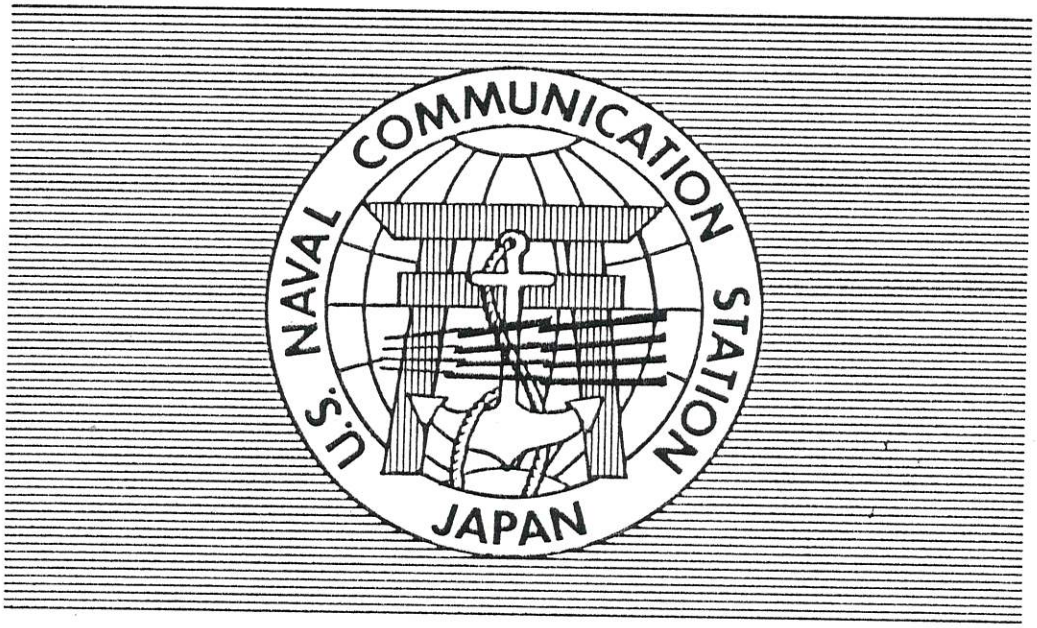
U. S. NAVAL COMMUNICATION STATION, JAPAN



MASTER PLAN

FINAL NOV 1990

EXECUTIVE SUMMARY

Introduction

This Master Plan provides guidelines for land use and facility development at U.S. Naval Communication Station, Japan (NAVCOMMSTA Japan). It was prepared by the Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM) and is an update of the Master Plan approved by the Chief of Naval Operations (CNO) in 1983.

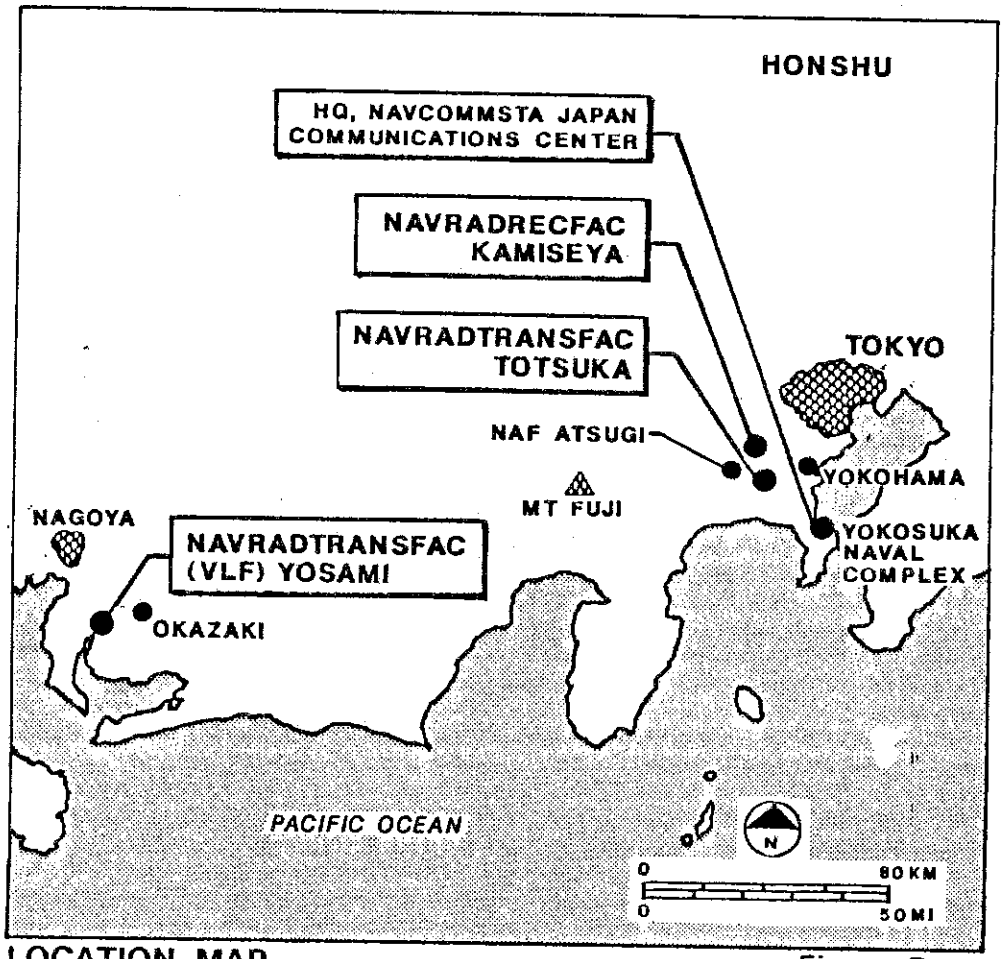
NAVCOMMSTA Japan provides communications for the Naval establishment within the mainland Japan area, and is located on Honshu, the largest of the four main islands of Japan. The Station has four separate functional locations. The Radio Receiving Facility at Kamiseya (NAVRADRECFAC Kamiseya), the Radio Transmitting Facility at Totsuka (NAVRADTRANSFAC Totsuka), and the Telecommunications and Headquarters Center at Yokosuka (TCC/HQ Yokosuka) are proximate to Tokyo, the largest city in Japan, and major U.S. military installations in the Kanto Plain area at Yokosuka, Yokota, Atsugi, and Camp Zama. The fourth site, the Radio Transmitting Facility at Yosami (NAVRADTRANSFAC Yosami), is near Nagoya in south-central Honshu.

INTRODUCTION

Planning Area

NAVCOMMSTA Japan consists of four non-contiguous areas, as shown by Figure B-1. These areas are:

- Telecommunications Center/Headquarters at Yokosuka Naval Complex (TCC/HQ Yokosuka)
- Radio Receiving Facility at Kamiseya (NAVRADRECFAC Kamiseya)
- Radio Transmitting Facility at Totsuka (NAVRADTRANSFAC Totsuka)
- Radio Transmitting Facility (Very Low Frequency, VLF) at Yosami (NAVRADTRANSFAC (VLF) Yosami)



LOCATION MAP
NAVCOMMSTA JAPAN FACILITIES

Figure B-1

Additionally, by COMNAVCOMTELCOM Washington DC message 050500Z May 90, NAVCOMMSTA Japan was directed to assume responsibility of the following sites:

- Telecommunications Center (Bldg. 961) and Patrol Wing One Detachment Anti-Submarine Warfare Communications at NAF Misawa
- Telecommunications Center (Bldg. 66) at NAF Atsugi
- Telecommunications Center (Bldg. 80) at COMFLEACT Sasebo
- Telecommunications Centers (Bldg. 1071, White Beach and Bldg. 3675, Charlie Area) and Patrol Wing One Detachment Anti-Submarine Warfare Communications at NAF Kadena/COMFLEACT Okinawa
- Transmitter Site at Awase, Okinawa

These sites are geographically shown by Figure B-2. Additional information concerning these facilities can be found in the respective master plans of the host activities.

Methodology

This master plan was prepared by a team from the Pacific Division of the Naval Facilities Engineering Command (PACNAVFACENGCOM). Chain of command input on planning issues was solicited prior to the on-site visit that was conducted 17 April - 6 May 1989.

The planning approach used in this Master Plan consisted of:

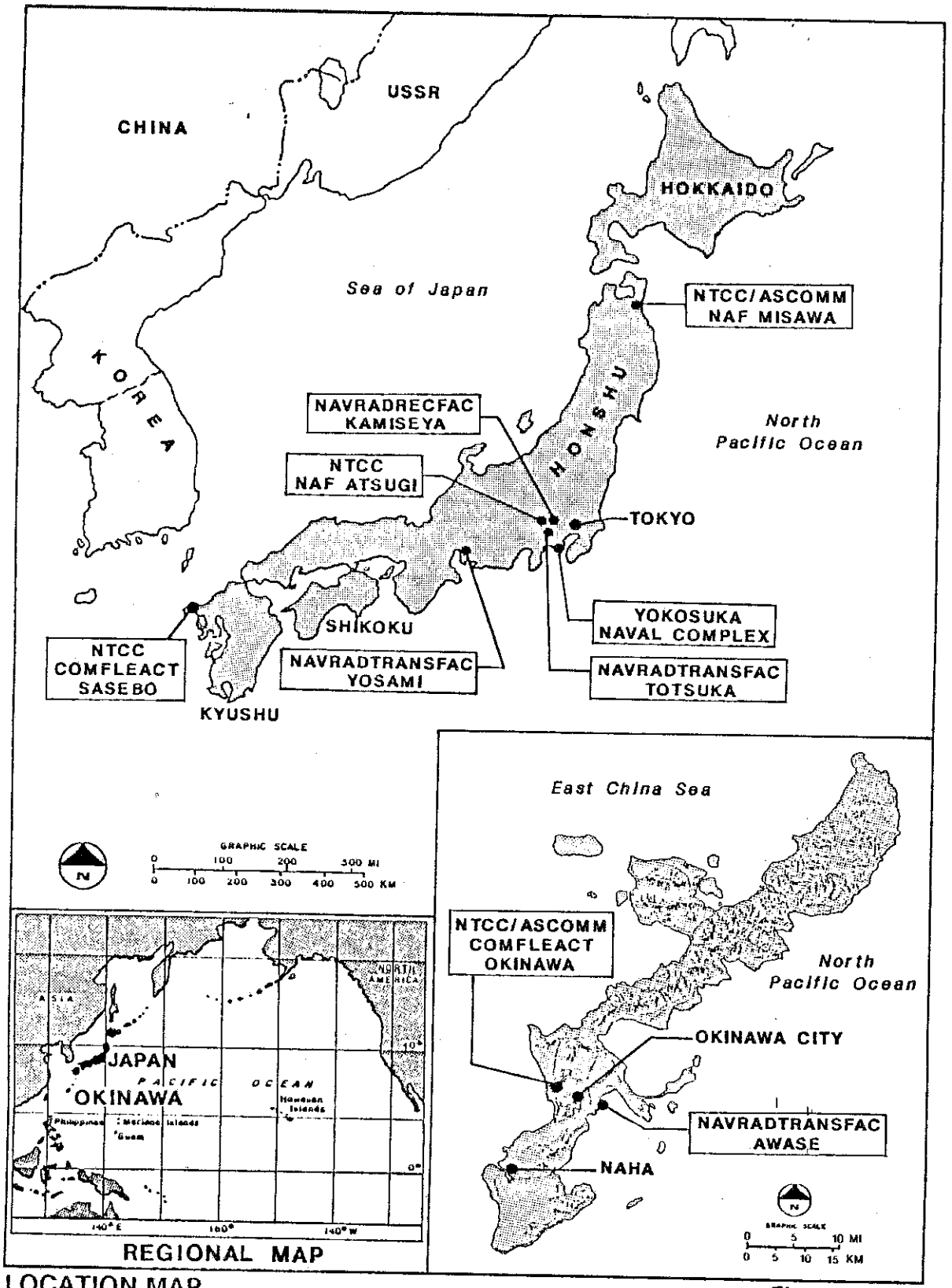
- Establishment of the planning objectives
- Compilation of basic data
- Observation/evaluation of existing conditions, operations, and problems (including a site visit and interviews with key command department representatives)
- Development of alternatives and recommendations to meet the objectives.

A methodology chart is presented as Figure B-3.

Objectives

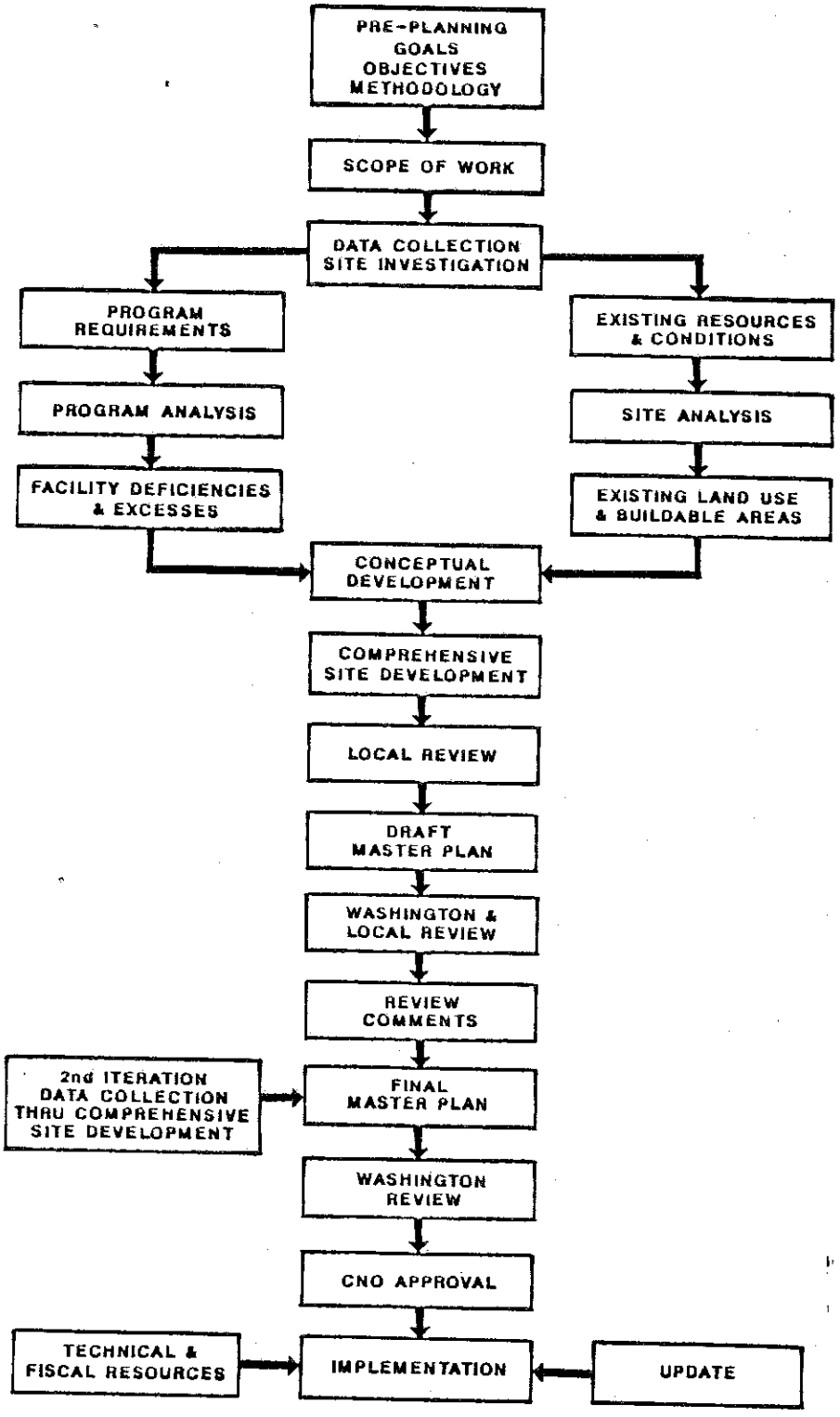
The objectives of this master plan are to:

- Provide guidelines for land use and facility development
- Identify and document existing conditions (facilities, land use, constraints, and encroachments)



LOCATION MAP
NAVCOMMSTA JAPAN FACILILTIES

Figure B-2



METHODOLOGY CHART
NAVCOMMSTA JAPAN FACILILTIES

Figure B-3

- Establish compatible land use patterns
- Promote orderly and efficient physical development

Special planning emphasis has been given to accommodating the total family housing requirements at NAVRADRECFAC Kamiseya and NAVRADTRANSFAC Totsuka (if an EMI/EMR study concludes that additional housing is compatible with the operational aspects of the Base).

Special planning emphasis has also been given to redevelopment of many of the aged facilities at all four areas to reduce the expenditure of O&M,N funds for repairs and maintenance.

Use of the Master Plan

The plan is intended to be a viable document; however, because it is based on projected requirements and a planning emphasis at a particular point in time, it must be adjusted and updated to meet changing conditions and priorities. However, notwithstanding the ever-changing nature of specific mission taskings, the planned land use maps, along with the corresponding narratives, provide a broad analysis which can be used as one guide in the command decision-making process regarding future Base development.

EXISTING CONDITIONS

Mission

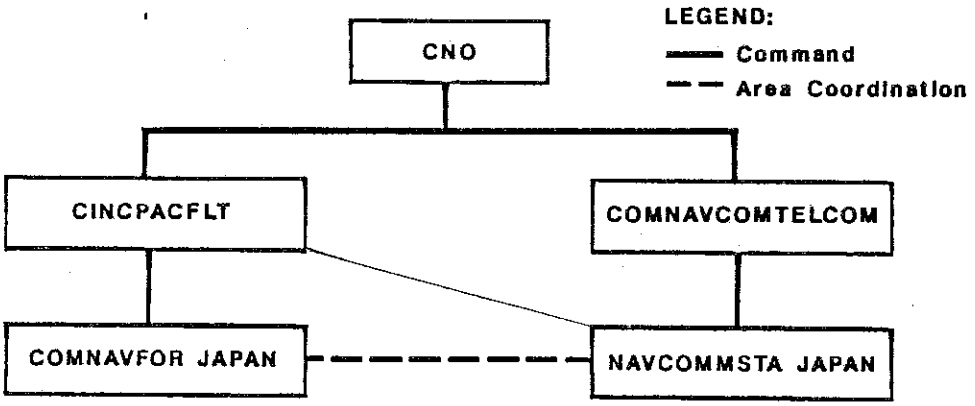
As an activity of the Naval Telecommunications System, the mission of NAVCOMMSTA Japan is to manage, operate, and maintain those facilities, systems, equipments, and devices necessary to provide requisite communication for the command, operational control, and administration of the Department of the Navy, and to manage, operate, and maintain those facilities of the Defense Communications System, as well as performing such other functions as may be directed by the Chief of Naval Operations (CNO).

Organization

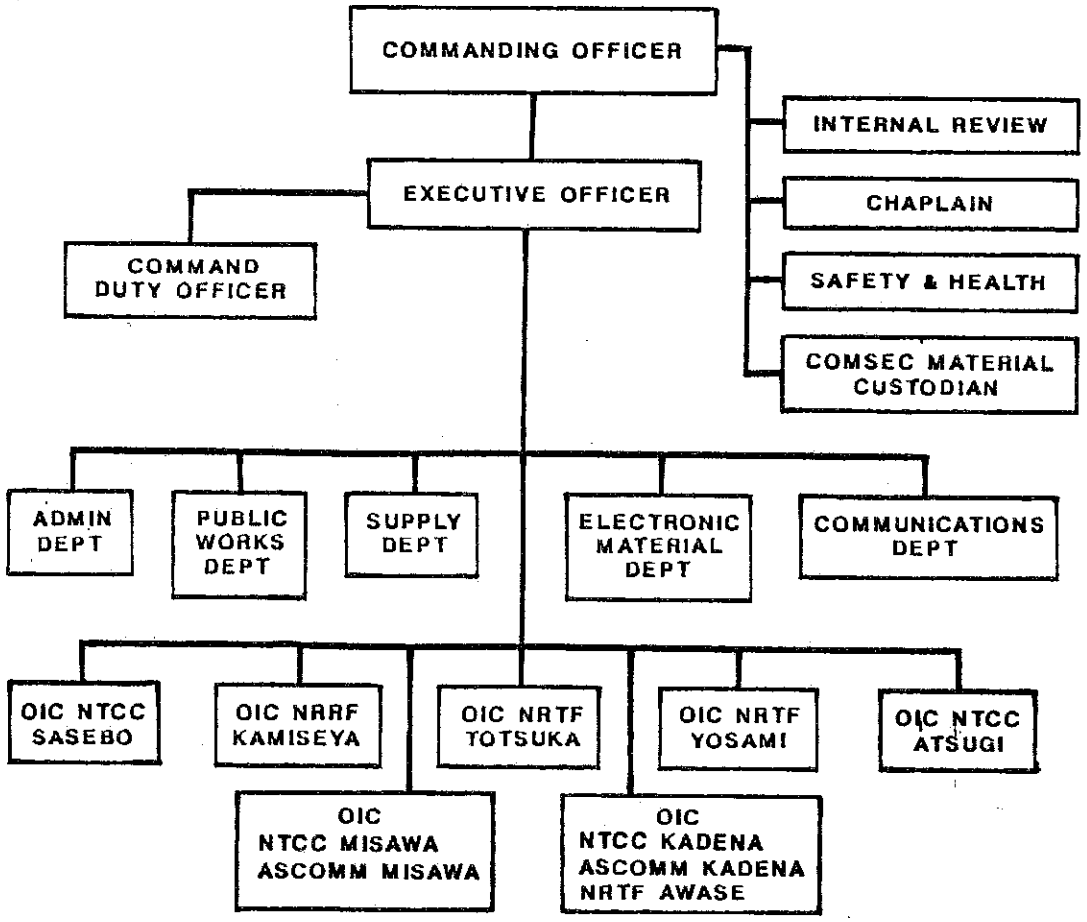
NAVCOMMSTA Japan is a third echelon command of the Naval Telecommunications Systems Command. CNO exercises command and provides support to the station via Commander, Naval Computer and Telecommunications Command (COMNAVCOMTELCOM) and Commander-in-Chief U.S. Pacific Fleet (CINCPACFLT). Area coordination responsibilities are assigned to Commander, U.S. Naval Forces, Japan (COMNAVFORJAPAN). The Station is organized under a line and staff structure with five departments, several staff offices, and an Officer-in-Charge at each of the outlying receiver and transmitter sites.

See Figure C-1 for the organization charts.

CHAIN OF COMMAND CHART



STATION ORGANIZATION CHART



ORGANIZATION CHARTS
NAVCOMMSTA JAPAN FACILITIES

Figure C-1

Tenant Activities

NAVRADRECFAC Kamiseya. NAVRADRECFAC Kamiseya hosts several tenant activities:

- U.S. Naval Security Group Activity (NSGA).
- Fleet Ocean Surveillance Information Facility, Western Pacific (FOSIF).
- Commander Patrol and Reconnaissance Force, 7th Fleet/Patrol Wing One (COMPATWING ONE).
- Commander Task Force 72 (CTF 72).
- Naval Hospital Yokosuka (Branch Medical Annex).
- Marine Detachment Kamiseya.

NAVRADTRANSFAC Totsuka. There are no tenant activities at NAVRADTRANSFAC Totsuka.

NAVRADTRANSFAC Yosami. NAVRADTRANSFAC Yosami is entirely operated by a private contractor, Denki-Kyogo Corporation.

TCC/HQ Yokosuka. NAVCOMMSTA Japan is itself a tenant activity of the Commander Fleet Activites, Yokosuka, utilizing three buildings on the Yokosuka Naval Complex.

Existing Facilities and Land Use

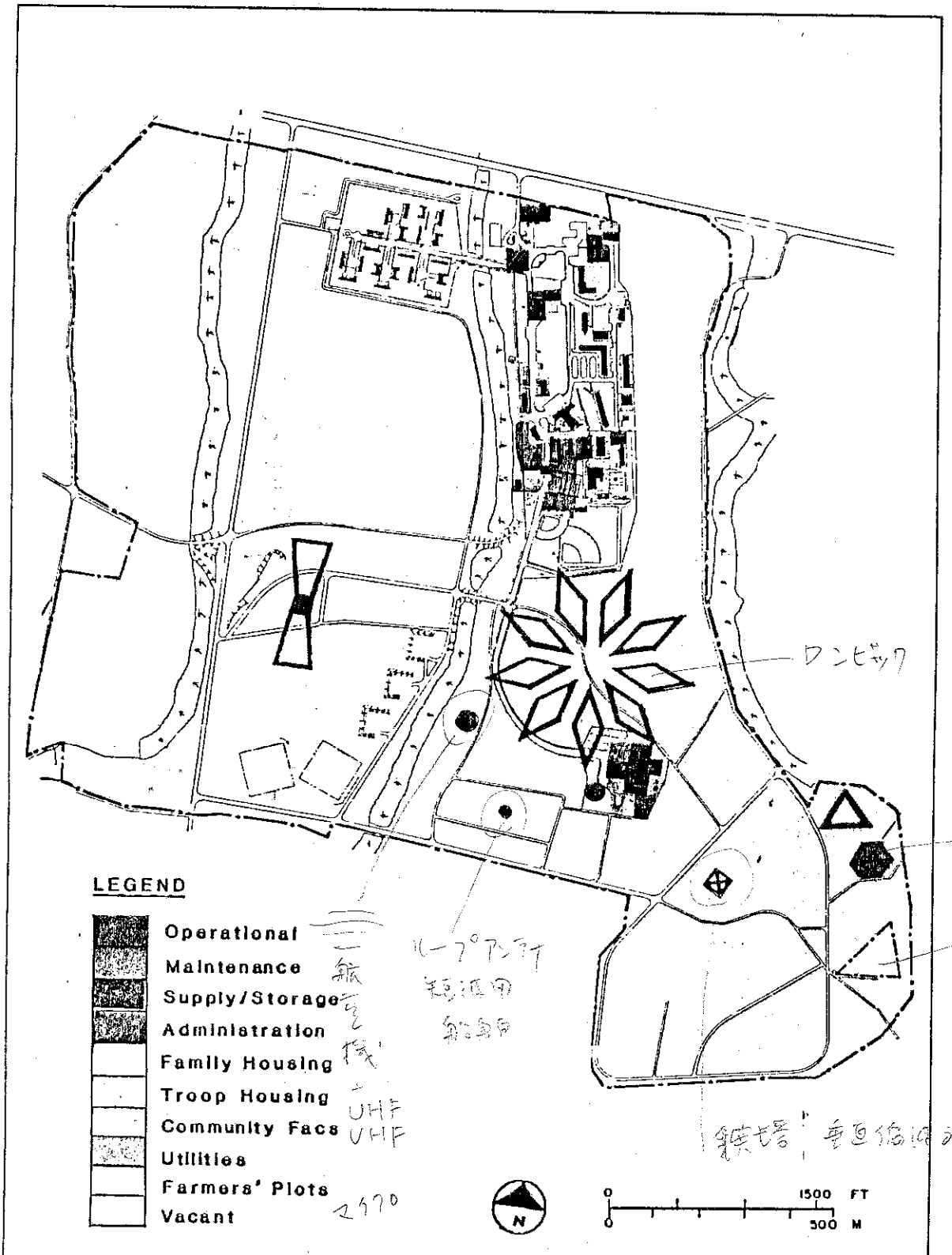
NAVRADRECFAC Kamiseya. NAVRADRECFAC Kamiseya consists of about 95 facilities (395,000 SF) and 15 antennas on 586 acres of land. A summary of the existing facilities is presented as Table C-2 below.

TABLE C-2: SUMMARY OF FACILITIES, NAVRADRECFAC KAMISEYA

CCN	Description	No. Bldgs.	Scope	UM
131	Communications	4	10,900	SF
143	Operational	7	50,991	SF
210	Maintenance Shops	10	23,927	SF
440	Warehouse	1	3,361	SF
550	Medical	---	970	SF
610	Administrative	3	11,932	SF
711	Family Housing	20	68	UN
721	Bachelor Enlisted Quarters	2	250	PN
722	Enlisted Dining Facility	---	6,505	SF
724	Bachelor Officer Quarters	2	28	PN
730	Community Support	9	7,269	SF
740	Personnel Support	14	70,422	SF

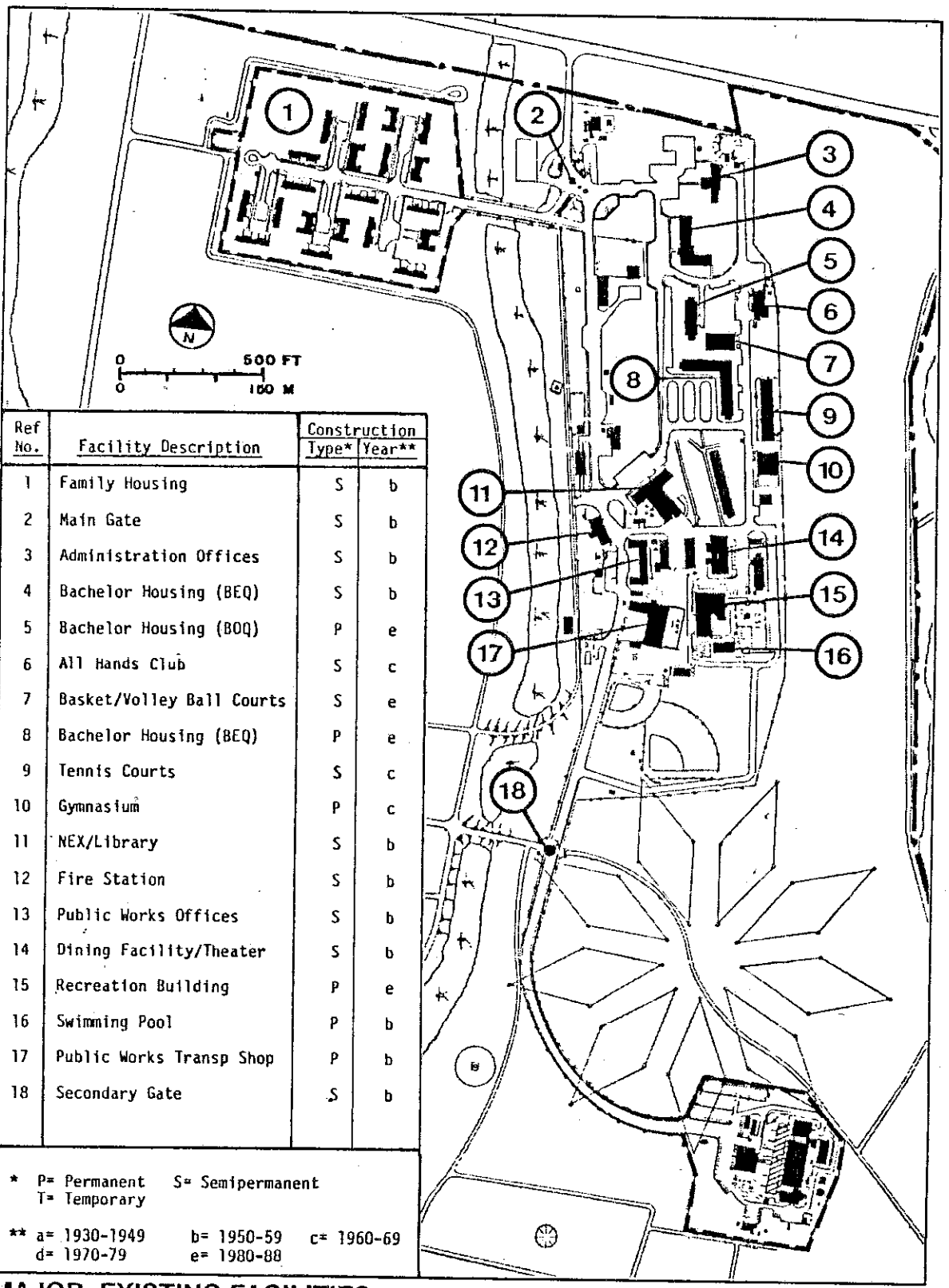
Recently constructed facilities include the BOQ, Bldg. 220 (1986), the BEQ, Bldg. 221 (1986), and the Multi-Use Recreation Center, Bldg. 227 (1987). However, about 70% of the existing facilities are in excess of 30 years old.

Figures C-2 and C-3 show the existing land uses and major facilities, respectively. The predominant land use is for farmers' plots, with the station's facilities located in the eastern-central portion of the base. The family housing area is favorably situated away from the admin and personnnel support facilities, which are grouped within 10 minutes walking distance.



EXISTING LAND USE
NAVRADRECFAC KAMISEYA

Figure C-2



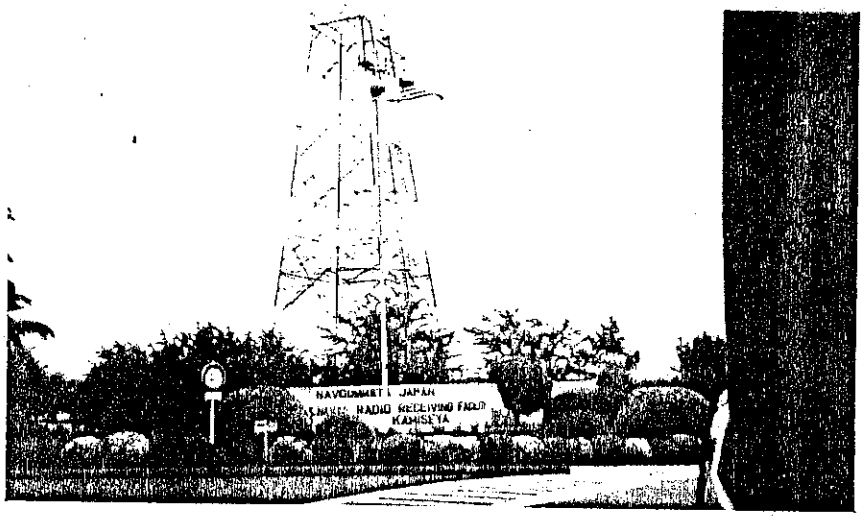
Ref No.	Facility Description	Construction Type*	Construction Year**
1	Family Housing	S	b
2	Main Gate	S	b
3	Administration Offices	S	b
4	Bachelor Housing (BEQ)	S	b
5	Bachelor Housing (BOQ)	P	e
6	All Hands Club	S	c
7	Basket/Volley Ball Courts	S	e
8	Bachelor Housing (BEQ)	P	e
9	Tennis Courts	S	c
10	Gymnasium	P	c
11	NEX/Library	S	b
12	Fire Station	S	b
13	Public Works Offices	S	b
14	Dining Facility/Theater	S	b
15	Recreation Building	P	e
16	Swimming Pool	P	b
17	Public Works Transp Shop	P	b
18	Secondary Gate	S	b

* P= Permanent S= Semipermanent
T= Temporary

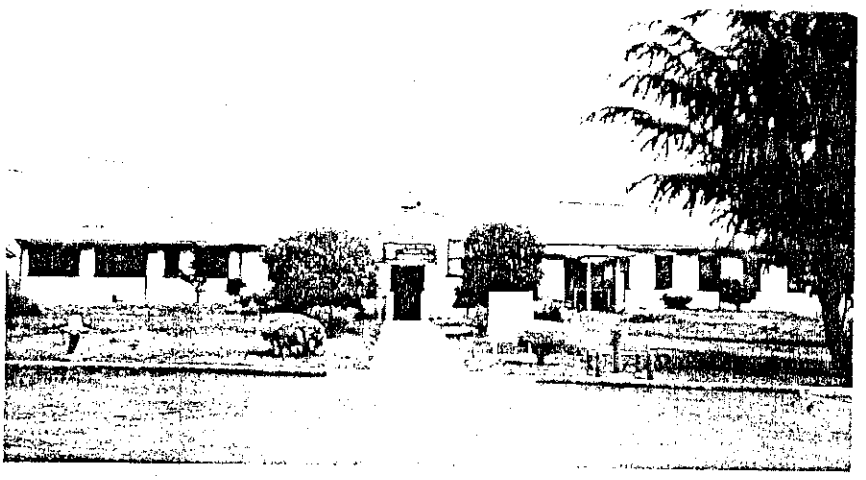
** a= 1930-1949 b= 1950-59 c= 1960-69
d= 1970-79 e= 1980-88

MAJOR EXISTING FACILITIES
NAVRADRECFAC KAMISEYA

Figure C-3

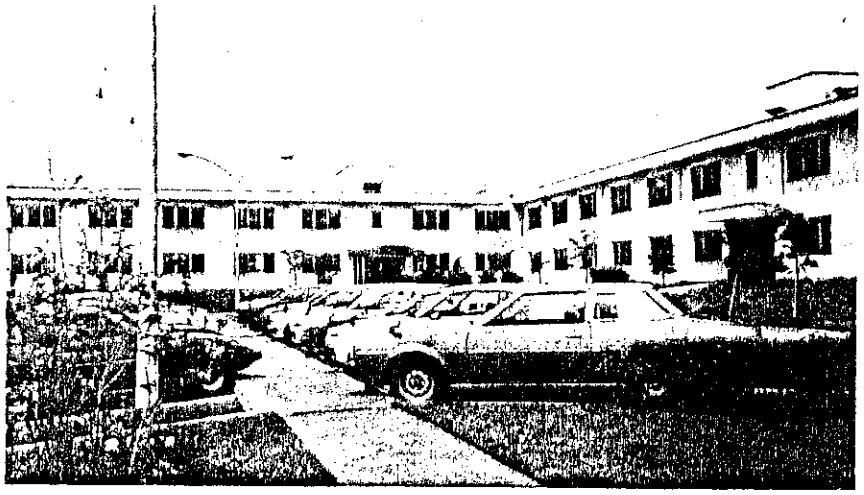


ACTIVITY ENTRY SIGN

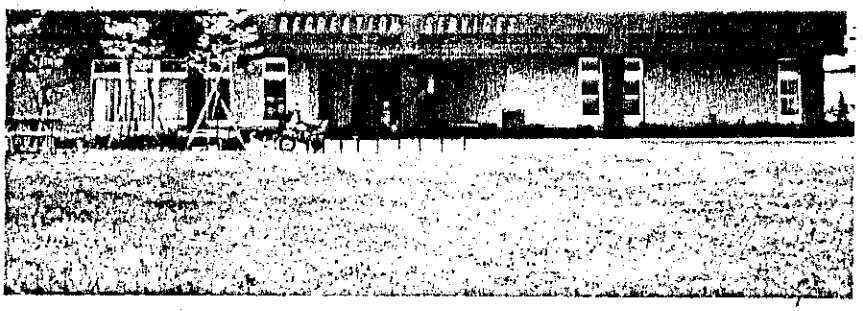


ADMINISTRATION BUILDING (BLDG 4)

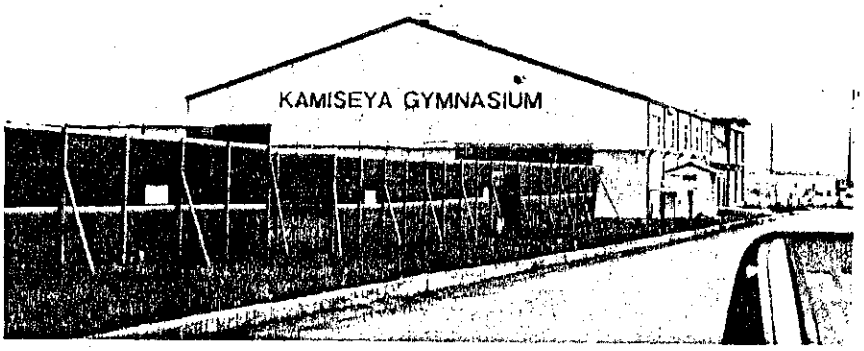
BACHELOR OFFICERS QUARTERS (BLDG 220)



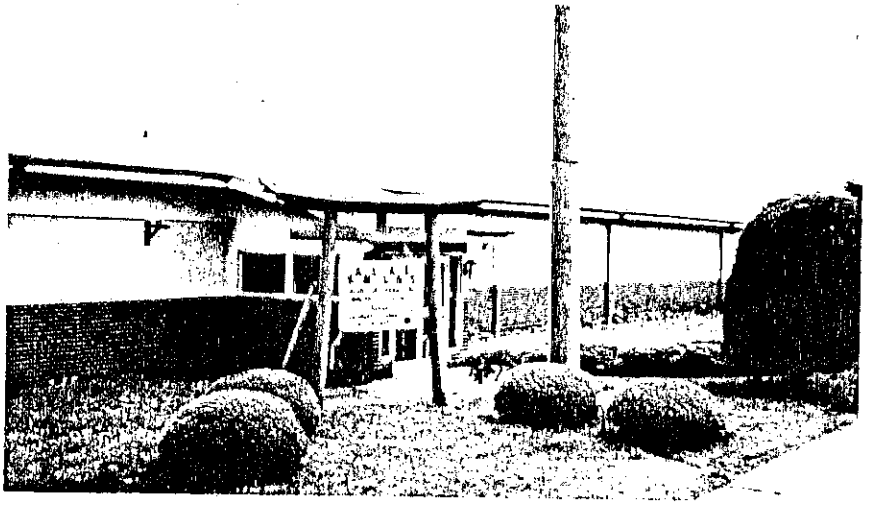
BACHELOR ENLISTED QUARTERS (BLDG 221)



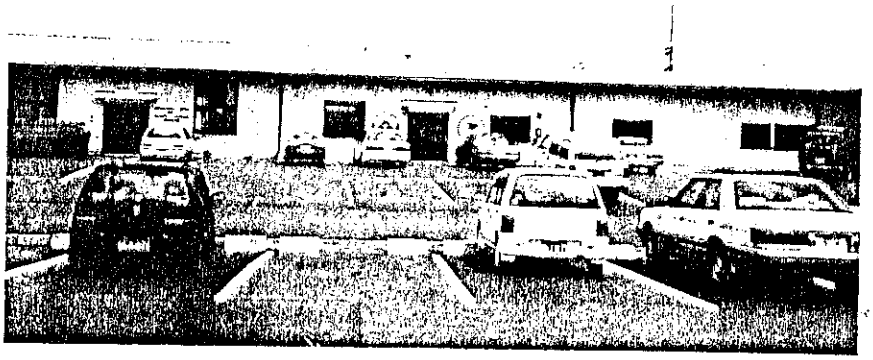
MULTI-USE RECREATION CENTER (BLDG 227)



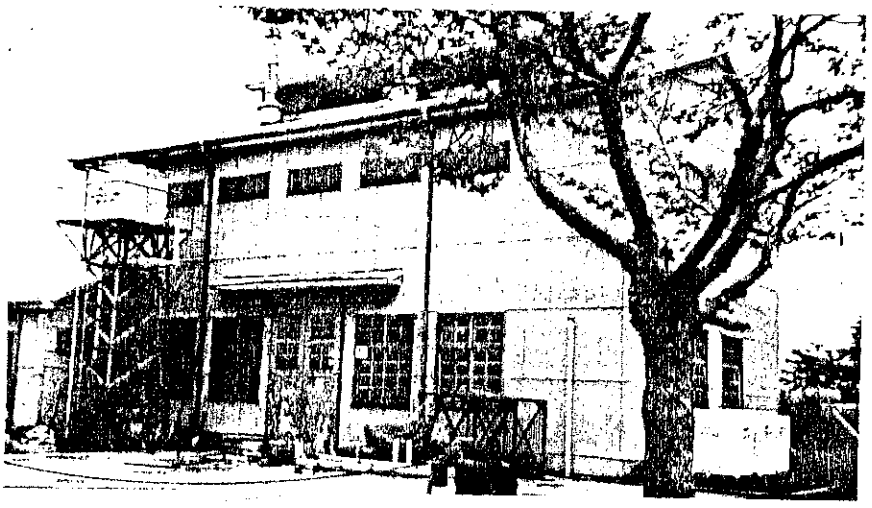
GYMNASIUM (BLDG 175) AND TENNIS COURTS (FACILITY 144)



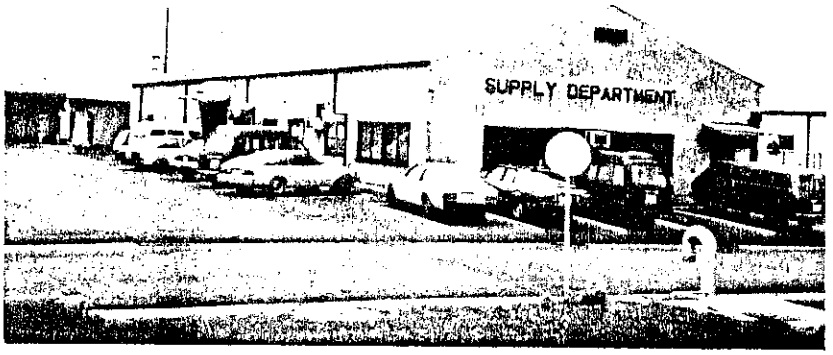
BOWLING ALLEY (BLDG 66)



PUBLIC WORKS ADMINISTRATION (BLDG 15)

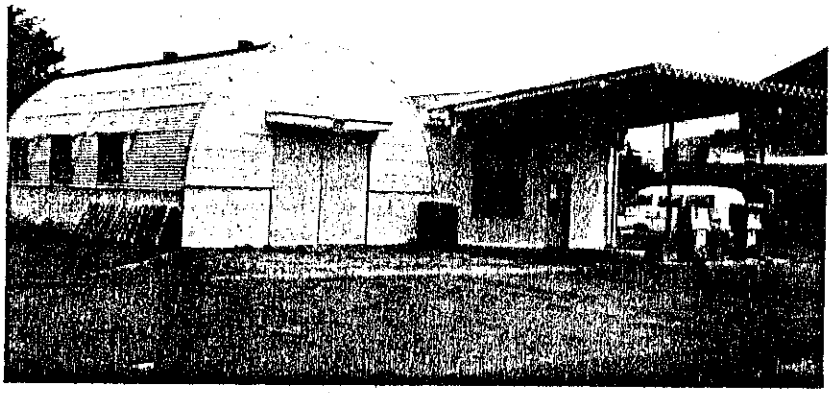


STEAM PLANT (BLDG 21)



SUPPLY WAREHOUSE (BLDG 16B)

FIRE STATION (BLDG 14)



GAS STATION (BLDG 62)

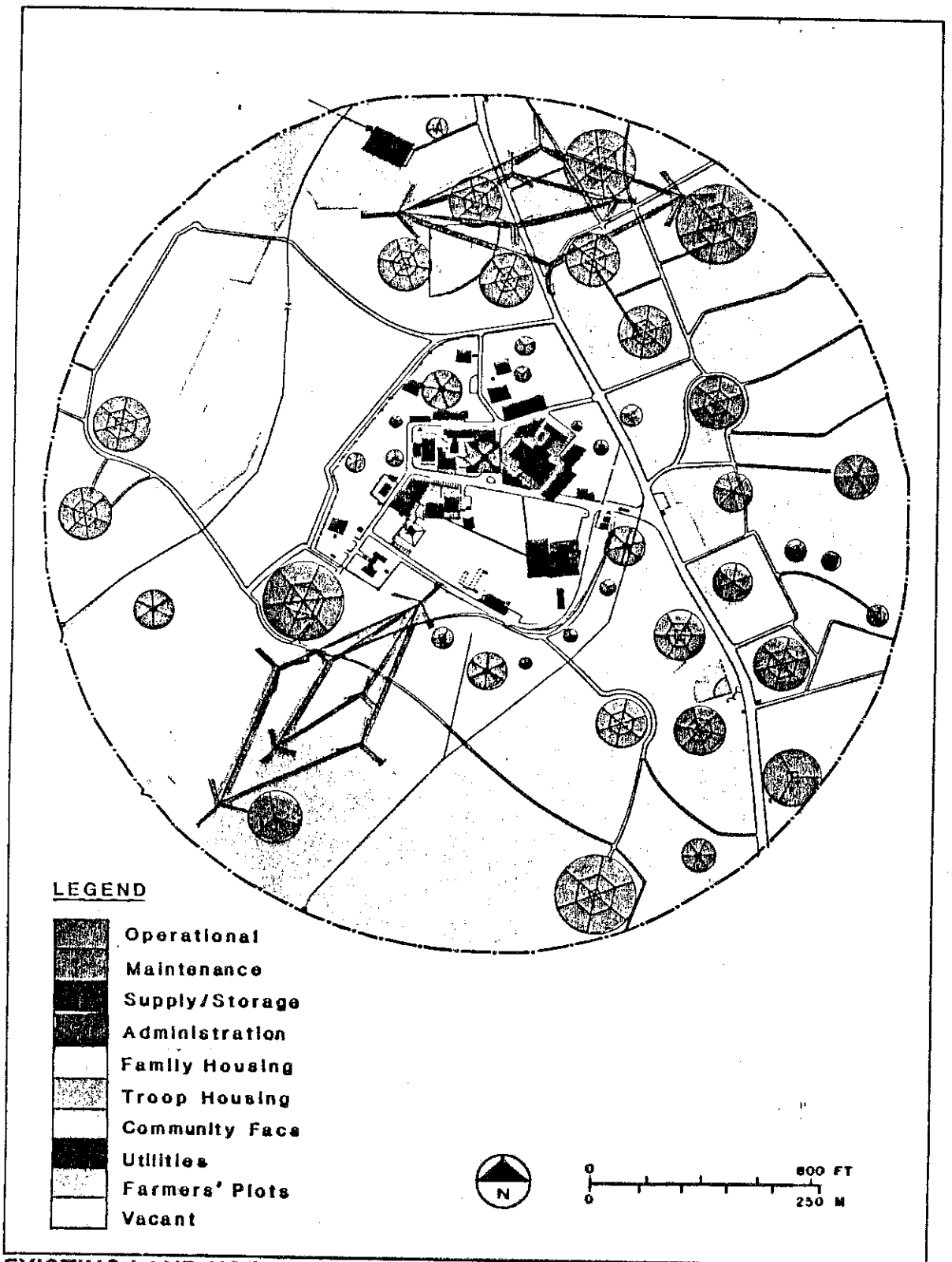
NAVRADTRANSFAC Totsuka. NAVRADTRANSFAC Totsuka is NAVCOMMSTA Japan's primary transmitter site consisting of about 40 facilities (81,000 SF) and 45 antennas on 191 acres of land. A summary of the existing facilities is presented by Table C-3 below.

Recently-constructed facilities include the combined BEQ/BOQ/Dining Facility, Bldg. 1078 (1983) and the Swimming Pool Bathhouse, Bldg. 1080 (1984). However, about 70% of the existing facilities are in excess of 30 years old.

Figures C-4 and C-5 show the existing land uses and major facilities, respectively. The predominant land use is for farmers' plots, with the station's facilities generally located in a small central core.

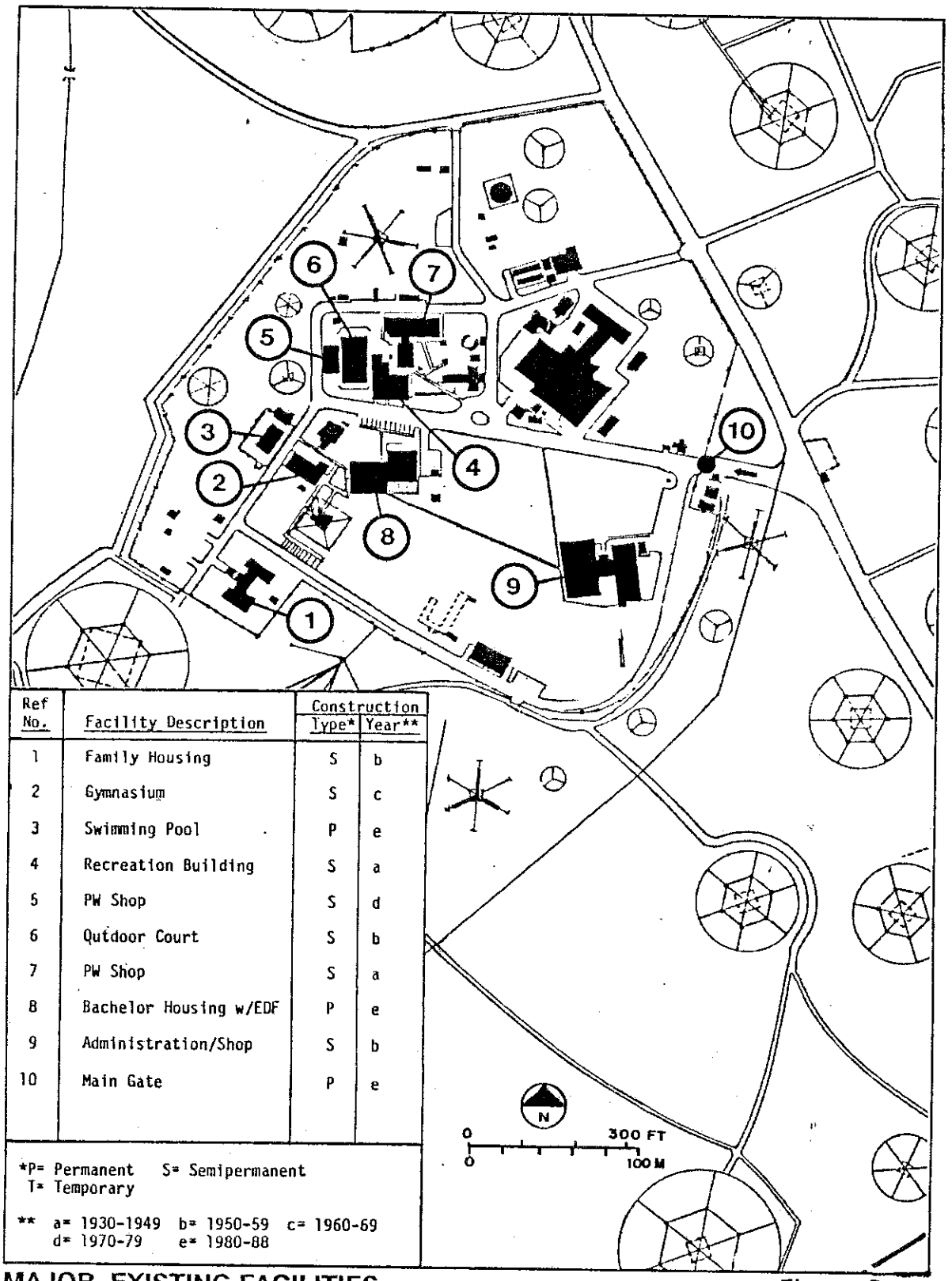
TABLE C-3: SUMMARY OF FACILITIES, NAVRADTRANSFAC TOTSUKA

CCN	Description	No. Bldgs.	Scope	UM
131	Communications	2	24,599	SF
143	Operational	1	1,650	SF
210	Maintenance Shops	10	10,809	SF
440	Warehouse	---	---	---
550	Medical	---	260	SF
610	Administrative	2	4,984	SF
711	Family Housing	1	2	UN
721	Bachelor Enlisted Quarters	1	32	PN
722	Enlisted Dining Facility	---	3,215	SF
724	Bachelor Officer Quarters	---	---	---
730	Community Support	8	6,643	SF
740	Personnel Support	3	11,328	SF



EXISTING LAND USE
NAVRADTRANSFAC TOTSUKA

Figure C-4



Ref No.	Facility Description	Construction Type*	Construction Year**
1	Family Housing	S	b
2	Gymnasium	S	c
3	Swimming Pool	P	e
4	Recreation Building	S	a
5	PW Shop	S	d
6	Qutdoor Court	S	b
7	PW Shop	S	a
8	Bachelor Housing w/EDF	P	e
9	Administration/Shop	S	b
10	Main Gate	P	e

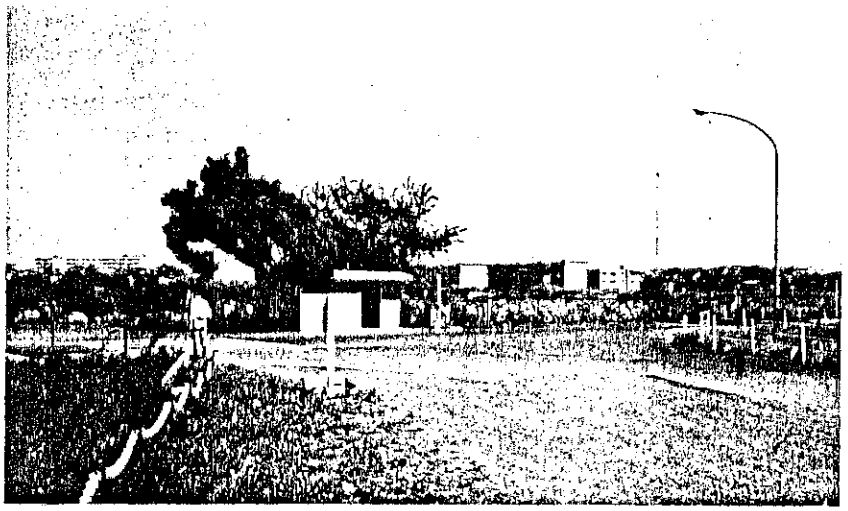
*P= Permanent S= Semipermanent
T= Temporary

** a= 1930-1949 b= 1950-59 c= 1960-69
d= 1970-79 e= 1980-88

MAJOR EXISTING FACILITIES
NAVRADTRANSFAC TOTSUKA

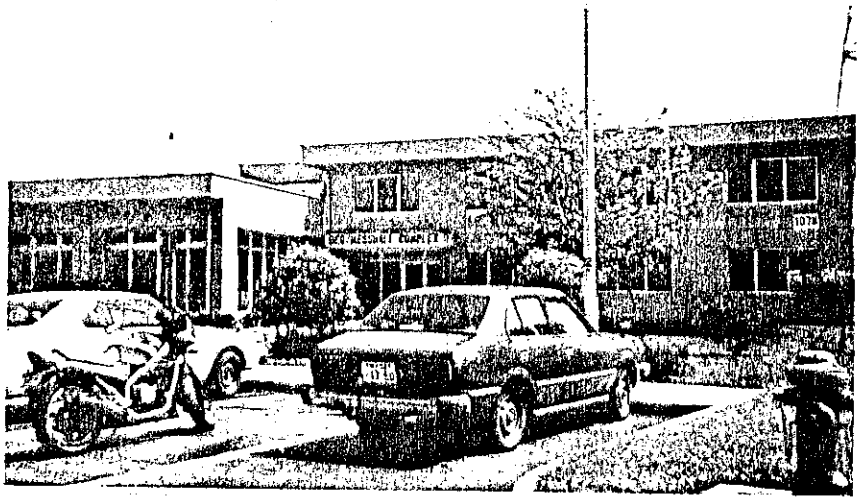
Figure C-5

ACTIVITY ENTRY GATE AND SIGN

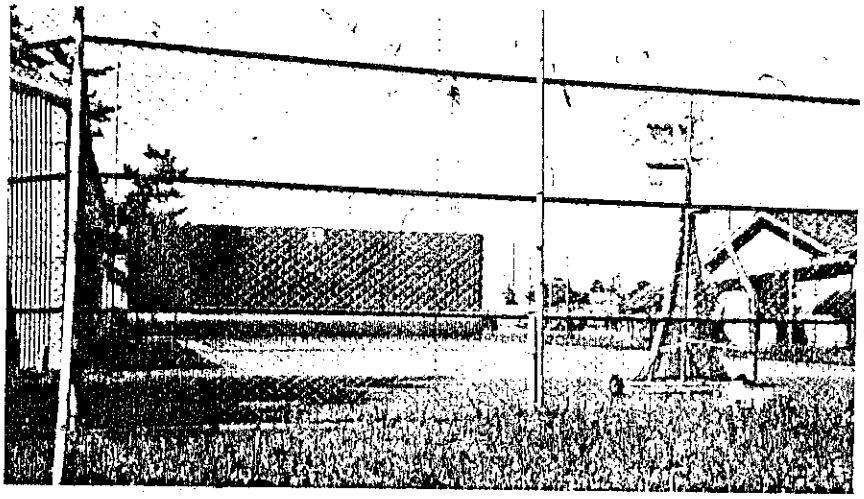


BUS STOP AND BICYCLE PARKING LOT ACROSS STATION ENTRY

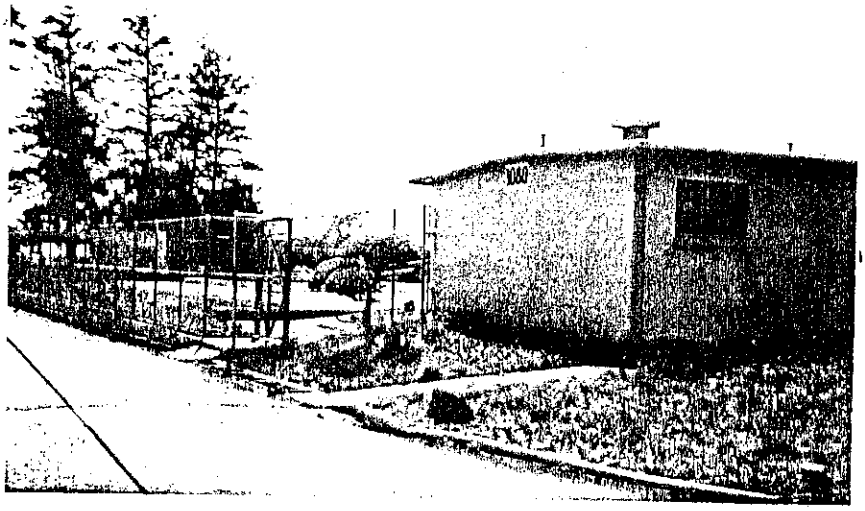
ADMINISTRATION, LEFT AND ANTENNA SHOP, RIGHT (BLDG 31A/B)



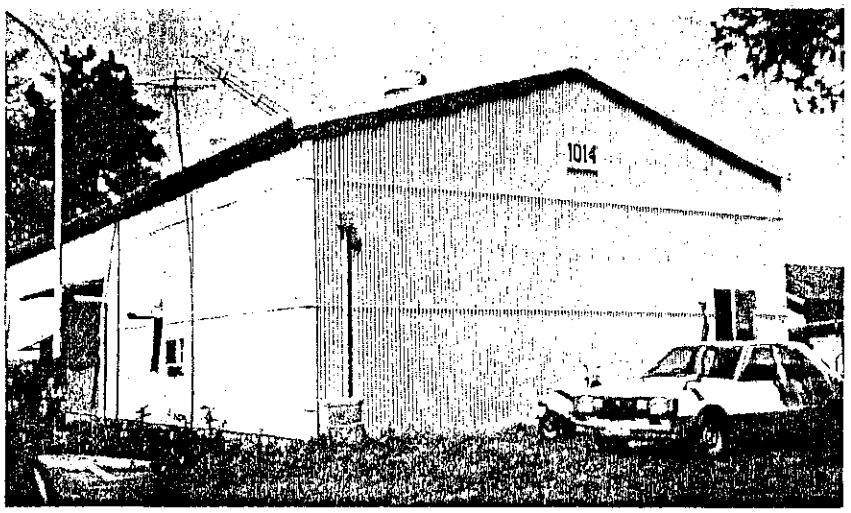
BACHELOR QUARTERS/DINING FACILITY (BLDG 1078)



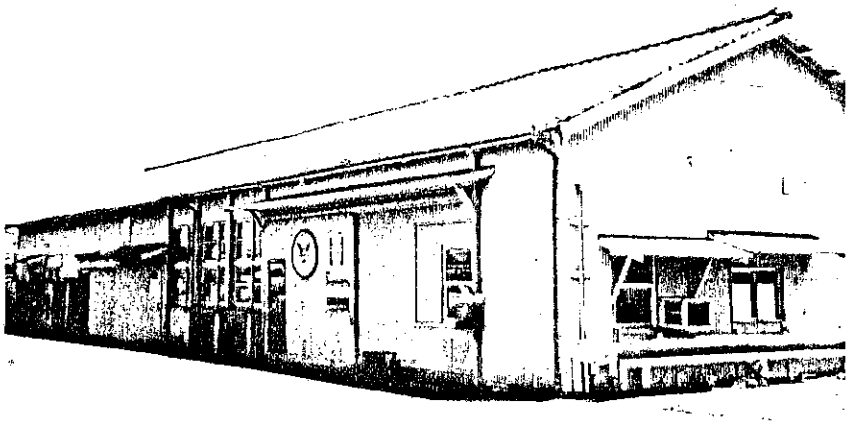
MULTI-USE OUTDOOR COURT (FACILITY 82)



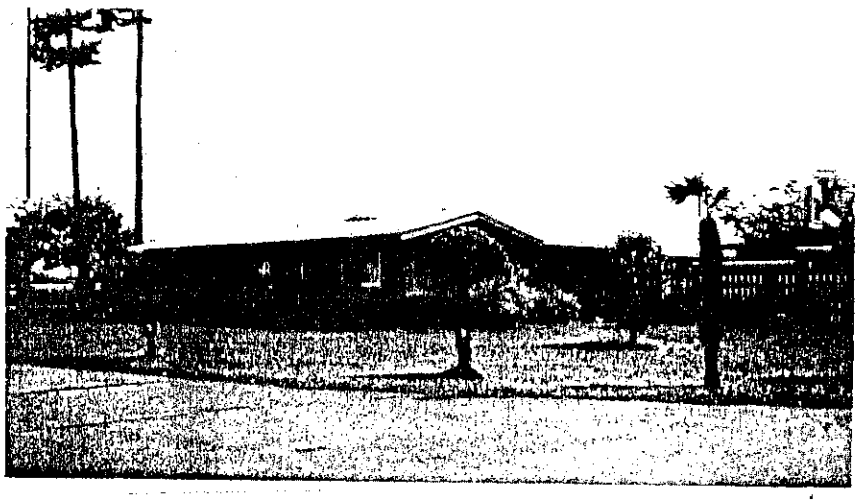
SWIMMING POOL (FACILITY 1077) AND BATHHOUSE (BLDG 1080)



PUBLIC WORKS SHOP (BLDG 1014)



PUBLIC WORKS/TRANSPORTATION SHOP (BLDG 4)



FAMILY HOUSING BUILDING

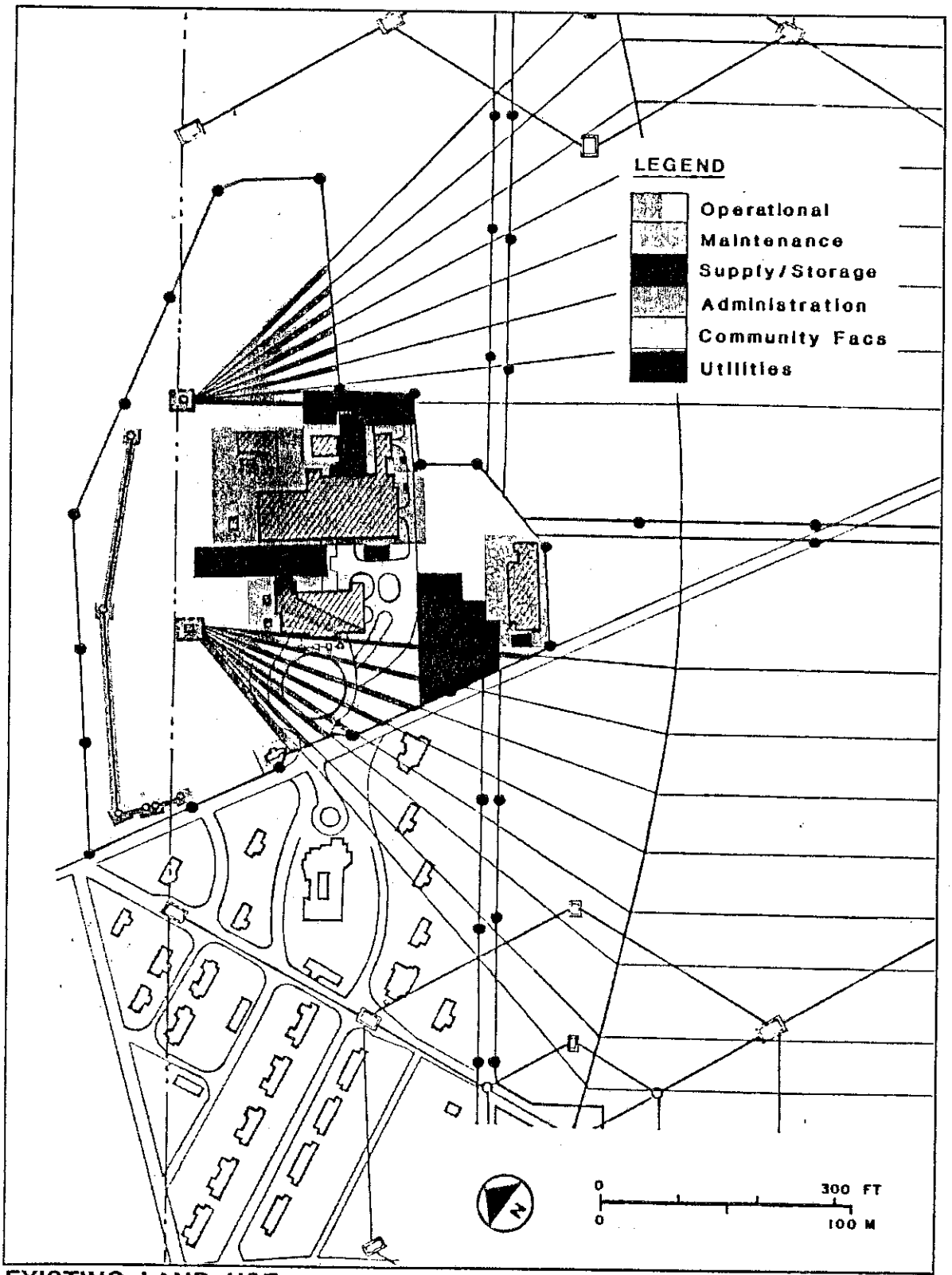
NAVRADTRANSFAC Yosami. NAVRADTRANSFAC Yosami is NAVCOMMSTA Japan's VLF transmitter site consisting of about 20 facilities and eight-820 ft. VLF antenna towers on 372 acres of land. A summary of the existing facilities is presented by Table C-4 below.

All of the existing facilities are 20 years old or more, with 12 facilities constructed 60 years ago and only 2 facilities less than 30 years of age. The utility systems, in particular, are antiquated. In many instances, they are of the original construction 60 years ago.

Figures C-6 and C-7 show the existing land uses and major facilities, respectively.

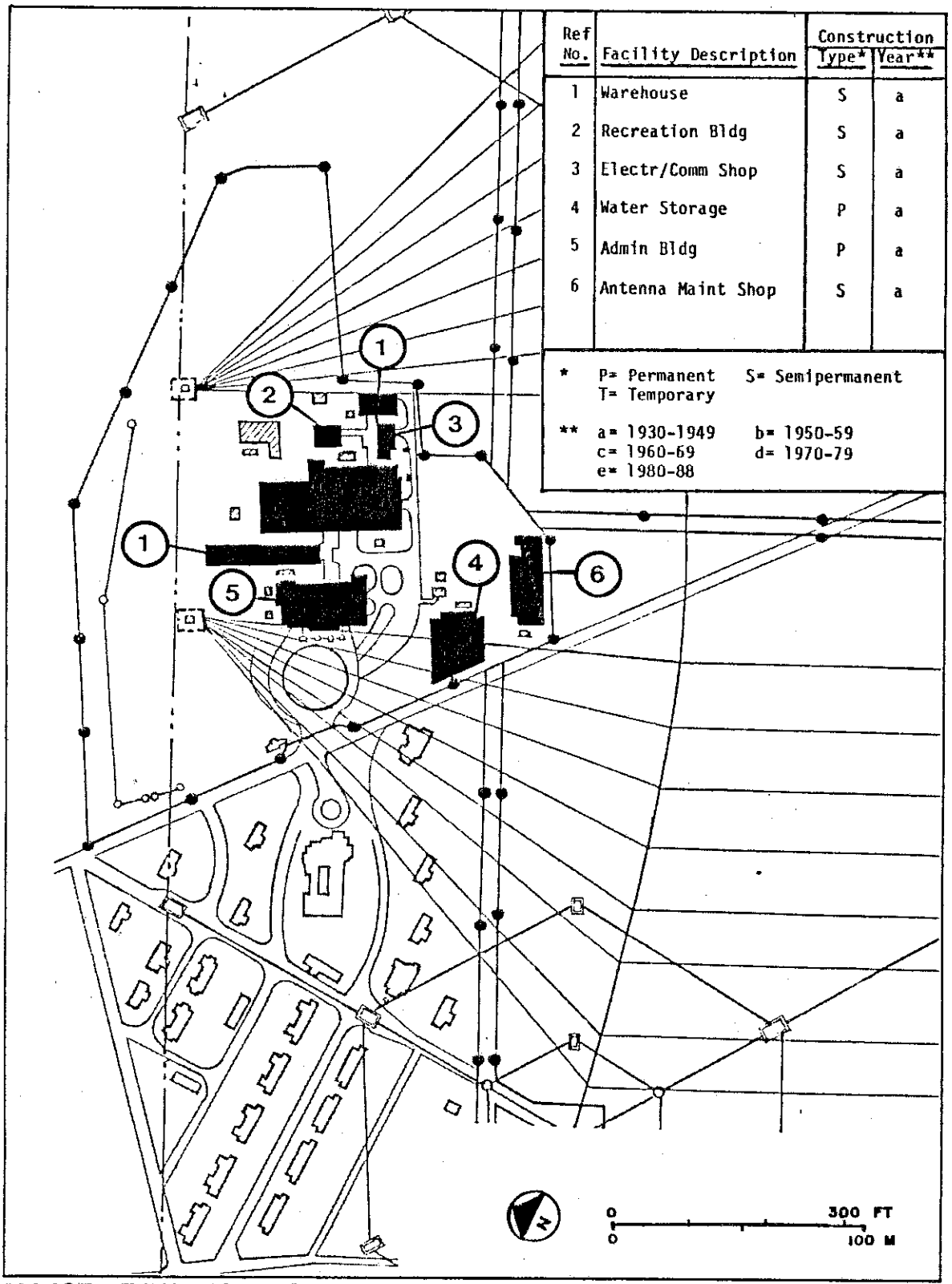
TABLE C-4: SUMMARY OF FACILITIES, NAVRADTRANSFAC YOSAMI

CCN	Description	No. Bldgs.	Scope	UM
131	Communications	5	17,609	SF
143	Operational	---	---	---
210	Maintenance Shops	3	7,056	SF
440	Warehouse	1	357	SF
550	Medical	---	---	---
610	Administrative	1	4,590	SF
711	Family Housing	---	---	---
721	Bachelor Enlisted Quarters	---	---	---
722	Enlisted Dining Facility	---	---	---
724	Bachelor Officer Quarters	---	---	---
730	Community Support	5	588	SF
740	Personnel Support	1	1,360	SF



EXISTING LAND USE
NAVRADTRANSFAC YOSAMI

Figure C-6



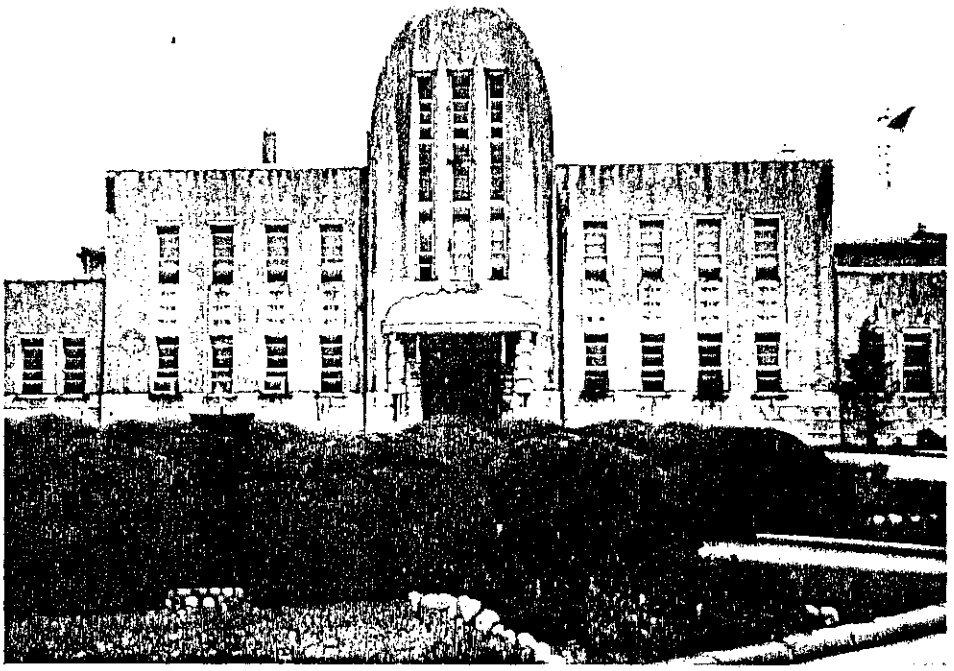
Ref No.	Facility Description	Construction Type*	Construction Year**
1	Warehouse	S	a
2	Recreation Bldg	S	a
3	Electr/Comm Shop	S	a
4	Water Storage	P	a
5	Admin Bldg	P	a
6	Antenna Maint Shop	S	a

* P= Permanent S= Semipermanent
T= Temporary

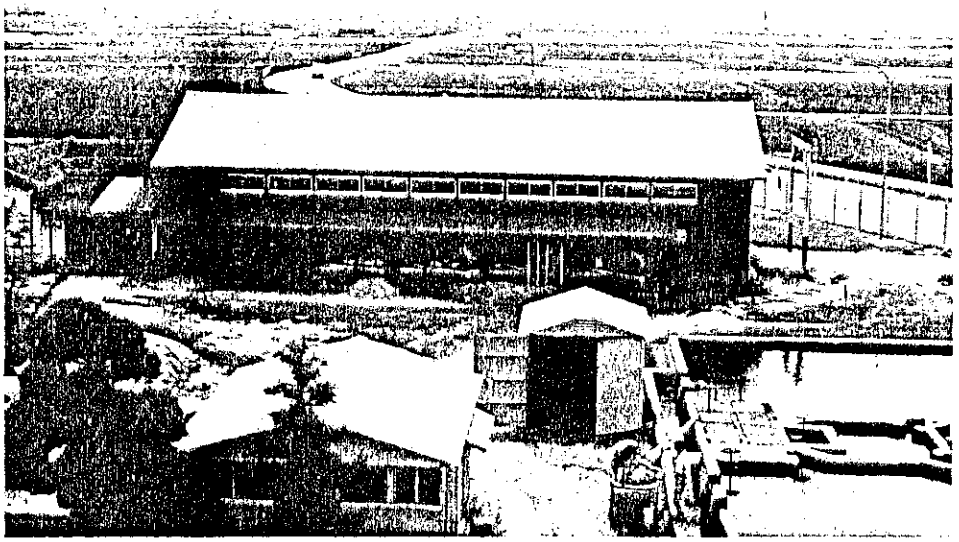
** a= 1930-1949 b= 1950-59
c= 1960-69 d= 1970-79
e= 1980-88

MAJOR EXISTING FACILITIES
NAVRADTRANSFAC YOSAMI

Figure C-7



ADMINISTRATION BUILDING (BLDG 2)



MAINTENANCE SHOP/WAREHOUSE (VLF ANTENNAS IN BACKGRD)

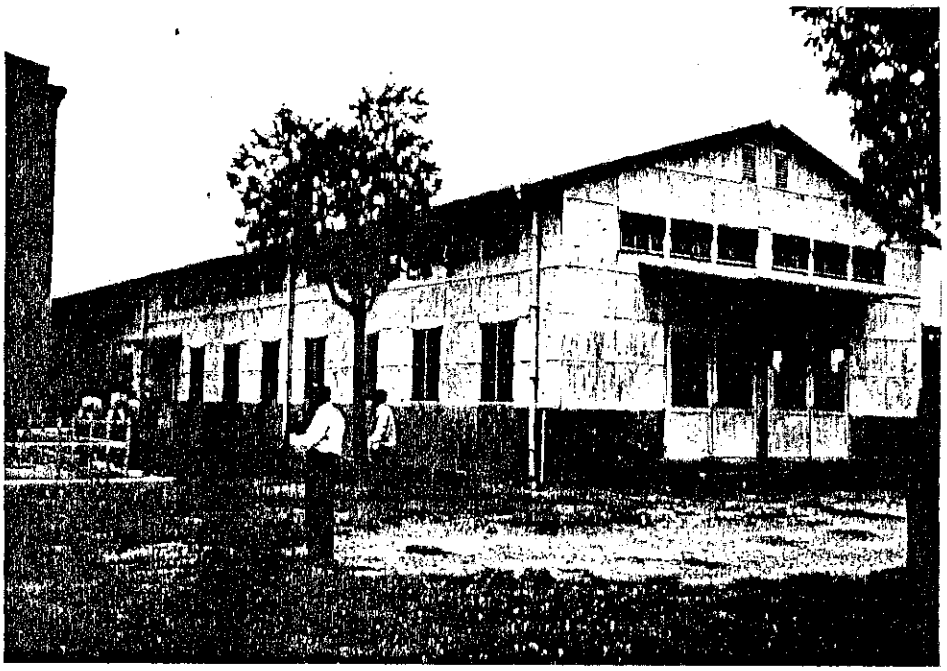


PHOTO C-32: WAREHOUSE (BLDG 3)

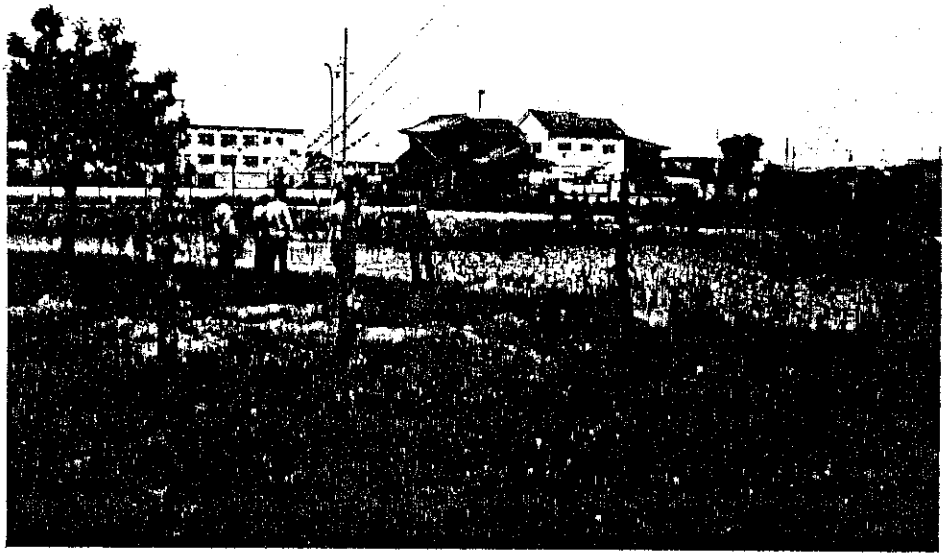


PHOTO C-33: SEWAGE SETTLING LAGOON (OVERFLOWS TO STORM DRAIN)

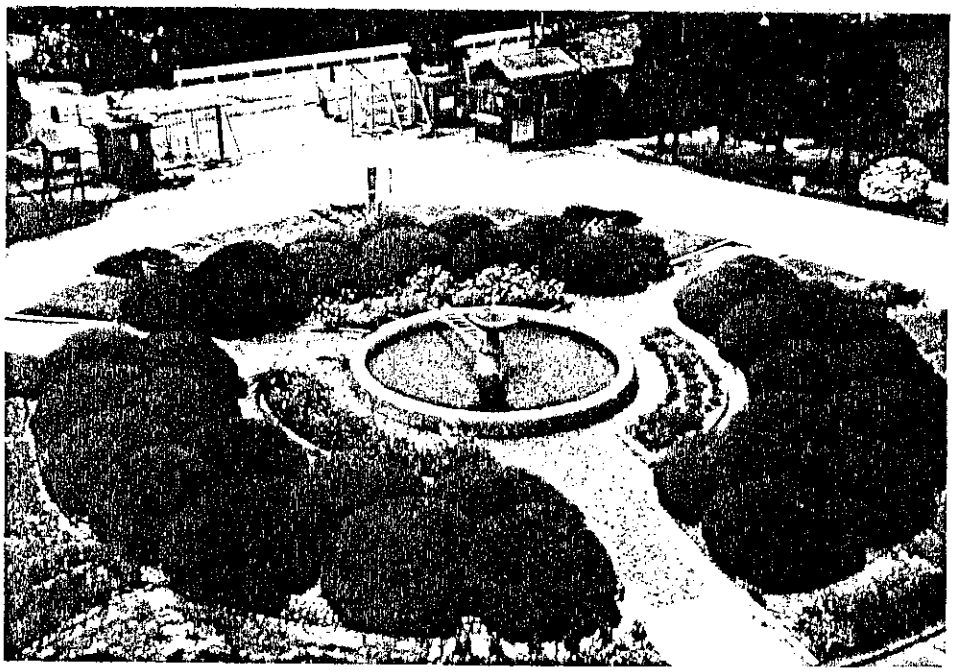


PHOTO C-33: ENTRY GATE AND GUARD HOUSE, WITH LANDSCAPING

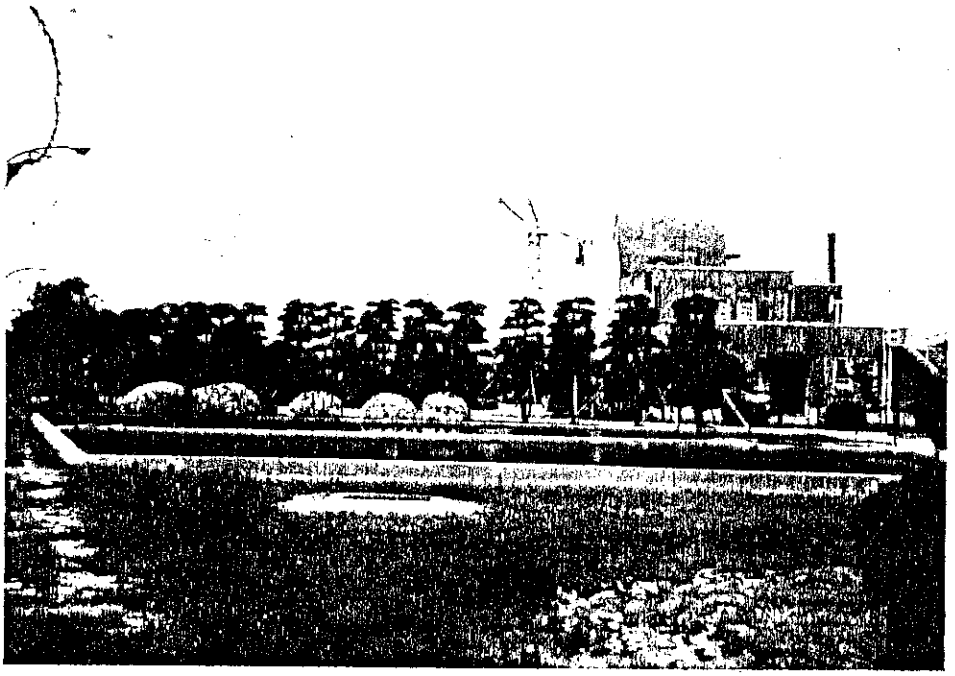


PHOTO C-34: FIRE PROTECTION SUMPS (WITH ADMIN BLDG IN BACKGRD)

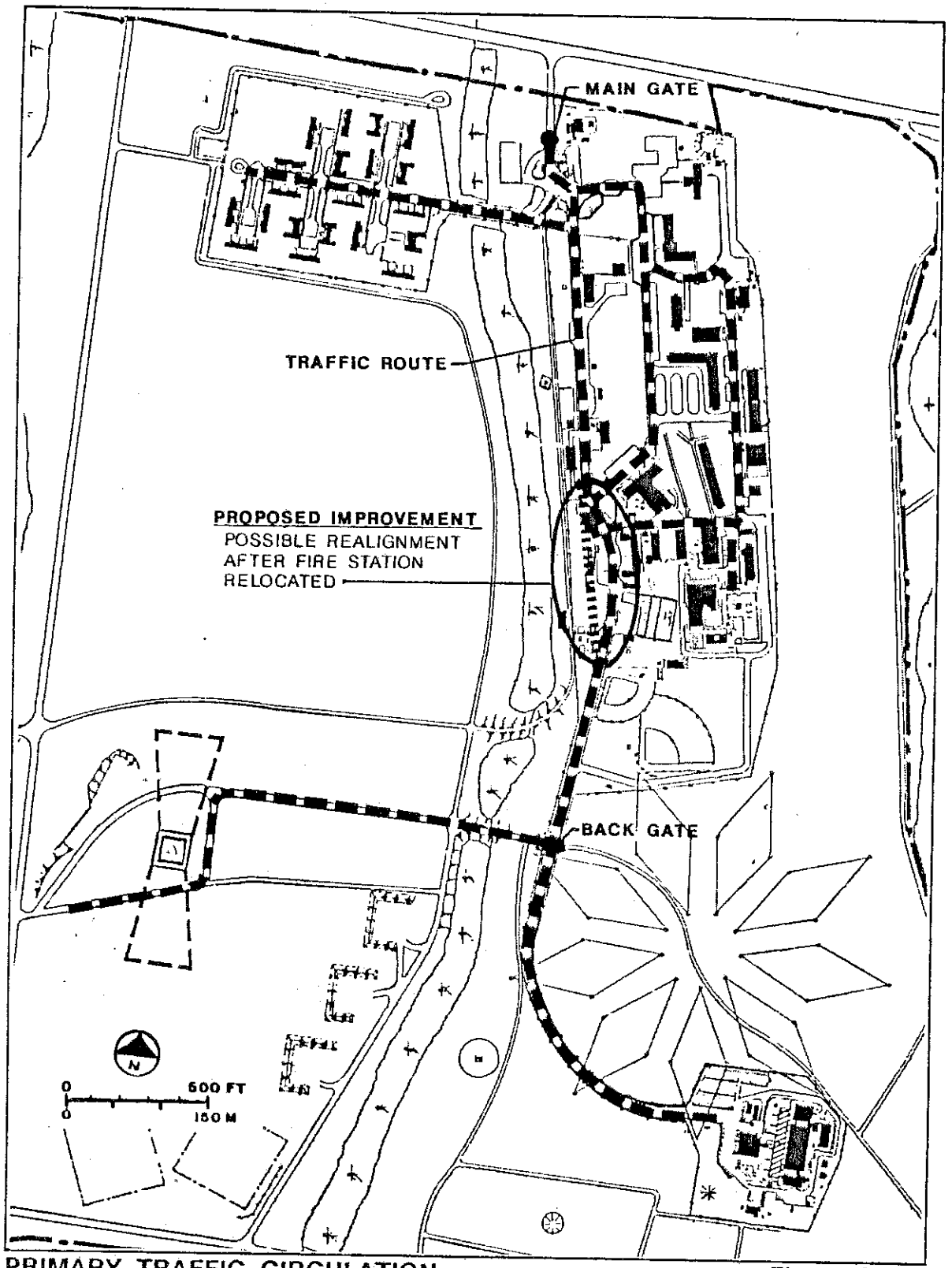
Telecommunications Center/Headquarters Yokosuka. TCC/HQ Yokosuka is NAVCOMMSTA Japan's main communications and headquarters site consisting of Bldgs. B-37 (communications center), B-39A (admin/headquarters), and 561 (emergency generator). These facilities are actually on the plant account of Commander Fleet Activities (COMFLEACT) Yokosuka.

Traffic

General. Figures C-11 and C-12 show the main traffic routes at NAVRADRECFAC Kamiseya and NAVRADTRANSFAC Totsuka, respectively. As expected due to the small physical expanse of the built-up area and low traffic volume at each site, traffic circulation is not a source of concern with NAVCOMMSTA Japan. However, there are two areas where improvements could enhance safety and traffic flow.

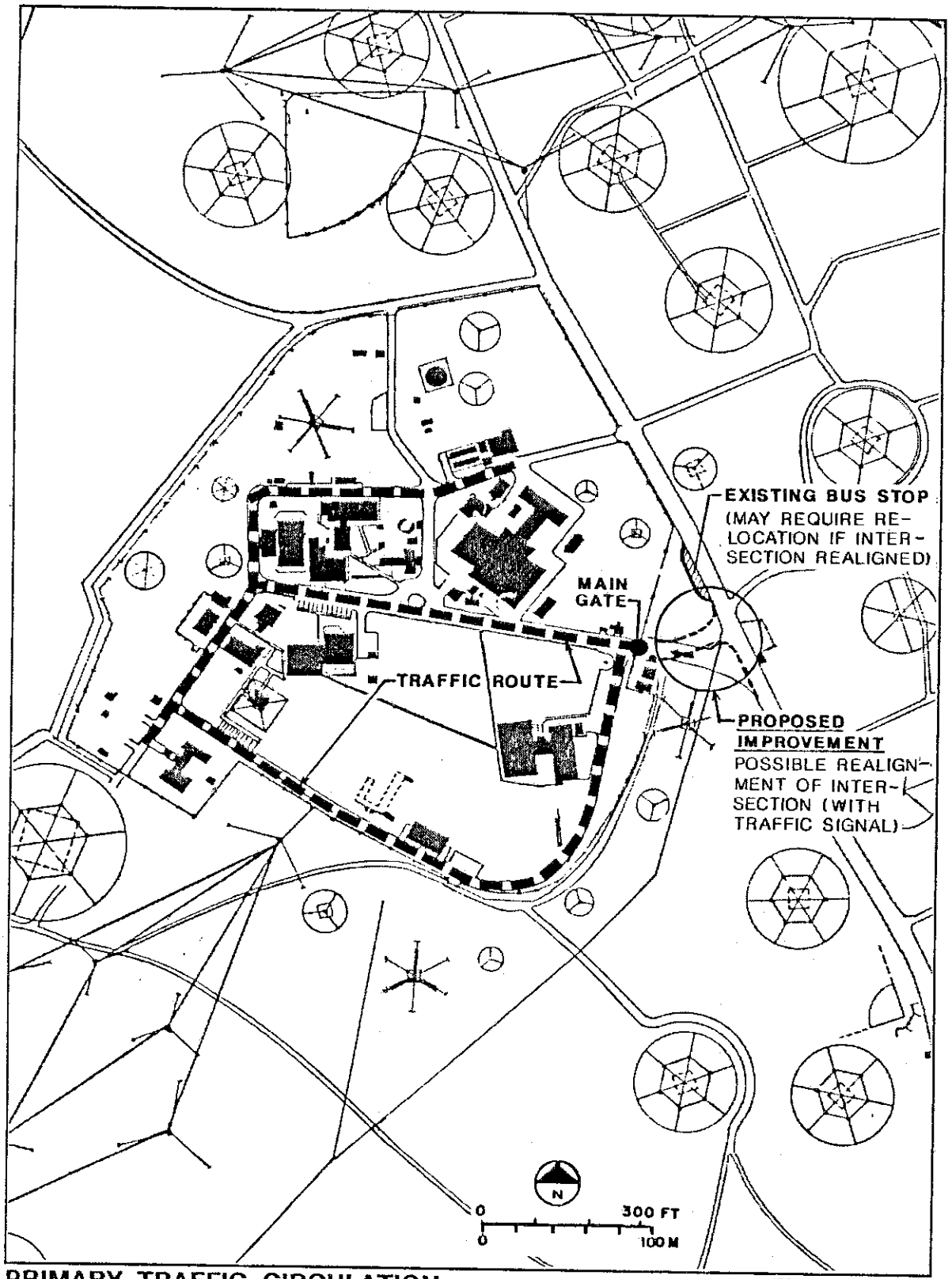
NAVRADRECFAC Kamiseya. One area for improvement is along the main station road, approximately halfway between the main and back gates, where the road takes a bend near the fire station. (See Figure C-11.) With relocation of the fire station to a more suitable site, the road should be realigned to straighten out that bend, thereby alleviating the safety hazard caused by the present alignment. Also, redevelopment of the complex in the vicinity of the existing abandoned BEQ (Bldg. 10) and the NEX/Library (Bldg. 12) will permit a realignment of the road network in that area to become more grid-like, improving safety.

NAVRADTRANSFAC Totsuka. The Y-intersection formed by the entry to the station with the prefectural road results in a difficult left turn situation when leaving the station to enter the prefectural road. (See Figure C-12.) To improve the situation, the intersection could be realigned by moving it further north to become more perpendicular with the prefectural road. However, the presence of an improved bus stop lane along the prefectural road just north of the intersection precludes an immediate change at this time. Also, because egress from the station is directly onto the heavily travelled prefectural road, a traffic light would greatly enhance safety. Such an improvement, however, would require coordination with the local government. Therefore, the activity should initiate discussions with the proper local governmental agency to determine its willingness to support such a project.



PRIMARY TRAFFIC CIRCULATION
NAVRADRECFAC KAMISEYA

Figure C-11



PRIMARY TRAFFIC CIRCULATION
NAVRADTRANSFAC TOTSUKA

Figure C-12

Base Exterior Architecture (BEA)

Concepts. The theme of BEA is to visually unify the physical and site components on base by incorporating landscape, signage, and building coloration designs that will enhance the professional image of the Navy and be sensitive to the aesthetic atmosphere of Japan.

Landscaping. Appropriate improvements in landscaping could alleviate existing visual problems such as inconsistent use of plantings, lack of definition of major activity areas, and lack of adequate maintenance programs for existing plantings.

Planting choices should reflect the intended function of landscaping:

- Selection of native plants consistent with existing vegetation to complement surrounding natural landscape.
- Effective definition of activity areas through use of only one plant species.
- Achievement of variety through selection of deciduous and evergreen trees which highlight seasonal changes.
- Extensive human-sized planting in family housing, bachelor housing, and community support areas to create friendly and inviting surroundings, thereby enhancing personnel morale.

However, extensive landscaping is not recommended for high security areas (so as not to provide areas of concealment) and along major roads of high vehicular traffic (so as not to obscure visibility).

Signage. The concept on signage is to provide a unifying system based on consistent graphic formats, colors, and functions of signs. The designs and colors of signage should be compatible with the landscaping, building colors, and the surrounding natural environment. Major entry signs should project the image of smartness and professionalism, as well as evoke viewer confidence in the dignity and strength of the station. Directional and informational signage should be clear, concise, well-placed, and regularly updated.

Building Coloration. Coordination of building appearance is obtained by a color scheme composed of two building body colors and a limited selection of trim and accent colors. Similar building color schemes visually minimize differences among structures, promoting a more harmonious visual environment. Limiting the color selections reduces cost by encouraging bulk purchases and decreasing the time needed for

determining color schemes of buildings. On the other hand, the larger choice of trim and accent colors will result in contrasts to provide variety.

General. NAVCOMMSTA Japan should focus on landscaping, signage, and building coloration when considering its base exterior appearance at the receiver and transmitter sites. (The TCC/HQ Yokosuka, being a tenant of the Yokosuka Naval Base Complex, would follow the guidelines set forth by the Base Exterior Architecture Plan of Aug 1988 for the naval complex.) In general, the existing landscaping and planting at the three sites are satisfactory. Signage and building coloration, on the other hand, can be improved at NAVRADRECFAC Kamiseya and NAVRADTRANSFAC Totsuka by focusing on the concepts previously discussed.

NAVRADRECFAC Kamiseya

Main Gate Entry The station sign and surrounding landscaping just inside the main gate is a good visual focal point when entering the base. The low shrubs and grassy area fronting the sign with the trees at its rear and the microwave antenna tower as a backdrop, are especially effective in evoking a proper perception of the station. Good maintenance is evident by the healthy appearance of all the plants and the manicured shape of the shrubs.

Two items, however, detract from the overall appearance. The presence of two traffic/directional signs are an intrusion upon the visual image and should be relocated elsewhere. Also, a medium-sized shrub partially obscures the station name and should be trimmed back for a clear view.

Back Gate. Because of the station's orientation, the back gate is the more logical/direct gate of use from the other naval activities which are predominantly south of NAVRADRECFAC Kamiseya. This gate is notable for its bleak, truly "backdoor" appearance. Improvements should be made to create a better sense of entry for this much used gate.

Family Housing. The roadway leading to the family housing area is lined with mature flowering trees, providing an inviting entryway to the homes beyond. This area is a positive asset to the appearance and atmosphere of the base, and should therefore be retained as much as possible in any future plans for the station.

Administration Building The administration building is a low, one-story structure of rather mundane architecture. The walkway to the front entry of the building should be landscaped with low/small shrubs or flowering plants on each side to create a better sense of entry and definition. Also, when viewed from a distance, the smaller planting will create the visual perception that the building is larger than it actually is. Accordingly, the existing larger-sized shrubs along the walkway should be relocated elsewhere as their size tends to obscure

the facility.

NAVRADTRANSFAC Totsuka

General. The built-up core area of NAVRADTRANSFAC Totsuka is characterized by the many mature, well-established pine trees throughout the area. These trees should be retained as much as possible in any future plans for the station. The overall planting and landscaping are generally good, and they appear well-maintained.

Main Gate The main entry to the station is rather spartan, with the station sign hanging from a metal frame over the roadway as its most prominent feature. Landscaping and planting, especially on both sides of the roadway just outside the gate would help to improve the appearance and create a better sense of entry. Also, the large Navy stockless anchor to the side of the gate appears out of place, as no attempt has been made to integrate it with the entry.

NAVRADTRANSFAC Yosami

The contractor operating NAVRADTRANSFAC Yosami has invested much time, effort, and funds towards landscaping the grounds, with excellent results. This effort should be commended and its continuation encouraged.

PLANNING ANALYSIS

Introduction

In this section, the idealized functional relationships of a communications station are compared with the existing arrangement of land uses at NAVCOMMSTA Japan and the constraints affecting future development. Basic planning concepts relevant to the activity are discussed and form the rationale for land use and development plans.

General Requirements. The primary consideration for any shore radio site is the suitability or technical adequacy of the site for meeting communication performance objectives. Two broad objectives are: (1) maximum signal-to-noise ratio at the receivers and (2) maximum effective power radiated in the desired direction by the transmitters. The three components of a communications station are the receiver site, transmitter site, and communications center.

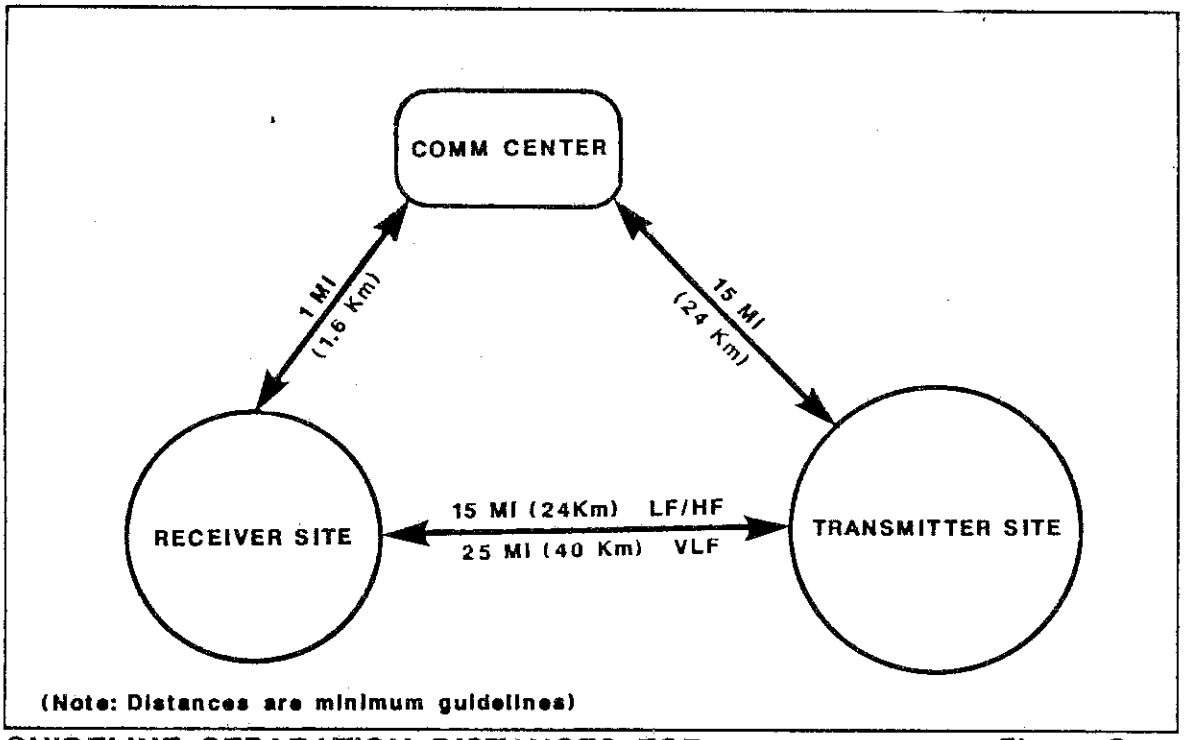
Inter-Site Relationships. The three components of a communications station are shown in Figure D-1. Separation distances between components are intended primarily to avoid RFI. On the other hand, interconnections are important in determining locations that are favorable to line-of-site microwave transmission.

As shown by Figure D-2, all separation distances are met at NAVCOMMSTA Japan except between the receiver building site at NAVRADRECFAC Kamiseya and the transmitter site at NAVRADTRANSFAC Totsuka. Although the required distance is 15 miles (24 km), the actual separation is only 6.2 miles (10 km); however, the existing separation has not resulted in unacceptable operational degradation of either Kamiseya or Totsuka.

Development of Concepts

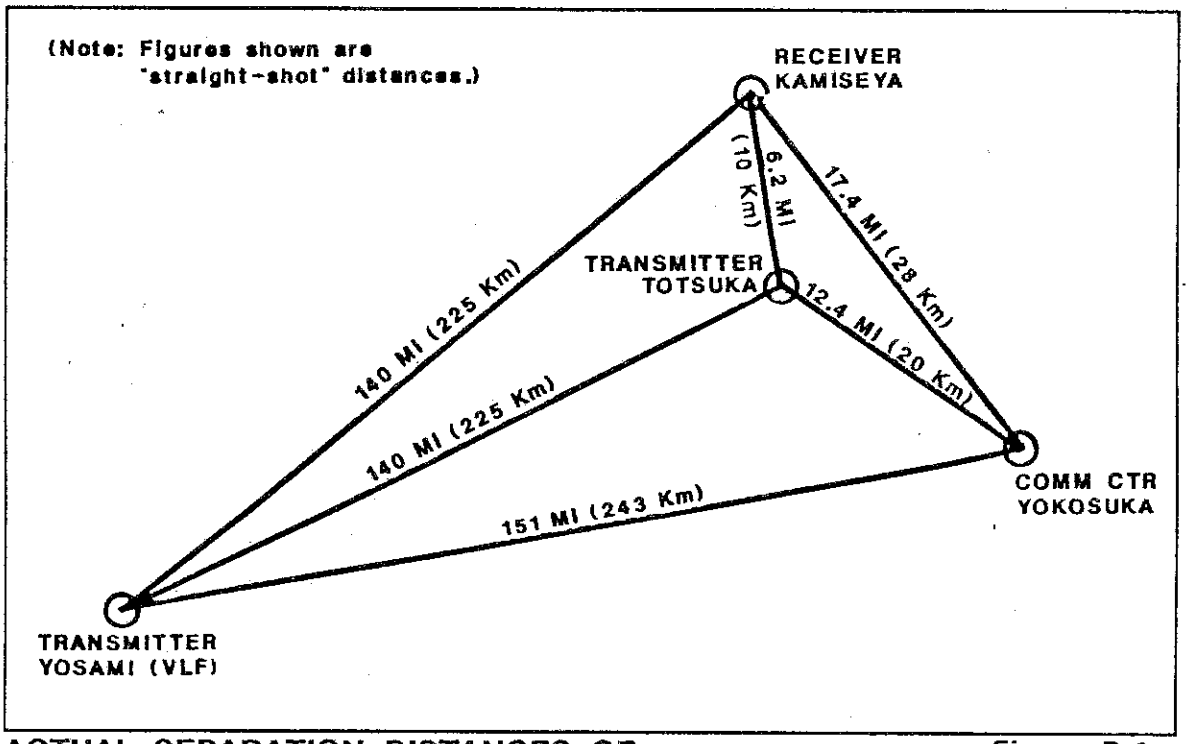
Idealized Functional Relationships. The idealized functional relationships of a typical naval communications receiver station are shown in Figure D-3. The diagram portrays an idealized situation with no natural or man-made constraints. The primary concepts of this model are the consolidation of like functions to maximize land use efficiency and the division of the station into distinct areas, separating the working zones from the berthing and community support zone.

The two primary operations areas are the communications center and the receiver site. The latter facility should be located near the antennas and, therefore, would be located away from the main developed area. Supply warehouses and public works maintenance shops should be located near the operations area to provide ease of access to the operational area, particularly under emergency conditions.



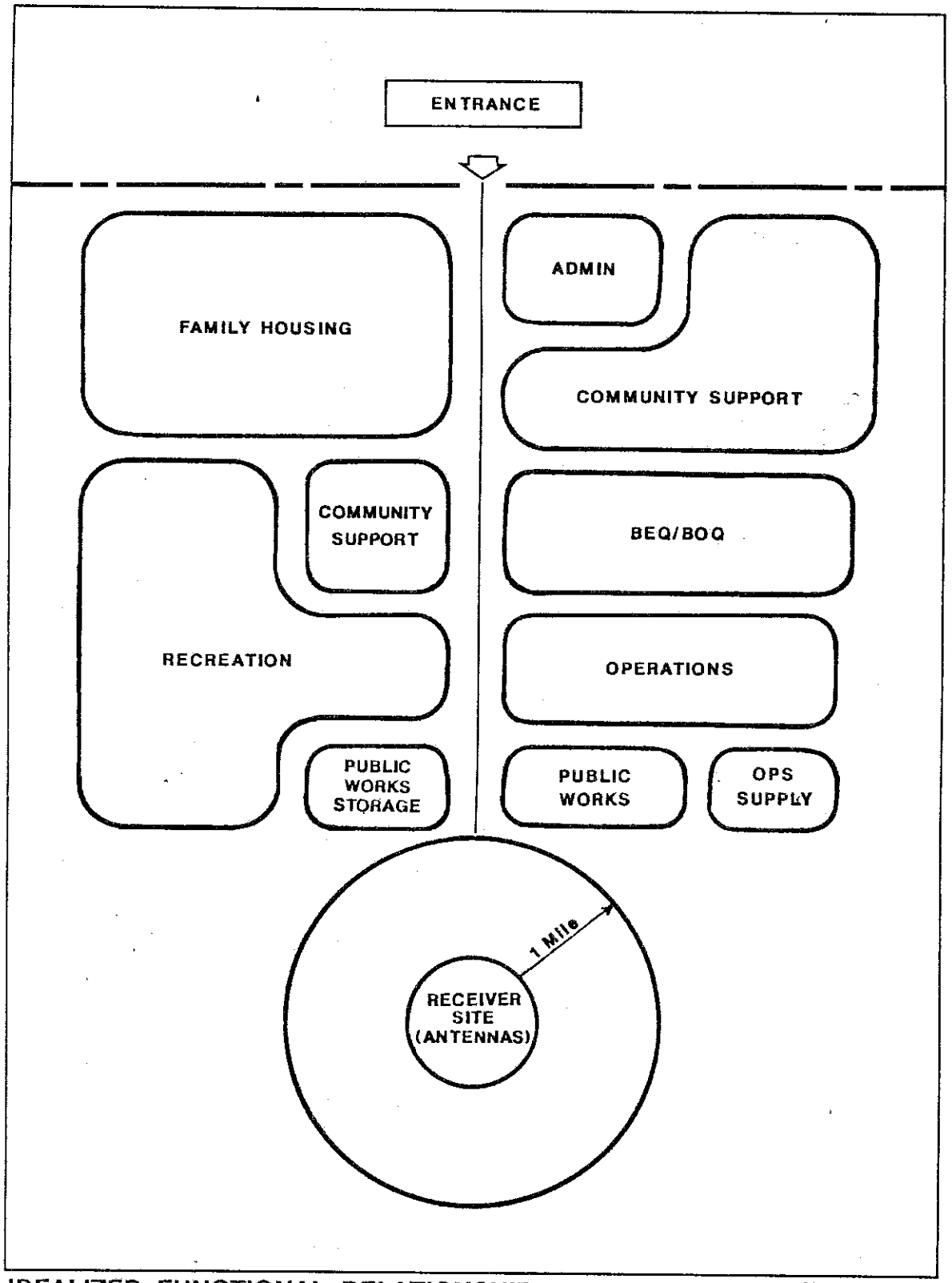
GUIDELINE SEPARATION DISTANCES FOR COMMUNICATIONS STATION COMPONENTS

Figure D-1



ACTUAL SEPARATION DISTANCES OF NAVCOMMSTA JAPAN COMPONENTS

Figure D-2



IDEALIZED FUNCTIONAL RELATIONSHIP
RECEIVER STATION

Figure D-3

Another compatible use in the work zone is station administration. This land use should be located in proximity to the operations area for functional efficiency. However, it is also desirable to locate the administration building close to the main gate since this land use probably attracts the most off-station traffic. Such a location would provide high visibility and result in less traffic through the base.

On a relatively small station, where the mess hall services both on-duty and off-duty personnel, this facility should be located close to both the working and living areas. It also provides a transition area between the two areas. The bachelor and family housing areas ideally should be buffered from high noise and traffic found in the work zone, yet located close enough to encourage people to walk or bicycle to work. This type of arrangement would require the innovative use of landscaping, distinct primary and secondary circulation patterns to direct heavy traffic away from living areas, and transition land uses that are compact, yet may be perceived as bridging two incompatible land uses.

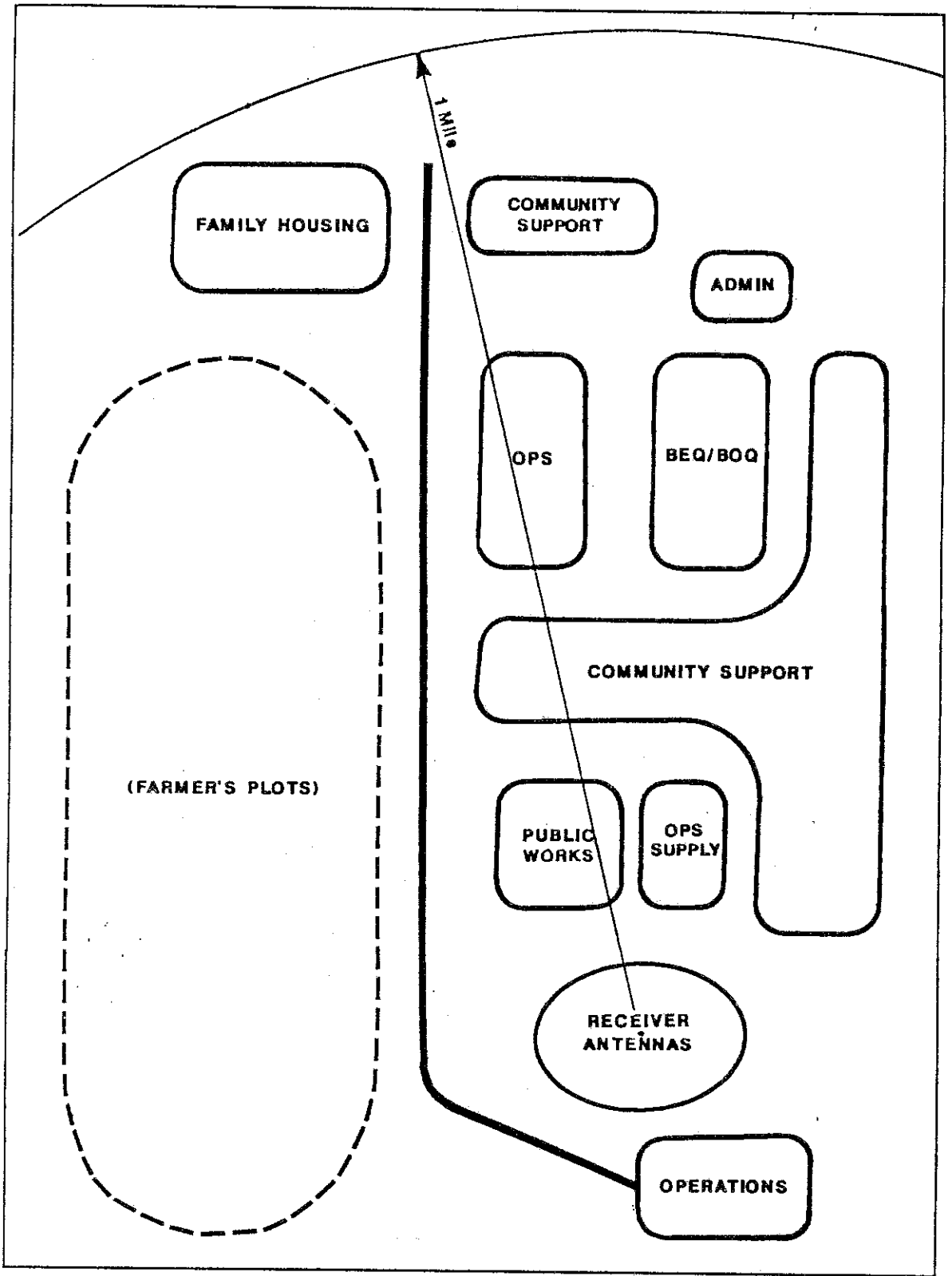
Personnel and community support land uses relate functionally to the housing areas. Outdoor MWR uses usually have extensive space requirements, and should be located in areas that do not infringe on the operational requirements of the station.

Existing Functional Relationships. Figure D-4 shows the existing functional relationships at the receiver site of NAVCOMMSTA Japan. Although the majority of functions are relatively well-sited in relation to each other, the diagram also shows that other functions are separated and scattered around the station, or are located in areas that hamper ideal interrelationships.

Land Ownership. NAVCOMMSTA Japan utilizes about 800 acres of land at NAVRADRECFAC Kamiseya, NAVRADTRANSFAC Totsuka, and NAVRADTRANSFAC Yosami provided to the U.S. without charge by the Government of Japan (GOJ) under terms of the Treaty of Mutual Cooperation and Security. A diversified land ownership situation exists within the Station boundaries at these three sites.

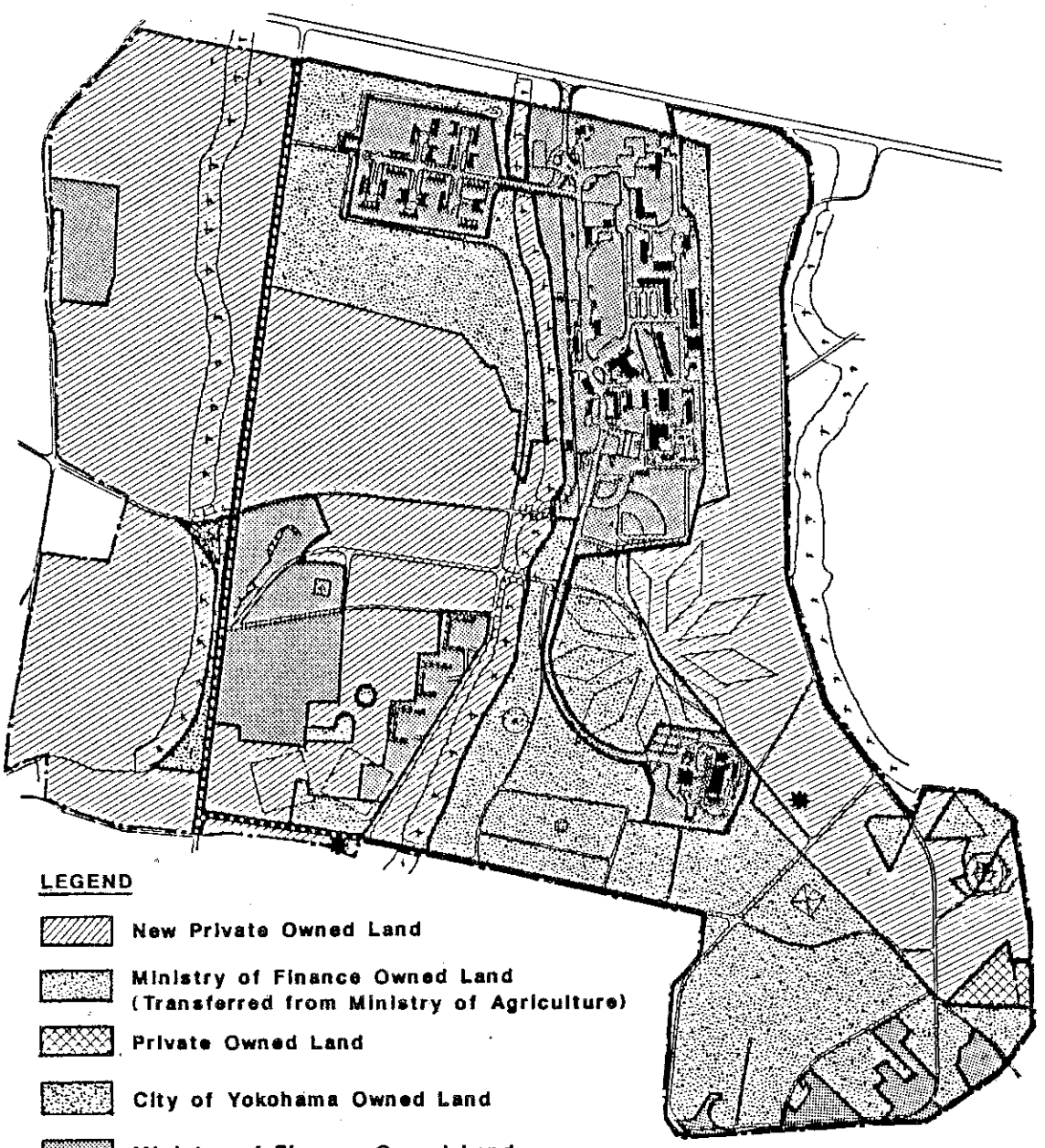
Land ownership at NAVRADRECFAC Kamiseya can be broken down into six major categories as shown by Figure D-5. Much of the lands outside the station's built-up core area that are administered by the Ministries of Agriculture and Finance are outleased to individual farmers for non-commercial, agricultural purposes only. The new privately-owned lands were sold in fee with restrictive deeds that prohibit activities that are incompatible with the Communication Station.

Land ownership within the boundaries of NAVRADTRANSFAC Totsuka is under the sole jurisdiction of the Ministry of Finance. Individual plots of land outside of the station's built-up core area are outleased to numerous farmers for non-commercial, agricultural purposes only, as shown by Figure D-6.



EXISTING FUNCTIONAL RELATIONSHIP
NAVRADRECFAC KAMISEYA

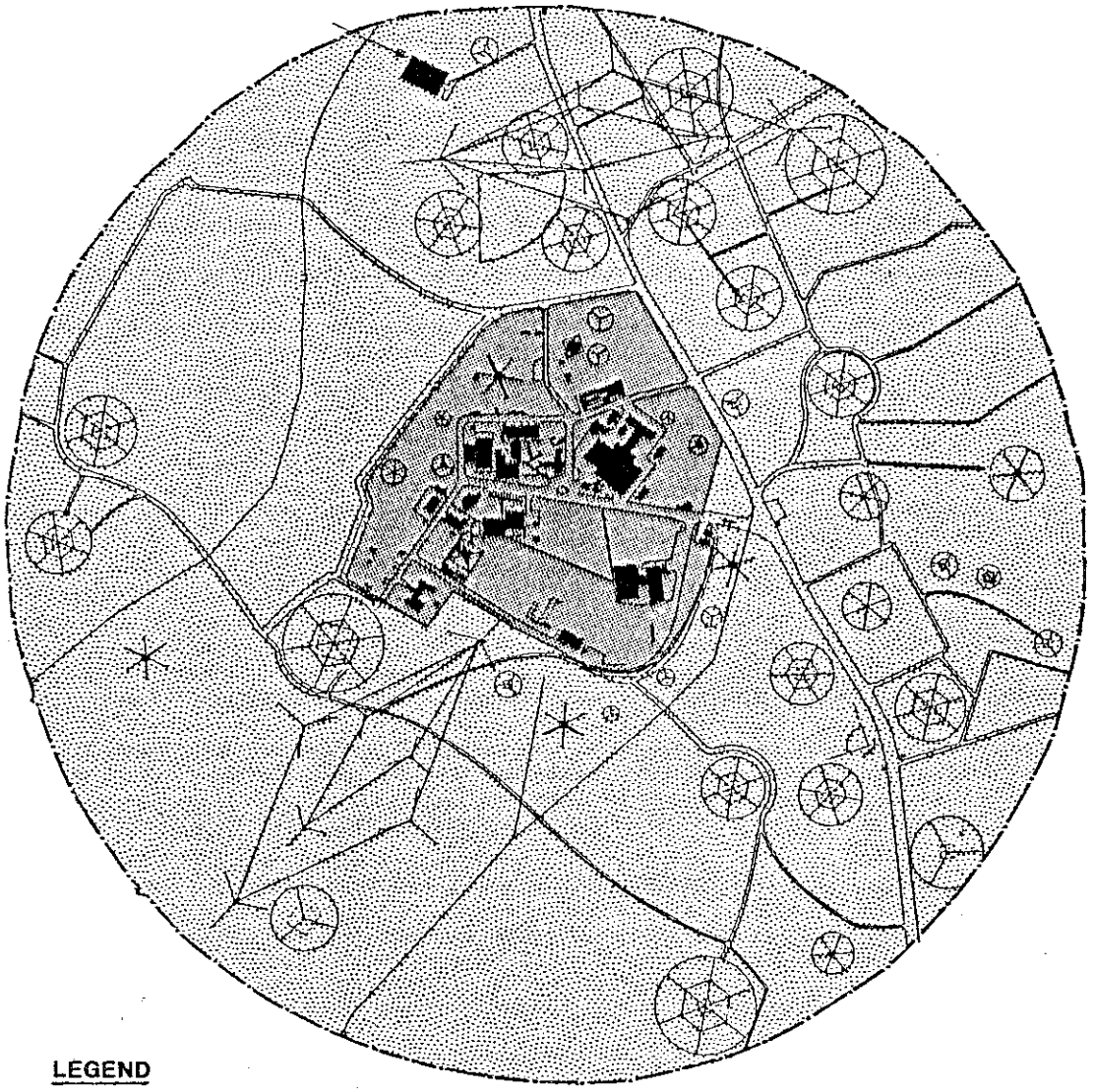
Figure D-4



LAND OWNERSHIP
NAVRADRECFAC KAMISEYA

Figure D-5

NAVCOMMSTA JAPAN MASTER PLAN



LEGEND

Ministry of Finance

Non-Lease Area

Temporary Lease Area

Source of Data: Public Record
Yokohama Defense
Facilities Administration
Bureau

N

0 800 FT
0 250 M

LAND OWNERSHIP
NAVRADTRANSFAC TOTSUKA

Figure D-6

All land at NAVRADTRANSFAC Yosami is privately-owned. The land is leased by the GOJ and the Navy has a perpetual easement to utilize the land for communication purposes concomitant with the ongoing agricultural usage, as shown by Figure D-7.

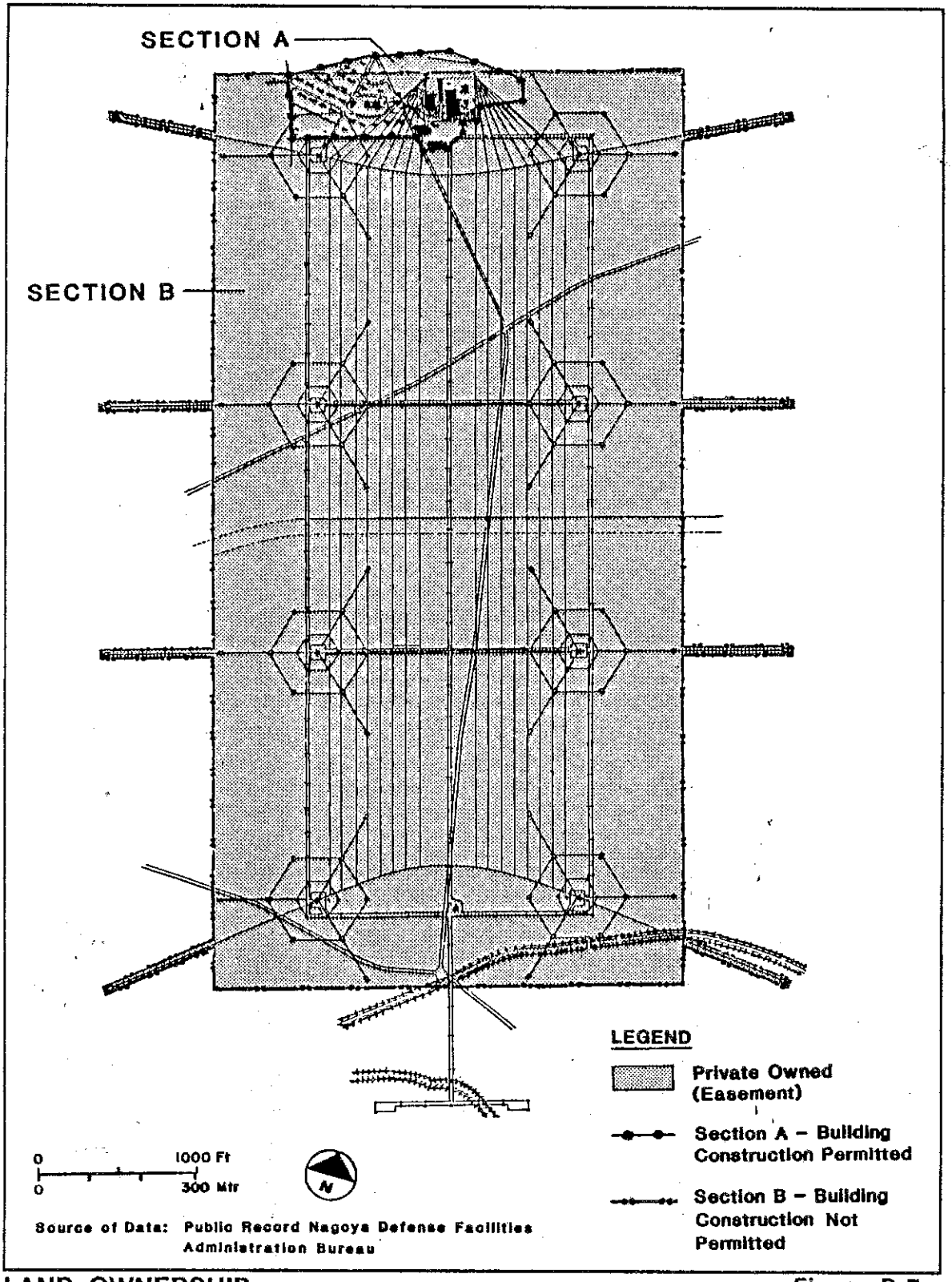
Civilian Encroachment

Farmers Plots. At all three sites the non-commercial farming activities are generally compatible with NAVCOMMSTA Japan's operational functions; however, the farmers' presence adversely affects U.S. Navy operations in several ways.

- The farmers have defacto control of the antenna fields, while the Navy maintains control of its built-up area. In many instances crops have been planted right up to the antenna bases and guy supports creating access problems during routine inspection/maintenance and occasional repairs. There are also instances where the antenna grounding systems has been tilled over by the farmers.
- Expansion of facilities into areas under cultivation is difficult because it is politically undesirable to the GOJ. Farmers have tremendous political influence in Japan; therefore, in spite of the fact that the GOJ is obligated by treaty to provide land required by the U.S. forces, it has demonstrated a significant reluctance to do so when it is at the expense of farmers.
- Airborne dust/dirt created by the farming activity negatively impact on Base facilities, equipment, and personnel health/hygiene.
- The security of the Navy facilities is compromised since the antenna fields are not under complete control of the Navy.

Public Roads. There is a major public road passing through each of the three sites of Kamiseya, Totsuka, and Yosami. The road through NAVRADRECFAC Kamiseya is a heavily used two-lane road with a separate wide pedestrian walkway and bikeway on each side. This road in particular may have an adverse presence because of electromagnetic interference generated by the motor vehicles that may contribute to degradation of the station's receiving capability. The road through NAVRADTRANSFAC Totsuka is also a heavily used two-lane road with a major bus stop fronting the main entrance to the Station. The bus stop and its bicycle parking lot attract civilian traffic through the transmitter antenna field.

Recreation. At NAVRADTRANSFAC Totsuka, and to a lesser extent at NAVRADRECFAC Kamiseya, there are numerous ballfields and gate ball (a Japanese variant of croquet) courts located outside the built-up core area, but within the Station boundaries, which are used primarily by the local Japanese community.



LAND OWNERSHIP
NAVRADTRANSFAC YOSAMI

Figure D-7

Terrain/Slope/Soils

NAVRADRECFAC Kamiseya. The topography is a very gentle rolling form, with the built-up areas quite flat. The primary constraint is a drainage system and adjoining sump areas running north-south generally in the middle of the Base. However, the topography generally presents no serious siting or construction constraints.

NAVRADTRANSFAC Totsuka. The topography is also generally flat, with the exception of a drainage ditch/gully in the northern portion generally running east-west. The primary constraint would be the presence of fill land to the northeast of the built-up core area, which would necessitate a soils investigation prior to design to determine the appropriate foundation system for the facility to be constructed.

NAVRADTRANSFAC Yosami. The topography is flat throughout the Station area where building construction is permitted and no serious siting or construction constraints are known to exist.

Historic Sites. United States Government's historic preservation responsibilities in overseas areas indicate that mitigation measures need be considered only if the affected resource is on the World Heritage List or the host country's equivalent of the National Register.

There are no known historic sites within the NAVCOMMSTA Japan sites. However, the administration building at NAVRADTRANSFAC Yosami was built in 1929 and has a unique visual architectural appearance which deserves strong consideration for preservation and retention. The transmitter building at NAVRADTRANSFAC Yosami was also built in 1929 and probably houses the only commercially developed VLF transmitter in existence today. Much of the original equipment is still in place and operated once a week to minimally maintain its workability. This facility should also be preserved and retained as a historically significant structure.

Flora/Fauna. There are no known endangered plants or animals in existence within the Station lands. However, at NAVRADTRANSFAC Totsuka, there is a wooded area located near the western boundary that the OIC of the Station has designated as a "preserve" and has permitted the local community access for nature walks/observation. This wooded area has been retained in the development plan.

Development Plan

NAVRADRECFAC Kamiseya. Figure D-13 is the development plan proposed for NAVRADRECFAC Kamiseya. Some of the proposals are:

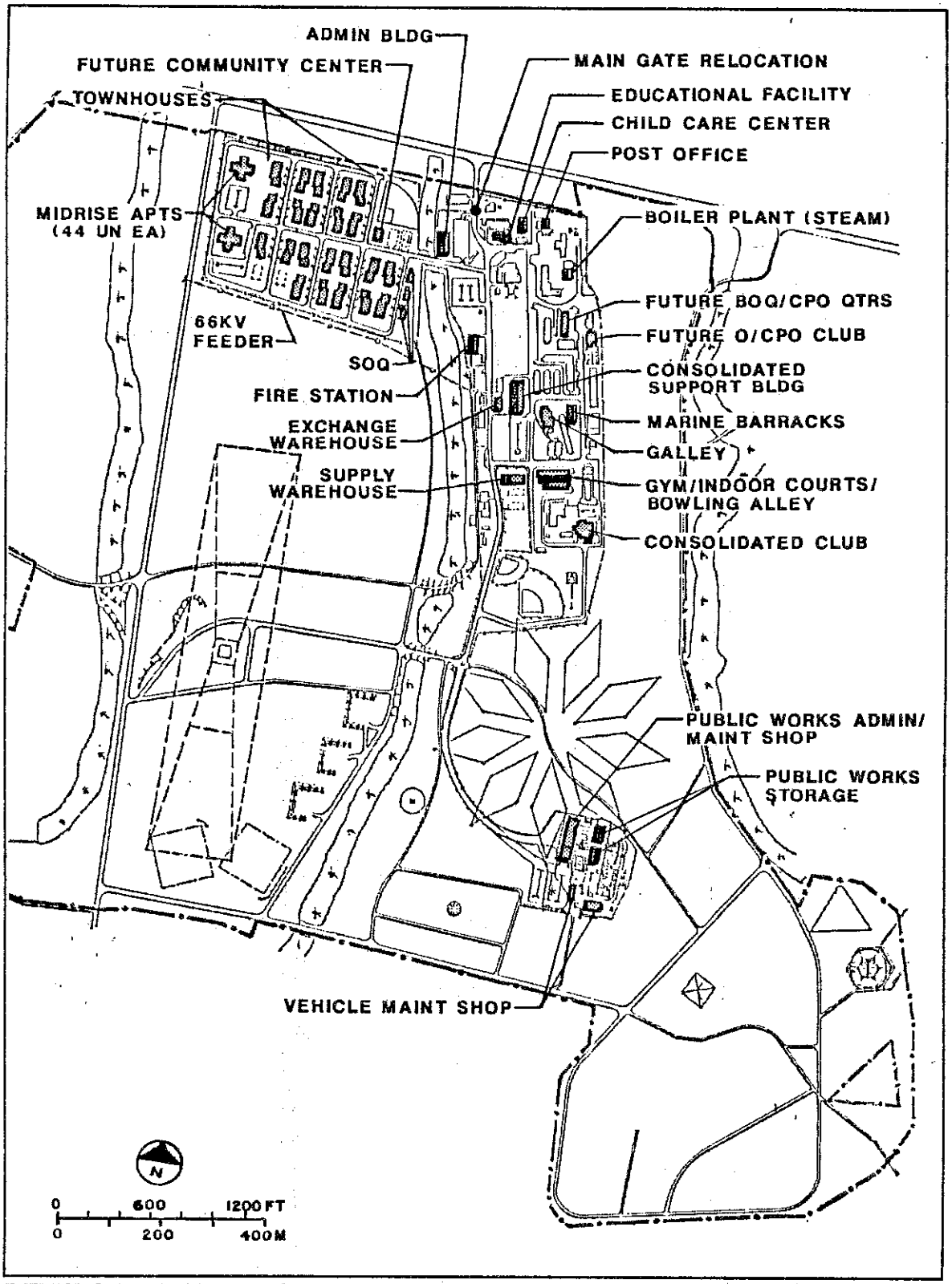
- Family housing replacement/expansion.
- Marine barracks construction.
- Administrative office replacement.
- NEX, theater, library, and other personnel services replacement/consolidation.
- Fire station replacement.
- Roadways realignment.
- Public works facilities replacement/relocation.
- Supply facilities replacement/relocation.
- Steam plant and distribution system replacement/relocation.
- Utilities replacement/upgrade.

NAVRADTRANSFAC Totsuka. Figure D-14 is the development plan proposed for NAVRADTRANSFAC Totsuka. Some of the proposals are:

- Family housing replacement/expansion.
- Security fencing improvements.
- Antenna access roads improvements.
- Public works facilities replacement/relocation.
- Transmitter facility replacement.
- Utilities replacement/upgrade.
- Steam plant and distribution system replacement/relocation.

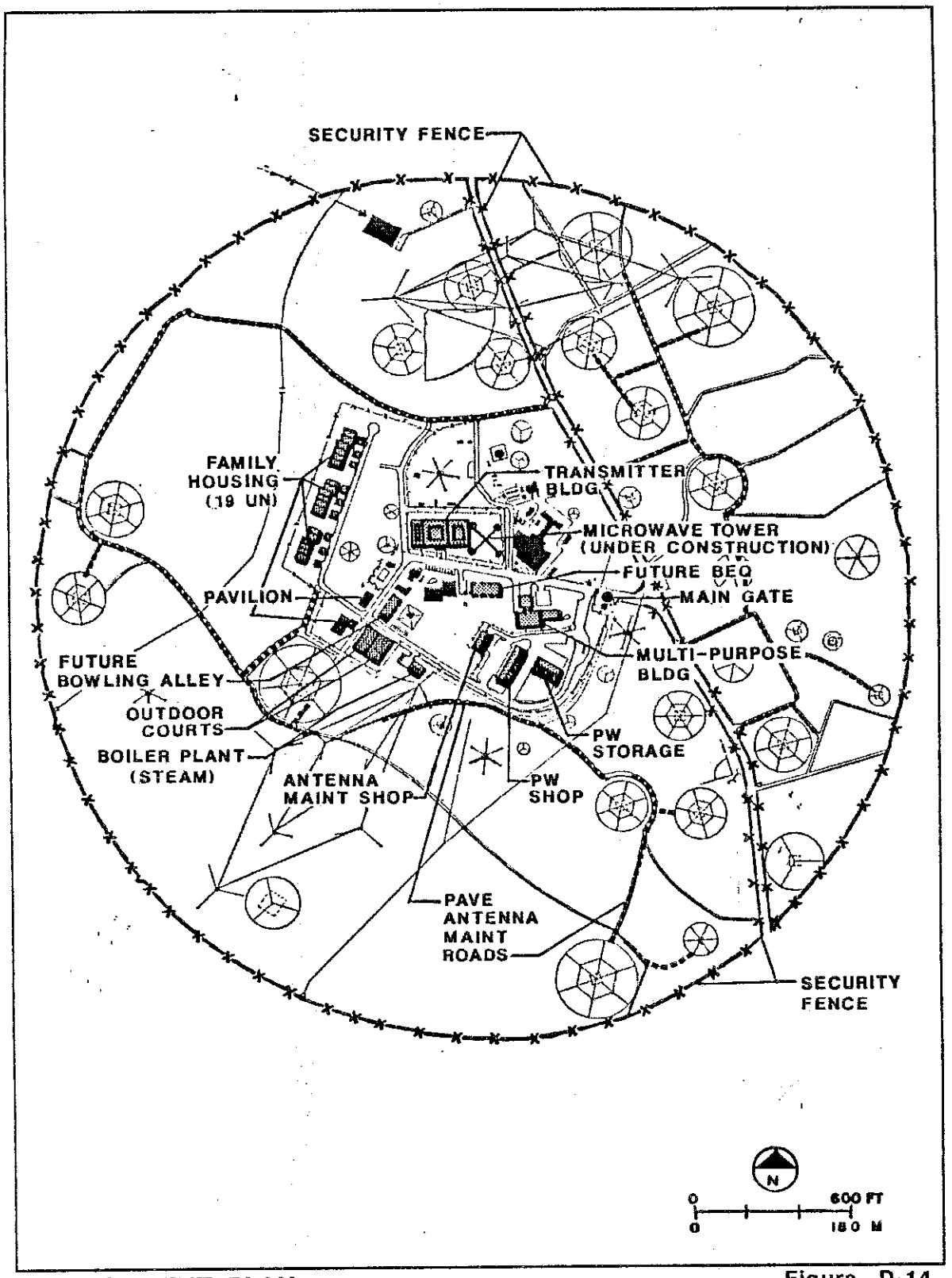
NAVRADTRANSFAC Yosami. Figure D-15 is the development plan proposed for NAVRADTRANSFAC Yosami. Some of the proposals are:

- Antenna access roads improvements.
- Main compound roads/driveways improvements.
- Warehouse/shop replacement/consolidation.
- Main compound security fencing improvements.
- Utilities replacement/upgrade.



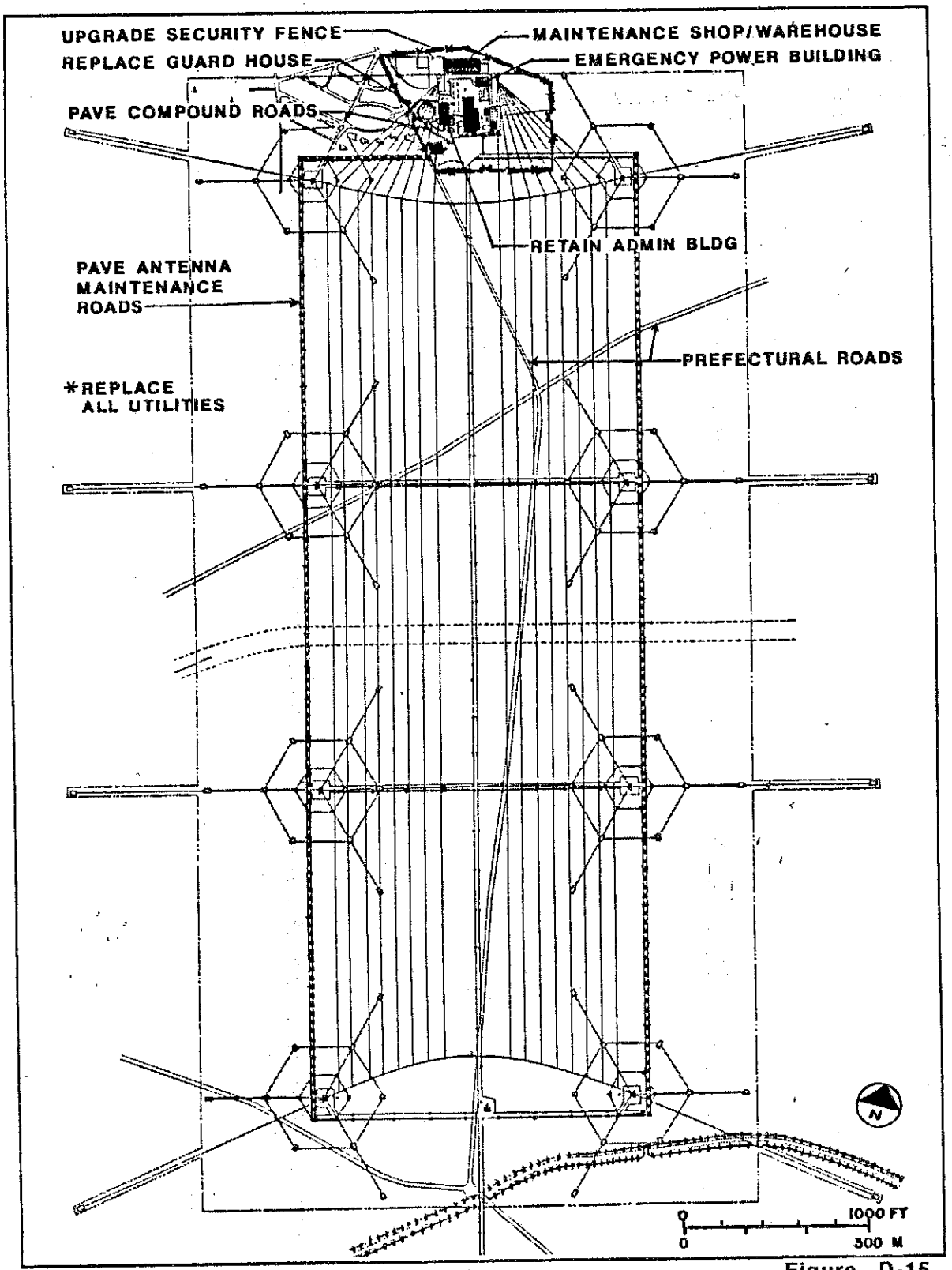
DEVELOPMENT PLAN
NAVRADRECFAC KAMISEYA

Figure D-13



DEVELOPMENT PLAN
NAVRADTRANSFAC TOTSUKA

Figure D-14



DEVELOPMENT PLAN
NAVRADTRANSFAC YOSAMI

Figure D-15