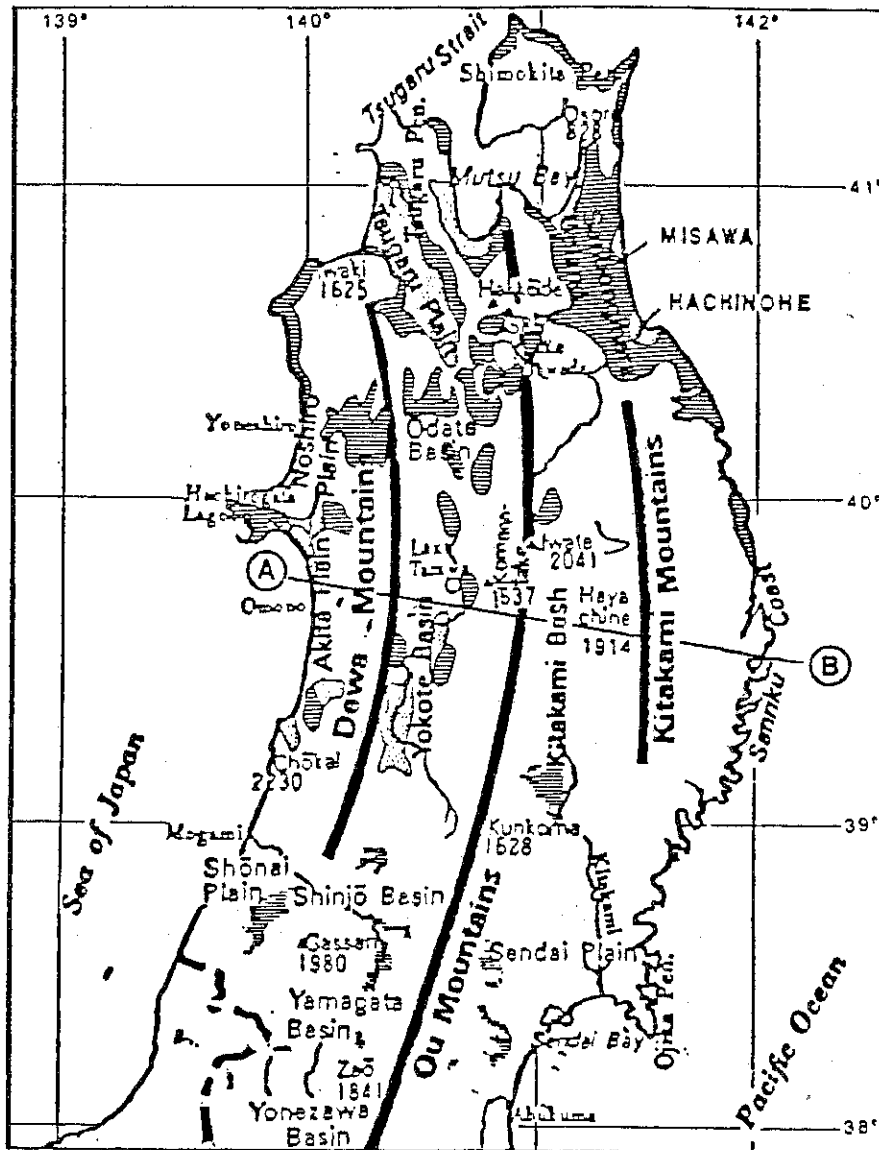


MASTER PLAN
U.S. NAVY FACILITIES MISAWA





JAPAN'S DISTRICTS/TOHOKU DISTRICT

Figure
D-1



TYPICAL ELEVATION

LEGEND

-  UPLANDS/TERRACES
-  PLAINS/BASIN

SOURCE: Noh, Toshio & Kimura, John C. Japan. A Regional Geography of an Island Nation. 1983

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



PHYSIOGRAPHIC DIAGRAM OF THE
TOHOKU DISTRICT

Figure
D-2

Soils. Most of the soils in the Aomori region can be classified as young soils. Parent materials are of fine, medium and coarse-grained rocks which occupy steep slopes. Geologic erosion is almost as rapid as soil formation, giving rise to shallow and very shallow, poorly developed, immature, infertile gray-brown skeletal soils or Lithosols (see Figure D-3).

The Lithosols occupy 71 percent of the entire region of northern Honshu and are generally in forested areas. The Hachinohe Plain, for the most part, consists of black Ando soils varying from medium textured rolling soils flanking Lake Ogawara, to medium textured rolling to hilly soils toward the Kitakami Mountains and Mt. Osore to the north. A ring of gray brown Podzolic soils of various textures surround the Lower Shimokita Peninsula.

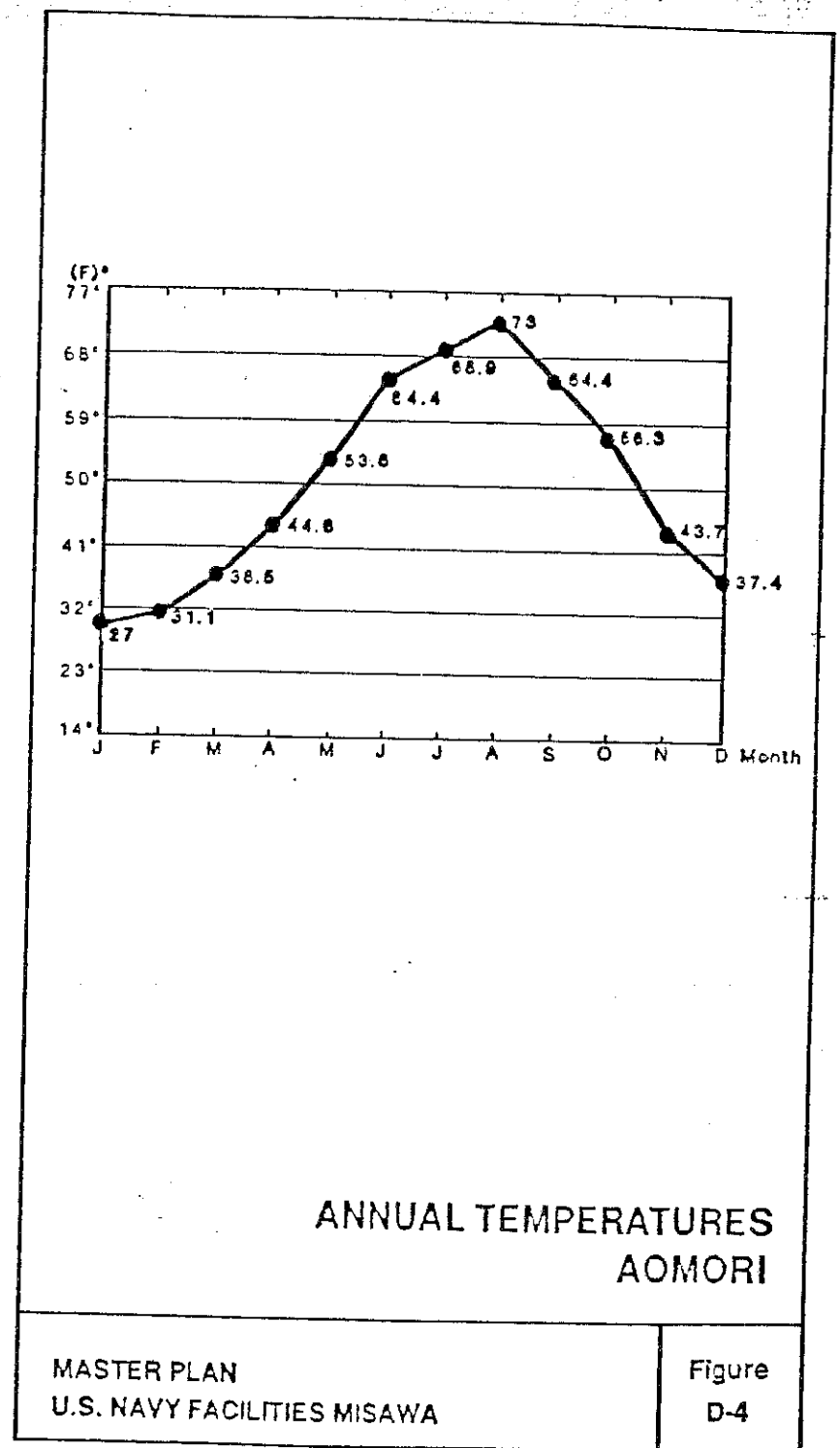
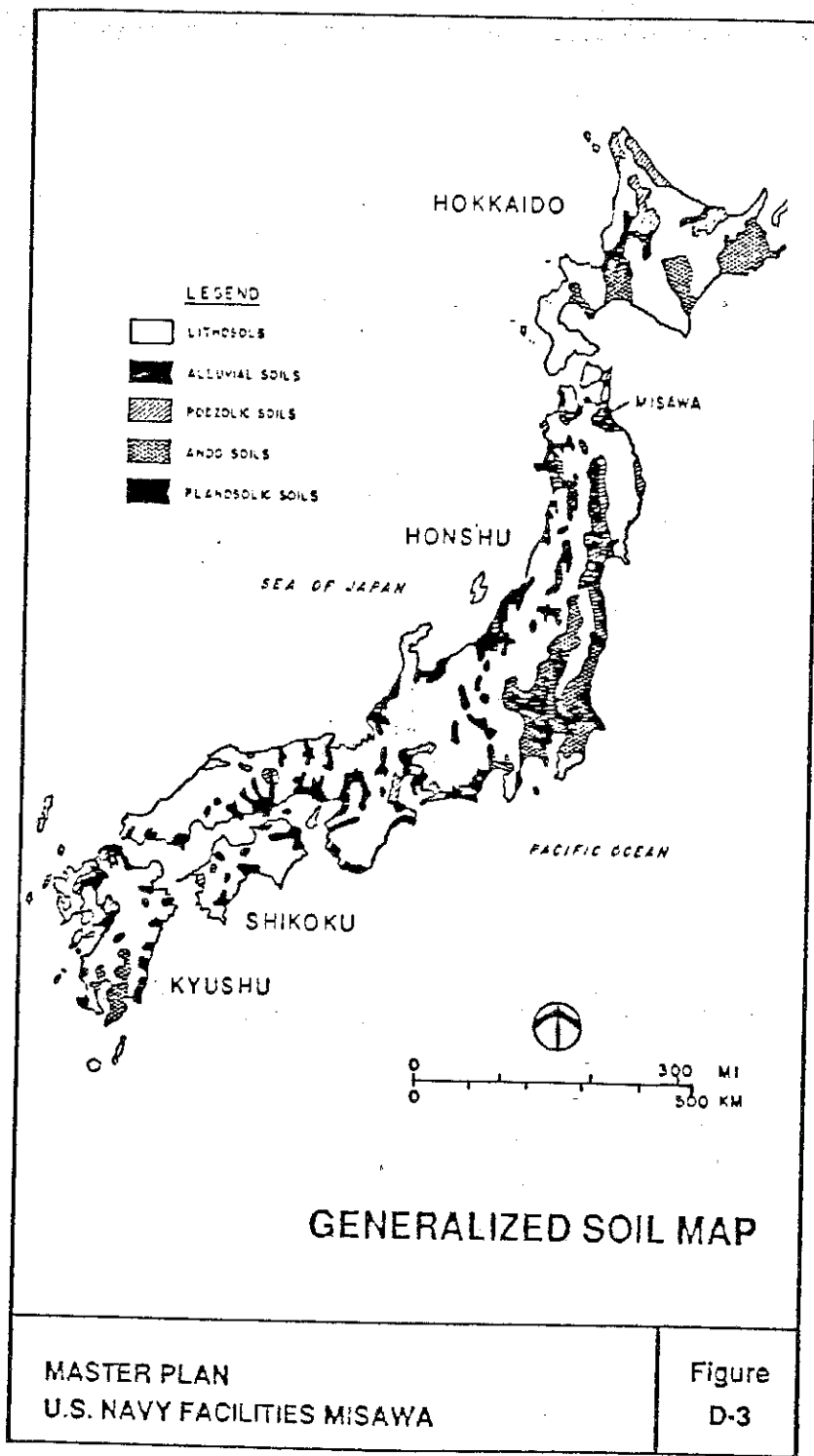
Wind erosion is a continuing hazard in many places in the Northern Honshu Area. Some Ando soils and sandy beach areas of Lithosols are particularly susceptible unless adequate protection is provided. Areas of Ando soils in the eastern part of Aomori Prefecture present a special hazard as do beach and dune areas around many parts of the shoreline. Protective measures include limiting the size of fields and providing windbreaks, protective fences, vegetative cover on cultivated land, and forest plantings on sandy beach areas.

Climate. The climate of the Tohoku District ranges from humid sub-tropical south of the Sendai area to the humid temperate continental climate in the Aomori region with warm summer

and cold winter seasons. Locally, climate is influenced by variations in elevation, ocean currents, and latitude. Winter and summer monsoons, rather than seasons, strongly influence temperature and precipitation. The mean annual temperature of 48.4°F is quite similar on both the east and west sides of Aomori Prefecture, but there are definite differences in precipitation patterns.

As shown in Figure D-4, summer temperatures vary between 64°F and 73°F, while in winter, January temperatures range between 27°F to 30°F. In winter, the air is damp on the Sea of Japan side. The Pacific Coast is washed by cold currents running along the east coast of Hokkaido and the cold waters from the Sea of Okhotsk. As a result, the spring and summer winds blowing landward are cooled, creating foginess and overcast skies. Coastal precipitation in the prefecture varies from 40 to 48 inches annually on the eastern side to a high of 60 inches on the Sea of Japan side. The greatest precipitation (up to 80 inches) occurs in the mountain areas of the western and southwestern parts of the region. Heaviest precipitation occurs from September through January in this section. Lightest rainfall occurs in the spring and early summer. Mean relative humidity ranges from 75 percent in April to 83 percent in July.

Much of the precipitation along the Sea of Japan and in the mountains is snowfall (see Figure D-5) that lays as a continuous cover from 60-80 days on the lowlands of the Hachinohe Plain in the southern area of Aomori Prefecture to 100-120 days in the mountains and on the lowlands of the Tsugaru Plain. A frost-free



Instrument Flight Rule (IFR) conditions are indicated for 7.1 percent of the total weather at Misawa; 99.4 percent of the wind occurring during this 7.1 percent IFR is covered by the runway.

Flora. Much of the original vegetation has been replaced by agriculture or by the introduction of foreign species to the islands. Aomori Prefecture produces an abundant growth of forest trees, shrubs, grasses and other plants. The effect of climate on vegetation can be best illustrated by the Japanese Black Pine (*Pinus thunbergii*), the most common tree along the coast of the warm temperate zone. On the Sea of Japan side, it grows farther north than latitude 40° N (up into Aomori Prefecture), while on the Pacific side it almost ceases to grow north of this latitude and is replaced by the Japanese Red Pine (*Pinus densiflora*), an inhabitant of the cold temperate zone.

On sandy shores on both the Sea of Japan and the Pacific Coasts, the Japanese Black Pine is often planted to check shifting wind-blown sand dunes. Other vegetation common to these sandy shores include various Sedges (notably *Carex kobomugi* and *Carex pumila*), Bermuda Grass (*Cynodon dactylon*), Downy Lume Grass (*Elymus mollis*), the Beach Pea (*Lathyrus japonicus*) and others.

In lowlands along streams or lakes are found helophytic formations, consisting of Common Reed (*Phragmites communis*), Canary Grass (*Phalaris arundinacea*), common cat's-tail (*Typha*

latifolia), Indian Rice (*Zizania latifolia*), many species of sedges, Bog Bean (*Menyanthes trifoliata*), and other swamp plants.

Drylands of the region are readily invaded by many kinds of grasses, particularly by *Miscanthus* (*Miscanthus sinensis*). Ferns are also common, as are Wild Rose, Chinese Horse Brier (*Smilax china*) and bushy forms of oak which are to be seen on sunny mountainsides, usually with herbaceous plants.

In the inland areas, plants of the cold temperate zone occur. Common trees are the deciduous oaks, notably the Small-Leaved Oak (*Quercus serrata*) and the Japanese White Oak (*Quercus drispula*), maples, Japanese Chestnut, Japanese Horse Chestnut, Pink Mountain Cherry, White Alder, an undershrub, Kousa (*Benthamidia japonica*), and the shade-enduring Japanese Beech (*Fagus crenata*), which occupies vast tracts, especially on the Sea of Japan side.

The conifers of most importance inland are the Japanese Red Pine, Japanese Cedar, Maries Fir and Japanese Northern Hemlock. The Japanese Shortleaved Pine usually appears in the higher regions. Mountains of considerable height produce only the frigid or alpine zone plants.

Foodcrop production dominates the agriculture of the region with rice being by far the dominant commodity. Other crops include potato, radish, wheat, soybean, tomatoes, cabbage, carrots, cucumber, pumpkin, eggplant, corn and melons.

The rice crop alone accounts for 462,000 tons yearly. Aomori is the largest apple-producing prefecture in Japan; a yield of 437,000 tons annually accounts for 70 percent of the national harvest.

Fauna.

Land Mammals. There is the usual assortment of domesticated animals in the region with swine and the milk cow being the dominant species. Horses continue to be raised in the area but their importance has greatly diminished since the pre-World War II era, when the area was used extensively for horse breeding.

Except for bats, the land mammals are of species distinct from those of the neighboring Asian continent. Bears, wild boar, badger, foxes, deer and monkeys were once abundant; but their numbers have been considerably reduced in the 20th Century. Antelope, hares, weasels and ptarmigan are found in higher mountains. The Snow Monkey (Japanese Macaque) is found on the Shimokita Peninsula and is protected by the Japanese government.

Fish. Japanese waters are inhabited by whales, dolphins, porpoises and fish such as salmon, sardine, sea bream, mackerel, tuna, trout, herring, grey mullets, smelt and cod. Crustaceans include crab, shrimp, prawns and oysters. Mussels, oysters and scallops are raised commercially. Rivers and lakes abound in trout, freshwater crab and crayfish. The fishing industry is a thriving business in Aomori Prefecture, the fishing city of Hachinohe

ranking as the third largest deep sea fishing port. Squid is also taken in the coastal waters while Mutsu Bay is an environmentally protected area specializing in the cultivation of scallops.

Reptiles. Reptiles include sea turtles, freshwater tortoise, sea snakes, and lizards. Most of the snakes, including the five-foot long Japanese rat snake, are harmless. Toads, frogs, and newts are common; a giant salamander of Honshu attains a length of five feet.

Birds. More than one-third of the 450 different species of Japanese birds are water birds, shore birds, gulls, and auks. Other water birds include grebes, albatrosses, shearwaters, herons, storks, ibis, ducks, geese, swans, and cranes. The cormorant is sometimes trained to catch fish. There are 150 species of songbirds as well as vultures, hawks, falcons, pheasant, quail, owls, and woodpeckers. Approximately 60 percent of all birdlife found in Japan is migratory. Aomori Prefecture provides a sampling of the majority of bird life common to Japan with the exception of these species indigenous to the sub-tropical zones to the south. Japan has concluded treaties with the United States, the Soviet Union, and Australia to protect migratory birds and birds in danger of extinction. Two such examples are the Whooper Swan and the rare Black-Backed Seagull (Umineko).

Population

The 1983 population of the Tohoku District was approaching 10 million, just over 8 percent of

the country's total population. The District enjoys the lowest population density in the island of Honshu. The 1982 population of Aomori Prefecture was 1,524,029, with a density of 410 per square mile and over 400,000 households. Approximately 80 percent of the total prefectural population lived in the 8 cities scattered throughout it.

Aomori, the prefectural capital, had a 1986 population of 293,000; Hachinohe, an industrial and sea-products center and the location of the NSD PDL facility, had a population of 241,300; Misawa had a population of 41,900.

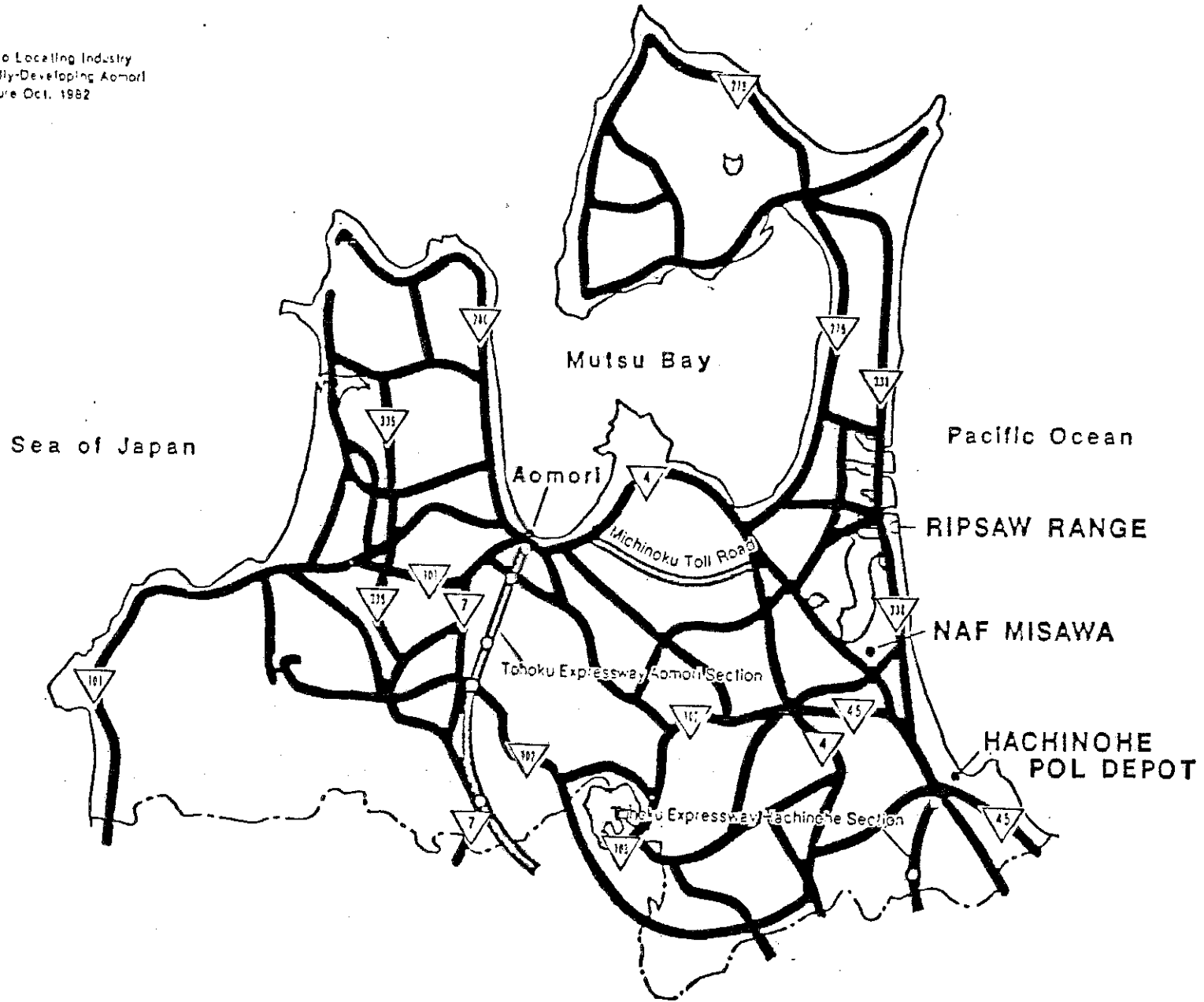
Transportation

Road System. Off-station roads near Misawa Air Base are predominantly of a provincial or rural nature. Roads are adequate but narrow by U.S. standards. The GOJ has undertaken an extensive road building program and many improvements have been made in the past twenty-five years. See Figure D-6 for major prefectural roadways. The main roads, National Highway Routes 4, 7, and 45, are maintained by the Construction Ministry. National Highway Routes 101, 102, 103, 104, 279, 280, 338, 339 and 340 also cross through the prefecture and are maintained by prefectural authorities. The Tohoku Junkan Doro Expressway cuts through the center of the prefecture and when fully completed, will link Aomori City to Morioka City to the south. An eastern arm of the expressway opened in 1985 and terminates at Hachinohe on the Pacific Coast. In addition, the Michinoku Toll Road links Tenmabayashi Village with Aomori City. Most roads are hard-surfaced and are

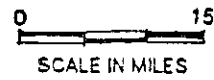
passable in all but the heaviest snow period. In addition to the major roadways mentioned, there are 37 principal secondary roads and 202 local roads. There are a total of 10,928 miles of roads, 7,437 bridges, and 25 tunnels within Aomori Prefecture. Road conditions throughout the prefecture are identified in Table D-1. The existing roadway network provides an adequate direct link with all areas providing logistics support to Misawa Air Base.

Highway movement of oversize or overweight cargoes and vehicles exceeding dimensional or weight restrictions listed in Table D-2 require road clearances for movement by commercial carriers, and confirmation of movement for transport by military vehicles. Commercial carriers maintain road clearances for movements of recurring oversize or overweight cargoes (e.g., 40-FT containers) to frequently serviced inland destinations. Confirmations of movement by military vehicles are also maintained based on currently assigned types and capacity of military over-the-road cargo vehicles and previous movement confirmations. Highway movements of cargoes exceeding dimensional or weight restrictions listed in Table D-2 require preclearance by U.S. Army Garrison Honshu (USAGH) after USFJ cargo clearance has been requested by the military service sponsoring the movement prior to shipment. New road clearance approvals by commercial carriers require a minimum of 20 days to a maximum of 45 days for exceptionally oversized cargoes or those exceeding 40 metric tons (44 short tons). Clearance approvals for cargo movements by military vehicle normally require 45 days.

Source: Guide To Locating Industry
In Rapidly-Developing Aomori
Prefecture Oct. 1982



MASTER PLAN
U.S. NAVY FACILITIES MISAWA



ROAD SYSTEM, AOMORI

Figure
D-6

TABLE D-1

ROADS BY CLASSIFICATION IN AQHORI PREFECTURE

Standard Improved (Miles)		Unimproved (Miles)	
WIDTH		WIDTH	
18 FT & under	1,416	11.5 FT & under	3,209
18 FT to 43 FT	2,227	11.5 FT to 18 FT	2,602
43 FT to 64 FT	45	18 FT & over	502
64 FT & over	<u>22</u>	Impassable sections	<u>906</u>
	3,710		7,219

Total = 10,929 miles

TABLE D-2

CARGO DIMENSIONAL AND WEIGHT RESTRICTIONS FOR HIGHWAY TRANSPORT

Length - 39 FT 5 IN

Width - 8 FT 2 IN

Height - 12 FT 6 IN

Gross Weight - 44,092 LBS

Axle Weight - 22,046 LBS

Wheel Weight - 11,023 LBS

NOTE: Seavans exempted on expressways. Vehicle limitations are contained in USFJ policy letter 400-3.

Ports. Principal ports in Aomori Prefecture are Aomori City, Hachinohe, Ominato, and Mutsu Ogawara (see Figure D-7). JMSDF maintains facilities at Ominato and has limited pier capability at Hachinohe and Aomori. The Mutsu Ogawara port complex was opened in 1985.

DOD-sponsored cargoes can be handled through any open port in Japan under the Status of Forces Agreement (SOFA). However, only Yokohama North Dock, Yokohama Commercial Container Pier, Yokosuka, Hachinohe, Kure, Hiro, Iwakuni, Sasebo, and Taura are regularly staffed. Operations at other ports may require negotiation of contracts.

In general, DOD-sponsored cargo destined for Misawa is manifested for Yokohama. Large shipments or unit movement can be consigned directly to Hachinohe. Military Traffic Management Command (MTMC) provides port operations and stevedore requirements for Military Services Cargo (personal goods) at North Pier, Yokohama. The U.S. Army Garrison, Honshu, performs the garrison function of cargo clearance at the pier and shipment by rail or truck to destinations throughout Japan, including the Misawa area. Military Sealift Command (MSC) arranges for intercoastal movement of car carriers between Yokohama North Dock and Hachinohe and Hachinohe Port. MTMC arranges for contract stevedore services at Hachinohe Port when MSC controlled vessels carry sufficient tonnage to call at Hachinohe Port.

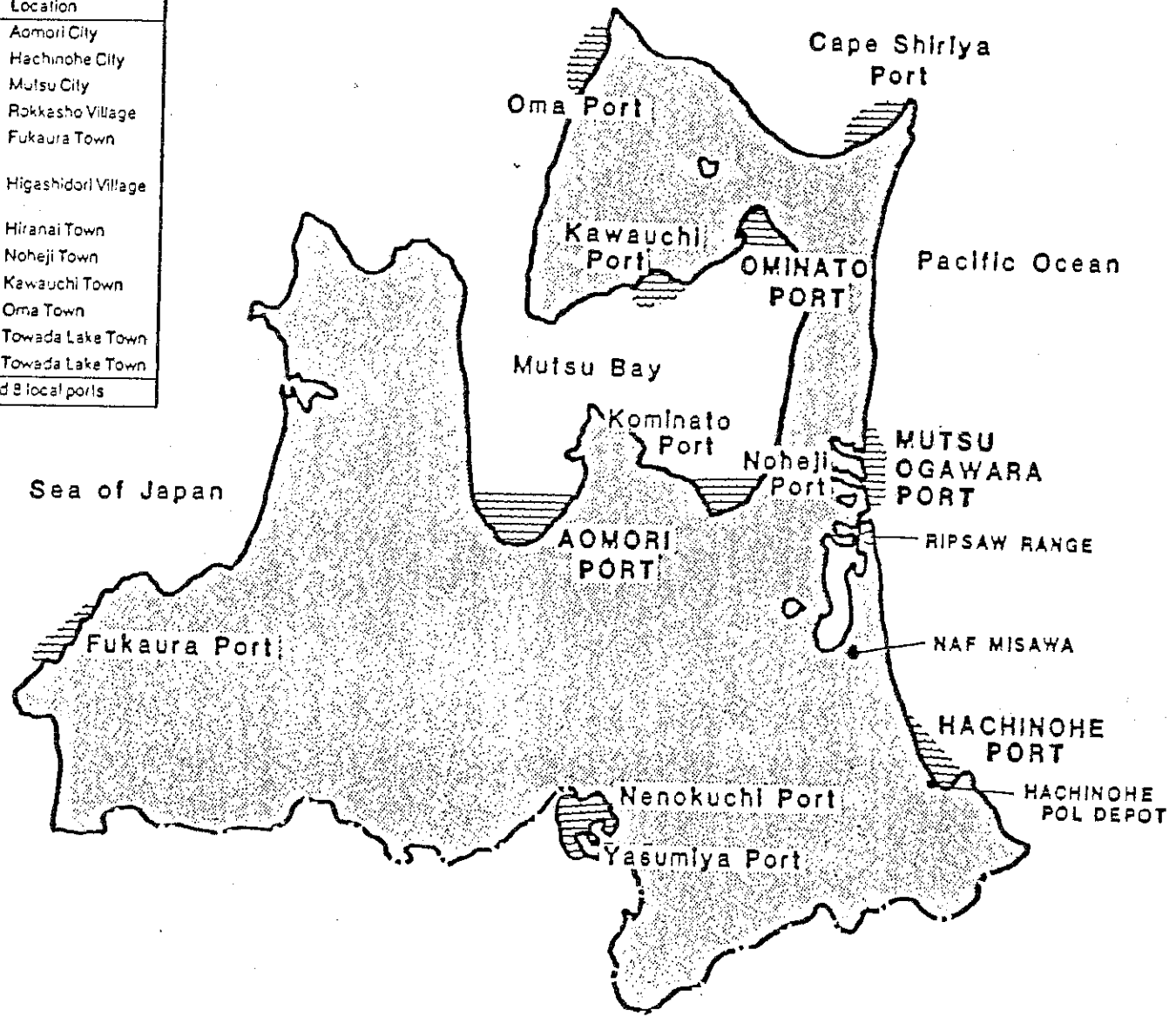
Hachinohe, some 16 miles southeast of Misawa, is the nearest major port to Misawa and is the location of the U.S. Navy POL Depot. However, the small boat harbor east of the center of Misawa is currently undergoing expansion and may be available in the future to larger vessels than it can presently accommodate.

Hachinohe has a population of 241,000 and is a major fishing, industrial and commercial shipping port of northern Honshu. Docking facilities presently in use consist of several piers and wharfs capable of accommodating ships up to 3,000 tons. Improvements consisting of a breakwater and pier have been constructed over the past ten years. There is now one pier open to 10,000-ton ships. Railway lines extend out onto several piers. Cranes and mechanical conveyors are available for offloading and loading cargo. Maximum tidal range is approximately five feet.

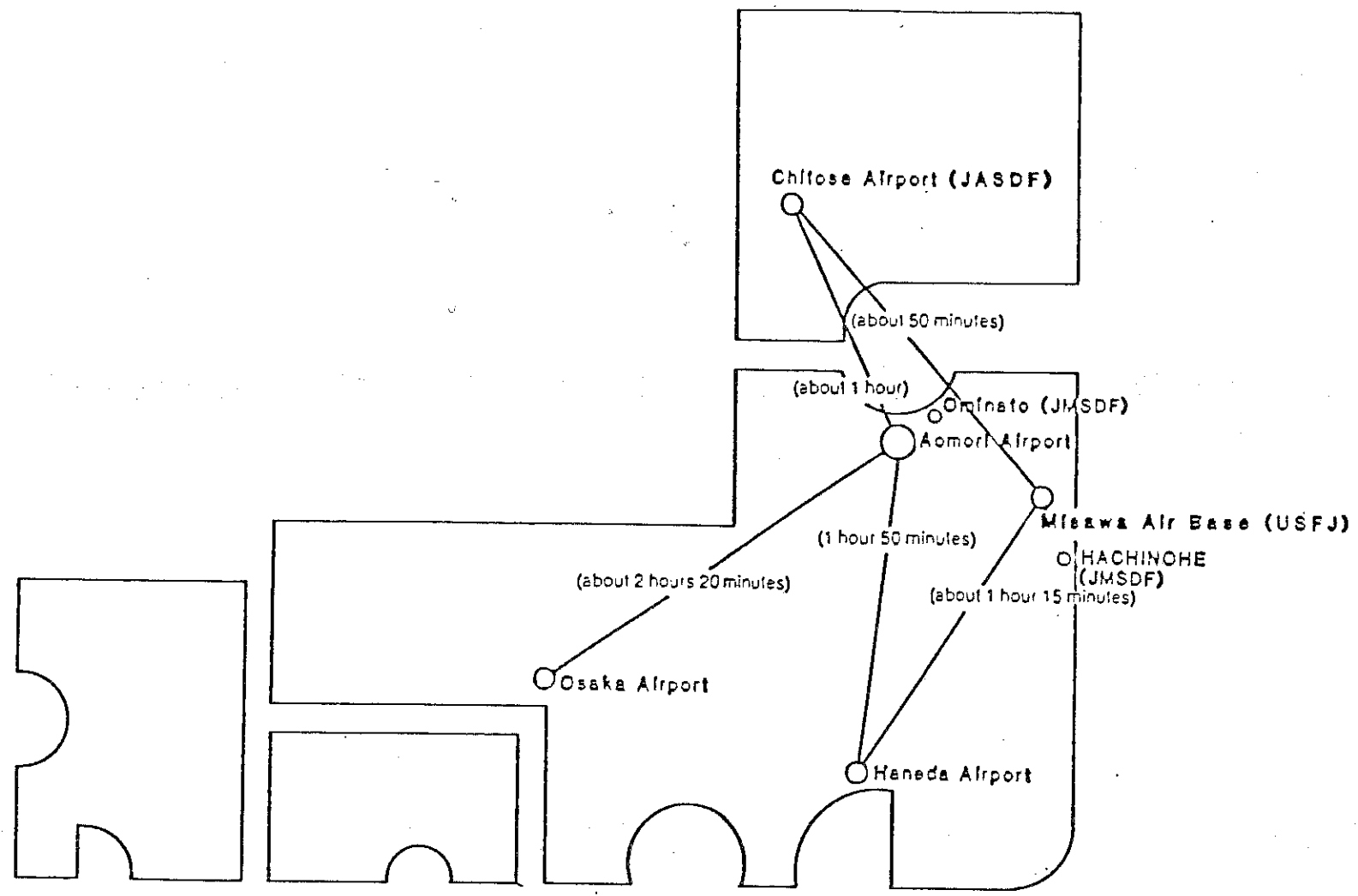
Airfields. Domestic air service today covers most major cities along the Pacific and Sea of Japan coasts of Honshu, Hokkaido, Shikoku, and Kyushu (see Figure D-8). The two major airports in Aomori Prefecture are at Aomori City and Misawa Air Base. Only Misawa Air Base is capable of handling large jetliner aircraft. The airport at Aomori City is a civil airport with a runway length of 4,600 FT at an elevation of 644 FT above mean sea level. However, due to fog and heavy snow, it is frequently closed to air traffic. Development plans for Aomori called for the construction of a 6,560-FT runway in the southwest corner of the present airport in FY 1985 and a further extension three years later to 8,200 FT. Misawa Air Base is a military airport under the control

Ports in Aomori Prefecture

Port name	Port class	Location
Aomori	Important port	Aomori City
Hachinohe	Important port	Hachinohe City
Ominato	Important port	Mutsu City
Mutsu Ogawara	Important port	Rokkasho Village
Fukaura	Port of refuge; local port	Fukaura Town
Cape Shirlya	Port of refuge; local port	Higashidori Village
Kominato	Local port	Hiranai Town
Noheji	Local port	Noheji Town
Kawauchi	Local Port	Kawauchi Town
Oma	Local port	Oma Town
Yasumiya	Local port	Towada Lake Town
Nenokuchi	Local port	Towada Lake Town
Total: 12, consisting of 4 important and 8 local ports		



Source: Guide To Locating Industry
In Rapidly-Developing Aomori
Prefecture Oct. 1982



NOTE: STYLIZED MAP OF JAPAN

of the U.S. Air Force and provides joint use with Japanese domestic carriers. Misawa is currently serviced with regularly scheduled daily flights to and from Sapporo to the north and Tokyo to the south by Toa Domestic Airlines (TDA). The field is an all-weather field 10,000 FT in length at an elevation of 119 FT above mean sea level. Misawa Air Base provides TACAN, DME, NDB, and radar capabilities. Misawa AB operates 24 hours per day.

Railroads. Rail service to and within Aomori Prefecture has been expanded in recent years.

The Tohoku line provides "Shinkansen" ("bullet train") service between Tokyo and Morioka, located about 65 miles south of Misawa. The line eventually is to be extended to Aomori City (see Figure D-9).

Rail service has been further extended to Hokkaido by means of a railway tunnel. The recently completed Seikan Tunnel, 34 miles long, of which 14 miles run under the sea, connects Hokkaido with Honshu. When full-scale tunneling work began in 1971, plans were to establish bullet train service through the tunnel to Sapporo, the capital city of Hokkaido. The Tunnel was not designed for motor vehicle use. Regular train service through the undersea tunnel began in March 1988.

Most of the tracks on rail lines are 3 FT 6 IN gauge, narrower than those of most European and American railways. The new Super Express lines are of standard gauge double trackage and

encompass the most up-to-date state of the art technology in all construction phases, including tracks, structures, rolling stock and electrical facilities. Electrification of rail service is steadily progressing with 2,582 miles (85%) of the 3,042 miles of route mileage in the Tohoku District electrically operated. Other lines account for an additional 992 miles of trackage. Many of these railways are urban electric lines operating in and around cities. Some rural feeder lines and mining railways are also run by private companies. The reliability of service and frequency of operation, together with relatively cheap fares and charges, make rail a most attractive means of travel throughout Aomori Prefecture and Japan.

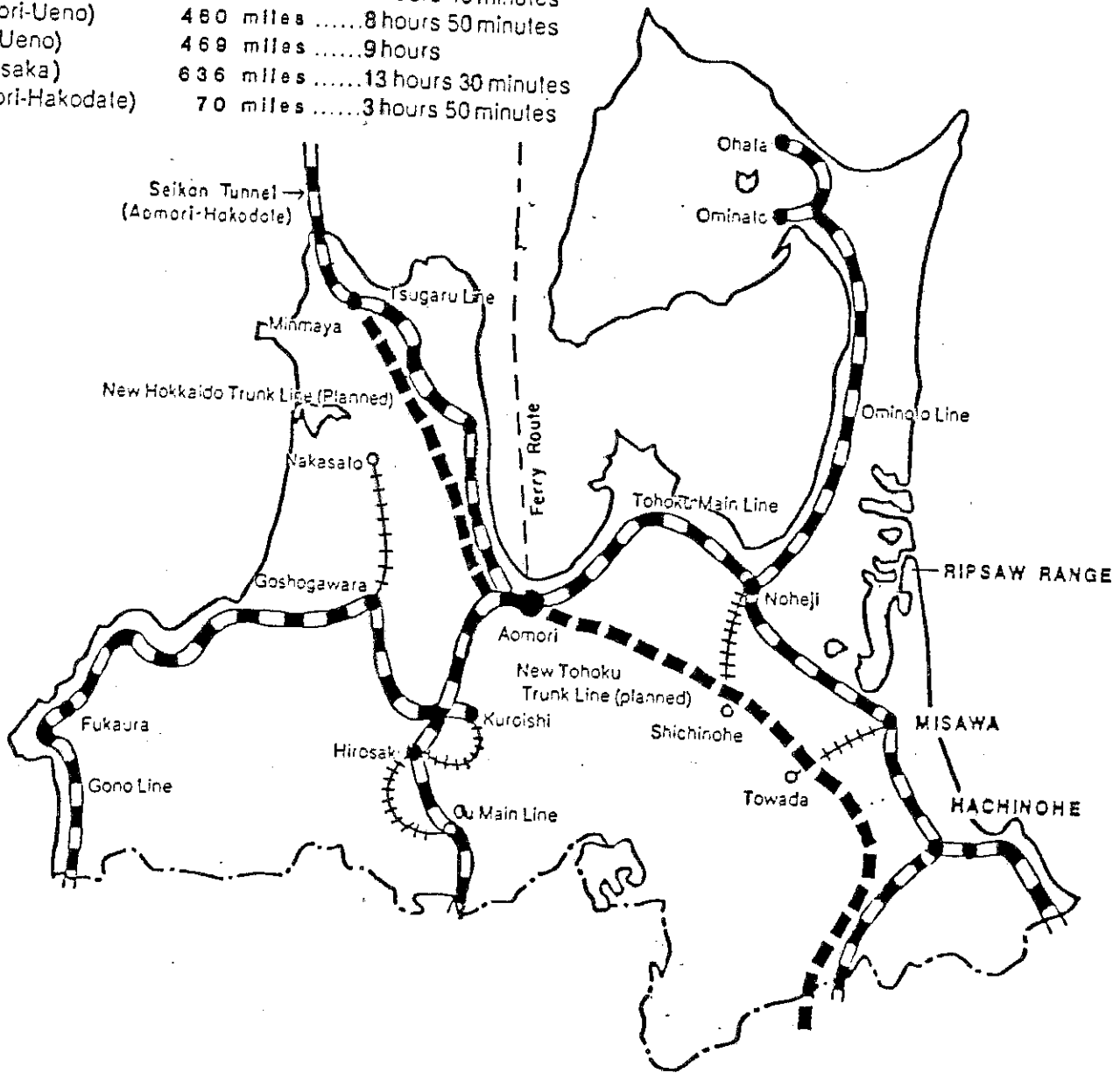
Standard cargo loads can be routinely moved by rail; however, rail movement of cargo exceeding the standard dimensional and weight restrictions listed in Table D-3 requires rail clearance and preclearance by USAGH prior to shipment. Non-standard cargo shipments must be individually evaluated for overhead and tunnel clearances, type/configuration of rail equipment, and a variety of side and intermediate height clearances which are involved in rail routings to each destination. Cargo shipments by rail must not exceed the maximum allowable dimensions and weights shown in Table D-3.

Tohoku Main Line (Aomori-Sendai)	242 miles	.....	4 hours 40 minutes
Tohoku Main Line (Aomori-Ueno)	480 miles	.....	8 hours 50 minutes
Via Joban Line (Aomori-Ueno)	469 miles	.....	9 hours
Ou Main Line (Aomori-Osaka)	636 miles	.....	13 hours 30 minutes
Seikan Ferry Line (Aomori-Hakodate)	70 miles	.....	3 hours 50 minutes

LEGEND

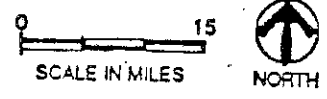
— EXISTING

- - - PLANNED



Source: Guide To Locating Industry
In Rapidly-Developing Aomori
Prefecture Oct. 1982

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



RAILROAD SYSTEM, AOMORI

Figure
D-9

TABLE D-3

CARGO DIMENSIONAL AND
WEIGHT RESTRICTIONS FOR RAIL TRANSPORT

	<u>Standard</u>	<u>Maximum</u>
Length	45 FT 6 IN	45 FT 6 IN
Width	8 FT 2 IN	11 FT 9 IN
Height	7 FT 6 IN	11 FT 7 IN
Weight	38.5 short tons	88 short tons

Passenger trains leave from Misawa Station several times daily. Misawa Station is on the Tohoku Main Line and is a 15-minute drive from the base. Prices for rail transport vary within the three classes of travel available. Use of local, express or special express service also determines the rate of fare. Low-cost meals are available on the express trains. Travel time between Tokyo and Misawa is between 7 and 12 hours depending on service utilized.

Local Government

Japan is divided into 47 prefectures, 43 of which are Ken (prefectures proper); the remaining four consist of Tokyo which is a To (metropolis), Hokkaido which is a Do (territory), and Osaka and Kyoto which are Fu (urban prefectures). Prefectures are administrated by governors and assemblies. A prefecture is further divided into minor civil divisions; these include the city (Shi), town (Machi or Cho), and village (Mura or Son). Misawa is a city. All these local governments have their own mayors, or chiefs, and

assemblies. The structure of Aomori Prefecture Government is shown in Figure D-10 and is typical for most prefectures.

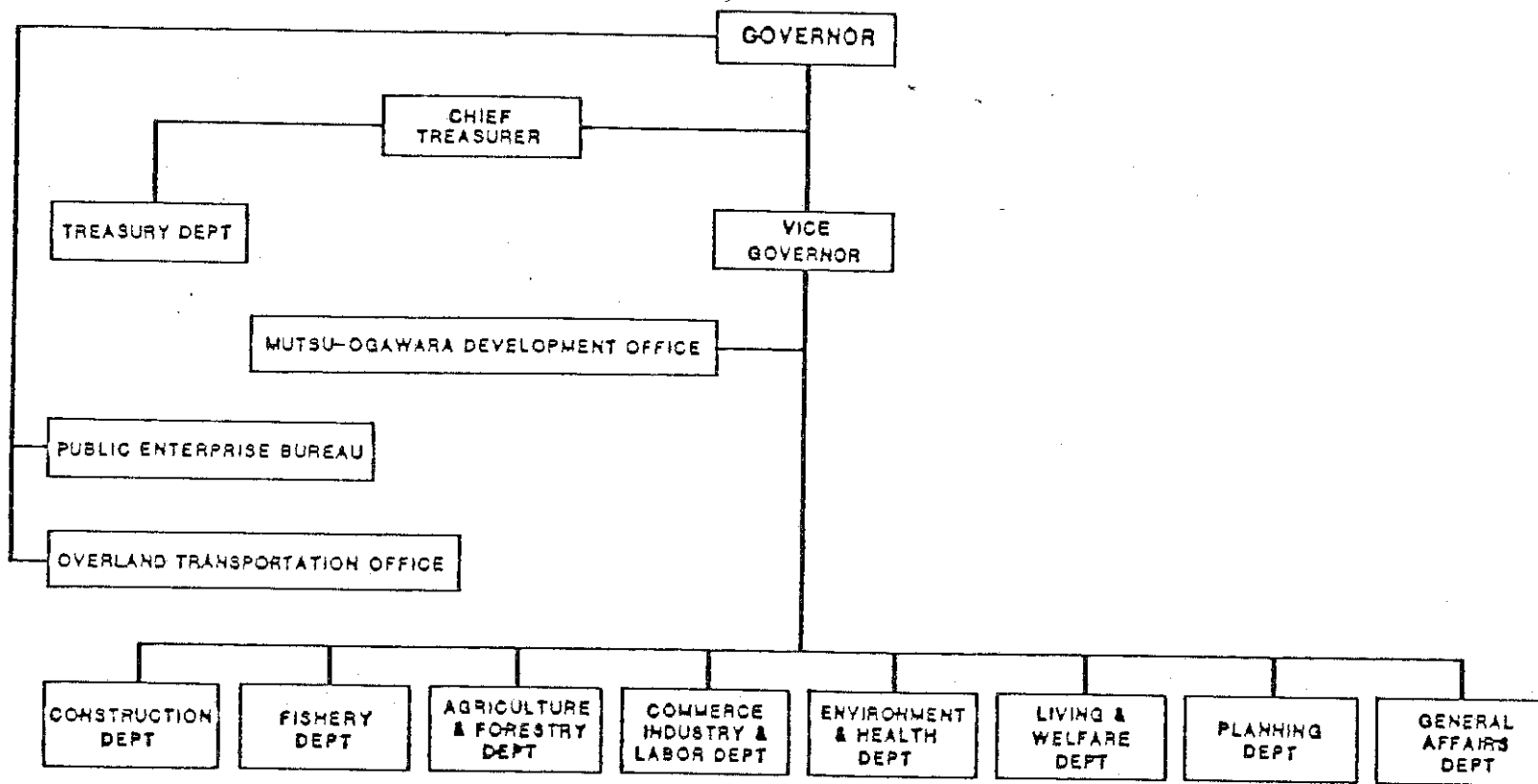
Economy

Traditionally, the Tohoku District has been a relatively underdeveloped part of Japan. After World War II, emphasis was placed on increasing food production and development of natural resources of the district. Tohoku became an important rice producing area and today produces on a single-crop per season basis, about one quarter of the country's rice.

Other agricultural production includes fruit (apples, cherries, pears, peaches, grapes), millet, buckwheat and potatoes. The Tohoku District has also been traditionally noted for the raising of horses, although the decline in demand for them has led to their replacement by dairy and beef cattle.

Forestry and fishing have also been traditional economic activities in Tohoku District and aquaculture has been added, with oysters, scallops and seaweed being cultivated in Matsushima Bay, Mutsu Bay and several other smaller bays.

Petroleum and natural gas are produced in Akita and in Yamagata Prefectures. Akita Prefecture also has silver, copper and zinc mines. The recent discovery of rich veins of black ores containing copper, lead and zinc near Odate has been an important stimulant to the mining industry of the District.



The Joban coal field in the southern part of Fukushima Prefecture has played an important role in the development of this region as the third largest coal producing area in Japan. Many coal mining towns were established at this location, but the coal industry has recently declined, and the mines have been closed.

The abundant water resources of Lake Inawashiro and Agano River are used for the production of electricity. A large development program was completed in the Tadami River area, which is a tributary of the Agano River, for the purpose of power generation. Multi-purpose dams have been constructed in many other localities in the Tohoku District for electric generation, irrigation and flood control.

Until recently, industries in the Tohoku District were mostly food processing and lumbering, in addition to traditional cottage industries. Modern industrial development was delayed, and before the Second World War, manufacturing was sparse and scattered only in such cities as Akita, Hachinohe, Kamaishi, and Koriyama.

In 1962, the New Industrial City Construction Promotion Law designated four regions in the Tohoku District as new Industrial Cities. In the Sendai-Shiogama Region, a new port was constructed to encourage the development of petroleum refining and other industries. The Joban-Koriyama Region is recovering from the decline of its traditional coal mining industry. Roads, ports, and industrial parks have been developed to take advantage of its proximity to the Tokyo-Yokohama area. The Hachinohe Region has emphasized the development

of iron and steel, cement and chemical industries. The Akita Region has concentrated on petroleum refining and metallurgy industries.

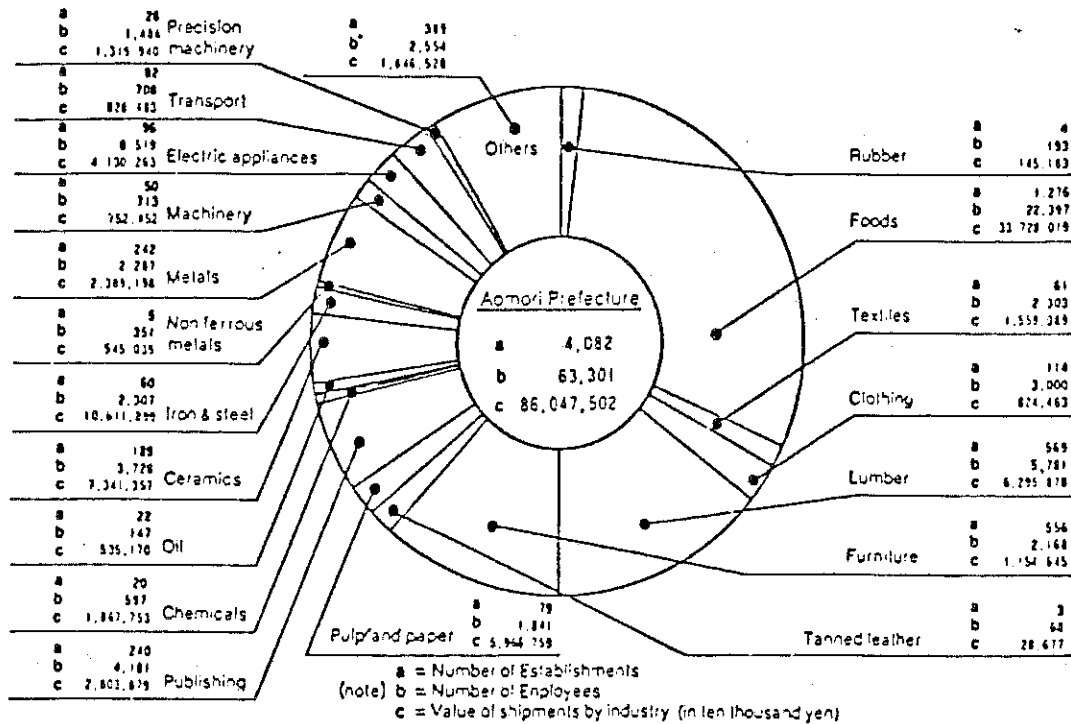
The Tohoku District, however, is favored neither with large coastal industrial regions, nor with industrial ports, and thus far, there are only minor industrial areas in the larger cities. However, the future of this District is seen not only in its traditional role as a producer of food, but also as a modern highly industrialized area.

In Aomori Prefecture, a total of 722,131 persons were employed (1980), 183,912 of whom were employed in primary industry. Figure D-11 provides an indication of the prefectural industrial structure.

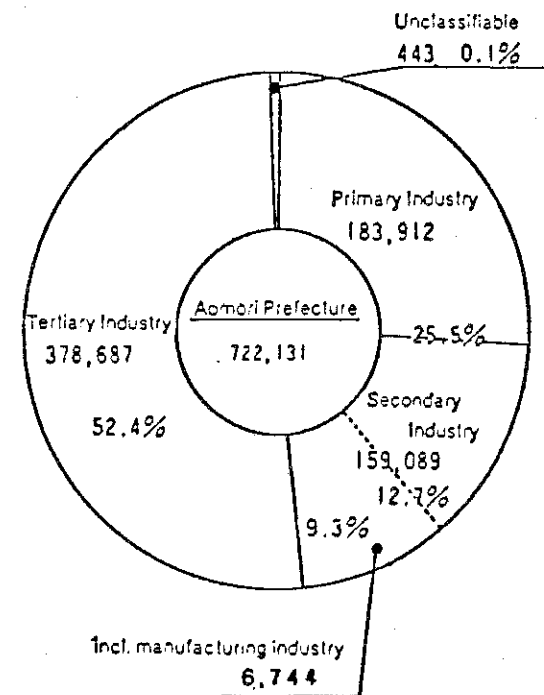
Agricultural production is dominant throughout Aomori Prefecture; industrial production is mainly of the light/medium variety. There is ample wood product production to support the region as well as providing export to other areas in Japan. As is true with other parts of Japan, industry in Aomori Prefecture must be supported by oil and metal imports; 90% of Japan's oil and raw materials are imported.

In addition to farming and industry, tourism is now a vital activity within Aomori Prefecture. The Towada Hachimantai National Park is a major tourist destination, as are the numerous hot springs, spas, and other scenic locations in the back-country now made easily accessible by the super express train or plane. In August of each year, the Nebuta Matsuri, one of the three major

• Number of Establishments, Number of Employees, and Value of Shipments by Industry (1980)



• Employed Population (15 And Older) by Industry (Census of 1980)



Source: Guide To Locating Industry
In Rapidly-Developing Aomori
Prefecture Oct. 1982

festivals of the Tohoku District, is held in Aomori City and draws crowds of festival goers from throughout Japan. In addition, there are numerous lesser festivals throughout the year. It is anticipated that by 1990 as many as 2.4 million people could be visiting Aomori Prefecture.

The Tohoku District as a whole possesses a sound base to survive under national emergency. Communications, transportation, food, industry, labor and management are all available to support the region. The factors once restricting the development of Aomori Prefecture, such as a severe climate and the geographical distance from the political and economic centers, are being removed by the advance of modern transportation and communications systems. While median personal income still lags behind that of the remainder of Japan by some 20%, the same factors promoting industrial and economic growth in the prefecture are certain to enhance personal income as well.

Land Ownership and Control

The Agricultural Land Adjustment Law, enacted in October 1946, transformed the northern Honshu region from one with a high proportion of tenant farming to predominantly owner farming. Prior to the law's enactment, tenants and part-tenants owning less than one-half of the land they tilled operated 55% of the farms. By 1950, 87% of the land was operated by owners and part-owners who owned more than one-half of their land.

This rapid shift in farm ownership was accomplished through widespread government purchase of land in specified categories and resale to tenants on reasonable terms. Resident landlords were permitted to retain an average of 2.5 acres of tenant cultivated land; on Hokkaido, where land was more plentiful but not as productive as on the islands to the south, they were allowed an average of ten acres. Everything above these limits was to be sold to the government. Owner-cultivators were, however, permitted to cultivate 7.4 acres if the productivity of the land would be lowered by subdivision or if the holding was cultivated by family labor.

The pattern of farming changed very little, however, since in most cases the tenants took over land they were already farming. Thus, although the reform did level incomes, it had only a marginal effect on either the number of farm units or the number of farm households.

In 1952, the Agricultural Land Act was enacted for the purpose of consolidating the results of the land reform. The limits on acquisition or rental of additional farmland, on farm size, on possession by resident landlords, and on leased farmland were relaxed somewhat in 1960 but remained generally in effect until 1970.

In May 1970, a drastic revision of the Agricultural Land Act was approved by the National Diet, the Japanese legislature. The revised law removed the limitations on land ownership and size, relaxed tenancy regulation, lifted land rent controls, and partially restored the former system of absentee

landownership. Designated special bodies, such as local governments and agricultural cooperatives, were empowered to own farmland and to intervene in transfers in what were called agricultural promotion regions. The special bodies or institutions thus established may buy or rent farmland, sell or lease it, and exchange it among farmers in order to improve and rationalize farm structures. The government pays the operating costs and grants certain tax exemptions.

Although the transfer of farmland or continued agricultural use was encouraged, authorization from the government was required for all transfers of farmland to nonagricultural uses. Particularly in the farmland areas designated as agricultural promotion regions, authorizations were not given unless transactions conformed to the government's overall plan for use of farmland. The Urban Planning Law also regulates the transfer of farmland to nonagricultural use in suburban areas.

No lands in Japan are owned by the U.S. Forces, but are owned or leased by GOJ and are provided to the U.S. at no cost.

Land Use

Existing Land Use. Aomori Prefecture contains a total of 2,376,140 acres of land, 23% of which is classified as urban and 77% rural. Approximately 65% of the total prefectural land area is devoted to forest as illustrated on Figure D-12. Forest ownership is divided among the National government, private interests,



communities, prefectural developments, and shrine and temple holdings. The GOJ is the largest landholder of forest land with 45% of the total; private interests account for 39%, community forests 15%, prefectural forests, shrine and temple holdings and miscellaneous forests account for 1%.

Aomori Prefecture has 31 cities or towns that are covered by city planning jurisdictions of one form or another. These municipal governments encompass a total of 510,167 acres and support a total combined population of 1,162,000 persons. The planning areas within the city or town jurisdiction may cover both urban and rural areas of the township. Urban areas within these municipalities consist of nearly 50,000 acres with a population of 763,000 persons. Land classification within the urban planning areas is residential, commercial, or industrial. Table D-4 further divides these categories into areas of special use and compares Aomori Prefecture with the whole of Japan. Generally, Aomori Prefecture has a land use percentage breakdown similar to the whole of Japan except for industrial areas, where it is relatively smaller.

Urban land use designations and development projects for areas immediately adjacent to Misawa Air Base fall within the Misawa city planning area and are discussed in Section E.

Forty percent of the land in Aomori is privately owned; the remainder is owned by various

LEGEND

-  SINGLE CROP RICE PADDY
-  FOREST WITH SOME PASTURE AND WASTELAND

SPECIALTY CROPS

- A** APPLES
- F** MAJOR FISHING PORT

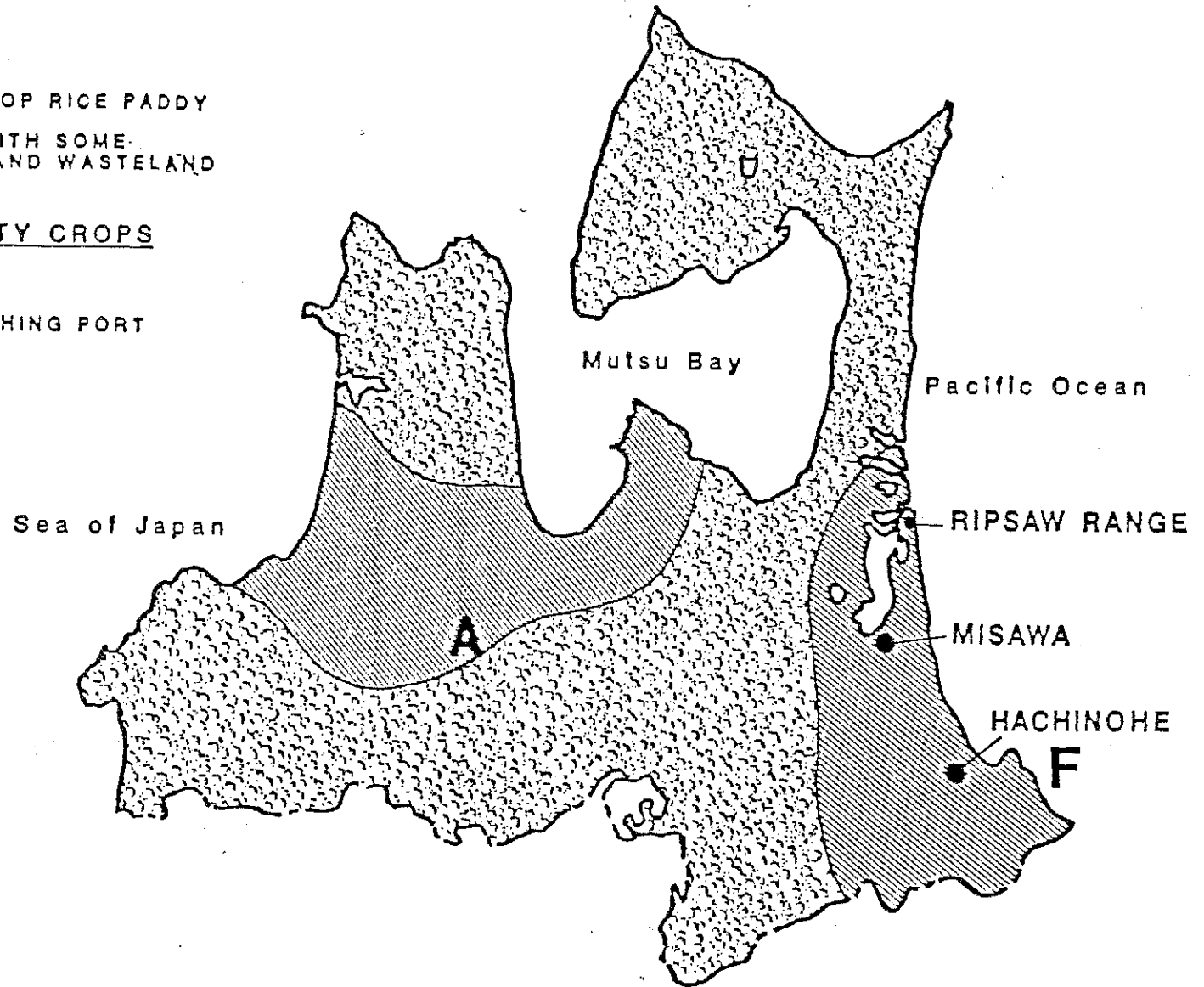


TABLE D-4

URBAN PLANNING AREAS BY CATEGORY IN AOMORI PREFECTURE

<u>Designation</u>	<u>Aomori Prefectural Total</u>		<u>Japan Total</u>	
	<u>Acres</u>	<u>Percent</u>	<u>Acres</u>	<u>Percent</u>
Residential Area (Type I)	12,884	26.8	806,243	20.6
Residential Area (Type II)	8,892	18.5	716,656	18.4
Residential Area (General)	14,408	30.0	1,185,565	30.4
Commercial Area (Neighborhood)	1,408	2.9	115,411	3.0
Commercial Area	1,823	3.8	154,965	4.0
Quasi-Industrial Area	4,179	8.7	401,123	10.3
Industrial Area	1,845	3.8	214,863	5.5
Industrial Area (Exclusive)	<u>2,638</u>	<u>5.5</u>	<u>303,884</u>	<u>7.8</u>
Total	48,077	100.0	3,898,710	100.0

TABLE D-5

PRIVATE LANDS BY CATEGORY IN AOMORI PREFECTURE

<u>Type of Lands</u>	<u>Aomori Prefectural Total</u>		<u>Japan Total</u>	
	<u>Acres</u>	<u>Percent</u>	<u>Acres</u>	<u>Percent</u>
Residential	46,125	4.9	2,842,106	7.1
Paddy Fields	220,415	23.3	7,514,256	18.9
Fields	189,807	20.0	6,377,426	16.0
Salt Fields	---	0.0	548	0.0
Ponds/Marsh	299	0.0	59,665	0.2
Forests	333,040	35.2	18,689,803	46.9
Pastures	5,585	0.6	480,380	1.2
Grasslands	141,049	14.9	3,157,695	7.9
Other	10,515	1.1	619,899	1.7
Railway Lands	235	0.0	18,994	0.1
Total	947,070	100.0	39,832,772	100.0

government agencies. A comparison between private land holdings in Aomori and the entirety of Japan is provided in Table D-5. Aomori has proportionately less land in private residential use and more land in agricultural uses than Japan as a whole.

Planned Land Use. Aomori Prefecture planning guides set development targets for each land classification based on a five-year cycle. The current development targets are shown in Table D-6. Farmlands, road areas, and housing sites will be developed; correspondingly, the acreage in forested areas, wastelands and other areas will decrease.

To facilitate planning targets, the prefectural government has established preferential incentives as an inducement for new or relocated industries. Vast tracts of land within the prefecture have been designated as special industrial development areas as shown in Figure D-13.

The areas around Misawa and Hachinohe cities are designated as new industrial towns and offer preferential treatment on real estate taxes and exemptions from special land possession taxes.

In addition, sections of some 21 cities, towns, and villages (including Misawa city) are open to industrial expansion under the classification of rural areas accepting industry. Inducements include exemption from real estate, business or other taxes.

TABLE D-6

PLANNED LAND USE IN AOMORI PREFECTURE (IN ACRES)

<u>Purpose</u>	<u>1985 Area (Ac)</u>
Farmland	444,600
Pastureland	37,050
Forest	1,561,040
Wasteland	19,760
Water surface, rivers and canals	83,980
Roads (general roads, farm roads, woodland paths)	66,690
Housing sites	
Residential	49,400
Industrial	12,350
Office/Store	4,940
Others	96,330
	<u>2,376,140</u>

<u>Distribution Ratios (%)</u>	<u>1985</u>
Farmland	20.3
Forest	65.6
Wasteland	0.8
Water surface, rivers and canals	3.6
Roads	2.8
Housing sites	2.8
Others	4.1
	<u>100.0</u>

Major development projects in Aomori Prefecture include the following (see Figure D-13):

Mutsu Ogawara Development District. (see Section E for discussion of this item).

Higashidori Village Nuclear Power Complex.

At a site about 20 miles north of the Mutsu Ogawara Development District, Tohoku electric Power and Tokyo Electric Power companies plan to build the Higashidori Nuclear Power Center, including four 1.1 million-kilowatt nuclear power plants in the initial phase. The project site will encompass some 2,223 acres. Construction of the first plant was scheduled to begin in 1987 and go into operation in March 1991. Construction costs are approximately \$640 million.

The four nuclear power reactors are all light-water reactors of the boiling water type, and warm waste water will be discharged into the offshore waters. The project will also include a port which will handle ships of up to 3,000 tons. Six fishermen's cooperatives in the neighborhood set up committees to negotiate compensation for the adverse effect of waste-water on fishing grounds. This has removed a major obstacle to the construction of the nuclear power center. The two electric power companies plan to develop the area into Japan's biggest nuclear power center with a total output of 20 million kilowatts.

Oma Town Nuclear Power Plant. Another nuclear power project is under way in the Shimokita Peninsula. Oma Town was formally






chosen as the site of a demonstration plant of the Japanese-developed Advanced Thermal Reactor (ATR).

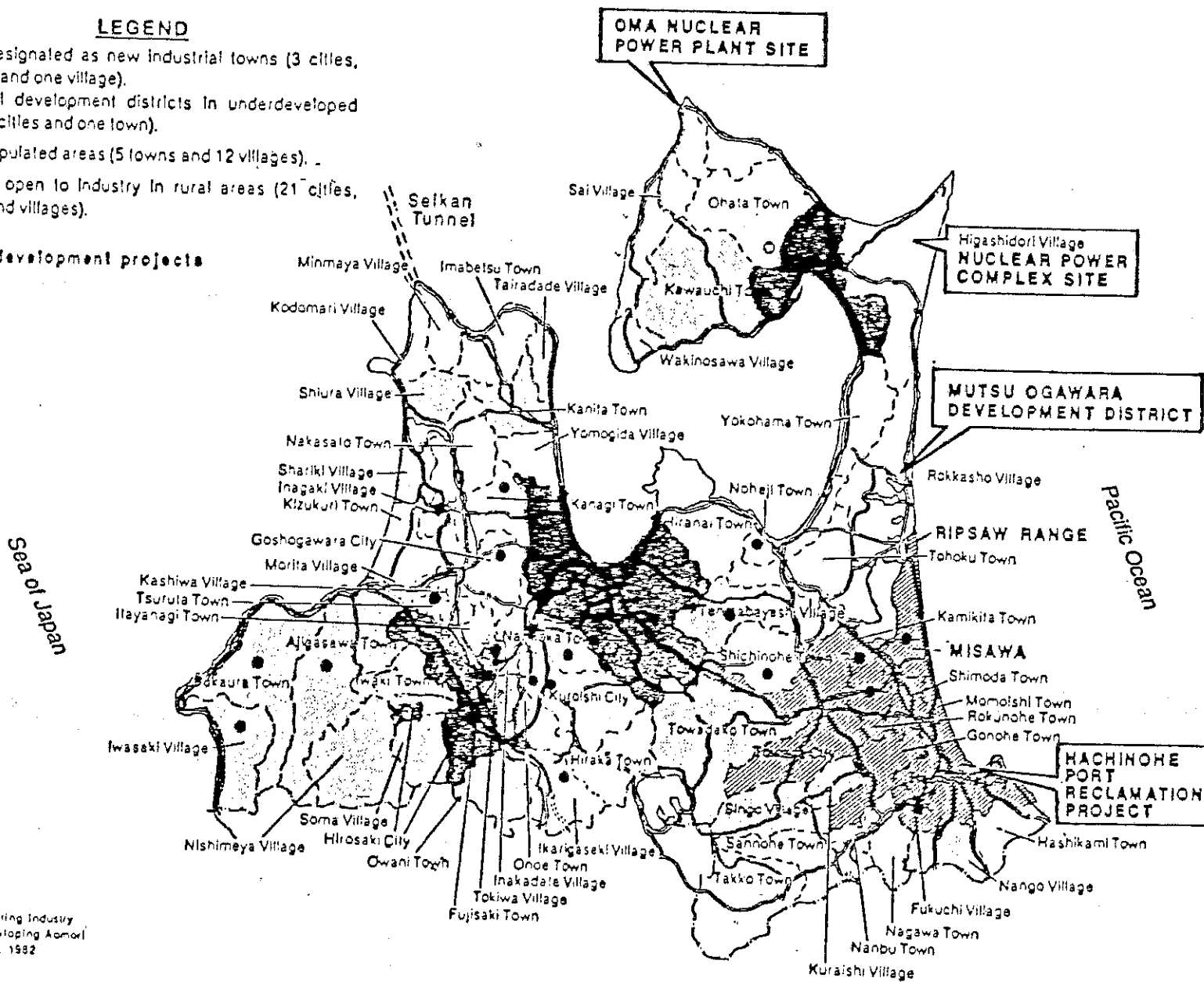
The plant, to be built about three miles south of Omazaki Point, the northernmost point of Honshu, will have a heavy-water-decelerated reactor developed by Power Reactor and Nuclear Fuel Development Corporation. The reactor can be fueled by natural uranium and low-enriched uranium as well as plutonium. It is to go into operation in fiscal 1994 with an output of 600,000 kilowatts. Oma Town has been campaigning for construction of the power plant since 1976.

Because of the nuclear energy projects located on the Shimokita Peninsula, the area has been dubbed the "nuclear energy peninsula."

Hachinohe Port Reclamation Project. The Mabachi river estuary water course construction project was started in 1940 by the Prime Minister's office and was completed in 1949 after being held up during the war years. The altered river course left a natural delta of over 15 acres. Work was next begun to readjust the delta for waterfront industrial use and at the time to develop the old river area for an industrial harbor area. This first industrial harbor was completed in 1962. The initial development of the waterfront industrial area included the construction by the Tohoku Electric Power Company of the first steam-powered electric power plant in the district, opened in 1957.

LEGEND

-  Areas designated as new industrial towns (3 cities, 5 towns, and one village).
-  Industrial development districts in underdeveloped areas (3 cities and one town).
-  Underpopulated areas (5 towns and 12 villages).
-  Districts open to industry in rural areas (21 cities, towns, and villages).
-  Major development projects



Source: Guide To Locating Industry
In Rapidly-Developing Aomori
Prefecture Oct. 1982

A decision of the 36th Harbor Council in 1969 led to the creation of a new harbor/industrial plan focusing on both the Hattaro and Kawaragi Districts as the Second Industrial Harbor.

The Kawaragi District development involved the creation of a reclaimed area of approximately 170 acres within the Hachinohe waterfront area (see Figure H-5). This new area is master planned as the nucleus for the petroleum-oriented industry, and will provide new storage tanks for POL and natural gas.

Seikan Tunnel Project. Work is completed in the Seikan Tunnel. This undersea tunnel, connecting the islands of Honshu and Hokkaido, is the world's longest. Its total length is 33.5 miles, of which 14.5 miles pass under the sea. The tunnel was originally envisioned as a link between the Tsugaru line on Honshu and the Matsumae line in Hokkaido. The Seikan Tunnel will reduce travel time between Aomori City and Hakodate City from the current 4 hours by ferry to only 2 hours by train. The tunnel was not designed for automobile traffic due to exhaust ventilation problems.

OVERVIEW - NAF MISAWA

Background

Location. Naval Air Facility Misawa is a tenant activity at Misawa Air Base (MAB), which is located on a plain approximately 3 miles inland (west) from the Pacific Ocean coast (see Figures E-1 and E-2). Airfield elevation is 119 feet. Lake Ogawara lies northwest of the base and the city of Misawa is adjacent to the base on the south.

The Navy also operates the air-to-ground "Ripsaw" gunnery range, an area of about 1,900 acres of land area located along the Pacific Coast about 10 miles north of the base. In addition, the Navy operates a POL Depot at Hachinohe, a port city located approximately 16 miles southeast of MAB.

Climate. Climatic conditions for Aomori Prefecture were discussed in Section D. Meteorological conditions at MAB are shown in Table E-1.

Topography. Misawa Air Base is generally flat, except for relatively steep slopes some 100 feet high along the northwestern boundary. Figure E-3 is a slope analysis showing that over 90 percent of the area is substantially flat. The runway itself is at elevation 119 feet and the steep areas slope downward toward sea level. The highest spot on the base is at about elevation 135 feet occurring at two sites: one a knoll about 5,000 feet north of the runway and

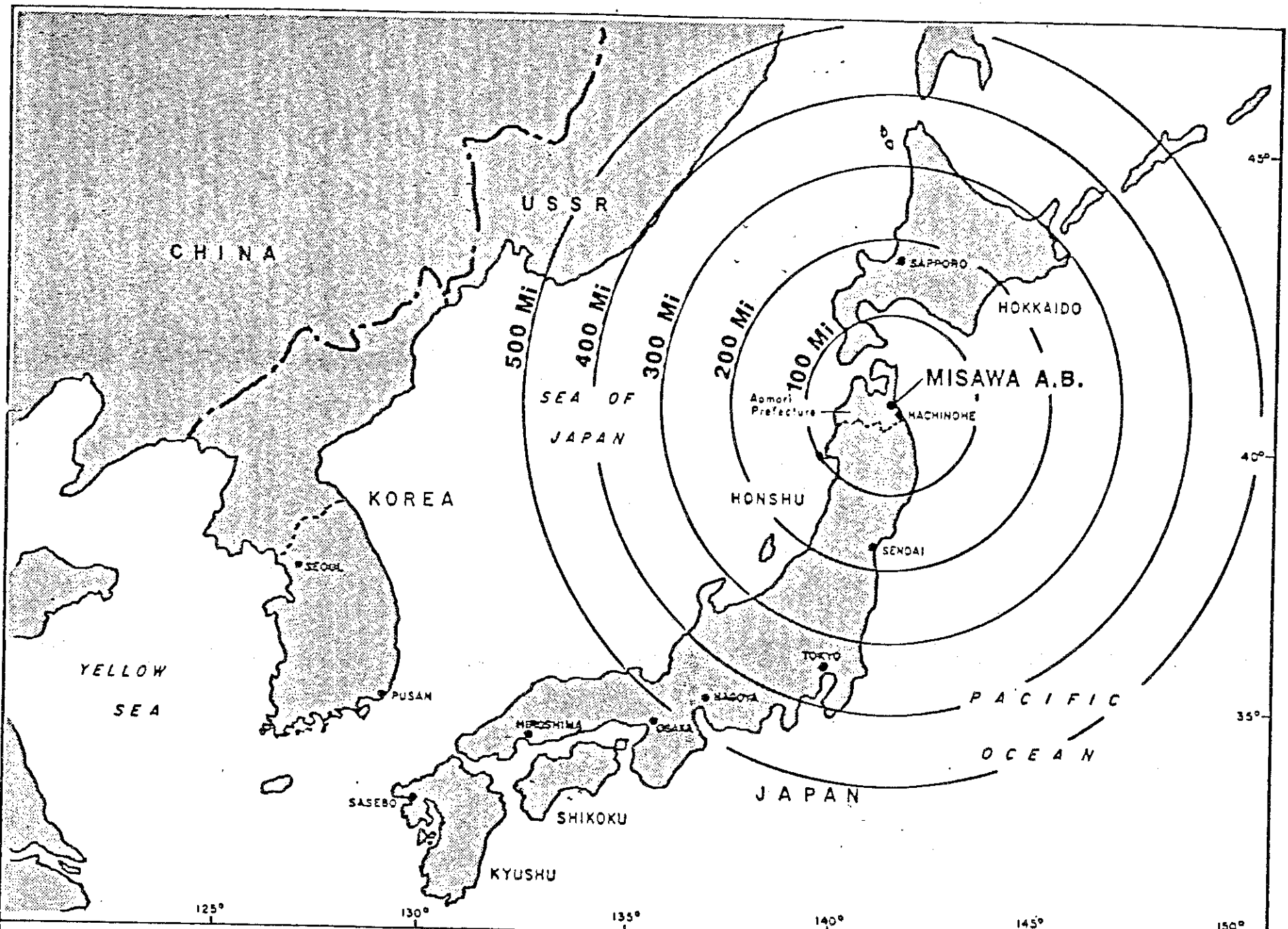
the other a knoll about 3,000 feet off the end of the runway. Thus, all buildable land can be considered level insofar as potential encroachment into the airspace zones is concerned. There are no hills protruding into any imaginary surfaces around the airfield.

Floodplain/Soils. No areas of Misawa Air Base are subject to flooding and there are no swamps. Based on some 120 test boring logs available, soils are generally silty or sandy clays with some gravel. The sandy clay color varies from light orange to dark brown. Allowable soil bearing pressure for foundations on all areas investigated is approximately 2,000 pounds per square foot. Normal soil investigation procedures should be used prior to construction.

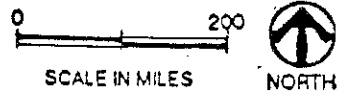
Vegetation. Approximately 20 to 25 percent of the base is covered by trees -- mostly pine but with some broadleaf and cryptomeria. Some parts of the built-up housing areas have large trees, but most of the growth of trees and other vegetation is under 10 feet tall. Figure E-4 shows those areas of the base where natural vegetation exists.

Activity Factors

History. Archeological specimens indicate that the area around Misawa City was populated about 8,000 years ago, possibly by the Ainu ancestors of the people now found in Hokkaido.

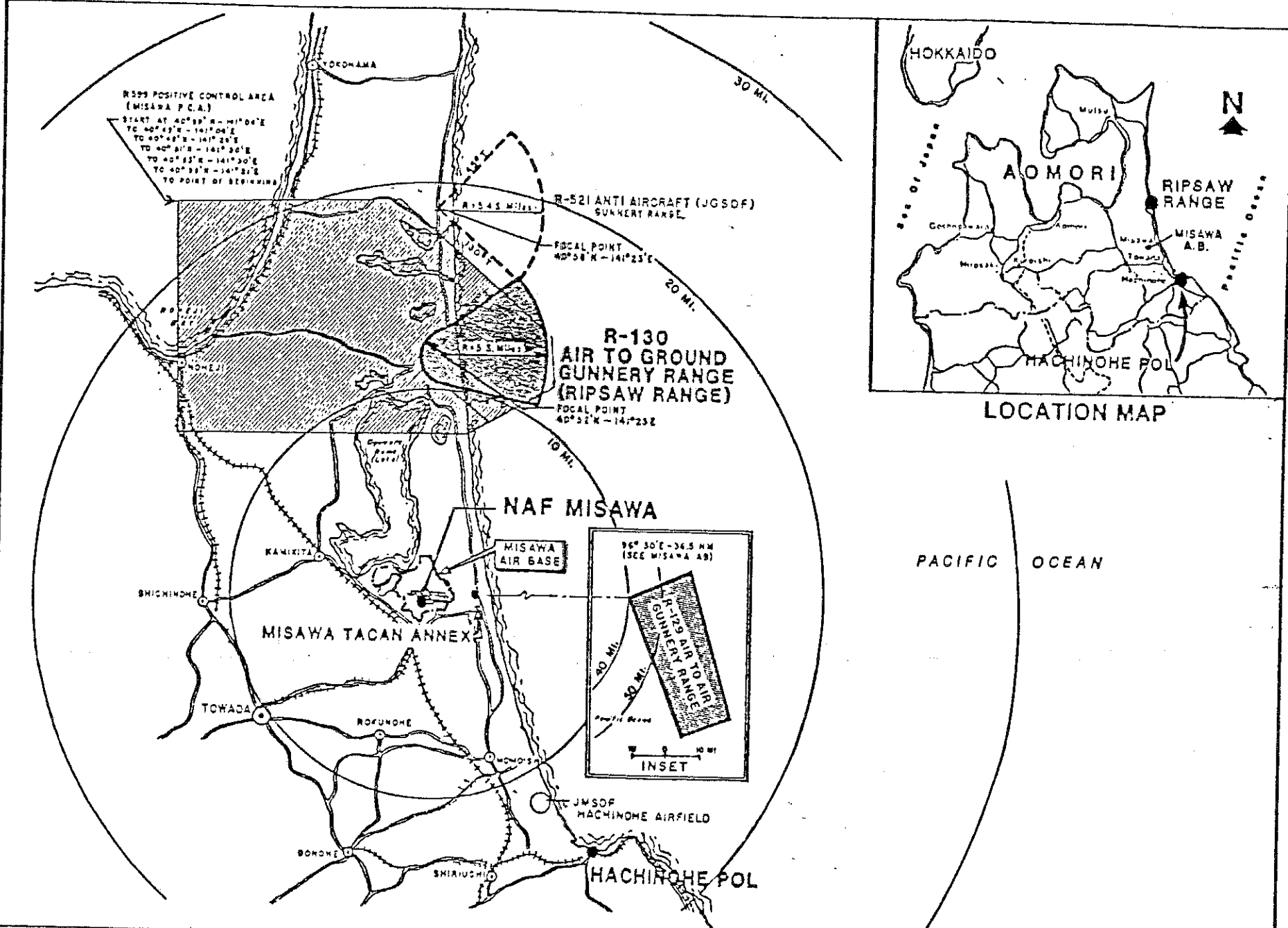


MASTER PLAN
U.S. NAVY FACILITIES MISAWA



REGIONAL MAP

Figure
E-1



R399 POSITIVE CONTROL AREA
(MISAWA P.C.A.)
START AT 40°59'N - 141°04'E
TO 40°49'N - 141°04'E
TO 40°49'N - 141°26'E
TO 40°49'N - 141°30'E
TO 40°52'N - 141°23'E
TO POINT OF BEGINNING

R-130
AIR TO GROUND
GUNNERY RANGE
(RIPSAW RANGE)
FOCAL POINT
40°52'N - 141°23'E

NAF MISAWA

MISAWA AIR BASE

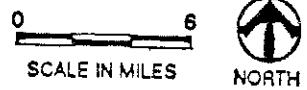
MISAWA TACAN ANNEX

96° 30'E - 36.5 NM
(SEE MISAWA AB)
R-130 AIR TO AIR
GUNNERY RANGE
INSET

LOCATION MAP

PACIFIC OCEAN

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



U.S. NAVY FACILITIES MISAWA

Figure
E-2

TABLE E-1

STATISTICAL CLIMATOLOGY

TEMPERATURES (Degrees Fahrenheit)

	<u>Average</u>	<u>Average Maximum</u>	<u>Average Minimum</u>	<u>Extremes/Year High</u>	<u>Extremes/Years Low</u>
January	29	35	23	59/1964	6/1967
February	29	35	22	58/1958	9/1976
March	35	42	28	69/1968	8/1986
April	46	55	38	82/1972	19/1984
May	55	64	47	87/1956	31/1955
June	59	67	54	92/1953	37/1954
July	69	75	62	97/1953	44/1976
August	72	77	66	97/1957	51/1976
September	65	72	58	92/1952	41/1973
October	55	63	46	80/1955	30/1975
November	44	51	36	71/1962	20/1949
December	34	40	28	63/1963	10/1984

PRECIPITATION - RAIN
(Inches)

	<u>Average</u>	<u>Maximum/Year</u>	<u>Minimum/Year</u>	<u>24hr Maximum/Year</u>
January	3.07	9.18/1953	.37/1985	2.36/1980
February	2.77	6.68/1958	.35/1973	2.30/1972
March	2.68	8.05/1952	.79/1961	4.31/1952
April	2.59	7.13/1964	.04/1976	2.28/1968
May	3.17	10.79/1982	.78/1974	6.67/1982
June	4.17	10.11/1954	1.06/1973	3.06/1955
July	4.42	9.84/1980	1.22/1973	4.33/1980
August	4.99	18.23/1980	.27/1951	5.40/1986
September	6.01	17.28/1958	1.57/1956	4.37/1958
October	3.86	10.04/1955	.54/1965	3.76/1951/80
November	3.10	10.10/1977	.59/1984	3.59/1951
December	2.51	6.62/1959	.35/1973	2.15/1964
Annual	43.34	18.23/1980	.04/1976	6.67/1982

Table E-1 (continued)





PRECIPITATION - SNOW
(Inches)

	<u>Average</u>	<u>Maximum/Year</u>	<u>Minimum/Year</u>	<u>24hr Maximum/Year</u>
January	37.6	117.1/1960	4.5/1949	27.2/1960
February	32.2	85.0/1984	4.4/1949	22.4/1977
March	20.0	57.7/1952	1.2/1959	43.1/1952
April	4.3	18.5/1979	-	15.8/1979
May	-	-	-	-
June	-	-	-	-
July	-	-	-	-
August	-	-	-	-
September	-	-	-	-
October	-	.6/1957	-	-
November	7.5	33.1/1985	-	.6/1957
December	21.9	48.0/1974	1.1/1948	11.0/1969
Annual	123.5	227.2/1984	62.8/1972	12.2/1976 43.1/1952

Ogawara Numa
(Lake Ogawara)

Ane Numa
(Lake Ane)

LEGEND:

-  0 - 5 % Slope
-  5 - 10 % Slope
-  10 - 15 % Slope
-  15 % + Slope

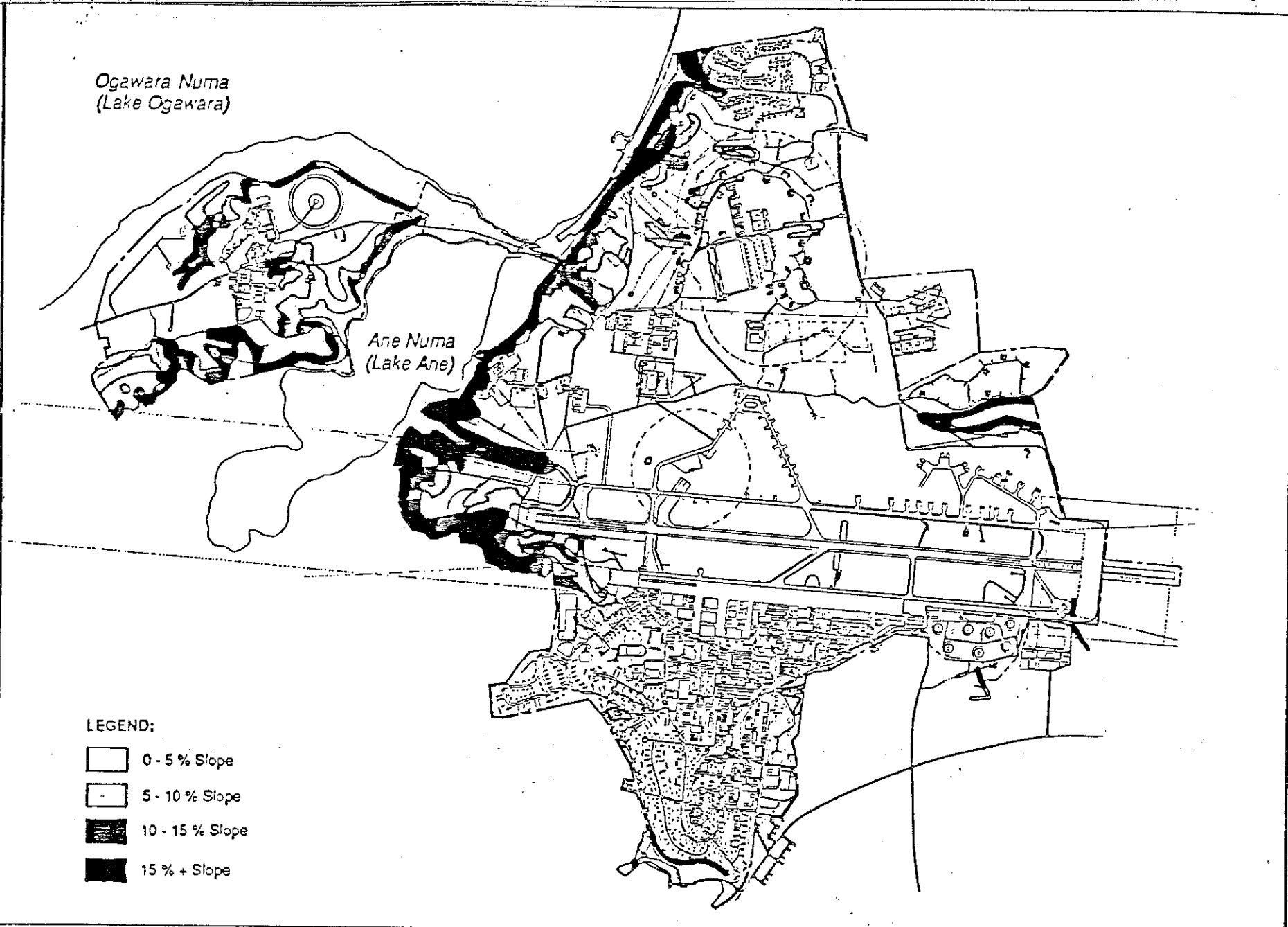
MASTER PLAN
U.S. NAVY FACILITIES MISAWA

0 1200 2400
SCALE IN FEET



SLOPE ANALYSIS


Figure
E-3



Ogawara Numa
(Lake Ogawara)

Ane Numa
(Lake Ane)

LEGEND

 Natural Vegetation Areas

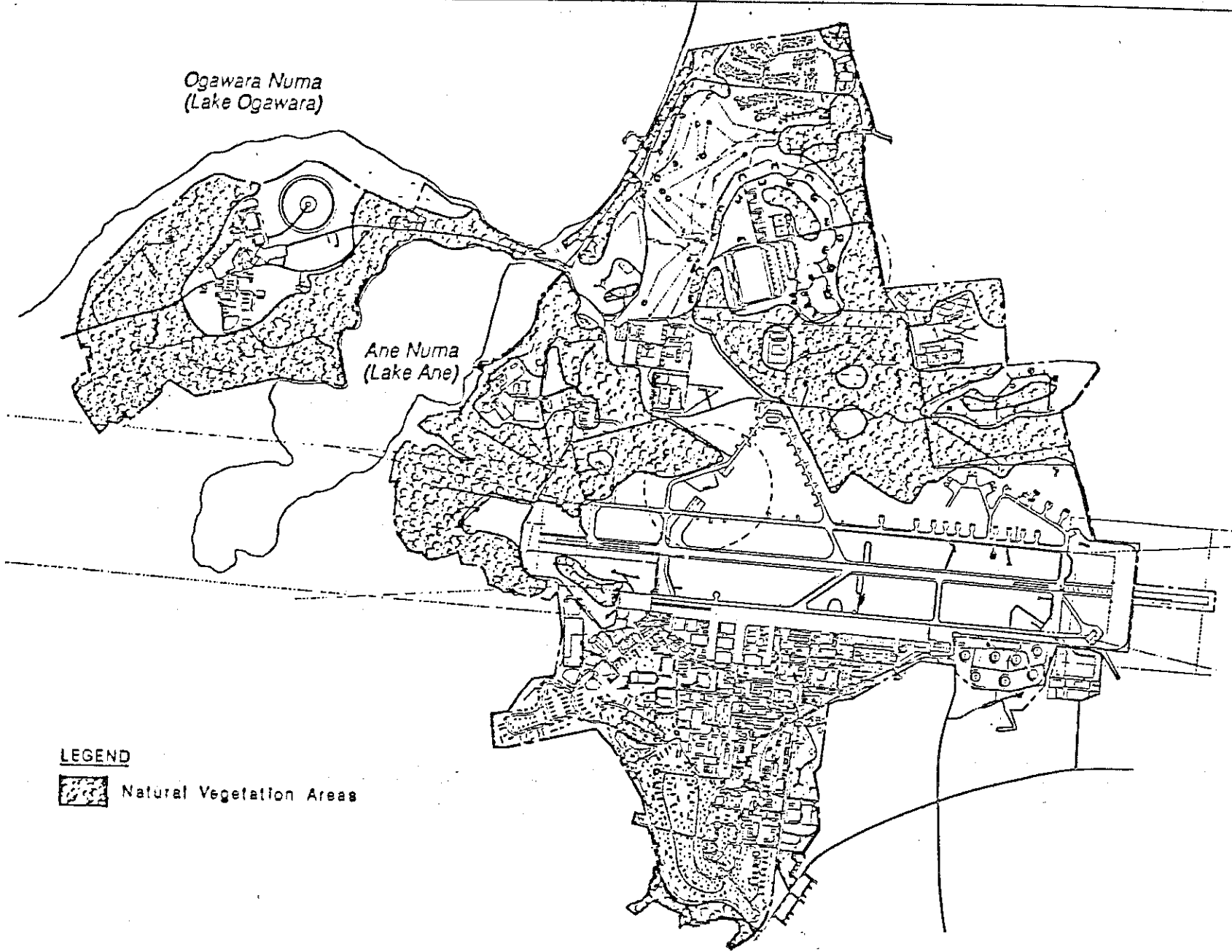
MASTER PLAN
U.S. NAVY FACILITIES MISAWA

0 1200 2400
SCALE IN FEET



AREAS OF NATURAL VEGETATION

Figure
E-4



The Nambu Clan established nine horse farms in this area in about 1371. The climate and vegetation of the Misawa area were found to be ideal for horse breeding, and there were once 700 private horse farms located here. During the Meiji Restoration, a National Horse Farm was established, and the area was eventually used as a cavalry training center for the Imperial Army.

On 3 October 1931, Clyde Pangborn and Hugh Herndorn took off from the nearby beach at Sabishiro on their historic nonstop transpacific flight. After 41 hours and 13 minutes, they landed in Wenatchee, Washington, completing their 4,558-mile flight.

In 1938, the Imperial Army laid an airstrip at Misawa. Original plans called for using the airstrip as a base for long-range bombers which could be launched toward the U.S. in the event of war and to protect northern Honshu during the war with China. The mission of the base became research and development when the base was taken over by the Japanese Navy in 1942. In April 1945, shortly before the end of World War II, the Yokosuka Flying Corps took over the base and began tests on new aircraft designs. Misawa Air Base was the site where many improvements on the Zero and other fighter planes were tested.

In July 1945, only one month before the end of World War II, USN fighters bombed and strafed the base before an alarm could be sounded. As a result of this raid, Misawa lost its Aircraft Repair Center, which was located where the BOQs now stand. During the first week of August 1945, B-29 Superforts practically demolished the base; and, in September, Captain Stark and his

famous "Wildcat Troops" occupied Misawa, holding it until the 32nd Engineers restored it for use by the Army Air Forces.

Primarily a tactical aircraft (TACAIR) base from 1950 through 1971, Misawa Air Base is a large USAF Security Service overseas installation and is the home of the 432nd Tactical Fighter Wing, the first U.S. Fighter Wing since 1972 to be based on Mainland Japan.

Mission. The primary missions for each of the major Navy activities at Misawa/Hachinohe are as follows:

✓ - Naval Air Facility. To maintain and operate facilities and provide services and material to support operations of aviation activities and units of operating forces of the U.S. Navy and other units as designated by Chief of Naval Operations (CNO).

✓ - Patrol Wing One Detachment and Patrol Squadron (on rotational assignment). To maintain a high state of Anti-Submarine Warfare (ASW) readiness; conduct ASW and maritime air patrol flights; conduct sea-air rescue, ice patrols, U.S. Trust Territory patrols, medical evacuations and oceanographic charting; conduct aerial mine warfare training and operations.

- U.S. Naval Oceanography Command Detachment. To provide, as directed and within the local/functional area of responsibility, oceanographic services to support the mission of the Commander, Naval Oceanography Command.

U.S. Naval Security Group Activity, Misawa (NAVSECGRUACT Misawa). To provide an integral part of worldwide communications network for defense of the U.S. and the free world. Additional functions include monitoring transmission procedures and conducting research on electronic phenomena.

NSD Hachinohe POL Depot. To receive, store, and distribute petroleum products to all U.S. military and civilian agencies in Aomori.

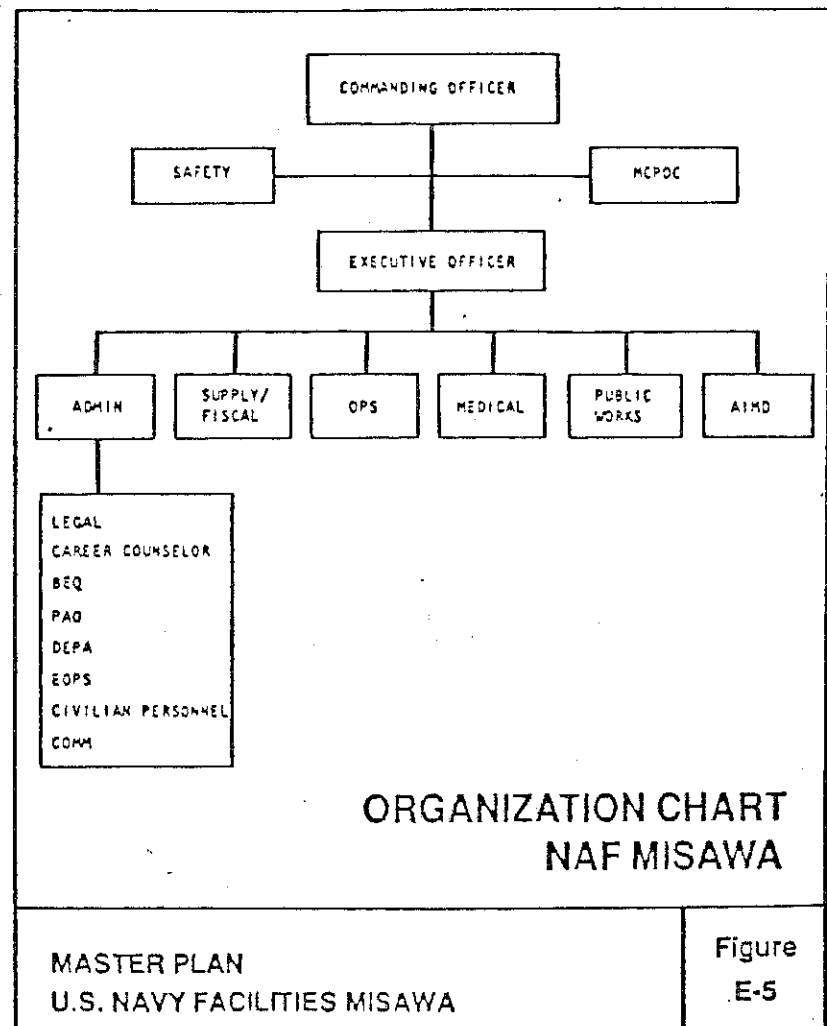
Organization (see Figure E-5). NAF Misawa is under the area coordination of the Commander, U.S. Naval Forces, Japan (COMNAVFORJAPAN). The Commanding Officer NAF Misawa has been designated as the Subordinate Area Coordinator for the Misawa area and maintains liaison with appropriate U.S. Navy, Army, Marine Corps, Air Force and Japan Air Self Defense Force commands. NAF Misawa provides support to the units of the Seventh Fleet in the Misawa area and acts as COMFAIRWESTPAC representative in the area.

NAF Misawa is host to rotational Patrol Squadrons; Patrol Wing One Detachment, Misawa; Naval Oceanography Command Detachment, Misawa; Personnel Support Activity Detachment, Misawa; Fleet Audio Visual/Support Activity, Misawa; and tactical aircraft of Navy and Marine Corps units, when assigned.

NAF Misawa is also host to Mobile Mine Assembly Group Unit Twelve, Mobile Maintenance Facility "Charlie", Naval Investigative Service, Misawa

and Officer in Charge of Construction, NAVFAC Contracts, Misawa. Additionally, reserve Patrol Squadrons are also hosted here.

NAF Misawa consists of seven departments: Administration, Consolidated Maintenance, Medical, Operations, Public Works, Safety and Supply. There are three executive assistant positions: Security, Master Chief Petty Officer of the Command and Legal Officer.



NAF AT MISAWA AIR BASE

Existing Conditions

Site Analysis

Background. NAF Misawa is a tenant activity of the U.S. Air Force (USAF) at Misawa Air Base (MAB). While NAF Misawa is a separate command, its facilities are contiguous to and integrated with the USAF facilities. Navy personnel use all the USAF support facilities including berthing, messing, medical/hospital and recreational. To meet its mission of providing support to deployed patrol squadrons and tactical air group detachments, this activity operates in specific areas and uses facilities at MAB under USAF permit.

Location of NAF Misawa Facilities at MAB.

Generally speaking, NAF Misawa's administration, supply, maintenance, public works, military personnel housing and air operations facilities are located on the south side of the MAB runway. Ordnance facilities are on the north side of the runway in areas designated as the "1100" and "1400" areas (see Figure F-1).

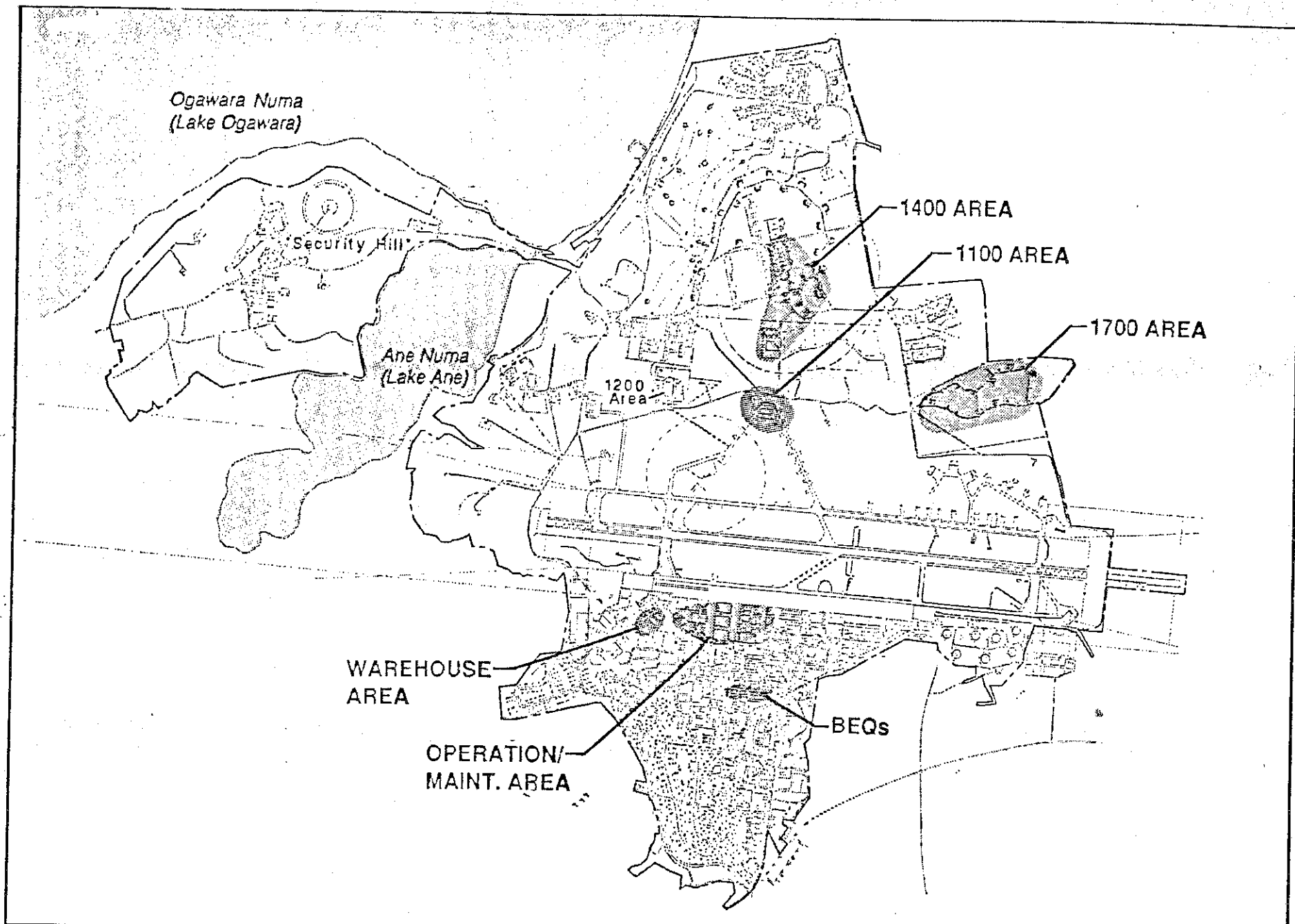
Size. The main base area of MAB, including Security Hill, comprises a total of about 3,926 acres. The areas occupied by NAF Misawa facilities constitute a small portion of MAB.

Facilities. The current permit expired on 31 March, 1985 and has not yet been renewed. Under that permit, the major buildings and structures permitted to NAF Misawa are listed on Table F-1. Major buildings and structures permitted to NAF Misawa are shown on Figure F-2. USAF community support facilities at the main base, also available to the U.S. Navy personnel, are shown in Figure F-3. Following are brief descriptions of the major buildings and structures presently used at NAF Misawa for the various functions.

Operational/Training. The major operational and training areas assigned for the U.S. Navy's use are centered around the flight line/hangar area south of the runway.

The photo lab is on the main base near the BEQ in wooden Bldg. 514 which is being expanded. It is used jointly by the USN and the USAF.

Maintenance. Maintenance facilities for aircraft are available in Hangars 941, 946 and 954, with each providing OH, O1 and O2 spaces. These hangars are used for airframe and avionics shops, aircraft maintenance/spare storage, and an engine maintenance shop.



MASTER PLAN
 U.S. NAVY FACILITIES MISAWA

0 1200 2400
 SCALE IN FEET



LOCATION MAP NAF MISAWA

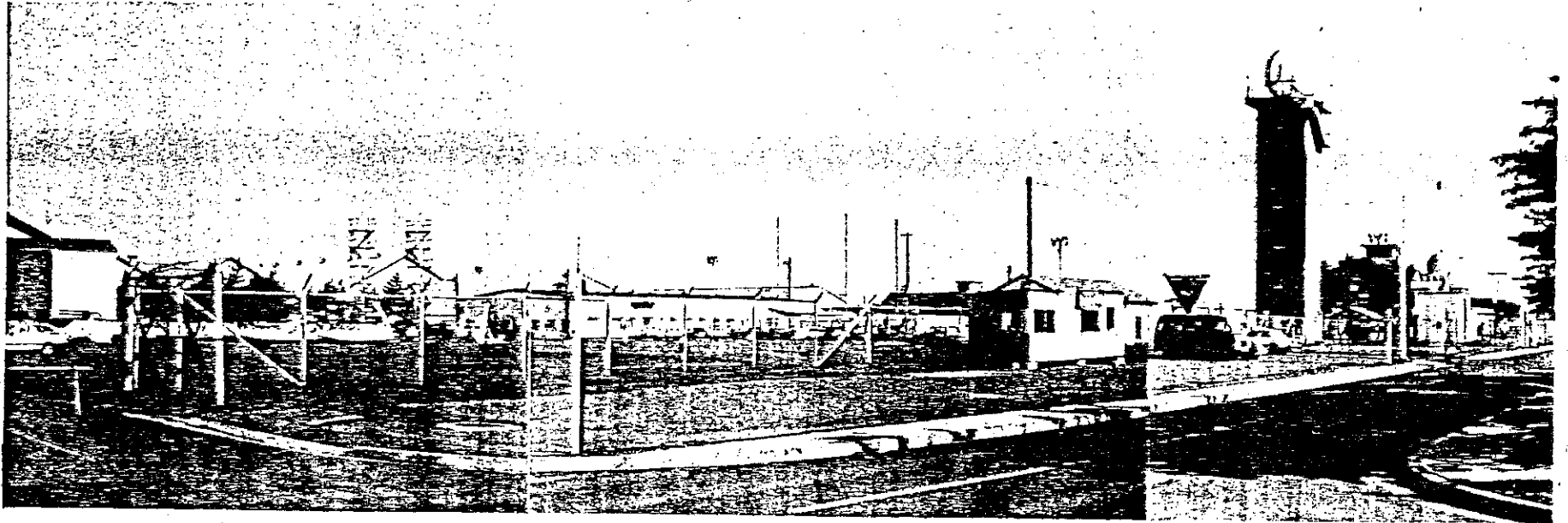
Figure
 F-1

TABLE F-1

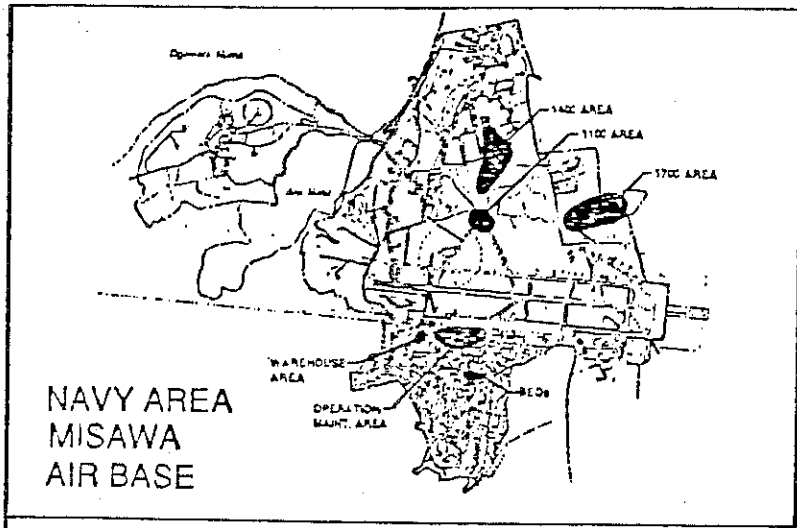
LIST OF BUILDINGS AND STRUCTURES
PERMITTED TO NAF MISAWA

<u>Bldg.No.</u>	<u>Nomenclature</u>	<u>QUAN.</u>	<u>U/M*</u>	<u>Remarks</u>
511	HSG SUP&STOR FCLTY	165		
514	PHOTO LAB, BSE	2,250		Joint Use
520	DORM AM PF/PCS-STD	55,208	232 pn	
543	DORM AM PF/PCS-STD	63,798	392 pn	
655	ADMIN OFC, NON-AF	3,250		Joint Use
756	WHSE SUP&EQUIP BSE	4,043		
762	WHSE SUP&EQUIP BSE	4,043		
763	WHSE SUP&EQUIP BSE	4,043		
764	WHSE SUP&EQUIP BSE	4,043		
926	WHSE SUP&EQUIP BSE	62,252		
929	WHSE SUP&EQUIP BSE	9,600		
937	SHF A/SE STOR FCLT	836		
941	HG MAINT	73,863		
946	HG MAINT	67,068		
948	HAZARD STOR, BSE	234		
950	SHF A/SE STOR FCLTY	368		
954	HG MAINT	57,270		Joint Use till 88
955	STOR, SEG MAG	458		
958	ADMIN OFC, NON-AF	2,611		Joint Use
961	SQ OPS	12,611		
962	ELEC PWR STN BLDG	289		
963	ELEC PWR STN BLDG	126		
964	ADMIN OFC, NON-AF	20,016		
971	ADMIN OFC, NON-AF	11,779		
979	VEH MAINT SHP	2,925		
988	ELEC PWR STN BLDG	180		
989	AIR COND PLT BLDG	340		
993	TECH TNG CLASSROOM	1,353		
994	BLDG WTR SUP	180		Rinse Facility
998	OPS, BSE	430		Joint Use
999	ELEC PWR STN BLDG	90		

*All unit of measure are in square feet unless otherwise noted.



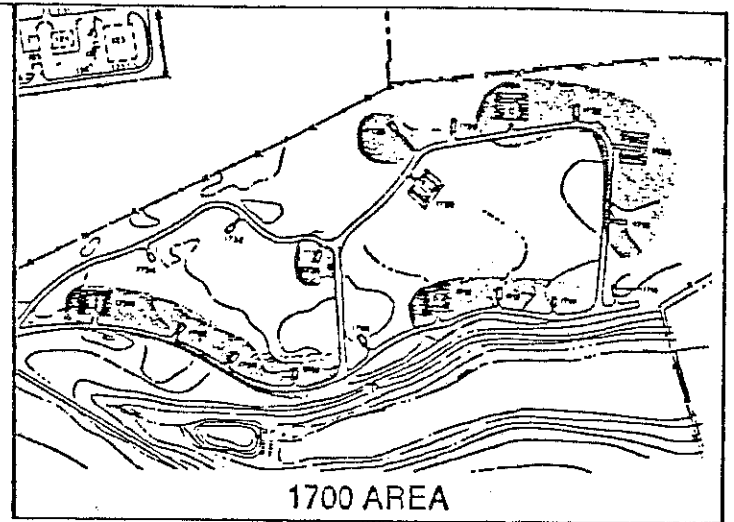
View Towards NAF Misawa Area



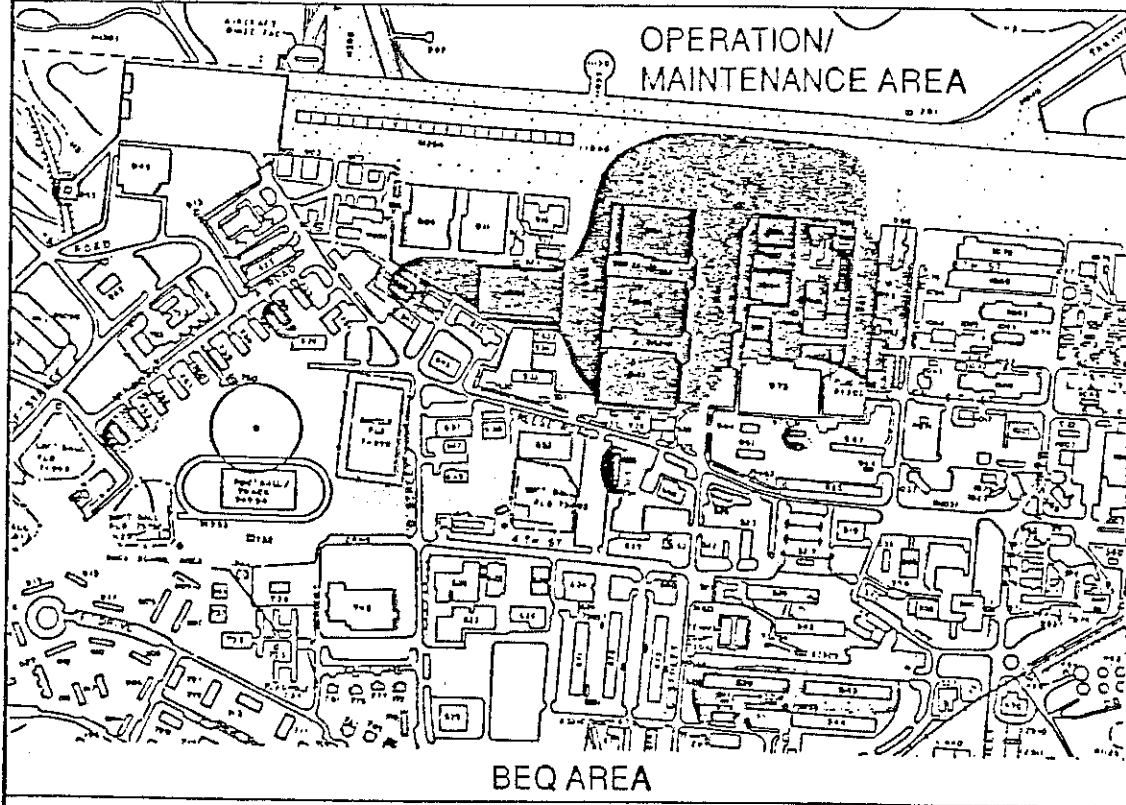
NAVY AREA
MISAWA
AIR BASE

LEGEND:

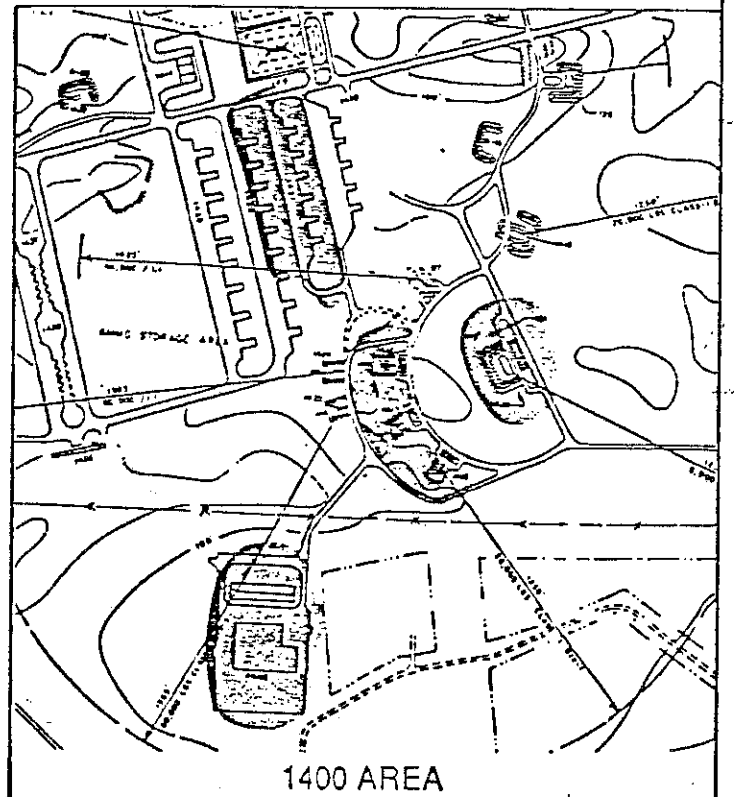
 NAF FACILITIES



1700 AREA

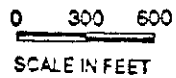


BEQ AREA



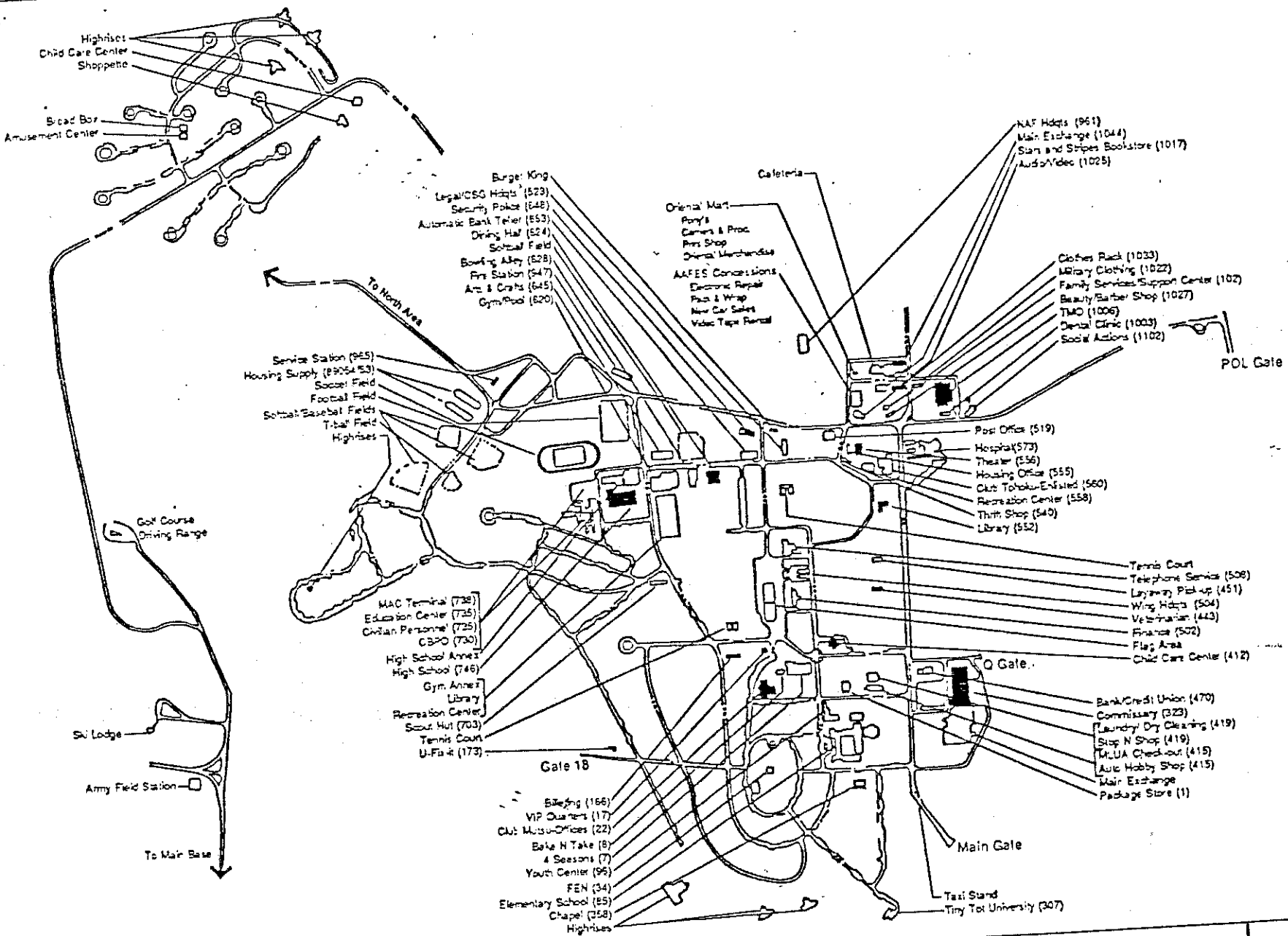
1400 AREA

MASTER PLAN
U.S. NAVY FACILITIES MISAWA



NAVY FACILITY LOCATOR MAP NAF MISAWA

Figure
F-2



MASTER PLAN
U.S. NAVY FACILITIES MISAWA



USAF COMMUNITY SUPPORT FACILITIES AT
MISAWA AIR BASE

Figure
F-3

- Highways
- Child Care Center
- Shoppette
- Broad Bar
- Amusement Center
- Burger King
- Legal/OSG Hdqts (523)
- Security Police (548)
- Automatic Bank Teller (553)
- Driving Hall (524)
- Social Field
- Bowling Alley (528)
- Fire Station (547)
- Art & Crafts (645)
- Gym Pool (820)
- Caletoria
- Oriental Mart
- Pony's
- Camera & Proc
- Print Shop
- Optical Merchandise
- AAFES Concessions
- Electronic Repair
- Photo & Video
- New Car Sales
- Video Tape Rental
- NAF Hdqts (961)
- Main Exchange (1044)
- Stamps and Stripes Bookstore (1017)
- Audio/Video (1025)
- Clothes Rack (1033)
- Military Clothing (1022)
- Family Services Support Center (102)
- Beauty/Barber Shop (1027)
- TMO (1006)
- Dental Clinic (1003)
- Social Actions (1102)
- POL Gate
- Service Station (965)
- Housing Supply (99054/53)
- Soccer Field
- Football Field
- Social Baseball Fields
- Tennis Field
- Highways
- Golf Course
- Driving Range
- Post Office (519)
- Hospital (573)
- Theater (556)
- Housing Office (555)
- Club Tokoku-Enlisted (560)
- Recreation Center (558)
- Thrift Shop (549)
- Library (552)
- Tennis Court
- Telephone Service (508)
- Luggage Pick-up (451)
- Wing Hdqts (504)
- Veterinarian (443)
- Finance (502)
- Flag Area
- Child Care Center (412)
- Q Gate
- Bank/Credit Union (470)
- Commissary (323)
- Laundry/Dry Cleaning (419)
- Shop N Shop (419)
- Mt. UA Check-out (415)
- Auto Hobby Shop (415)
- Main Exchange
- Package Store (1)
- Swi Lodge
- Army Field Station
- To Main Base
- Gate 18
- Bleeding (166)
- VIP Quarters (177)
- Club Mess-Offices (22)
- Base N Take (8)
- 4 Seasons (7)
- Youth Center (96)
- FEN (34)
- Elementary School (85)
- Chapel (258)
- Highways
- Taxi Stand
- Tiny Tot University (307)
- Main Gate
- MAC Terminal (738)
- Education Center (725)
- Civilian Personnel (725)
- CBPO (730)
- High School Annex
- High School (746)
- Gym Annex
- Library
- Recreation Center
- Squad Hut (703)
- Tennis Court
- U-Facility (173)

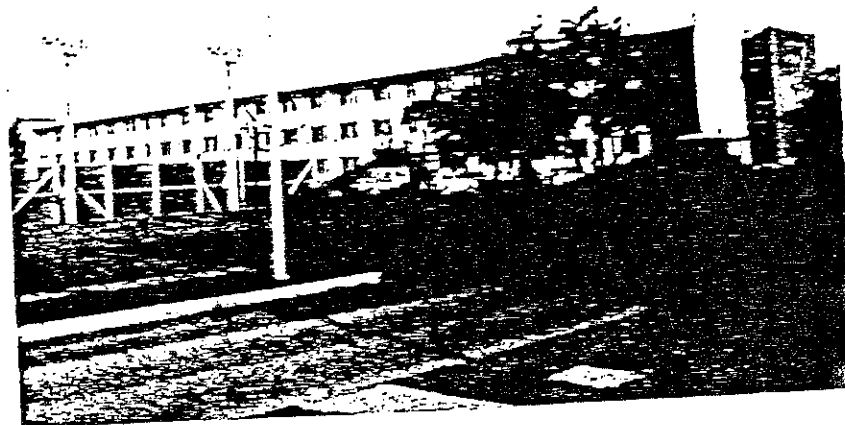
Other maintenance functions such as electronics/communications maintenance and parts storage, auto vehicle (non-combatant) maintenance, battery shop, and ground support equipment shop are in different buildings located in the operations/maintenance area. Ground support equipment storage space is provided in Bldgs. 926 and 964.

Supply. General purpose warehousing is provided in Bldgs. 762, 763, 764, 926 and 941. Building 929 is the controlled humidity warehouse with a small paved area used for storage of sonobuoys.

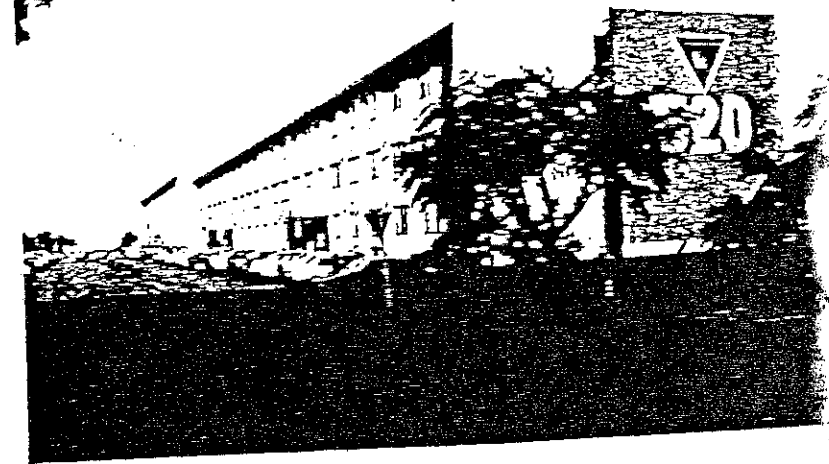
Administration. The major administrative facilities are the NAF Misawa administrative office in Bldg. 961 and the Personnel Support Activity Detachment office in Bldg. 971. There are other smaller administrative offices, such as the Security Office which is in Bldg. 655.

Bachelor Housing. Enlisted berthing is provided primarily in two concrete, permanent buildings located on the main base among the USAF barracks. Navy barracks Bldg. 520 has three floors with a total of 117 rooms, each with over 244 SF of net floor area (NF) living space and a private bathroom. Bldg. 543 has four floors with a total of 196 rooms of 180 NF each, with shared bathroom for each pair of rooms.

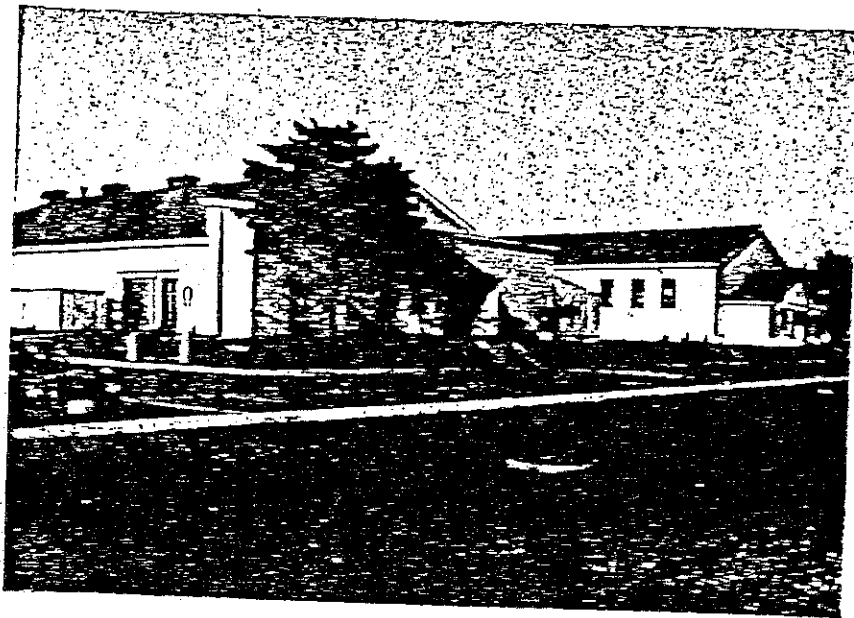
Navy bachelor officers are presently accommodated in USAF BOQs. Project F-006 proposes to provide two four-story BOQ's for U.S. Navy's use.



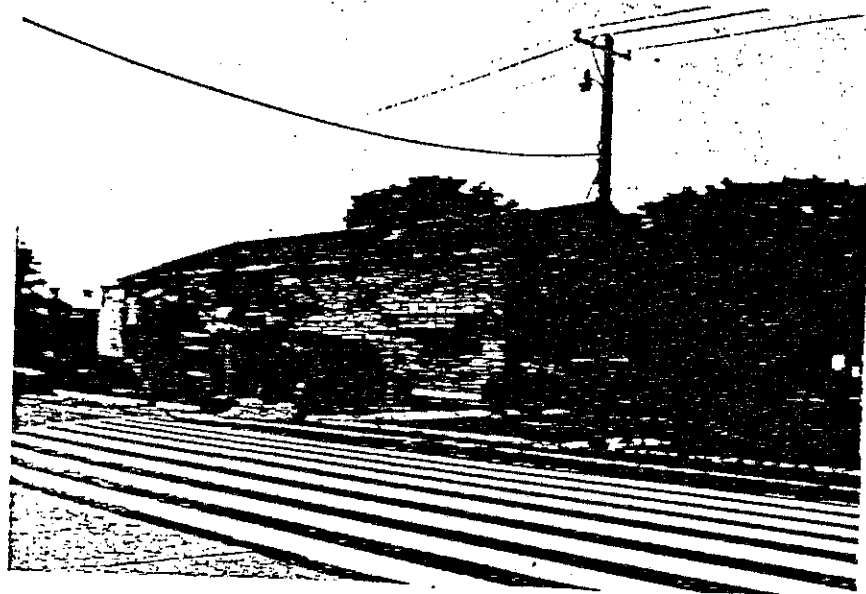
Barracks 520 With Tennis Courts on Left



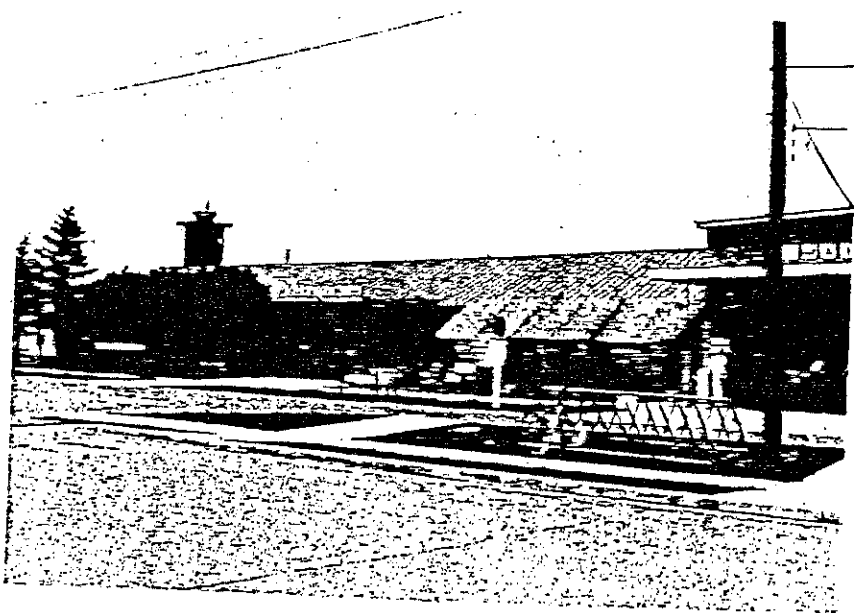
Barracks 520 In Front, Barracks 543 In Back



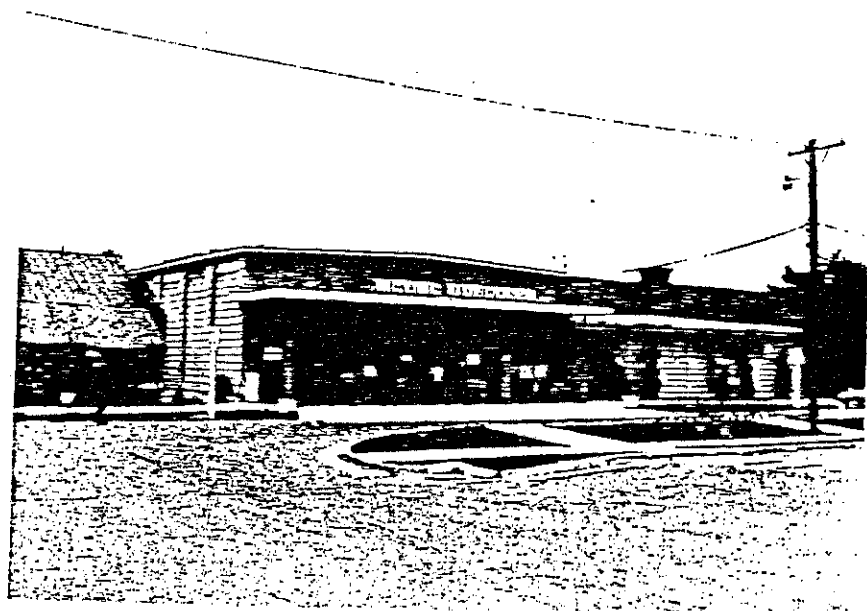
Bowling Alley



Audio/Photo Center



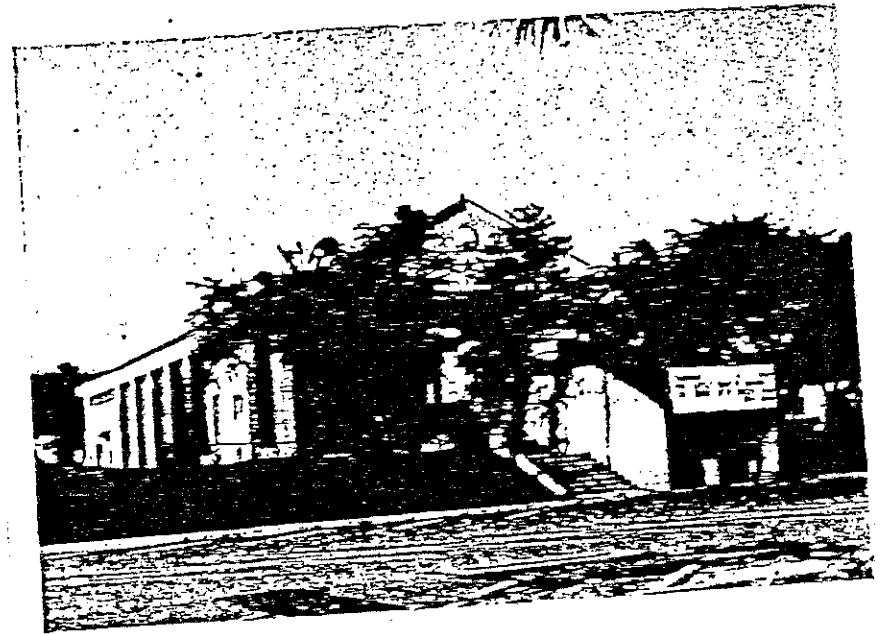
Cafeteria



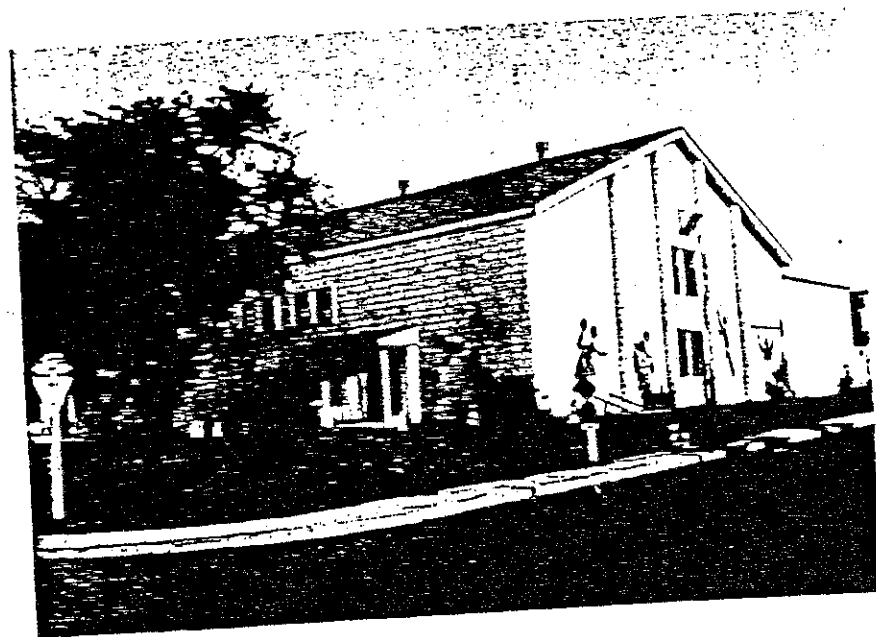
Main Exchange

Community Facilities. Personnel support facilities are adequately provided by the USAF at MAB (see Figure F-3). An exchange snack bar is operated by AAFES in Bldg. 961 primarily for the benefit of the Navy personnel working around the office and hangar areas.

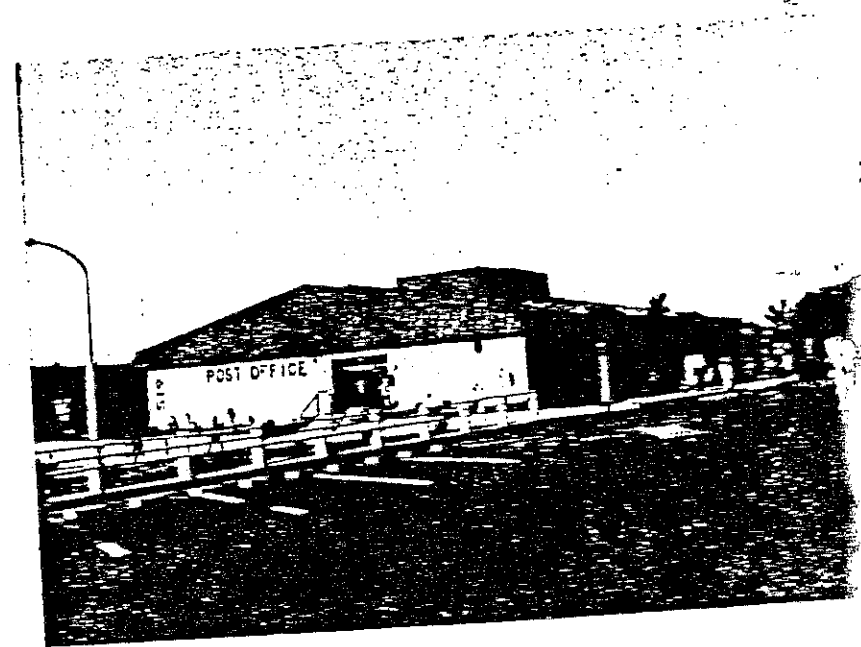
Morale, Welfare, Recreation. The USAF provides these facilities for use by all U.S. DOD personnel and their dependents at MAB.



Theater



Gymnasium



Post Office

Existing Base Appearance. The NAF Misawa area south of the runway, consisting of the administrative offices, hangars, warehouses and shops, is within a fenced area with a NAF Misawa logo/sign at the entrance gate to identify its location. While the USAF buildings on base are generally distinguishable by their beige walls, brown roofs and large building numbers, the Navy facilities are generally painted white, with no consistent roof colors, and with small building identification numbers. Further identification of the Navy's presence is achieved by the presence of two flag poles and two ship anchors located in a small landscaped area within the compound, away from the entrance gate.

Recommendations. While there may be some merit in not having Navy facilities duplicating the appearance of USAF buildings, it would be appropriate to provide some BEAP improvements to better identify the Navy's presence within the USAF installation. The use of distinctive colors and larger identification numbers on Navy structures is also recommended.

Proposed landscape and sign improvements are also recommended in two areas as described below. They are at the facility entry on "B" Street between 6th and 7th Streets and at the flagpole/headquarters area. It is recognized that two future projects, the SCPS unit at the flagpole area and the ASWOC building at the entry, will affect the proposed improvements. An attempt was made to minimize the impact those projects may have on the proposed landscape/sign improvements.

The existing condition at the facility entry is shown on Figure F-21. The improvements to the facility entry (see Figure F-22) create visual prominence and provide enhanced identification of the entryway.

Utilizing the site at the corner of "B" Street and 7th Street, while avoiding the area proposed for the future ASWOC building, an improved facility identification is proposed, consisting of:

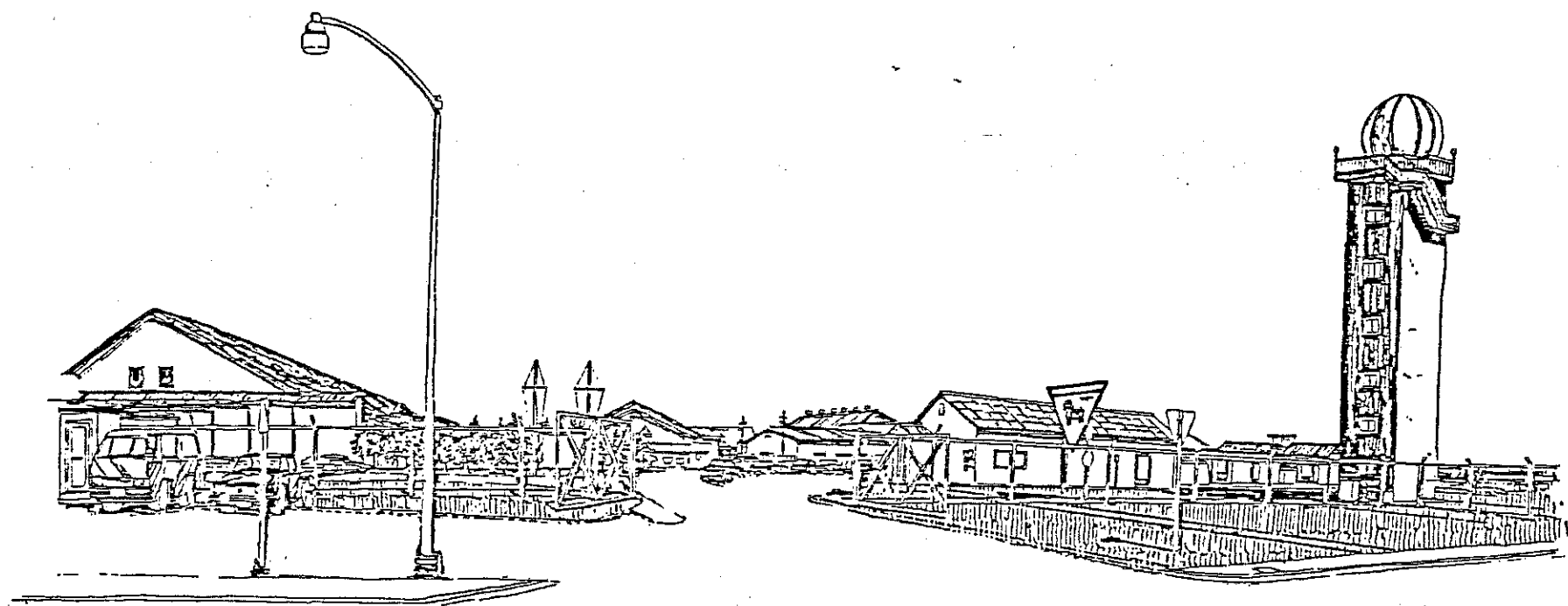
New Entry Wall. Constructed of either cast concrete or concrete masonry units with a stucco finish. Color to be two compatibly painted colors.

Relocated Facility Sign. The existing sign is to be relocated and attached directly onto the new entry wall.

Additional Landscaping. In order to achieve a more visually appealing entry, a planting of pines, behind the sign wall and along the 7th Street entry drive, is proposed. The use of the same species of pines at the flagpole area will further unify the facility.

Accent planting, combining flowering annuals and evergreen shrubs and ground covers, in front of the entry wall, will provide visual interest at the improved entry.

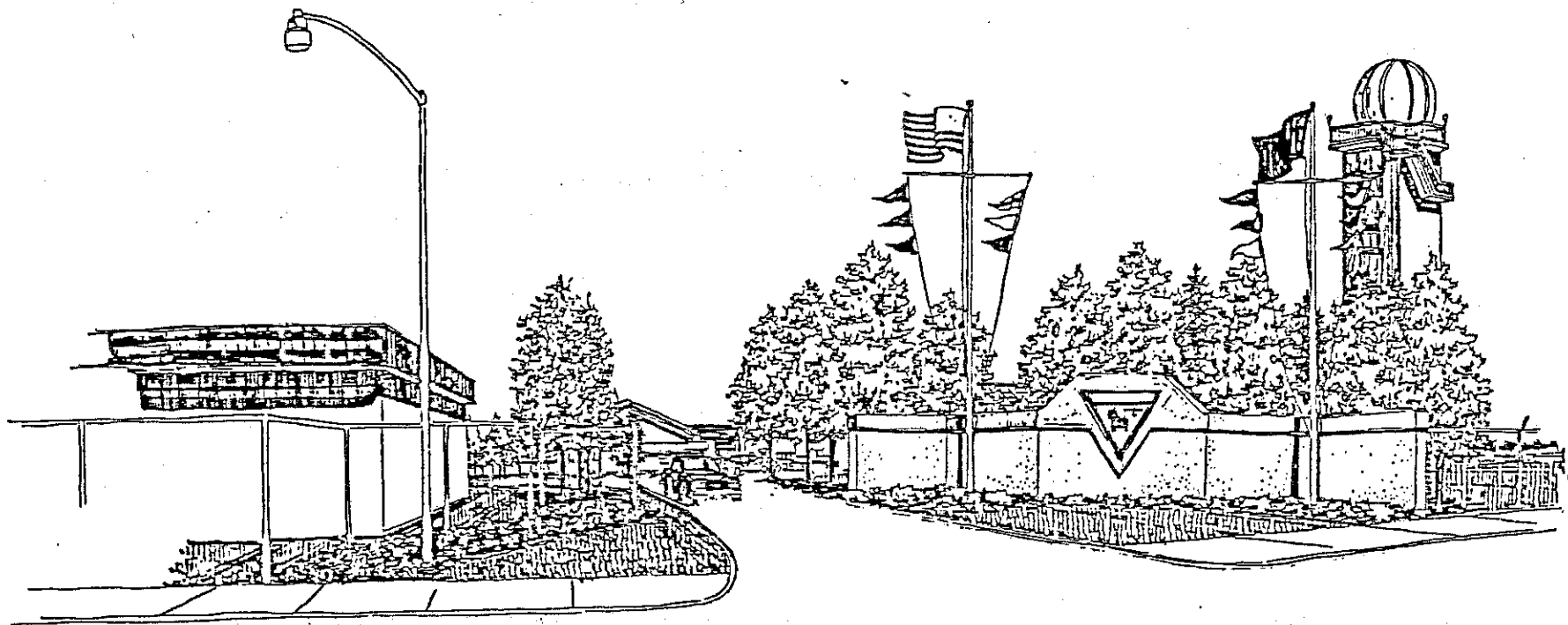
Alternate Flagpole Location. To further accentuate the sense of entry and identification, the existing flagpoles could be relocated to the improved facility entry.



MASTER PLAN
U.S. NAVY FACILITIES MISAWA

EXISTING CONDITION AT FACILITY ENTRY

Figure
F-21



MASTER PLAN
U.S. NAVY FACILITIES MISAWA

BEAP-PROPOSED FACILITY ENTRY

Figure
F-22

Base Exterior Architecture Plan. Military installations should provide efficient and pleasant physical environments conducive to attracting and retaining skilled and motivated personnel. The physical setting of a base also has an impact on the perceptions and opinions that the general public has towards the base and its personnel. There are three areas in which physical improvements can provide favorable results. These areas are landscaping, building colors, and graphics. The greatest positive visual impacts can be achieved by focusing on the areas providing the highest exposure to visitors and personnel.

A base exterior architecture plan is desirable to address improvements to highly visible features of the base, including gates, major roadways, buffers, and activity centers. The following sections provide general guidelines and some suggested improvements.

Landscaping. The objective of landscape improvements should be to enhance and visually unify the various functional and "public" areas of the base. General guidelines in establishing an improved landscaping environment include the following:

- Existing landscaping should be preserved and enhanced where possible.
- Plant selection should be based on minimizing maintenance requirements.

- Aesthetic and functional applications of landscaping should be employed to the maximum extent possible. These applications include: screening unsightly elements, buffering incompatible land uses, reducing noise, providing shade and cooling effects, and defining road networks and base entrances.

Graphics and Signs. A coordinated graphics and sign system that will clearly and concisely convey pertinent information through the proper application of signing principles and devices is desirable. Signs must not only be designed to serve their intended uses, they should also be compatible with others conveying similar information, and with their surroundings, including buildings and landscaping. To achieve this, all signs should be coordinated in construction and appearance. They should be simple, practical, and economical to construct and maintain. The entire system of signs and graphics should contribute to the overall image of the base.

Building Coloration. The appropriate selection of building colors can serve to visually identify and enhance the base along with accentuating key buildings or complexes. A consistent color pattern and exterior graphics should be used.

The existing condition at the flagpole/headquarters area is shown on Figure F-23. The improvements to the flagpole/headquarters area (see Figure F-24) seek to retain and enhance the basic character of the flagpole area and to make the headquarters (Bldg. 961) more attractive and visually important.

The major improvements consist of:

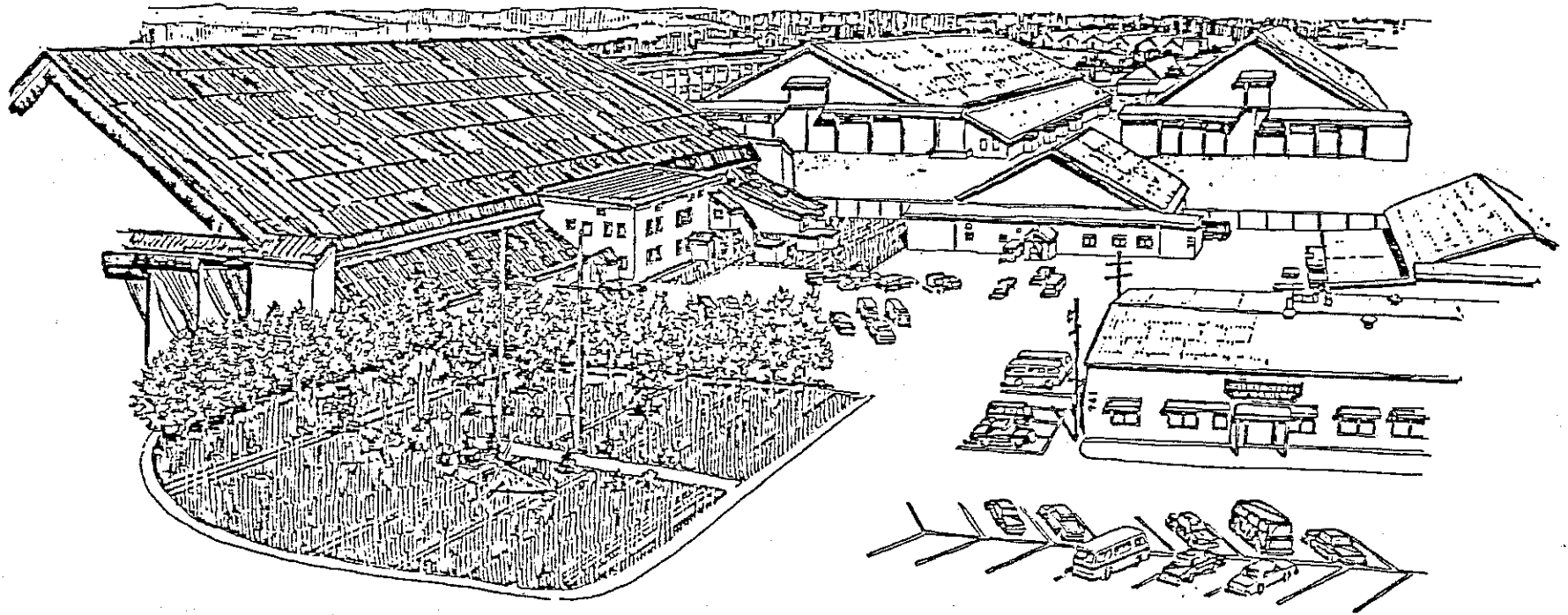
Relocated Flagpoles (see alternate location at improved entry) and Anchors. Related to the implementation of the proposed SCPS facility at this site, the existing flagpoles and anchors, along with the existing commemorative stone, are to be relocated closer to the "B" Street edge of the site.

Additional Landscaping. A major planting of cherry trees (*Prunus lannesiana* or *Prunus yedoensis*) is proposed as a visual accent in contrast to the backdrop of existing pines, which are to remain. The tree planting will extend from the flagpole area to the headquarters building to provide unity and visual enhancement.

Signs. A new sign is proposed for the headquarters building. The construction of a sign/entry structure following a design motif based on the traditional torii gate will provide a better facility entrance as well as reflect local cultural aspects.

Demolition Plan. The USAF has developed a Master Plan for Misawa Air Base which requires

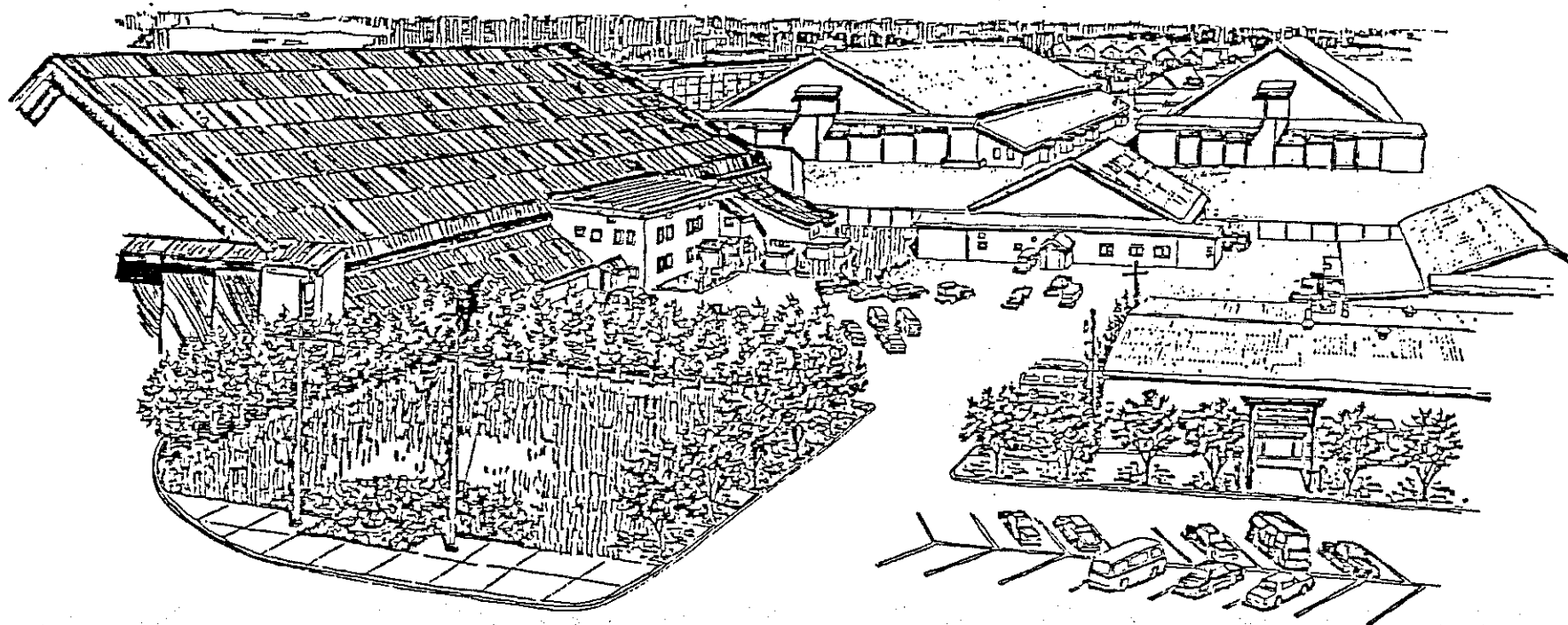
the relocation of certain buildings or facilities now used by NAF Misawa. These buildings or facilities are generally those in the way of USAF projects or buildings to be relinquished by the Navy. Buildings or facilities no longer needed by the Navy are turned back to the USAF, the plant account holder. Under the Inter-Service Support Agreement (ISSA), facilities built by a tenant agency are turned over to the plant account of the host agency. The host then grants a permit to the tenant for the use of the facility. Maintenance responsibility rests with the plant account holder. Since the Navy has no plant account at Misawa Air Base, the Navy has no demolition plan for facilities it uses under permit from the USAF.



MASTER PLAN
U.S. NAVY FACILITIES MISAWA

EXISTING CONDITION AT FLAGPOLE/
HEADQUARTERS AREA

Figure
F-23



MASTER PLAN
U.S. NAVY FACILITIES MISAWA

BEAP – PROPOSED FLAGPOLE/
HEADQUARTERS AREA

Figure
F-24

I. U.S. NAVAL SECURITY GROUP ACTIVITY MISAWA

1. Background

The Navy's presence at Misawa Air Base is also represented by the Naval Security Group Activity (NAVSECGRUACT) Misawa. NAVSECGRUACT Misawa was established on 1 July 1971 by OPNAV Notice 5450 of April 1971 (cancelled 31 December 1971).

様国, 主には任務により分駐中の部隊
NAVSECGRUACT Misawa is a Class II Shore Activity and a Third Echelon command under the Commander, Naval Security Group Command. The activity also reports to the Commander, U.S. Forces Japan for area coordination, Force cryptologic activities and Naval Security Group matters. It reports to the Commander in Chief, U.S. Pacific Fleet for duties pertaining to signal security, direction finding, and fleet direct support tasks. The mission of NAVSECGRUACT Misawa, an integral part of the worldwide U.S. communications network, is to provide rapid radio relay and secure communications for defense of the U.S. and its allies. Additional functions include transmission security and research into electronic phenomenon. The organizational relationship of NAVSECGRUACT Misawa is shown in Figure I-1.

It is a logistic tenant of the 432nd Tactical Fighter Wing and an operational tenant of the 6920th Electronic Security Group at Misawa. The command organizational structure provides for one Marine company and NAVSECGRU detachments at Yokosuka and at Atsugi. It has a complement of 748 Navy and Marine personnel as follows:

NAVSECGRUACT Misawa functions independently of NAF Misawa.

2. Site Analysis

a. Location. NAVSECGRUACT Misawa is located five miles west of the main base portion of Misawa Air Base at the site popularly known as "Security Hill" (see Figure I-2).

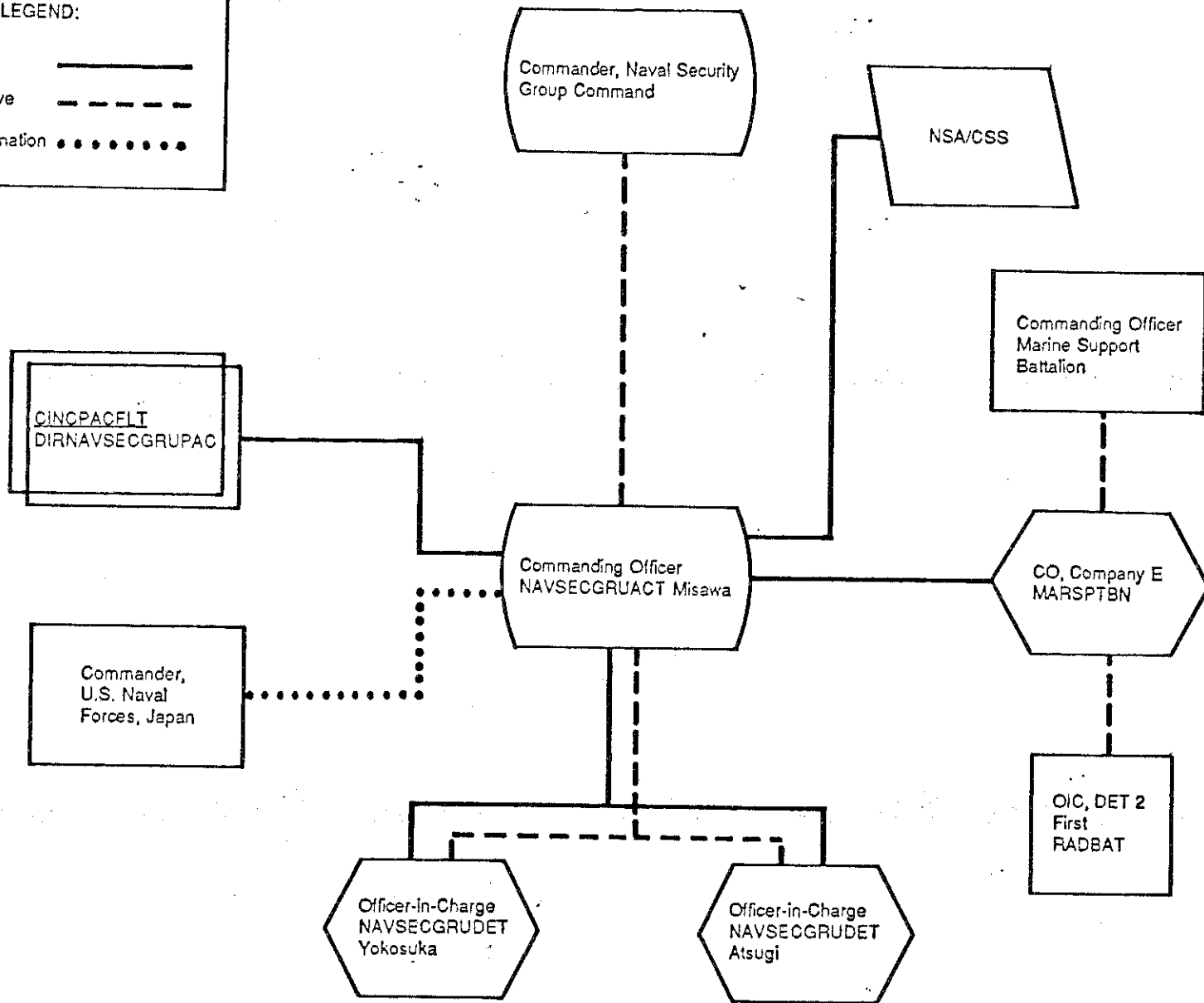
b. Size. USAF property at Security Hill is approximately 600 acres within its perimeter fence.

c. Topography. Security Hill rises about 50 feet above the level of the adjoining Lakes Ogawara and Ane. The operational areas where NAVSECGRUACT Misawa is located, including the antenna areas, are on a relatively flat plateau, surrounded by wooded areas close to the lakeshore.

a. Facilities. Under an Air Force permit dated 14 July 1986, NAVSECGRUACT Misawa is granted exclusive use of the buildings listed below. All buildings, except for the two BEQs which are at the main base, are located at Security Hill (see Figures I-3 and I-4).

LEGEND:

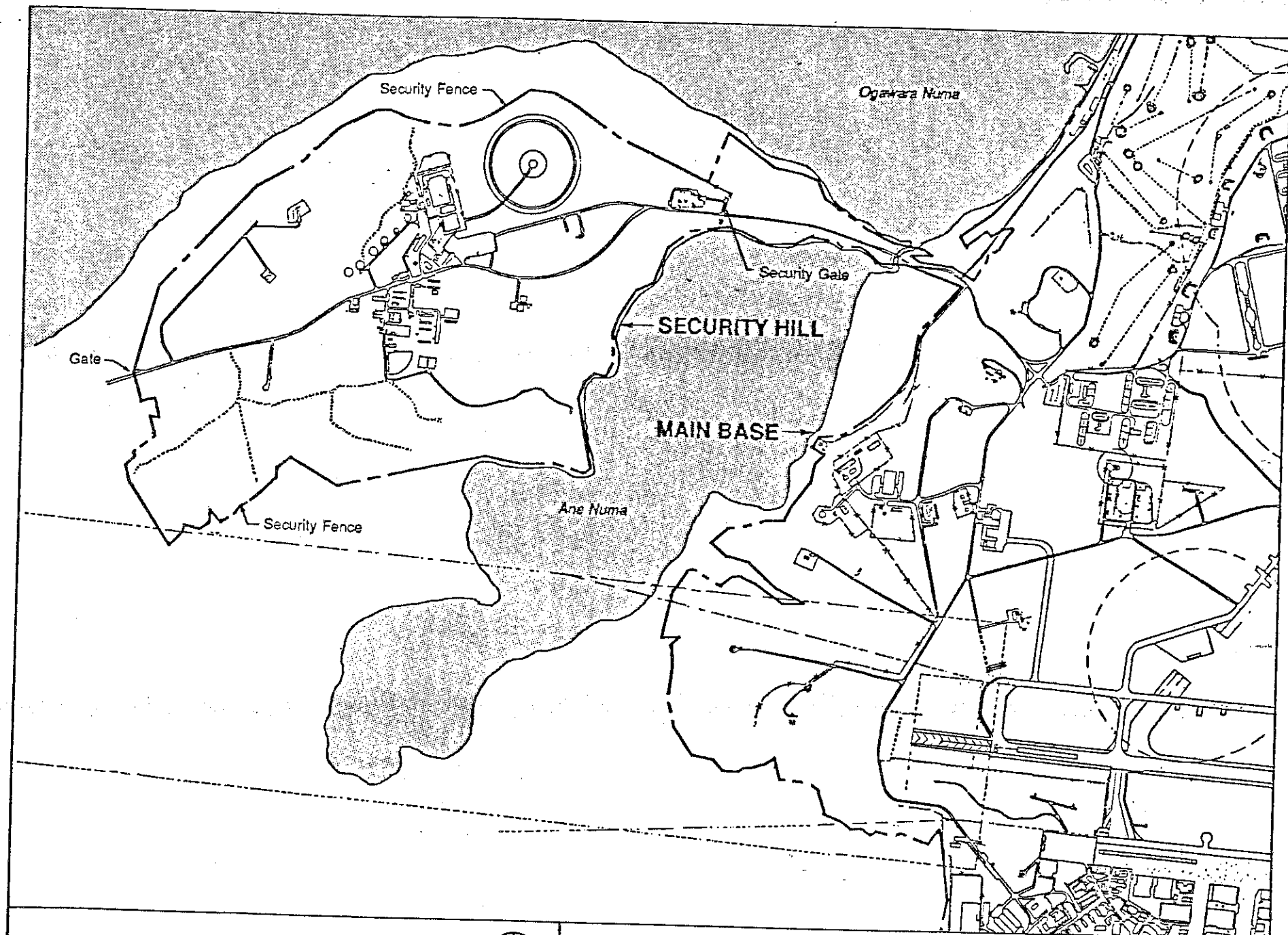
- Operational ———
- Administrative - - - - -
- Area Coordination ·····



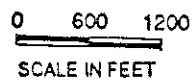
MASTER PLAN
U.S. NAVY FACILITIES MISAWA

OPERATIONAL/ADMINISTRATION CHAIN
OF COMMAND NAVSECGRUACT MISAWA

Figure
I-1



MASTER PLAN
U.S. NAVY FACILITIES MISAWA

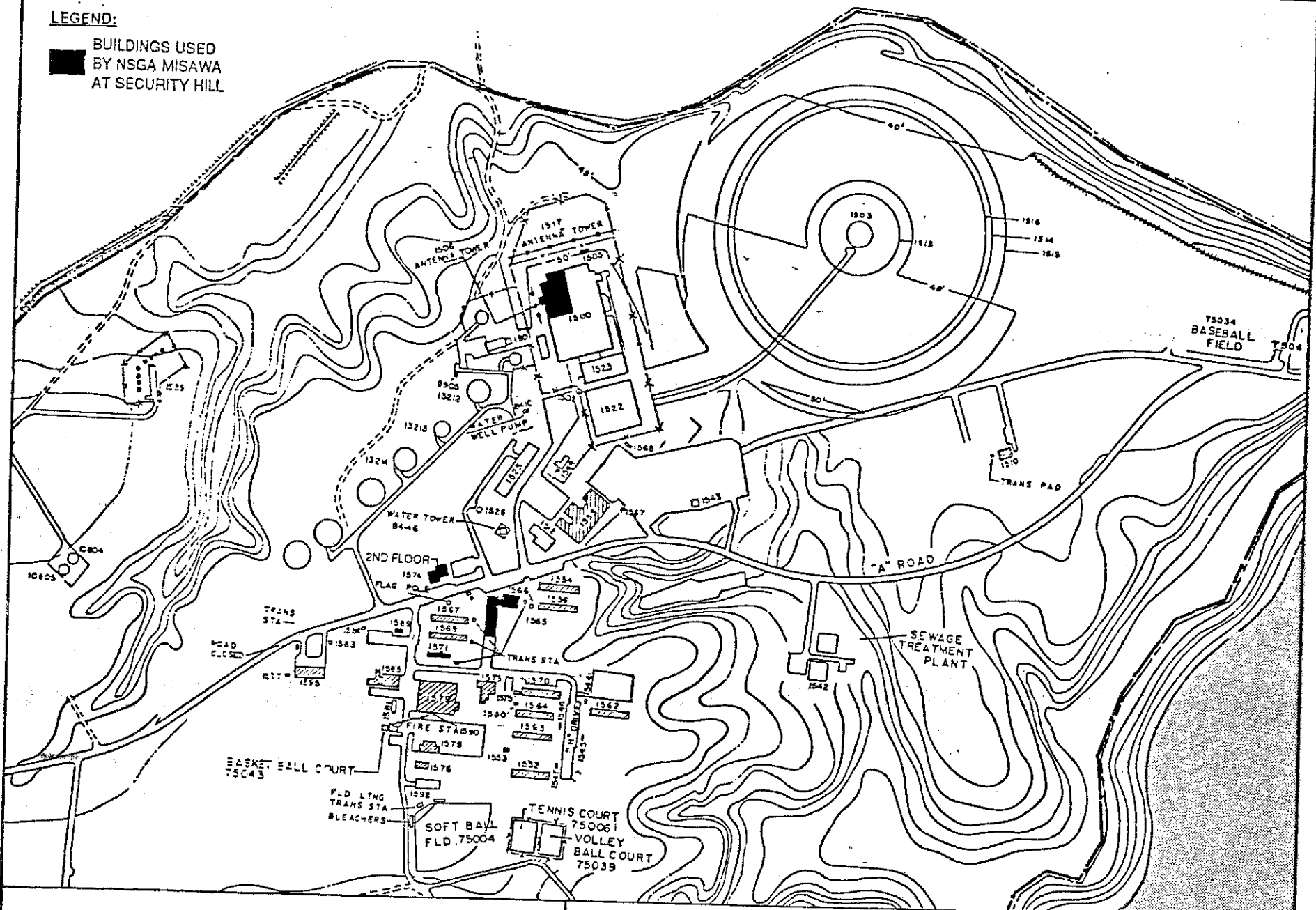


NAVSECGRUACT MISAWA AT
SECURITY HILL

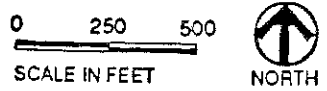
Figure
I-2

LEGEND:

■ BUILDINGS USED BY NSGA MISAWA AT SECURITY HILL



MASTER PLAN
U.S. NAVY FACILITIES MISAWA



BLDGS USED BY NAVSECGRUACT MISAWA AT SECURITY HILL

Figure
I-4