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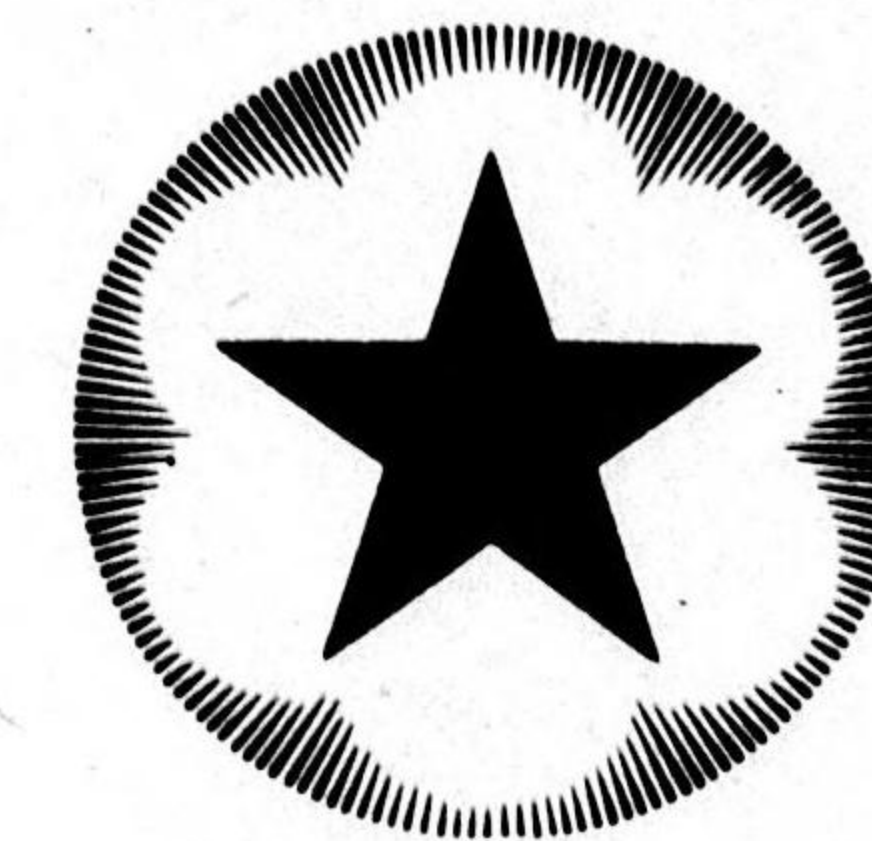
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ARMY SERVICE FORCES MANUAL

**M 354-19**

CIVIL AFFAIRS HANDBOOK

**JAPAN**

SECTION 19: KAGOSHIMA - KEN



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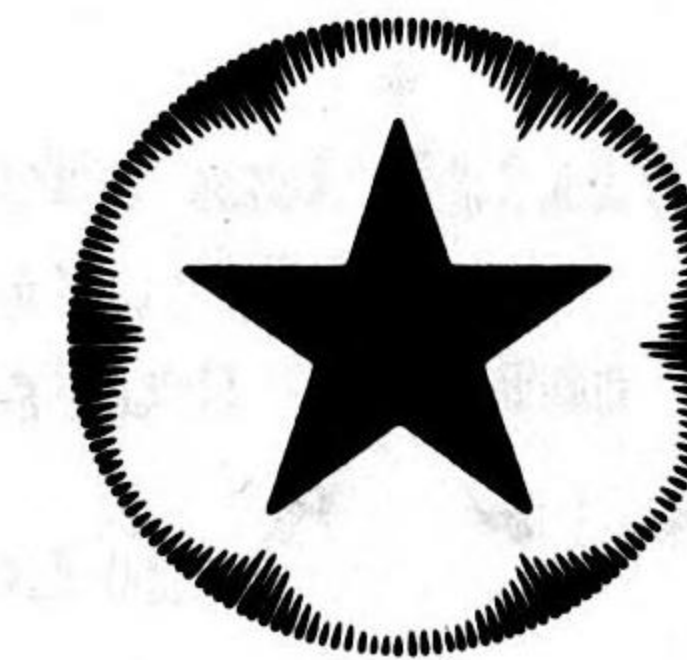
6 AUGUST 1945

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**JAPAN**

**SECTION 19: KAGOSHIMA - KEN**



**Headquarters, Army Service Forces**

**6 August 1945**

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\* \* \*

HEADQUARTERS, ARMY SERVICE FORCES  
Washington 25, D. C. August 1945

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By Command of GENERAL SOMERVELL:

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Major General  
Acting The Adjutant General

LeR. LUTES  
Major General, GSC  
Chief of Staff

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## CIVIL AFFAIRS HANDBOOKS

## TOPICAL OUTLINE

- 
1. Geographical and Social Background
  2. Government and Administration
  3. Legal Affairs
  4. Government Finance
  5. Money and Banking
  6. Natural Resources
  7. Agriculture
  8. Industry and Commerce
  9. Labor
  10. Public Works and Utilities
  11. Transportation Systems
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  13. Public Health and Sanitation
  14. Public Safety
  15. Education
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  17. Cultural Institutions in Japan
  18. Japanese Administration of Occupied Areas
  - 19 - 64. Ken Studies

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## INTRODUCTION

This manual is one of a series of studies designed to provide Military Government officers working on prefectural and local levels with a concise statement of available factual information.

Each manual covers one prefecture and includes information available at the Presidio of Monterey, California, on 1 August 1945.

### Purposes of the Civil Affairs Handbooks

The basic purposes of civil affairs officers are (1) to assist the Commanding General by quickly establishing those orderly conditions which will contribute most effectively to the conduct of military operations, (2) to reduce to a minimum the human suffering and the material damage resulting from disorder and (3) to create the conditions which will make it possible for civilian agencies to function effectively.

The preparation of Civil Affairs Handbooks is a part of the effort to carry out these responsibilities as efficiently and humanely as is possible. The Handbooks do not deal with plans or policies (which will depend upon changing and unpredictable developments). It should be clearly understood that they do not imply any given official program of action. They are, rather, ready reference source books containing the basic factual information needed for planning and policy making.

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## SUMMARY.

Kagoshima-ken is the southernmost prefecture on the island of Kyushu. It has a mild climate, similar to that of the eastern seaboard of the United States from Washington, D. C. to southern Georgia.

Kagoshima-shi is the largest city of the prefecture, and also the major port of southern Kyushu.

Agriculture is the principal occupation of the population of Kagoshima-ken. The prefecture is a food surplus producing area, the principal surpluses being sweet potatoes and sugar. Fish products are produced in sufficient quantities to permit shipment to other prefectures.

Kagoshima is one of Japan's principal forest producing prefectures, about half of the prefecture being covered with forests. More than half the forested area is government owned.

Foreign trade placed Kagoshima-shi 16th among Japan's open ports in 1939.

Kagoshima is served by main line and secondary railroads and highways, and is a terminus for submarine cables from the Ryukyu Islands and other islands south of Kyushu.

Except in matters peculiarly local, the social organization and cultural institutions of Kagoshima-ken are similar to those existing in the rest of Japan. Kagoshima-ken is in the Kyushu Administrative Region with headquarters in Fukuoka-shi.

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Table of weights and measures

## I. PHYSICAL BACKGROUND

## A. LOCATION AND SIZE

Kagoshima-ken, southernmost prefecture of Kyushu island (31°30'N., 130°30'E.), has an area of 3,514 square miles, and comprises 2.4 percent of the total area of Japan proper. It is almost three-fourths as large as the State of Connecticut.

## B. TERRAIN REGIONS

Kagoshima-ken is divided into 2 general zones: the Southern Kyushu Lowlands and Highlands in the South, and the Central Kyushu Mountains in the north, and 3 groups of islands some of which form a portion of Ryukyu-retto. The southern zone contains 3 significant lowland areas: the Makurazaki-Kushikino (Satsuma) Coastal Plain to the southwest, the Ariake Plain to the southeast, and a smaller plain along the east coast of Kagoshima-wan. Other lowlands in the prefecture are limited to small riverine plains and interior basins amid the generally rugged uplands and scattered volcanos.

1. Southern Kyushu Lowlands & Highlands.

This region lies south of a line extending northeast from the Sendai-gawa (31°51'N., 130°12'E.) in western Kagoshima-ken to Nobeoka-shi on the eastern coast of the island. The 3 principal lowlands are described in order of importance.

a. The Makurazaki-Kushikino (Satsuma) Coastal Lowland, which extends along the southwestern coast of Kagoshima-ken, consists of 2 small coastal plains joined by 2 low narrow valleys. One plain extends 11 miles east from Makurazaki-machi (31°15'N., 130°19'E.) along the south coast of the Satsumahanto (peninsula). It is roughly triangular, and varies from flat to gently rolling.

The other plain extends 24 miles south from Kushikino-machi (31°43'N., 130°16'E.) along the west coast of the peninsula. The connecting valley sections, north of Makurazaki-machi, are only 6 miles long. The Kushikino Plain is long and narrow, with sand dunes along the coast, and hill spurs reaching almost to the sea at the northern end.

West of the connecting valleys, the coast is rocky and lined by cliffs, from which the land rises steeply in a range of high hills. Inland, separating the 2 lowlands from Kagoshima-wan, are rugged hills 300 to 800 feet high, penetrated by narrow winding valleys. Surface materials on the plains are chiefly volcanic ash and clay loam, on the hills, clay and loose rock. Cross country travel is relatively easy across the plains except on the rice fields when they are flooded from May to August. The dune areas along the west coast, and the hills back of the plains, offer poor possibilities for cross-country movement because of steep slopes and loose sand-ash soils.



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b. The Ariake Coastal Plain lies west of the head of Ariake-wan (31°24'N., 131°08'E.). It is connected in the northeastern corner to Miyakonojo Basin by narrow valleys. The plain consists of a series of flat terraces and is 100 square miles in area. Kanoya-shi (31°22'N., 130°52'E.) is the principal urban center. Major streams have cut valleys 20 to 100 feet deep across the terraces of the plain, dividing them into large level blocks which average one to 2 miles in width. Travel is least difficult from late August to May when rice fields are not flooded.

The western gateway of the Ariake Plain is difficult to use because of a narrow one to 4 mile belt of hills separates the lowland from the east shore of Kagoshima-wan. The best western approach to the Ariake-Miyakonojo Lowland is by way of the flat-topped, ash-covered ridge which occupies most of the area between Miyakonojo Basin and the head of Kagoshima-wan (31°25'N., 130°38'E.). A northeastern gateway connects the Miyakonojo Basin in Miyazaki-ken to Shibushi-machi (31°28'N., 131°06'E.) at the south end of the Ariake Plain. The seaward margin of the plain is a stretch of sandy beach backed by sand, gravel, clay, and mud, with grasslands, isolated trees and dry grain fields.

c. Kagoshima Plain. Kagoshima-shi (31°36'N., 130°33'E.), the capital and largest city of Kagoshima-ken, is on a narrow coastal plain at the base of an ash plateau and situated almost under the shadow of the 3,752 foot Minami-dake, the imposing volcano on Sakura-jima across the bay.

d. Southern Kyushu Highlands. The upland areas in the south vary in form, but are mostly low, rugged mountains and hills, rising 1,500 to 4,000 feet above sea level.

### 2. Central Kyushu Mountains.

Approximately one-fourth of the area of Kagoshima-ken lies in the southern portion of the Central Kyushu Mountains, which average 3,000 to 4,000 feet, and make cross country movement extremely difficult. Stream valleys are crooked and narrow. A rectangular coastal plain, 5 by 10 miles, extends from Akune-machi (32°01'N., 130°12'E.) to Komenotsu-machi (32°07'N., 130°21'E.) in Izumi-gun.

### 3. Islands.

Three groups of islands are included in Kagoshima-ken.

a. Koshiki-retto, a group of 3 islands and several islets, is about 30 miles west of Kushikino. High rocky, indented, and lined with cliffs, the chain is about 25 miles long and one to 7 miles wide.

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b. Naga-shima, Shoura-shima, Mae-shima, Ikara-shima, Shishi-jima, and other small islets, all very hilly, are about 30 miles northwest of Kushikino.

c. All of the islands of Ryukyu-retto, that lie north and east of Okinawa-jima are also within Kagoshima-ken. The largest of this group are Tanega-shima, Yaku-jima, Amami-O-shima, Tokuno-shima and Oki-erabri-shima.

## C. HYDROLOGY.

### 1. Lakes and Ponds.

Mountainous Kagoshima-ken, drained by short streams, subject to flash floods, has few lakes. Ikeda-ko, with an area of about 4 square miles, is in a hilly region at (31°13'N., 130°33'E.). Unagi-ike, a pond three-fourths of a square mile in size, is just east of Ikeda-ko. Another small pond is at (31°49'N., 130°28'E.).

### 2. Springs.

Kagoshima-ken is an area of highly mineralized hot springs. Some of them are at or near Ibusuki-machi, Ibusuki-gun (31°15'N., 130°37'E.) Izaku-machi, Hioki-gun (31°30'N., 130°22'E.) Yunamoto (31°40'N., 130°20'E.) Soeda (31°50'N., 130°22'E.) Yamoyo (31°46'N., 130°48'E.) Anzaku (31°50'N., 130°46'E.) Shihobitashi (31°54'N., 130°47'E.) Kirishima-mura, Aira-gun (31°52'N., 130°52'E.) Kurinodake-san (31°56'N., 130°48'E.) and Daio (32°00'N., 130°45'E.).

### 3. Rivers.

The rivers of Kagoshima-ken, with several exceptions, have their sources in the mountainous interior. Stream gradients are steep and the turbulent waters run off extremely rapidly. There are many dams for power and water storage on the upper courses of the larger streams and numerous irrigation dams in the rice growing areas.

The lower courses of the rivers have low gradients and, as a consequence are choked with sand and gravel. Many earthen dykes help channelize the streams. Drifting bars at the rivers' outlets limit navigation possibilities. Diversion of irrigation water from rivers in the lowlands has caused streams to dry up at times.

Rivers of the prefecture show consistent seasonal characteristics. Flash floods may occur at any time, but are most frequent from July to September, the months of maximum thunder storms. November through February is a consistently low water periods.

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In Kagoshima-ken, 107 urban communities experienced flood damage in 1936. The flood zone covered 9,885 acres, of which 3,478 acres were under cultivation at the time: 383 acres were permanently eroded or inundated; 3,734 buildings and 36 ships and boats were damaged, the total damage was about 4,500,000 yen; and repair expenses amounted to about 3,500,000 yen.

The most important river in the prefecture is the Sendai-gawa, which drains much of north-central Kagoshima-ken. It is navigable by small craft for 40 miles above its mouth but the outlet bar can be crossed only during calm weather.

### 4. Catastrophes.

a. Earthquakes. Kagoshima-ken has had several severe earthquakes. On 30 October 1662, in Miyazaki-ken and Kagoshima-ken, an earthquake destroyed 3,800 houses and killed an unknown number of people. On 3 February 1605 and 28 February 1707, the southeast coast of Japan suffered great earthquakes, the first resulting in 8,800 deaths, and the second, 4,900 deaths and the destruction of 29,000 houses.

b. Volcanic eruptions. The volcano of Sakura-jima in Kagoshima-wan erupted in 1914, and ashes were carried as far as Kamchatka. The lava destroyed many villages on the island and filled the strait between the island and the mainland, creating the present peninsula. There have been 26 eruptions since 1468, but the volcano is now inactive.

Kirishima-yama (Takachiho) is located 35 miles northeast of Kagoshima-shi. Since its great eruption in 1895, it has been one of the most active volcanos of Japan. Many parts of the surrounding country are undergoing steady subsidence.

## D. CLIMATE AND WEATHER.

### 1. Seasons.

Kagoshima-ken has mild, moist winters, and hot, rainy summers, comparable to that of coastal southeastern United States. During the winter months, when the Asiatic anticyclone is dominant, the climate is less rainy and less cloudy than during the warmer season.

During the summer, when the Asiatic anticyclone is replaced by the lower pressure and weaker gradients of the North Pacific anticyclone, air flow over Kyushu is prevailingly from a southern direction. Because of their long trajectory over the ocean, these air streams are heavily laden with moisture in their lower levels. Thus, there is considerable cloudiness and precipitation in Kagoshima-ken during the summer.

### 2. Temperatures.

The midsummer temperature in Kagoshima-ken is comparable

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to that of the American Atlantic seaboard from Washington, D.C. to southern Georgia.

Winters are relatively mild, the coldest months have mean temperatures well above freezing. On sunny winter days, midday temperatures are pleasant, but if it is overcast and a strong wind is blowing, the humid cold is raw and penetrating.

The temperature record at Kagoshima-shi (see Table 1) is representative except for mountainous areas of the prefecture.

TABLE 1

Temperatures, (in degrees F) Kagoshima-shi

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Ann.
Mean Daily Max.	53	54	60	68	74	78	85	97	83	75	66	56	70
Mean Daily Min.	37	38	43	52	58	66	73	74	69	59	49	40	55
Absolute Max.	72	73	77	83	86	91	97	97	94	90	81	75	97
Absolute Min.	22	20	26	30	41	48	61	62	51	37	29	22	20

### 3. Precipitation, Humidity.

Mean annual precipitation varies from 80 to 120 inches at different stations in the prefecture; well over half of it occurs during the summer months. Relative humidity is high at all seasons (Table 2 gives the record at Kagoshima-shi, which is assumed to be representative for the prefecture).

TABLE 2

Precipitation, Humidity, and Fog, Kagoshima-shi

	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Ann.
Mean Precip., In.	3.4	4.0	6.4	8.7	8.2	17.1	12.2	7.4	8.7	5.2	3.8	3.4	88.5
Mean No. Days with Precip. of 0.004" or more	14	14	16	15	14	19	17	15	15	12	11	13	175
Mean No. Days with trace or more of snowfall	2	3	1	0	0	0	0	0	0	0	0	1	7
Mean Relative Humidity, Percent	72	72	73	76	77	83	83	80	79	74	73	77	77

### 4. Winds.

Table 3 gives the percentage frequency of various surface wind directions. The average wind velocity is 7 m.p.h., it is strongest in February and March and weakest in June and July.

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There is an average of 13 gales per year, of which 8 occur in winter and spring.

TABLE 3

Surface Wind Frequencies, (in percent) Kagoshima-shi

N.	29	19	16	11	10	6	6	7	9	16	22	26	15
NE.	11	13	14	13	12	11	11	17	19	22	19	13	15
E.	5	13	13	11	13	9	9	15	16	11	8	5	10
SE.	3	11	6	9	10	12	13	11	10	6	4	2	8
S.	2	2	5	10	10	15	17	10	8	4	3	1	7
SW.	2	2	3	5	5	13	9	6	5	3	1	2	5
W.	10	8	10	13	13	16	15	12	10	8	8	11	11
NW.	38	32	34	27	26	16	19	20	22	30	34	40	28
Calm	0	0	0	1	1	2	1	2	1	0	1	0	1

Typhoons may cross southern Japan at any time during the typhoon season in summer and autumn, but September is the month of maximum frequency. Japan is affected, on the average, by 7 typhoons per year from July through October, but probably not more than 3 cause heavy damage. A fully developed typhoon may exceed a speed of 150 miles per hour. Much of the damage resulting from the storms is caused by the very high tides which follow in their wake. Kagoshima-ken is located in the area subject to greatest typhoon damage, and operations of all types must necessarily cease during the passage of a typhoon.

II. POPULATION AND SETTLEMENTS.

A. POPULATION.

In 1940 the population of Kagoshima-ken (including members of the armed forces) was 1,589,467, or 2.2 percent of the total population of Japan. The population density was 173 persons per square kilometer (national average, 191). Between 1935 and 1940, the prefecture showed a natural increase of 6.1 percent (well above the national average of 5.6 percent), yet sustained a net loss of almost 2,000 persons through extensive migration. As of April 1945, the civilian population of Kagoshima-ken is estimated to have been 1,500,000.

The population of the prefecture is concentrated in 5 areas, Kagoshima-shi, Sendai-shi, Kajiki-Kokubu area in Aira-gun, Kushikino Coastal Plain, and Ariake-wan lowland. The largest concentration of people is in the Kagoshima-shi area, but 14.1 percent or 1,336,978 persons, live in rural areas. As of 1943, there were 3 cities (shi) in the prefecture, Kagoshima, Sendai, and Kanoya. During the period 1935-40 the rural population showed a net loss of 11,000 persons, or 0.8 percent. The sex ratio in Kagoshima-ken (1940) was 92.9 males per 100 females.

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Table 4 lists the population of Kagoshima-ken in 1940 by minor civil divisions.

TABLE 4\*

Population, Kagoshima-ken, 1940.

<u>Division**</u>	<u>Total</u>
Kagoshima-ken	1,589,467
Kagoshima-shi	190,257
Sendai-shi	34,287
Kanoya-shi	46,841
Kagoshima-gun	63,701
Taniyama-machi	27,992
Ishiki	18,032
Yoshida	7,349
Nishisakurajima	6,329
Higashisakurajima	3,999
Ibusuki-gun	88,621
Yamakawa-machi	12,926
Ibusuki-machi	20,761
Kiire	12,847
Imaizumi	10,034
Ei	32,053
Kawanabe-gun	127,380
Chiran-machi	20,399
Makurazaki-machi	29,057
Mansei-machi	10,507
Kaseda-machi	17,237
Kawanabe-machi	17,817
Kasasa-machi	15,788
Katsume	5,138
Nishiminamikata	11,437
Hioki-gun	125,102
Ijuin-machi	11,265
Izaku-machi	13,845
Ichiki-machi	7,750
Kushikino-machi	27,143
Higashiichiki-machi	14,811
Kamijuin	7,114
Shimoiuin	6,351
Tabuse	8,221
Ate	7,402
Koriyama	7,204
Hioki	6,793
Nagayoshi	4,226

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Yoshitoshi	2,977
Satsuma-gun	121,354
Miyanojo-machi	13,580
Hiwaki-machi	10,109
Nagatoshi	3,561
Iriki	8,682
Takae	4,270
Takagi	9,718
Mizuhiki	4,887
Shimotogo	3,724
Kamitogo	8,782
Yamazaki	6,600
Kumiyo	3,540
Tsuruta	6,502
O	6,216
Sashi	2,585
Nagano	3,972
Kuroki	1,624
Kamikoshiki	6,053
Shimokoshiki	11,834
Imuta	2,187
Sato	2,928
Izumi-gun	99,735
Izumi-machi	16,154
Komenotsu-machi	14,618
Akune-machi	24,725
Takaono-machi	8,847
Mikasa	10,612
Higashinagashima	9,181
Nishinagashima	6,814
Noda	5,085
Okawachi	3,699
Isa-gun	44,880
Okuchi-machi	14,123
Yamano-machi	7,225
Hishikari-machi	8,808
Hatsuki	6,410
Honjo	4,388
Nishitari	3,926
Aira-gun	156,135
Kajiki-machi	14,862
Kokubu-machi	7,669
Kamo-machi	11,929
Fukuyama-machi	9,337
Kurino-machi	11,700
Hayato-machi	13,685
Chosa-machi	8,986
Yokogawa-machi	8,823
Makisono-machi	12,150
Shigetomi	4,989
Yamada	5,983
Mizobe	7,036

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Shikine	4,920
Kiyomizu	6,223
Kirishima	10,100
Yoshimatsu	6,406
Hinatayama	4,379
Higashikokubu	6,958
So-gun	114,525
Iwakawa-machi	8,615
Takarabe-machi	14,315
Sueyoshi-machi	22,606
Shibushi-machi	20,018
Ozaki-machi	13,749
Tsuneyoshi	5,198
Ichinari	3,189
Nogata	5,049
Nishishibushi	11,697
Matsuyama	6,261
Tsukino	3,828
Kimotsuki-gun	160,535
Tarumizu-machi	20,805
Koyama-machi	17,256
Onejime-machi	11,872
Uchinoura-machi	9,619
Kushira-machi	13,235
Higashikushira-machi	8,747
***Nejime-machi	10,819
Takakuma	4,104
Shinjo	3,501
Ushine	5,528
Sata	9,280
Tajiro	5,479
Mohiki	4,086
Aira	8,261
Kumage-gun	58,996
Nishinoomote-machi	21,804
Nakatane-machi	11,802
Minamitane	7,946
Kamiyaku	10,393
Shimoyaku	7,051
Oshima-gun	185,059
Nase-machi	21,372
Koniya-machi	9,786
Mikata	9,075
Yamato	5,556
Sumiyo	4,166
Tatsugo	9,993
Kasari	11,180
Jitto	3,564
Nishigata	3,466
Uken	6,554
Saneku	4,410
Chinzei	5,926

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Tokuno-shima	
Kametsu-machi	9,224
Isen	13,725
Amagi	10,347
Higashiamagi	7,655
Kikai-shima	
Kikai	11,465
Somachi	6,719
Okierabu-shima	
Watomari-machi	11,642
China	11,345
Yoron-shima	
Yoron	7,889

\*1940 population census. In the case of incorporation and amalgamation of machi or mura into shi since 1940, the incorporated area is adjusted by the addition of the other areas on the basis of the 1940 census. The gun population is also corrected.

\*\*All divisions not classified by suffix are mura.

\*\*\*Nejime-machi formerly Konejime-mura.

B. CITIES AND TOWNS

1. Kagoshima-shi.

Kagoshima, the major port and largest city of southern Kyushu is the capital of Kagoshima-ken. Its recent strategic importance is associated with oil storage and the production of explosives and submarines. The prefecture forestry office and a lumber yard are in the northern part of the harbor area. The quarantine station is on the harbor front alongside pier one. The office of the water police is south on the harbor.

The urban area extends about 3 miles north-south and east-west slightly over 1 mile. The city is divided into 42 cho and machi, 29 of which are north of the Kotsuki-gawa and 13 south of the river.

The main business district is north of the river and extends for approximately 7 blocks west of the center of the harbor. The main Kagoshima railroad station and freight yards and the large plant of the Yoshimi Iron Works are just west of the north harbor. The principal government buildings are in Yamashita-cho, east of the Nippo Main Line. These include the prefecture office, office of the special police, military headquarters and the prefectural hospital. The city hall, postoffice, customs house, and harbor administration office are farther south. Numerous school buildings and churches are scattered throughout the district.

A gas plant with 2 gas storage tanks are south of the southern harbor. The city reservoir is one-half mile north-northwest of the railroad yard.

The section south of Kotsuki-gawa contains a small rice

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area, several important industrial installations (including an electric power plant, a manufacturer of electrical equipment, and a large silk mill) and the Kagoshima prison (in Nagayoshi-machi). Five hospitals are located in the 5-mile area extending from the prison to the suburb of Korimoto-machi. The newly-constructed Kagoshima airport, also south of the city is built around an old textile mill which may now house servicing equipment for the airfield. North of the field is the Tanabe Iron Works, reported to be manufacturing airplane floats and other unspecified ordnance.

The principal residential sections of the city appear to be south of the Kotsuki-gawa and in the area northwest of the railroad yards, around Shimizu-cho.

Extensive billeting facilities are available. Kagoshima Army Post (barracks, stores, military hospital, and industrial school) is on the left bank of the river, northwest of the city. There are also many parks. On the southern side of the river are Takeoka-koen, (park) Kamoike-koen, and the campus of the Agriculture and Forestry College. North of the river are the grounds of the Matsubara-jinsha (temple) in Nanrini-cho, Shiroyama-koen, and Tanoura recreation grounds.

The Nippo Main Line, a single track railroad, connects Kagoshima-shi with communities on the northeastern part of the island and the double track Kagoshima main line leads northwest to Kamamoto-shi and Fukuoka-shi. The heart of the city and the main railroad and port area are also served by an electric car line which also extends south into the suburbs and along the left to the Army post.

The primary roads and several secondary roads afford good traffic arteries to the other cities and towns of the island. (For detailed discussion of roads, see Chapter IV, A, 2.)

2. Sendai-shi.

Sendai, population 34,289 (1940), the second largest city of the prefecture, is in Satsuma-gun about 6 miles up the Sendai-gawa from the East China Sea. Rice paddies and mulberry fields surround the town to the west and north. Small hills rise to the east and northeast. To the southeast is the rice-cultivated valley of the Kumanojo-gawa.

The built-up section of the city concentrated south of the rivers, cover a small area of approximately one mile by one-half mile. A small commercial district on the north bank is connected with the south side by a national highway bridge (Ohira-hashii).

Sendai-shi has 2 important north-south streets and one

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major east-west street. The town hall, police station, and post office (with telephone and telegraph facilities) are south of the Sendai-gawa. Other government buildings, on the north bank of the river, include a forestry office, court house, tax collector's office, branch office of the government monopoly and another post office. There are 2 factories, one on each side of about 400 yards west of the highway bridge; there is another factory  $1\frac{1}{2}$  miles northwest of the city, south of town, and near the junction of the railroad and the Kumanjo-gawa, there is a hospital, and a fourth factory one mile southwest of the highway bridge.

The Kagoshima Main Line Railroad and the Miyanojo branch of the Hisatsu Railroad pass through the city. The Sendai station is in the southeastern section. (See Chapter IV, A, 1, and Appendix II).

The national highway approximately parallels the route of the Kagoshima Railroad through the city and to the southwest. Prefectural roads connect Sendai-shi with other settlements. (See Chapter IV, A, 2).

### 3. Kanoya-shi.

Kanoya, 24 miles east of the eastern shore of Kagoshima-wan. In 1940, its population was 27,943. It is in the eastern part of one of the most extensive paddy areas in southern Kyushu, a section well irrigated by water from the many rivers flowing from the hilly and wooded areas directly northwest of the city. Kimotsuki-gawa almost through the center of the town and is bordered by extensive rice lands both north and south of the city. A relatively large area on gently sloping land northeast of the city is devoted to mulberries. The level land and the proximity to the coast have permitted the city to become an aviation center. (See Chapter IV, A, 4).

The built-up section lies along 2 prefectural roads which run through the center of the city at right angles to each other. In this small section are a forestry office, tax office, court building, town office, school and post office with telephone and telegraph facilities. A police station and hospital are slightly to the south and a leprosarium about 3 miles out in the same direction. An electric generating plant, with high tension lines, lies along a highway south of the town. An agricultural school is in the northern outskirts.

Good highways radiate in all directions, and make Kanoya-shi easily accessible from the coasts of Kagoshima and Ariake-wans and from the extensive plains to the north, (see Chapter IV, A, 2). The Furue Rail Line also connects the town with coastal points, (see Chapter IV, A, 1). The Kanoya station is in the southern part of the town, southwest of the police station.

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### 4. Makurazaki-machi.

Makurazaki, population 29,057 (1940), a principal town in Kawanabe-gun, lies at the head of Makurazaki-wan almost 25 miles southwest of Kagoshima-shi. The bay is entered between Akkuzure-hana (point) and Yamatategami-hana, about  $2\frac{1}{2}$  miles southwestward, and the harbor limit is a line between these 2 points. Akakuzure-hana is 404 feet high and surmounted by a conspicuous growth of pines which extends in a general northwesterly and southeasterly direction. Yamatategami-hana, the southwestern entrance point to the harbor, is a headland surmounted by a conical hill 302 feet high, conspicuous when seen from the east. Inland from the shore for one to 2 miles the land is low, undulating and cultivated. A basin for fishing vessels is at the head of the harbor east of the town.

The built-up section extends from the northern and eastern shore of the harbor for a distance of about one mile, and inland approximately one-fourth mile. The police station is near the waterfront, and the post office is to its east on the main thoroughfare. A meteorological observatory is on a hill northwest of the town. Along the prefectural road in the northern outskirts, are the town hall, a hospital and another post office. A factory is on the prefectural road leading northeast from the town. Two mines are in the adjacent hills, one immediately west, and the other northeast of the town. An electric generating station and a school are just north of the built-up section.

Four prefectural highways radiate from the town. (See Chapter IV, A, 2). The single track Nanatsu Railroad has its terminus in the northwest section of the city, (see Chapter IV, A, 1).

### 5. Taniyama-machi.

Taniyama, population 27,992 (1940), in Kagoshima-gun, approximately 5 miles south of Kagoshima-shi on the east coast of Kagoshima-wan. The area adjacent to the small, well protected harbor is the most densely settled. West of this section are rice fields extending northwest and southeast for approximately 3 miles. Part of the urban area cuts through these fields. A narrow rice area, one mile long by one-fifth mile wide, fronts the bay southward from the southern entrance to the harbor. The town area extends westward into fairly heavily wooded hills.

The town's main street is a prefectural road which leads south along the coast and north to Kagoshima-shi. East of this thoroughfare in the northern section is an isolation hospital, south of which is a post office. In the center of town are the police station, town office, and branch office of the government monopoly. Two schools are also near the center of town and another on the southern outskirts. The town has a third class post office with telephone, telegraph, and postal saving service. It is located in the center of the town next

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to the government elementary school and employs about 30 persons.

In addition to the coastal highway which passes through the town, there is a prefectural road which leads west over the mountains to Izaki-machi from the northern section.

The electric rail line through Kagoshima-shi and its Suburbs has its southern terminus in Taniyama. The Ibusuki Rail Line along the coast also serves the town. Both rail stations are in the northern section, (see Chapter IV, A, 1).

A landing field is reported to be about 3 miles northeast of the town, (see Chapter IV, A, 4).

### 6. Kushikino-machi.

Kushikino, population 27,143 (1940), on the west coast of the island 8 miles south of Sendai-shi, is the most populous settlement in Hioki-gun. It derives its importance principally from the several gold mines which are in Hidatega-oka (mountains) northeast of the town. The town is not the county seat; Ichiki-machi (population 7,750 in 1940), 2 miles to the southeast along the national highway, has the police station, the court building and branch office of the government monopoly.

The town spreads out northeastward from the small coastal fishing communities of Kose and Shimabira and the pine-tree covered Naga-saki into the hilly and wooded Hidatega-oka. Near the mouth of Gotanda-gawa, which is just north of the built-up area, the coast is sandy, to the west it is low, undulating, cultivated rice land.

The built-up section of the town comprises an area of less than one-half square mile, plus a small developed section which lines both sides of a prefectural road leading to the east. The town hall and a post office with telephone and telegraph facilities are at the junction of this road and the national highway which leads to Sendai-shi on the north and to Ichiki-machi on the south. A hospital is southeast of this junction. North of the road junction is the station of the Kagoshima Main Line Railroad, the rail line following the same route as the national highway. A narrow road crosses the Gotanda-gawa and extends northwest along the coast.

### 7. Akune-machi.

Akune, population 24,725 (1940), is in Izumi-gun on the east coast of Amakusa-nada (sea). There are interrupted narrow sand beaches along the shore line in front of the town. The built-up section is backed by a small plain which runs along the coast and extends eastward up the valley of the Takamatsu-gawa. This lowland to the east and south is dotted

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with rice fields; away from the river the country is hilly and wooded.

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In the less/one-fourth square mile area of the developed section there are a police station, town hall, school and a post office with telephone and telegraph facilities. A girls' high school is in the northern outskirts.

The national highway passes through the center of Akune-machi and connects the town with Sendai-shi on the south and Kumamoto-shi on the north. A prefectural road leaves the town from the northeast section and extends east and southeast to the Akune mine region.

The Kagoshima Main Line which roughly parallels the national highway has a station in the northeast section of the town.

### 8. Sueyoshi-machi.

Sueyoshi, population 22,606 (1940), the largest settlement in So-gun, is in the Ariake-Miyakonojo lowland, about 25 miles northeast of Kanoya-shi. This lowland is irrigated principally from the Oyoda-gawa which flows south from the plains of Miyazaki-ken and passes northeast of Sueyoshi. The river valley is bordered by rice and mulberry land.

The built-up section is at the junction of 5 prefectural roads. At this junction are the police station, town office, post office and court building. A hospital to the southwest, a castle to the northeast, and a factory to the north are other known installations. The Shibushi Rail Line station is in the northwest outskirts of the town.

### 9. Shibushi-machi.

Shibushi-machi, population 20,018 (1940), is in the Ariake-Miyakonojo Lowland Region in So-gun. The built-up section of the town lies at the head of Ariake-wan and is bordered on the east by the Mae-gawa. The river is spanned by 3 highway bridges and a railway bridge as it passes by the town. The Shibushi hinterland is covered with extensive mulberry groves interspersed with rice lands. Along the eastern bank of the river there is a narrow rice area backed by wooded hills.

The built-up section, rectangular in shape, contains a court building, post office with telephone and telegraph facilities, police stations and town office. On the east bank of the river there are a government monopoly building, a boat anchorage in a cove protected by masonry walls, and a light house. Two factories, one about 1½ miles north of the town, the other three-fourths of a mile west lie along prefectural

highways. Unconfirmed reports state that substantial oil storage has been established in Shibushi-machi.

Prefectural roads extend north, east and west from the town. The Shibushi railway station is on the southeastern outskirts of the town.

10. Ei-mura.

The most populous settlement in Ibusuki-gun is Ei-mura, population 32,053 (1940). The township spreads through the low hills for about 8 miles west-northwest of Ikeda-ko, a large lake approximately 3 miles north of Kaimon-dake (mountain). There is no concentrated settlement within the mura, but the police station, post office and town office are together at a crossroad 3 miles directly west of the lake and 12 miles east of Makurazaki-machi.

III ECONOMY.

A. LABOR

1. Occupation.

In Kagoshima-ken agriculture accounted for 70 percent of all occupied persons in 1930 and an estimated 65 percent in 1944. The prefecture ranks 12th in Japan in the number of persons engaged in the lumbering industry, 16th in the number of persons engaged in gas and electric plants, and 18th in the number of food processing workers. Table 5 lists the population occupied in 1930 and estimated for 1944.

TABLE 5

Occupation, 1930 and 1944, Kagoshima-ken

Occupation	1930 Census		1944 Estimate *	
	Number (in thousands)	Percent	Number (in thousands)	Percent
Agriculture	544	69.9	492	65.3
Manufacturing	81	10.6	120	15.9
Commerce	58	7.6	50	6.6
Government & Professions	28	3.7	33	4.5
Communication & Transportation	17	2.2	21	3.0
Fishing	23**	3.1	19	2.4
Domestic Service	15	2.0	10	1.3
Mining	1	.1	3	.4
Others	6	.8	4	.6
Total	764	100.0	752	100.0

\* Estimates for 1944 were based on the population changes for the 16 year period 1930-44, representing hitherto unemployed migratory workers, and the reallocation and redistribution of workers, as well as men taken into the armed forces.

\*\* Fishing totals are corrected to 1938.

As indicated by Table 6, the principal occupational groups in Kagoshima-shi are commerce, industry, government and professions. The proportion in commerce is higher than most other cities. The number of government employees and professional workers is also higher than in most Japanese cities.



TABLE 6

Occupation 1930, Kagoshima-shi

Occupation	Number (in thousands)	Percent
Commerce	17.6	35.6
Industry	13.7	27.8
Government and Professions	7.7	15.6
Communications	4.3	8.7
Agriculture	1.8	3.6
Other	4.2	8.7
Total	49.3	100.0

As shown in Table 7 the principal occupations in Sendai-shi are agriculture, industry and commerce. The relatively large figure in agriculture reflects the inclusion of rural tracts within the city's boundaries.

TABLE 7

Occupation 1930, Sendai-shi

Occupation	Number (in thousands)	Percent
Agriculture	7.9	55.2
Industry	2.5	17.3
Commerce	2.3	15.5
Government and Professions	0.8	5.5
Others	1.0	6.5
Total	14.5	100.0

2. Industrial Employment.

In 1938 there were 1,178 factories in Kagoshima-ken employing 5 or more persons, with a total employment of 17,298 people, of whom 40 percent were males. This was an increase over the 697 factories hiring 11,784 people (35 percent of whom were males) in operation in the prefecture in 1930. As indicated in Table 8 the most important industries in terms of employment were textiles (particularly raw silk reeling and raw silk weaving), lumbering and the manufacture of starch products.

TABLE 8

Factories and Industrial Employment, 1938, Kagoshima-ken  
(Principal Industries)

Industry	Factories	Employees		Total
		Male	Female	
TEXTILES	300	775	7,566	8,341
Silk reeling (raw silk)	29	207	2,693	2,900

Industry	Factories	Employees		Total
		Male	Female	
Spinning (cotton yarn)	1	96	1,196	1,292
Twisted thread (silk)	6	26	148	174
Woven goods pure cotton fabric	5	3	25	28
Other cotton fabric	3	2	16	18
pure silk fabric	244	248	3,366	3,614
Cotton refining	3	21	110	131
Other textiles	1	8	-	8
Dyeing & refining (thread dyeing)	7	155	10	165
Textile printing	1	9	2	11
METALS	18	198	1	199
Casting pig iron	7	143	1	146
Metal manufactured goods				
bolts, nuts, washers	1	2		2
other metal plate	3	11		11
metal products				
construction & furniture	4	14		14
various metal tools	1	2		2
other metal manufactured goods	2	26		26
MACHINERY & TOOLS	60	949	76	1,025
Steam boiler mfg.	1	29		29
Prime movers	20	304	6	310
internal combustion				
Electric machinery & tools	1	106	40	146
Agriculture machinery & tools	3	37		37
Mining ore machinery & tools	1	64		64
Chemical industry machinery & tools	1	17		17
Food products machinery & tools	3	19	2	21
Weights & measures	1	10	23	33
Testing, examining & scientific use	1	3		3
Vehicles				
bicycles	1	7		7
Other machinery & tools	27	353	5	358
CERAMICS	45	231	35	266
Porcelain ware	4	16	4	20
Glass & glassware	2	112	23	135

Restricted

Industry	Factories	Employees		Total
		Male	Female	
Bricks & fireproofing	2	4	-	4
Roof tile	33	79	4	83
Cement products	3	20	4	24
<b>CHEMICAL</b>	<b>37</b>	<b>204</b>	<b>57</b>	<b>261</b>
Medicine manufacturing	1	24	4	28
Soap & toilet articles	6	27	41	68
Vegetable oils & resins	3	8	-	8
Camphor manufacturing	4	12	-	12
Rubber products	1	5	-	5
Paper manufacturing	2	45	12	57
Fertilizer				
animal matter	15	57	-	57
mineral matter	2	18	-	18
Manufacturing of polishing materials	1	3	-	3
Other chemical products	2	5	-	5
<b>LUMBERING &amp; WOODENWARE</b>	<b>266</b>	<b>1,919</b>	<b>256</b>	<b>2,175</b>
Lumbering	225	1,613	228	1,841
Woodenware	41	306	28	334
furniture & fixtures	9	86	-	86
wooden boxes, barrels	21	146	16	82
other wooden products	11	74	12	86
<b>PRINTING &amp; BOOKBINDING</b>	<b>29</b>	<b>398</b>	<b>123</b>	<b>521</b>
Printing	28	391	121	512
Bookbinding	1	7	2	9
<b>FOOD PRODUCTS</b>	<b>328</b>	<b>1,621</b>	<b>1,661</b>	<b>3,282</b>
Native wines	28	239	9	248
Soy sauce, bean paste	11	81	-	81
Soft drinks	5	11	11	22
Sauces, ketchups	1	12	7	19
<b>GAS &amp; ELECTRICITY</b>	<b>37</b>	<b>238</b>	<b>3</b>	<b>241</b>
<b>OTHER INDUSTRIES</b>	<b>68</b>	<b>268</b>	<b>619</b>	<b>987</b>
Paper products	4	19	30	49
Bamboo products	14	64	42	106
Willow products	1	4	-	4
Straw & hemp products	3	6	21	27
Leather	2	7	14	21
Cotton & hemp lines				
rope & twine	2	5	93	98
Sewing	29	202	405	607
Hat manufacturing	2	7	5	12
Native style umbrellas	1	4	-	4
Stone mason	8	47	-	47
Other products	2	3	9	12

Restricted

3. Employment Exchanges.

There are national labor exchanges in Kagoshima-shi, Sendai-shi, and Kanoya-shi. These exchanges have complete records of all occupied persons and a record of their employment. In cities, towns, and townships where there is no labor exchange the records will be found in the mayor's or headman's office.

**B. AGRICULTURE**

1. Food Situation.

Including all food sources, this prefecture is a surplus producing area based on the estimated Japanese national intake of 2,150 calories per capita per day. The principal production surpluses are in sweet potatoes and sugar. Production of all foods provided a surplus of over 1000 calories per capita per day, in terms of average production for 1935, 1937, and 1939. The total surplus of foods produced in this prefecture, in terms of a caloric equivalent of brown rice, is estimated at 552 million pounds annually. Based on the national consumption estimate of 372 pounds per capita per year, this prefecture has a normal estimated rice surplus of 111 pounds per capita per year.

The aggregate annual production of foodstuffs in the prefecture, on a caloric basis, is estimated at 2,156 billion calories.

2. Agriculture in Relation to Physical Factors.

The length of the growing season in this prefecture ranges from 240 to 260 days, (for temperature and rainfall see Chapter I, D, 2 & 3).

3. Farm Organization and Methods.

a. Farm population. The number of farm households in the prefecture in 1939 was 216,425, or 3.9 percent of the nation's total. The average amount of cultivated land was 2.1 acres per household. In 1936, 79,287 families were engaged in silkworm production.

b. Land utilization. In 1939, the total amount of cultivated land in Kagoshima prefecture was 453,000 acres, of which 202,000 acres, or 45 percent, was used for rice production. One of the largest rice growing areas is located near Ariake-wan, which forms the northeastern side of the Osumi peninsula, southernmost in the prefecture. From a point about 2 miles southwest

of the town of Shibushi to directly east of the town of Kushira the area is confined to 5 narrow fingers of rice area extending inland on an average of 3 miles along river valleys and starting about one-fourth to one-half mile inland from the coast. Between the towns of Kushira and Koyama, the area becomes more prominent and is located in the valley of the Kushira-gawa and its tributaries. The most important part of this area is in the watershed of the river emptying into the Kushira-gawa and running through Kanoya.

There is a very small area about 2 miles square located adjacent to Kitakata which is just south of the above area and located at the mouth of the Uchinoura-wan.

On the Osumi peninsula south of the areas previously noted there are some 7 very small areas, mostly near the coast, averaging from one to 2 square miles.

To the west of the Osumi peninsula, the Satsuma peninsula extends to the East China Sea. There are numerous rice areas on this peninsula. One such area is located just south of Kagoshima-shi on a small plain. The rice growing in this plain is divided into 2 areas: one about 3 miles in extent adjacent to the southwest boundary of Kagoshima-shi, the second converges on the town of Taniyama and extends northwest from Taniyama about 4 miles and averages one mile in width. A second rice area on the peninsula is located in the valleys of the Manose-gawa and the Hirose-gawa. The Manose-gawa empties into the East China Sea on the west coast of the peninsula. The rice area in this basin generally follows the contour of the valley, branching out where the valley widens. The area is not continuous but is made up of a number of irregular rice growing areas. Other minor rice growing areas on the peninsula consist of small patches located near: Hitokura, Niimaki, Jicho, Takatori, Shimode, Oura, Nagayoshi-mura and Ijuin-machi.

The rice areas located in the central and northern part of the prefecture are generally scattered: one is near the towns of Kajiki and Kokubu at the head of Kagoshima-wan; another is near and around Sendai on the west coast of the prefecture; another is near Miyanojo-machi, which is inland and central; one surrounds Okuchi-machi in the northern part of the prefecture; and the last is located between Komenotsu-machi, Izumi-machi, and Takaono-machi, in the northwest corner of the prefecture.

The area at the head of Kagoshima Bay is located in the valleys of the Kenko-gawa, Shin-gawa, and the Byu-gawa. The eastern limit of the area is on the coast at Shikine-mura and its western limit on the coast is Shigetomi-mura. Between these 2 villages the area fingers inland away from the coast for about

5 miles between the town of Kajiki and the township of Shikine and completely surrounds the town of Kokubu; it also fingers in around the town of Kajiki, up the Byu-gawa for about 4 miles. It is about 11½ miles wide with areas of non-rice land about one mile wide interspersed through the area.

The area located near and to the west of Sendai-shi is situated in the wide valley of the Sendai-gawa. The area generally starts at the coast and extends to Sendai-shi widening out from an average of 2 miles to 3 or 4 miles in 2 locations. Directly south of Sendai-shi an area of about 4 square miles also is devoted to rice growing. About 5½ miles due east of Sendai-shi and adjacent to the southern limits of Tonohara, another small area about one-half mile wide and 3½ miles long extends south from Tonohara into the valley of the tributaries of the Hiwaki-gawa.

Another rice area is near the town of Miyanojo. This area is roughly an "L" shaped region. Immediately east of Miyanojo-machi it extends north for about 2 miles and then east for about 8 miles. It is about one-half mile wide and follows the Anagawa valley.

The rice growing area with a width of about one mile around Okuchi-machi generally follows the west half of the Sendai-gawa valley. Its northern limit is located about 3 miles north and a little west of Okuchi-machi and it extends for a distance of about 10 miles along the river south and east of Okuchi-machi. The area generally averages about one mile in width being wider near Okuchi for a distance of 3 miles south of Okuchi.

The last area of any size, which is located near the towns of Komenotsu, Izumi, and Takaono, is roughly "U" shaped. From Komenotsu west and south along the coast, rice is grown for about 5½ miles, the average width being about 4 miles. The west side of the "U" extends inland with an average width of three-fourths of a mile, for about 3 miles. The other side of the "U" is about 2 miles wide and extends inland about 3 miles to the Kagoshima Mainline RR joining the towns of Komenotsu, Izumi and Takaono.

c. Fertilizers. Fertilizer requirements in the prefecture in 1930 are shown for crops on which figures are available in Table 9.

TABLE 9

Fertilizer Requirements, 1930, Kagoshima-ken  
(in pounds per acre)

Crop	Nitrogen(N)	Phosphoric Acid(P <sub>2</sub> O <sub>5</sub> )	Potash(K <sub>2</sub> O)
Rice, paddy	75	50	68
Rice, upland	65	46	46
Potatoes, Irish	46	53	72

The Japanese Sulpha-Ammonia Corporation, first priority Sulpha-Ammonia dealer in the prefecture, has its office at 75 Shiomi-cho, Kagoshima-shi. Five agencies of this organization are also in Kagoshima-shi.

4. Crops.

a. Field crops. As indicated by Table 10, rice is by far the most important food crop in Kagoshima-ken, with wheat the second most important.

TABLE 10

Field Crops, Kagoshima-ken

Crop	Av. Prod. 1935-37-39 (short tons)	1939 Acreage	Production (short tons)	Est. Prod. 1943-44 (short tons)
Rice*	207,149	202,000	211,000	202,500
Wheat	45,719	79,169	47,795	35,500
Millet	---	36,971	43,887	---
Barley	30,647	68,661	41,396	32,500
Barley(naked)	29,206	58,758	35,780	29,000
Barley(common)	4,441	9,903	5,616	3,500
Foxtail	---	36,794	19,768	---
Soybeans	16,310	35,362	15,665	19,000
Oats	---	3,598	1,466	---
Peanuts	---	1,888	1,403	---
Peas	---	1,687	1,121	---
Broad beans	---	1,169	439	---
Proso	---	277	125	---
Kidney beans	---	160	82	---

\* Rice production in 1942 was 167,219 tons or a decrease of 36,441 short tons from a 5-year average (1937-41 inclusive).

Rice in Kagoshima-ken is transplanted about 15 May and is harvested about 15 October. The principal variety is Omachi rice.

Storage stocks of rice in Kagoshima-ken decrease rapidly

from spring to fall as indicated by the following figures for 1939:

Date	Rice in Storage (in short tons)
1 March	143,910
1 May	113,671
1 July	80,602
1 September	40,196
1 November	8,199

b. Vegetables. In terms of production by weight as well as acreage, sweet potatoes and radishes (daikon) were the leading vegetables in the prefecture as shown in the following table:

TABLE 11

Vegetables, Kagoshima-ken

Vegetable	1936 Production (short tons)	1939 Acreage	1939 Production (short tons)
Sweet potatoes	---	93,074	591,676.0
White radishes	---	10,991	86,671.5
raw	97,198.8	---	---
dried	697.8	---	---
Taro	30,814.8	5,801	30,371.5
Rape cabbage	---	3,004	20,389.5
Watermelons	16,304.1	2,836	14,611.5
Irish potatoes	---	3,170	14,289.0
Cabbage	6,203.7	1,202	9,090.0
Eggplant	8,711.5	1,655	8,655.5
Pumpkins	9,145.8	1,671	8,382.5
Burdock	5,938.1	877	5,037.5
Green onions	5,041.9	1,158	4,797.5
Cucumbers	5,024.3	1,101	4,684.4
Carrots	4,059.8	797	4,057.0
Mixed onions	3,965.0	679	3,806.0
Tomatoes	---	682	3,164.0
Turnips	---	476	2,270.0
Cantalope	---	535	2,175.0
White cucumbers	---	85	308.0
Lotus root	---	8	39.0

c. Fruits. As indicated by Table 12 oranges were produced in the largest quantity of all fruits in Kagoshima-ken.

TABLE 12

Fruits, Kagoshima-ken

Fruit	1933 Production (short tons)	1939 Production (short tons)
Oranges	12,217.7	20,901.0
Mandarin	9,633.9	18,466.5
Bitter (Natsumikan)	2,094.4	1,974.5
Navel	489.4	460.0
Persimmons	8,988.0	5,151.5
Loquats	---	2,257.5
Plums	2,752.4	1,968.0
Pears	1,827.6	1,324.0
Peaches	681.2	850.0
Grapes	72.8	114.0
Cherries	---	2.5

d. Industrial crops. This prefecture is the only prefecture in Japan proper where sugar cane is an important crop. While no information is available on acreage occupied by sugar cane, it is evidently considerable, judging from 1936 production figures (Table 13) which show that 193,075 short tons were produced. It is believed that this figure represents sugar cane.

Acreage production figures are not available for rape seed after 1936, although the production figures for that year (see Table 13) suggests that it is a crop of considerable importance.

Silk production is of some importance in the prefecture, although it is not a major producing area. In 1936, there were 79,289 engaged in raising silkworms. A total of 18,825 acres were devoted to the growing of mulberry trees in 1939.

Tobacco leaf production figures for 1936 suggest that this crop attained some importance in Kagoshima-ken. No acreage figures are available.

The 7,643 tea growing acres in 1939 represent 7.7 percent of the national total, although production was only 3.6 percent of the national total, or 2,252.5 tons. From these figures, it is evident that the yield per acre in this prefecture is exceptionally low.

TABLE 13

Industrial Crops, Kagoshima-ken

Crop	1936 Production (short tons)	Acreage	1939 Production (short tons)
Sugar cane	* 193,075		
Tobacco leaves	7,224.4		
Tea		7,643	2,253.5
Mulberry		18,825	***5,596.5
Rush	826.6		
Peppermint	109.0		
Pyrethium	1.1		
Rape seed	**128,945.0		

\* 1935-1937-1939 average production figure.

\*\* Hectoliters

\*\*\*Cocoons

5. Livestock.

As indicated by Table 14, chickens and cattle are the most important livestock produced in Kagoshima-ken.

TABLE 14

Livestock, Kagoshima-ken

Type	Production (in number of head) 1933	1936	1939
Chickens	2,561,228	2,432,121	--
Cattle (total)	106,381	119,789	131,125
Cows	---	---	96,375
Oxen	---	---	34,750
Horses	61,617	67,966	--
Pigs	59,581	50,242	63,330
Rabbits	---	14,314	62,960
Goats	25,368	23,655	18,078
Ducks	16,937	13,332	--
Sheep	715	1,000	874

6. Meat, Eggs and Dairy Products.

Kagoshima-ken contributes to Japan's production of meat and eggs, but the production of milk and dairy products is low (Table 15). While there are many cattle in Kagoshima-ken, the number of milking cows is small. In 1936, there were 115 dairies with a total of 559 animals, or an average of 4.8 animals per herd. There were 130 households which kept a total of 175 milking cows, or an average of 1.3 animals per household.

TABLE 15

Meat, Egg, & Dairy Products, Kagoshima-ken, 1936

Product	Head Slaughtered	Quantity (short tons)
Hogs	28,223	1,374.5
Cattle	5,358	809.0
Horses	4,407	406.7
Calves	88	97.0
Milk	--	1,692.9
Condensed milk	--	120.0
Butter	--	9.0
Eggs (chicken)	--	*6,876.0

\*1935,1937,1939 average figure.

7. Economic Position of the Farmer.

In 1939, of the total land cultivated in the prefecture, 166,000 acres (or almost 37 percent) was farmed by tenants. The average farm is small, as shown by the fact that 38 percent were of less than one-half hectare (1.235 acres), and 71 percent were of less than one hectare (2.471 acres) each in size, while only 0.34 percent were larger than 5 hectares (12.3 acres). In 1936, out of 155,604 acres under paddy rice production, 74,735 acres or 48 percent were cultivated by tenants. The situation with regard to dry crops was slightly better. Of a total 298,052 acres, 99,149 acres or only 33.3 percent were cultivated by tenants.

8. Administration.

The following experiment stations, inspection stations, and offices were engaged in agricultural work in the prefecture in 1938:

Agricultural Experiment Station	Kamoike-cho, Kagoshima-shi
Grain Inspection Station	Prefectural Government Office, Kagoshima-shi

Cocoon Certification Station  
Egg Inspection Station

Tamoi-cho, Kagoshima-shi  
Prefectural Government Office,  
Kagoshima-shi  
Prefectural Government Office,  
Kagoshima-shi

Sericulture Control Office

(For information on agricultural schools, see Chapter V.F: and for information on government offices engaged in agricultural work, see Chapter V.A).

C. FISHERIES

1. Production.

The average annual production of fish in Kagoshima-ken for the years 1935-39 was 138,927,000 pounds, 2.2 percent of the total production of Japan proper. The estimated production for 1943-44, adjusted for wartime changes, was 107 million pounds. The fish production of this prefecture is normally great enough for shipment of some of the products to other prefectures.

In 1936 there were 47,630 fishermen, 23,270 of whom were full-time fishermen. In that year there were 9,216 fishing boats, 8,271 without motors and 945 with gasoline motors. Of those without motors, 8,184 were less than 5 tons.

Table 16 gives the relative value of all coastal and fresh water fisheries products in this prefecture for 1936.

TABLE 16

Fisheries Products, 1936, Kagoshima-ken

Kind	Value (in thousand yeh)
Salt Water Fish	
Sardine	649
Yellow-tail	493
Tuna	215
Flying-fish	191
Sea bream	191
Mackerel	136
Spanish mackerel	74
Bonito	64
Horse mackerel	56
Black sea bream	37
Grey mullet	19
Shark	18
Flat-fish	11
Fresh Water Fish	
Eels	45
Trout	42

Kind	Value (in thousand yen)
Carp	17
Shell-fish	
Prawns	158
Squid	98
Abalone	32
Octopus	26
Clams	1
Sea Weed	
Gelidium	136
Gloiopeltis	89
Laver (nori)	2
Others	
	<u>631</u>
Total	<u>3,419</u>

2. Ports and Fishing Centers.

The principal fishing ports are Kagoshima-shi (the chief port of southern Kyushu) and Kushikino-machi (Hioki-gun). Makurazaki-machi (Kawanabe-gun) is of especial importance as a home base for the tuna vessels operating in the South Seas.

The principal fishing centers of Kagoshima-ken and their chief fishing products are:

- Shibushi-machi, So-gun--yellow-tail, bonito, tuna.
- Uchinoura-machi, Kimotsuki-gun--yellow-tail, bonito, tuna.
- Yamakawa-machi, Ibusuki-gun--sea bream, mackerel, yellow-tail, bonito.
- Makurazaki-machi, Kawanabe-gun--mackerel, yellow-tail, sardine, bonito.
- Kushikino-machi, Hioki-gun--mackerel, sardine, bonito.

For further details on ports, see Chapter IV, A, 3.

3. Coastal Fishing.

The sardine season off the coast of Kagoshima-ken occurs from January to March or April.

4. Deep-sea Fishing.

Fishing for tuna and albacore is carried on in the seas south of the prefecture (especially off Tosa, Ryukyu-retto and Kyushu itself from November to March or April). The best fishing grounds are near the lines of convergence of the warm Kuroshio current and the colder water. In the waters south of

Kagoshima-ken the catch of bonito varies with the salinity of the water.

The season for bonito is generally from March to September, but may commence earlier, depending on the shifting currents. In the region around Shichi-to bonito are especially abundant. Yamakawa-machi in Ibusuki-gun and Makurazaki-machi in Kawanabe-gun are bases for the fleets of small craft from 50 to 200 tons. Most of these vessels have small engines, and some are equipped with refrigerating devices. Bonito are taken by rod and line using sardines for bait. As of 1929, tuna were taken by means of line trawls. In 1938 there were 46 wood-hulled tuna boats based in this prefecture.

5. Specialized Fisheries.

Coral fisheries are to be found in Kagoshima-ken.

6. Marketing.

The Yamakawa Fishery Association distributes the catch of its members while Kagoshima-shi has a central, wholesale fish market which is municipally owned and supervised.

7. Government Fishing Industry Activity.

There is a marine products laboratory in Kagoshima-shi in the prefectural office.

D. FOREST RESOURCES

1. Location and Composition of Forests.

Kagoshima is one of Japan's important forest producing prefectures, containing as it does more than 1,700 square miles of forest land in a fairly high state of productivity. Almost half of Kagoshima-ken is covered with forests, found mainly in 5 large tracts. The 2 largest areas are at the head of Kagoshima-gan in the center of the prefecture, and on the eastern shore of the same bay. Along the border of Kumamoto-ken is a third large area of forest land. The other 2 are located on the southern border of Miyazaki-ken and along the southeast coast. Numerous small and scattered woodlands occupy rougher areas throughout. Yaku-shima off the south coast is almost solidly covered with timber and contains one of the finest tracts in all Japan.

At sea level and in the lower piedmont areas, where bamboo, banana, and other tropical plants grow abundantly, little timber

is produced. In the main timber stands of the upper slopes, 2 distinct types, subtropical and temperate zone, are to be found. The former contains many evergreen broadleaf trees while the latter is mainly deciduous. In both types, conifers are mixed throughout. The principal species of commercial importance in Kagoshima follow:

TABLE 17

Important Commercial Timber Trees, Kagoshima-ken

Species	Japanese Name	Common Name	Uses
Cinnamomun camphora	Kuso	Camphor	Cabinets & camphor
Buxus sempervirens	Tsuge	Boxwood	Utensils & woodenware
Quercus myrsinaefolia	Kashi	Oak	Handles & furniture
Zelkova acuminata	Keyaki	----	Woodwork furniture, lumber
Cryptomeria japonica	Sugi	Cedar	High grade lumber
Chamaecyparis obtusa	Hinoki	Cypress	High grade lumber
Pinus densiflora	Aka-matsu	Red pine	Construction lumber
Pinus thunbergii	Kuro-matsu	Black pine	Construction lumber

2. Forest Administration and Management.

There are imperial, temple, and private forest as well as some government owned lands. Only 761 hectares have been set aside from private lands as "Protection Forests" on which no cutting is permitted. The area in government owned forests and other public lands is nearly 55 percent of the total for the population as a whole. All forest land except that in imperial forests is subject to control by the Bureau of Forestry (Sanrikyoku) of the Ministry of Agriculture and Commerce (Nosho-sho). A Forestry Bureau Administration Office is located in Kumamoto for the whole island of Kyushu under which Kagoshima-ken lands are administered. Branch forestry administration stations are located at Kasuga-cho, Kagoshima-shi, Yamano-machi, Onejime-machi, Uchinoura-machi, and Kajiki-machi. A charcoal inspection office is located in the prefectural office, Kagoshima-shi.

The Shintoko Imperial Forest in Aira-gun contains some very heavy stands of good timber and is administered by the forestry department of the Imperial Household.

The only government forest on which specific information is at hand is the Yaku-shima Government Forest, which covers an area of 40,500 hectares and contains 11 million cubic meters of timber. Such species as sugi, tsuga, (Jap hemlock), kashi hinoki and many more are to be found on this forested island.

Forestry experiment stations located at Kagoshima-shi and Kamo-mura (Aira-gun) are supported by the prefectural government, and provide the source of much technical information on management of forests on Kyushu.

Most private forest owners belong to the 22 cooperative forestry associations having a membership of 3,081. Direct management assistance is provided by these associations for logging, milling, reforestation, and marketing.

Direct management, including protection, silvicultural regulations, logging and development, is handled by the foresters of the government Bureau of Forestry. In addition, enforcement of the Basic Forestry Act which rigidly control cutting, fires, sales, and utilization of forest products on all lands regardless of ownership is a joint responsibility of the government forestry officials and the Kagoshima Forestry Bureau.

3. Forest Problems.

Fire presents only a slight danger to forests in Kagoshima during the months of March and April, when most of the fires occur. Precipitation is high and much of the foliage remains green throughout the year so that only during exceptionally dry periods does fire present a problem. Intensive fire control systems enforced by forest officers include serious penalties for incendiaries, with the result that losses are kept at a minimum. Floods, high winds, insects and disease are also a source of damage to forests.

Intensive forest management is the rule, with the selection and shelterwood systems of management in force in the hardwood and coniferous stands respectively. Natural reproduction is usually supplemented with plantings to restore lands to full productivity, especially in the case of conifers. Prefectural forestry stations are maintained at Sendai-shi, Izumi-gun, Izumi-machi; Isa-gun, Yamano-mura; Aira-gun, Kajiki-machi; Kimotsuki-gun, Onejime-machi; Kumage-gun, Shimoyaku-mura, and Kamiyaku-mura.

Since the timber is taken mainly from mountainous areas, logging is carried on with great difficulty. Logging railroads with very small, temporary feeder lines have been constructed in areas of heavy timber. The only line known to exist specifically for logging in Kagoshima is the Uchinomaki Lumber Line, which runs up a valley southeast of Onejime.



4. Forest Products.

Kagoshima produces a variety and abundance of timber and timber by-products, such as camphor, bamboo and charcoal. In 1938 there were 225 sawmills cutting approximately 2 percent of the total national lumber output. Sawlogs, pulpwood, poles, piling, etc., valued at 2,800,000 yen, were produced in 1936. The principal lumber produced was pine, the several cedars, and some hardwoods. No information is available to show the location of the mills, most of which are small or of medium size. Logging is crude and much hand work is involved except in a few larger modern operations. Much of the labor is part time, especially in the small tracts where sulphur and agricultural workers are available.

Bamboo poles, bark, posts and shingles comprise the most important minor forest products manufactured at or near the source of raw material. Camphor data are not available.

Charcoal production is important as a by-product of both logging and milling operations where slash and slabs are cut into small sizes and control burned in small pit ovens. No attempt is made to recover wood distillates in most operations. In 1936 Kagoshima produced 3 percent of Japan's charcoal, a total of 71,000 metric tons, worth 3,200,000 yen. Fuel wood worth 1,600,000 yen was also produced in that year.

E. MINING

Kagoshima-ken was an important gold producing region prior to the war. At present there is small-scale production of copper, tin, manganese, arsenic, pyrite and sulphur ores for war needs. Table 18 lists the principal minerals found in this prefecture.

TABLE 18

Minerals, 1945, Kagoshima-ken

Type	Location
Arsenopyrite (arsenic)	Unknown
Cassiterite (tin)	Unknown
Chalcopyrite (copper)	Akune-machi (Izumi-gun)
Coal	So-gun
Gold	Kushikino-machi (Hioki-gun)
Graphite	Kawanabe-gun
Hematite (iron)	Tanega-shima (Kumage-gun)
Limonite (iron)	Tanega-shima (Kumage-gun)
Magnetite (iron)	Tanega-shima (Kumage-gun)
Pyrite	Akune-machi (Izumi-gun)

Type	Location
Pyrolusite (manganese)	Unknown
Quartz	Akune-machi (Izumi-gun)
Silver	Kushikino-machi (Hioki-gun)

1. Ferrous Minerals.

Iron bearing beach sands on Tanega-shima are estimated to contain 100 million tons of iron sands assaying 30 percent iron. The deposits are controlled by the Nippon Satekko Seisakusho KK (Japan Iron Sand Engineering). In 1937 the company erected a 20-ton per day pilot plant at Takasago, Hyogo-ken, to recover iron from these beach sands. Test results are unknown but it is doubtful if the beach sand deposit is a commercial source of iron ore.

2. Non-ferrous Minerals.

a. Copper. The copper resources of Kagoshima-ken contribute only a fraction of Japan's copper requirements. Akune copper mine, Izumi-gun, Akune-machi, is owned and operated by the Dai Nippon Kozan KK (Great Japan Mining Co.) which in 1942 is estimated to have mined 3250 tons\* of chalcopryrite-gold-silver ore and 110 tons of high grade copper ore, and employed 180 men.

Hoseko copper mine (location unknown), owned and operated by the Nippon Kogyo KK (Japan Mining Co), in 1942 is estimated to have produced 1,210 tons\* of 2.5 percent copper ore, and employed 60 men.

Katamo copper mines (location unknown) in 1942 is estimated to have produced 550 tons\* of copper ore, and employed 30 men.

b. Tin. Two of the 9 reported tin mines of Japan are located in Kagoshima-ken. Both mines were operated during World War One.

Suzuyama mine (location unknown) has a series of quartz veins, one to 6 inches wide in sandstone, contain cassiterite and metallic sulphides. In 1917, 6099 tons\* of 0.8 percent tin ore were mined. The 1924 production was approximately 15 metric tons of tin.

No production data are known for the Taniyama mine, located in Taniyama-machi, Kagoshima-gun.

c. Gold. Kagoshima-ken has been one of Japan's most important gold producing areas. The gold is found in quartz veins in extrusive volcanic rocks. In 1926 6 mines were in operation, but in 1936 after the increase in the price of gold, there were at least 20 gold mines in the prefecture, 3 of which were important enough to warrant the construction of a new rail-  
\*Short tons

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road to serve them.

The most important gold mine in the prefecture is the Kushikino mine of the Mitsui Kozan KK (Mitsui Mining Co) located in Kushikino-machi, Hioki-gun.

TABLE 19

Gold Mines, 1936, Kagoshima-ken

Name	Latitude	Longitude
Kushikino	31°47'N.	130°18'E.
(5 mines, names unknown)	31°15'N.	130°32'E.
Kyoda mine	31°13'N.	130°32'E.
Orokuchi	31°13'N.	130°32'E.
Nagano	31°55'N.	130°37'E.
(Name unknown)	31°16'N.	130°15'E.
Ushio	32°06'N.	130°38'E.
(Name unknown)	32°10'N.	130°37'E.
(Name unknown)	32°10'N.	130°36'E.
(Name unknown)	32°09'N.	130°36'E.
(Name unknown)	31°18'N.	130°18'E.
(Name unknown)	31°16'N.	130°19'E.
Serigano	31°46'N.	130°18'E.
(Name unknown)	31°45'N.	130°17'E.

d. Arsenic and manganese. In 1934, approximately 430 short tons of arsenic were recovered from ores mined in the prefecture.

e. Pyrite. In 1935, 19,650 short tons of pyrite (mined for its sulphur content) or 2.57 percent of Japan's production were mined in Kagoshima-ken.

3. Non-metallic minerals.

a. Graphite. A graphite mine is located in Kawanabe-gun. Production data is not available.

4. Coal.

Miocene coal deposits of unknown quantity are found in Shibushi-machi, So-gun. The coal field extends northeast into Miyazaki-ken.

5. Mining Administration.

Kagoshima-ken is in the Kyushu district of the Ministry of

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Munitions (Gunju-sho) with headquarters in Fukuoka-shi, Fukuoka-ken. All mining inspectors, officials and administration for Kagoshima-ken are handled through the Fukuoka office. All Imperial Geologic Survey field work, mapping and reports pertaining to the prefecture come directly from Tokyo.

F. MANUFACTURING

Kagoshima-ken, with a low degree of industrialization, contributed less than one percent of the total value of manufactures in Japan proper in 1938. With the exception of cotton textiles, its manufactures are related generally to its agriculture and natural resources. As indicated in Table 20, the lumber and woodenware industry was the only one contributing more than one percent of the total value of a group of Japanese manufactures in 1938. Appendix I lists manufacturers in Kagoshima-ken.

TABLE 20

Manufactures, 1938, Kagoshima-ken\*

Industry	Value (in million yen)	Rank among prefectures	Percent of national total**	Percent of prefecture	Number of plants
Food					
Processing	16.4	30	--	37.2	328
Textile	14.7	35	--	33.1	300
Lumber and woodenware	4.9	23	1.1	11.0	266
Chemical	3.9	39	--	8.8	37
Printing	1.3	16	--	2.9	29
Miscellaneous	1.3	30	--	2.9	68
Machinery and tools	1.2	42	--	2.7	60
Metal	0.4	44	--	0.8	18
Ceramic	0.2	45	--	0.6	45
Total	44.3	44	--	100.0	1151

\* For non-government factories with 5 or more employees.

\*\* Given only if more than one percent.

1. Food Products.

The most important group of industries in Kagoshima processes food and drink. The value of processed food and drink was 37 percent of that for the prefecture's total industrial production in 1938. Distilled spirits and sake manufacture, particularly the former, were of chief importance. War-time reduction of alcoholic beverage production seems probable. Soy sauce production in 1938 was 30,582 hectolitres. Recent information indicates this production may have been increased by

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a newly developed process.

The "other food products industries" shown in Table 21, includes several major items such as starch manufacture (nearly 4 million yen), and confectionery and dried bonito (over 1 million yen each).

TABLE 21

Food Products, 1938, Kagoshima-ken

Industry	Factories	Value (in yen)
Distilleries & breweries	39	6,779,329
Flour & feed mills	2	650,597
Canning	4	535,549
Soy sauce brewing	11	340,657
Ice & refrigeration	12	317,512
Soft drink plants	5	209,186
Sugar mills	16	70,422
Livestock & dairy products	1	55,068
Other food products	238	7,426,091
Total	328	16,384,411

2. Textiles.

The textile industry is small. There is one large cotton spinning and weaving plant. The balance of the textile plants are small units operating in silk reeling, throwing, and weaving. Of the 300 textile plants reported for the prefecture, 29 are silk filatures, 6 are silk throwsters, and 244 are silk weavers. Table 22 shows the principal textile products of the prefecture.

TABLE 22

Textiles, 1938, Kagoshima-ken

Products	Value (in yen)
Raw silk	6,812,421
Cotton yarn	2,714,949
Silk fabrics	1,536,155
Cotton fabrics	1,463,348
Cotton batting	1,239,079
Thrown silk	549,231
Other	349,579
Total	14,664,762

3. Chemicals.

Chemical manufactures are unimportant. There are 2

commercial ethyl alcohol plants, one of which is government owned, at Izumi-machi (Izumi-gun), while the other is the Showa Sanyo KK. Their daily capacities are 7,632 and 4,770 U.S. gallons of absolute alcohol respectively. Table 23 lists the principal chemical products of the prefecture in 1938.

TABLE 23

Chemical Products, 1938, Kagoshima-ken

Products	Value (millions of yen)
Fertilizers (powdered bone & combination fertilizer)	3.0
Medicines & patent medicines	.2
Soap (largely laundry)	.1
Vegetable, animal & manufactured oils	.1
Other	.5
Total	3.9

4. Ore and Metal Processing.

The ore and metal processing industry is relatively small. There is some casting for machinery, pots, and kettles. Gold ores from the Kushikino, Akashi, Kasuga, Yamagano, and Ora mines were processed in the prefecture in 1927.

5. Machinery, Tools and Appliances.

Production by the machinery, machine tools, and appliances industries amounted to much less than one percent of the value of total Japanese manufactures in 1938. Table 24 lists principal machine products.

TABLE 24

Machine Products, 1938, Kagoshima-ken

Products	Value (in yen)
Scientific instrument parts	285,546
Farm & building tools	183,310
Electrical equip tools	168,249
Electrical equip parts & accessories	155,808
Agriculture machinery	151,080
Prime movers	138,800

6. Transportation Equipment.

There are 11 known shipyards and 2 aircraft plants in the prefecture. In 1938 there were reported to be 6 manufacturers of automobile accessories. There is one railroad equipment repair facility. Appendix I gives the location of these plants.

7. Wood Products.

The output of the wood products industries' amounted to 11 percent of the prefecture's industrial production in 1938. The majority of the 268 wood-using plants reported for 1938 (including pulp and paper establishments) produced lumber or veneer. There were 21 producers of wooden containers, 20 other wood working plants, and 2 small paper plants. The lumber producers accounted for about 2 percent of national lumber production.

8. Other Industries.

a. Clothing. Clothing producers reported manufacture of occidental types of outerwear, some underwear, handkerchiefs, and hats of both cloth and straw. All of these items together were valued at only 987,000 yen.

b. Fish nets. Fish nets produced in 1938 were valued at 120,800 yen.

c. Printing. Printing production for 1938 was less than one-half of one percent of the nation's total, by value. Book manufacturing is credited with a value of 45,000 yen. The bulk of the printing trades production is not classified in available Japanese statistics.

d. Ceramics. Before the war the prefecture manufactured a wide variety of ceramics in small quantities, such as glass, porcelain, clay and cement wares. In 1938, the prefecture manufactured about 4 percent of Japan's production of small glass jewelry and ornaments. Kagoshima-shi is noted for the manufacture of fine porcelain.

e. Other. Plants employing more than 5 workers reported production in 1938 of small quantities of minor consumer goods made from paper, bamboo, willow, straw, leather, horn and shell. Production of a few parasols and stonemason's items were also reported.

G. CONSTRUCTION AND CONSTRUCTION MATERIALS

1. Construction.

The types of construction in Kagoshima-ken are similar to those throughout Japan. Most large industrial plants built in

the last decade are of reinforced concrete, but older factories are usually of brick and wood construction. Most commercial establishments are of wood-frame construction, often with brick facings. Urban residences are primarily of wood, generally with paper partitions and tile roofs. Thatched roofs are common in the rural areas.

2. Construction Materials.

a. Lumber. Kagoshima-ken has large stands of commercial timbers, but reserves of the best construction timbers are limited. The chief construction timbers in the prefecture are listed in Table 17, Chapter III, D, 1.

b. Cement. There are no cement plants in Kagoshima-ken. The nearest cement plants are located in Kumamoto-ken, Amakusa-gun, Himeto-mura; and Yatsushiro-shi.

c. Structural steel. Kagoshima-ken has no structural steel producers. The nearest structural steel mills are located in Nagasaki-shi, Nagasaki-ken.

H. TRADE AND COMMERCE

1. Foreign Trade.

Kagoshima-shi was the only port in Kagoshima-ken open to foreign trade. In 1939, the volume of foreign trade placed Kagoshima-shi 16th among Japan's 47 open ports, with approximately 0.3 percent of the national total of about 6,500,000,000 yen. It is believed also that Kagoshima-shi may be a naval base and a depot for troop and supply movements to the south. Table 25, indicates the volume of foreign trade at Kagoshima-shi from 1936-1940:

TABLE 25

Imports & Exports, 1936-40, Kagoshima-shi

Year	Exports (in yen)	Imports (in yen)
1936	1,012,025	5,749,034
1937	1,605,658	6,528,687
1938	3,952,820	6,524,275
1939	11,722,951	9,271,897
1939 (1st qtr)	658,604	1,932,651
1940 (1st qtr)	4,901,283	2,555,908

In 1938, foodstuffs and lumber were the most important

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foreign trade exports of the prefecture, by value as shown in Table 26, while grains, flour, and soybeans were the most important imports, by value as indicated in Table 27.

TABLE 26

Principal Exports, 1938, Kagoshima-shi

Item	Quantity	Value* (in yen)
Plants & animals	--	849
Grains, flours, starches & seeds	--	237
Beverages, comestibles & tobacco	--	318,971
Preserved vegetables	3,52,600 kin	21,599
Mandarin oranges	6,50,600 "	69,184
Confectioneries	1,09,800 "	31,009
Bohito fish (dried)	1,07,500 "	68,746
Other fish (dried)	1,85,700 "	50,429
Eggs, fresh	99,200 "	42,959
Oils, fats, waxes & mfrs. thereof	--	944
Drugs, chemicals, medicines & explosives	--	35,338
Liquid for insectifuge	80,900 "	26,290
Cotton, wadding	1,800 "	1,118
Tissues & mfrs. thereof	--	1,422
Clothing & accessories thereof	--	1,080
Papers, pulps & paper mfrs.	--	62,228
Yakigami	7,20,900 "	60,847
Minerals & mfrs thereof	--	4,513
Potteries & glass	--	892
Ores & metals	--	22,326
Clocks, watches, instruments, arms, vehicles	--	16,778
Miscellaneous articles	--	3,485,832
Madake	2,2,44,400 "	32,495
Mosochiku	10,8,13,400 "	161,714
Other bamboo	3,2,05,400 "	115,006
RR ties (wood)	21,627 "	34,087
Shooks for wood boxes	28,182 sets	20,385
Sawn lumber (broad leaf trees)	275 cu. meters	22,455
Sawn lumber (sugi)	26,024 "	941,601
Sawn lumber (matsu)	50,694 "	1,482,537
Logs & cants (broad leaf trees)	530 "	19,314
Logs & cants (sugi)	21,191 "	429,421
Logs & cants (matsu)	7,513 "	164,519
Total exports		3,952,820

\* FOB at port.

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TABLE 27

Principal Import Items in Foreign Trade, 1938, Kagoshima-shi

Item	Quantity (in 100 kin)	Value* (in yen)
Grains, flours, starches & seeds	--	2,548,105
Broken rice	31,327	215,631
Millet, Kao-liang	30,058	174,942
Indian corns	70,625	411,957
Soy beans	195,803	1,405,283
Small beans	28,482	223,496
Green beans	4,316	46,037
Ground nuts	3,426	36,136
Seeds of perilla ocimoides	2,865	30,535
Beverages, comestibles & tobacco	--	146,451
Salt	120,100	146,114
Skins, hairs, bones, horns, teeth, tusks	--	1,019,135
Bones of animals	167,456	1,019,040
Cotton, ginned	427	21,812
Books & periodicals	--	60
Minerals & mfrs. thereof (Japanese)	--	150
Metal mfrs	--	120
Instruments & machinery	--	159
Miscellaneous articles	--	2,810,562
Fodder	61,872	390,496
Wheat bran	11,028	51,924
Bone dust (manure)	53,903	404,627
Bean cake (manure)	355,550	1,914,321
Other oil cake (manure)	3,917	22,418
Total imports		6,524,275

\* Value at arrival at port

Table 28 indicates the shipping position at Kagoshima-shi in 1938.

TABLE 28

Foreign Trade Cargo, 1938, Kagoshima-shi  
(in yen)

	Export	Import
Home vessels	3,286,497	5,821,295
Foreign vessels	666,323	702,980

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2. Warehousing.

In Kagoshima-shi storehouses and warehouses are to be found along the quay and docks. The port has a total of 80 storehouses and open storage yards are available. Several bulk oil concerns are located at the port and at least one of these has oil piped to the waterfront. In addition, there are large oil stores southwest of the city. Oil storage tanks of the Nippon Sekiyu KK (Japan Oil Co) are on the west side of Sakura-jima opposite and slightly north of Kagoshima-shi. The capacity of these tanks is unknown but it is reported to be substantial.

I. FINANCE

1. Private Finance.

a. Relative position of prefecture. In the field of private finance the relative position of Kagoshima-ken with the rest of Japan was as indicated in Table 29 below:

TABLE 29

Bank Deposits, Savings & Insurance, 1936 & 1944, Kagoshima-ken

	Total for Kagoshima-ken	Percent of National Total
Population (1936)	1,591,466	2.3
Total bank deposits (1936)	59,028,000 yen	.55
Total amount in postal savings transfer accounts (1936)	19,800,000 yen	1.4
Amount of ordinary life insurance in force (1936)	41,442,000 yen	1.14
Savings goal* (1944)	300,000,000 yen	.8

\* An estimate which includes net increases of bank deposits, postal savings, trust deposits, deposits of financial co-operatives, insurance reserves, deposits of mutual finance companies, private investment, bond purchases, etc.

b. Banking. As shown in the following list, there were 5 provincial banks with 32 branches in Kagoshima-ken in 1940. Four banks with head offices in other prefectures maintained branches in Kagoshima. Figures on the financial situation of these banks is given in yen.

(1) Provincial banks.

Dai Hyaku-Yon-Ju-Shichi Ginko (147th Bank)

Main offices: Kagoshima-shi, Ginsei-cho

Branches: Of the 14 branches 8 are located in Kagoshima-ken. There are 13 agencies in the prefecture.

Location of branches in Kagoshima-ken:

Sendai-shi, Mukoda-cho  
Oshima-gun, Nase-machi  
Aira-gun, Kajiki-machi  
So-gun, Shibushi-machi  
Hioki-gun, Ichiki-machi  
Satsuma-gun, Miyanojo-machi  
Isa-gun, Okuchi-machi  
Kanoya-shi

Total assets	69,768,000	Total liabilities	69,768,000
Securities	26,370,000	Deposits	55,258,000
Cash on hand	4,629,000	Reserves	757,000
Total loans	29,353,000	Net profit(6 mos.)	234,000
Uncalled capital	1,500,000	Paid-up capital	4,500,000

Kagoshima Ginko (Bank of Kagoshima)

Main office: Kagoshima-shi, Naika-cho

Branches: All 13 branches are located in Kagoshima-ken. There are 9 agencies in the prefecture.

Location of branches in Kagoshima-ken:

Kanoya-shi, Kanoya-cho  
Kimotsuki-gun, Tarumizu-machi  
Kimotsuki-gun, Koyama-machi  
Kimotsuki-gun, Onejime-machi  
Aira-gun, Kokub"-machi  
So-gun, Iwakawa-machi  
Kawanabe-gun, Kawanabe-machi  
Kawanabe-gun, Makurazaki-machi  
Kawanabe-gun, Kaseda-machi  
Ibusuki-gun, Ibusuki-machi  
Izumi-gun, Izumi-machi  
Kumage-gun, Nishinoomote-machi  
Hioki-gun, Izaku-machi

Total assets	20,558,000	Total liabilities	20,558,000
Securities	8,438,000	Deposits	16,709,000
Cash on hand	2,583,000	Reserves	390,000
Total loans	7,309,000	Net profit(6 mos.)	87,000
Uncalled capital	1,500,000	Paid-up capital	1,500,000

Kagoshima Kiken Ginko (Kagoshima Thrift Bank)

Main office: Kagoshima-shi, Okuro-cho

Branches: Five of the 6 branches are located in Kagoshima-ken. In the same prefecture there are 6 agencies.

Location of branches in Kagoshima-ken:

Sendai-shi, Mukoda-cho  
Isa-gun, Okuchi-machi  
Izumi-gun, Akune-machi  
Izumi-gun, Komenotsu-machi  
Hioki-gun, Kushikino-machi

Total assets	4,877,000	Total liabilities	4,877,000
Securities	1,238,000	Deposits	3,514,000
Cash on hand	711,000	Reserves	Unknown
Total loans	2,417,000	Net profit(6 mos.)	unknown
Uncalled capital	none	Paid-up capital	1,300,000

Sanshu Heiwa Ginko (Sanshu Heiwa Bank)

Main office: Kagoshima-shi, Horie-cho

No branches or agencies

Total assets	14,639,000	Total liabilities	14,639,000
Securities	6,298,000	Deposits	1,289,000
Cash on hand	1,289,000	Reserves	29,000
Total loans	5,880,000	Net profit(6 mos.)	21,000
Uncalled capital	750,000	Paid-up capital	250,000

(2) "Big" ordinary banks.

Teikoku Ginko (Imperial Bank)

Main office: Tokyo-to

Location of branches and agencies in Kagoshima-ken:

Kagoshima-shi, Kinsai-cho (branch)  
Sendai-shi, Mukoda-cho (branch)  
Ibusuki-gun, Ibusuki-machi (agency)  
Kawanabe-gun, Makurazaki-machi (agency)  
Kawanabe-gun, Mansei-machi (agency)  
Hioki-gun, Kushikino-machi (agency)  
Satsuma-gun, Miyanojo-machi (agency)  
Izumi-gun, Akune-machi (agency)

(Note: The branches listed in the prefecture as being branches of the Imperial Bank were formerly branches of the Jugo Ginko (15th Bank), which was merged with the Imperial Bank).

Yasuda Ginko (Yasuda Bank)

Main office: Tokyo-to

Location of branch in Kagoshima-ken:

Kagoshima-shi, Ginsei-cho (branch)

(3) Savings banks.

Kagoshima Chochiku Ginko (Kagoshima Savings Bank)

Main office: Kagoshima-shi, Naika-cho

Branches: There are no branches in Kagoshima-ken, but there are 3 agencies

Location of agencies in Kagoshima-ken:

Kagoshima-shi, Kuruma-cho  
Kagoshima-shi, Nishisenkoku-cho  
Kagoshima-shi, Funatsu-cho

Total assets	8,087,000	Total liabilities	8,087,000
Securities	6,128,000	Deposits	7,180,000
Cash on hand	664,000	Reserves	273,000
Total loans	809,000	Net profit(6 mos.)	29,000
Uncalled capital	375,000	Paid-up capital	125,000

Nippon Chochiku Ginko (Japan Savings Bank)

Main office: Tokyo-to

Location of branches in Kagoshima-ken:

Kagoshima-shi, Yamanoguchi-cho

(Note: The branch listed here as being a branch of the Japan Savings Bank was formerly a branch of the Fudo Savings Bank which was merged with the Japan Savings Bank).

(4) Special banks.

Nippon Kangyo Ginko (Hypothec Bank of Japan)

Main office: Tokyo-to

Location of branches and agencies in Kagoshima-ken:

Kagoshima-shi, Higashisingoku-cho (branch)  
Sendai-shi, Mukoda-cho (agency)  
Aira-gun, Kajiki-machi  
Kanoya-shi, Kanoya-cho

c. Insurance. The only insurance company known to have a branch in Kagoshima-ken in 1940 was the Yasuda Life Insurance

Company, which maintained a branch in Kagoshima-shi. In 1936 there were 376,435 ordinary life insurance policies in force in Kagoshima-ken, with a total value of 41,442,000 yen. It should be emphasized here that insurance companies, in common with other financial institutions in Japan, have had a strong impetus from the government to merge. Announcement was made in April, 1945 that all insurance companies in Japan had been merged into two companies, a life insurance company and a property insurance company. Whether they have succeeded in merging all the operations of these companies is doubtful, but it should be remembered that this is the end in view.

d. Postal savings. As of the end of June, 1942, postal savings deposits totaled 134,998,000 yen in Kagoshima-ken. Postal savings are very important to ordinary individuals who use the post office as a bank, both for savings and also as a checking account through postal transfer accounts.

e. Credit association. In 1936, there were 310 credit associations operating in Kagoshima-ken with an investment of 5,565,000 yen. These associations are important to individuals both as a place to invest money and as a source from which small loans can be obtained.

f. Mutual financing associations (Mujin). These associations hold a position similar to that of the credit associations, but the method of administration of funds is different. Statistics for Kagoshima for 1936 are given below:

Main offices	5
Branch offices	57
Authorized capital	830,000 yen
Paid-up capital	380,000 yen
Number of association accounts	2,699
Number of individual accounts	85,879

2. Public Finance.

a. The relative position, in regard to public finance, of Kagoshima-ken with the rest of Japan, as of 1936, was:

	Total for Kagoshima-ken (in yen)	Percent of Total for all Prefectures
Prefectural revenue	8,680,000	1.4
Prefectural expenditure	8,680,000	1.4
National business profits tax collection		
(1) Individuals	313,000	1.1
(2) Corporations	202,000	.3
Total taxable income	32,628,872	.7
National income tax collection	1,286,000	.5

b. In the 1938-39 fiscal year the income of the prefectural government of Kagoshima-ken (in thousand yen) was derived from the following sources:

Total income	8,680
Surtaxes on direct national taxes	
Land tax	976
Income tax	507
Other	373
Special land tax	372
House tax	1,326
Business tax	109
Miscellaneous taxes	685
Property income	8
Employment and handling fees	1,162
National grants in aid	1,608
Prefectural loans	386
Balance from previous fiscal year	118
Others	1,050

c. Expenditures in the fiscal year 1938-39 (in thousand yen) were:

Total expenditures	8,680
Council expenses	37
Police expenses	1,038
Public works	877
Education	2,554
Encouragement of industry	1,498
Health & sanitation	130
Social welfare	54
Prefectural loan expense	1,115
Handling of prefectural expenses	146
Officials' expenses	835
Other	397

d. Revenues of cities in Kagoshima-ken for the fiscal year 1938-39 (in thousand yen) were:

Total revenue	3,935
Surtaxes on direct national taxes	
Land tax	79
Income tax	none
Other	168
Surtax on prefectural taxes	
Special land tax	4
House tax	197
Business tax	33
Miscellaneous taxes	217
Special tax	473
Property income	44



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Employment fee and handling fee	1,383
Delivery and subsidy	209
City loans	547
Balance from previous year	57
Other	526

e. Expenditures of cities in Kagoshima-ken for the fiscal year 1938-39 (in thousand yen) were:

Total expenditures	3,935
Council expenses	17
Office expense	469
Public works	143
Education	1,091
Health & sanitation	309
Social welfare	90
Police	42
Encouragement of industry	169
Municipal loan expense	905
Liability expense	8
Planning	none
Maintenance expense (property)	10
Electric & gas construction	393
Other	288

f. Revenue of the towns and townships in Kagoshima-ken for the fiscal year 1938-39 (in thousand yen) were:

Total revenue	14,312
Surtaxes on national taxes	
Land tax	548
Income tax	none
Other	175
Surtax on prefectural taxes	
Special land tax	227
Personal property tax	588
Business tax	89
Miscellaneous taxes	709
Special taxes	5,115
Estate incomes	321
Rents and commissions	526
Subsidies	3,199
Town and townships loans	874
Amount carried forward from previous year	440
Other	1,502

g. Expenditures of the towns and townships in Kagoshima-ken for the fiscal year 1938-39 (in thousand yen) were:

Total expenditures	14,292
Council expense	89
Office expense	1,930
Public works	577

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Education	7,790
Health & sanitation	422
Social welfare	341
Police	195
Encouragement of industry	606
Public loan expense	955
Various taxes & burdens	49
Building funds	131
Electricity & gas enterprise	49
Other	1,157

h. The local public debt in Kagoshima-ken as of 1936 totaled 29,947,000 yen. The following is a breakdown of this debt (in thousand yen) according to areas and objectives for which the debt was incurred:

By area	
Prefectural	13,198
Municipal	8,543
Town & township	8,201
Water supply (district)	5
By objective	
Education	4,029
Health & sanitation	678
Services expenses	2,328
Disaster repair	4,468
Ordinary construction	8,559
Electric & gas works	5,123
Public welfare	3,584
Others	1,177

i. Some indication of the incidence of the tax burden is given by the following figures, which show the number of persons in the prefecture in the various income brackets as of 1936:

Less than 10 yen	4,424
10 to 15 yen	2,349
15 to 20 yen	1,054
20 to 30 yen	1,316
30 to 50 yen	1,194
50 to 100 yen	1,214
100 to 200 yen	839
200 to 500 yen	440
500 to 1,000 yen	141
1,000 to 2,000 yen	43
2,000 to 5,000 yen	30
More than 5,000 yen	12
Total paying income tax	13,056

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J. Finance offices in Kagoshima-ken. Offices of the Revenue Bureau in Kagoshima-ken (1938) were located in Kagoshima-shi, Tamai-cho; Kawanabe-gun, Chiran-machi; Sendai-shi; So-gun, Iwakawa-machi; Kimotsuki-gun, Shinjo-machi; Aira-gun, Kajiki-machi; Kumage-gun, Nishinomote-machi; Oshima-gun, Nase-machi.

Offices of the Deposit Bureau in Kagoshima-ken (1938) were located in Kagoshima-shi, Tamai-cho; Aira-gun, Kajiki-machi; Kanoya-shi; Sendai-shi; Kawanabe-gun, Chiran-machi; Oshima-gun, Nase-machi.

The Revenue Office maintained one tax surveyor (superintendent) in Kagoshima-ken in 1943.

As of 1943 a branch of the Monopoly Bureau was located in Kagoshima-shi. The Monopoly Bureau also maintained a laboratory in Kagoshima which was supervised by a technician.

Restricted

Restricted

#### IV. PUBLIC SERVICE.

##### A. TRANSPORTATION

###### 1. Railroads.

a. Pattern and importance. The principal railroads of Kagoshima-ken connect the city of Kagoshima with the important points on northern Kyushu. Most of them are north-south lines.

The railroads of primary importance in Kagoshima-ken are the Kagoshima Main Line (1)\*, Nippo Main Line (2), Hisatsu Line (3), and Kitto Line (4). (Principal trackage in Miyazaki-ken).

Railroads of secondary importance are the Ibusuki Line (5), Shibushi Line (6), Furue Line (7), Miyanojo Line (8), and Yamano Line (9).

Railroads of tertiary importance are the Nansatsu Railroad (10), Satsunan Railroad (11), and Kagoshima Tramway (12).

Railroads of minor importance are the Koyama Logging RR (13), Uchinomaki Logging RR (14), Logging RR in Isa-gun (15), Logging RR in Isa-gun (16), Logging RR in Kimotsuki-gun (17), Logging RR in Kimotsuki-gun (18), and a railroad in Kimotsuki-gun (19). The details concerning trackage, gauge, etc. are given in Table 29 and Appendix II.

b. Administration. The railroads of Kagoshima-ken are administered from the regional office at Moji-shi in Fukuoka-ken.

c. Yards and shops. The only rail yard in the prefecture is on the Kagoshima Main Line in northeast Kagoshima-shi. It has 5 tracks totalling approximately 2 miles in length and handles large quantities of water-borne freight. The Nippo Main Line and Ibusuki Line undoubtedly use this yard too.

The only repair shop is on the Kagoshima Main Line in southwest Kagoshima-shi. Its main facilities are for the repair of rolling stock.

\* Numbers refer to OSS Map 7201, Kagoshima Prefecture, in Part II of this manual.

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TABLE 29

Railroads In Kagoshima-ken

Railroad	Ownership	Power	Mileage in ken	Gauge	Track	No. Stas.	Bridges & Overh'ds(*)	No. Tunnels	Terminals
1. Kagoshima	Gov't	Steam	68	3'6"	Double	22	39 20*	10	Kagoshima-shi & Moji (Fukuoka-ken)
2. Nippo	Gov't	Steam	49	3'6"	Single	12	15 6*	23	Kagoshima-shi & Moji (Fukuoka-ken)
3. Hisatsu	Gov't	Steam	25	3'6"	Single	7	10 4*	12	Hayato & Yatsushiro (Kumamoto-ken)
4. Kitto	Gov't	Steam	2	3'6"	Single	1	1 2*	0	Hayato & Miyakonojo (Miyazaki-ken)
5. Ibusuki	Gov't	Steam	33	3'6"	Single	14	10 3*	6	Kagoshima-shi & Yamakawa
6. Shibushi	Gov't	Steam	24	3'6"	Single	8	10 3*	5	Miyanojo & Aburatsu (Miyazaki-ken)
7. Furue	Gov't	Steam	28	3'6"	Single	21	7 1*	0	Furue & Shibushi
8. Miyanojo	Gov't	Steam	37	3'6"	Single	13	5 4*	1	Sendai-shi & Okuchi
9. Yamano	Gov't	Steam	21	3'6"	Single	5	15 1*	2	Kurino & Jinnai (Kumamoto-ken)
10. Nansatsu	Private (1936)	Steam	30	3'6"	Single	22	13 2*	2	Ijuin & Makurazaki
11. Satsunan	Private (1936)	Steam	10	3'6"	Single	10	3	1	Ata & Chiran
12. Tramway	Private**	Elec.	10	4'8½"	Single	13	4 1*	0	Taniyama & Kagoshima-shi
13. Koyama	Private	Prob. steam	7	Prob 2'6"	Single		0	2	Koyama & Oryuno
14. Uchinomaki	Private	Prob. steam	12	Prob 2'6"	single		0	0	Oneshime
15. Logging	Private	Prob. horse	7	Prob 2'6"	single		1	0	Okuchi
16. Logging	Private	Prob. horse	5	Prob. 2'6"	single		0	0	Yamano

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17. Logging	Private	Prob. steam	3	Prob. single 2'6"		0	0	0	Hama
18. Logging	Private	Prob. steam	4	Prob. single 2'6"		1	0	0	Kitakata
19. Railroad	Private	Prob. steam	2	Prob. single 2'6"		0	0	0	Minato-Saki
20. Logging	Private	Prob. steam	4	Prob. single 2'6"		0	0	0	See App. II.

\*\* Kagoshima Electric Bureau

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2. Highways.

a. Importance and pattern. Highway transportation in Kagoshima-ken is secondary in importance to railroads; and, except for local traffic, is also secondary to waterways.

In this prefecture, as in all Japan, the National Highway is the most important. It runs south from the Kumamoto-ken boundary on the north-west shore line generally following the coast line to Ichiki-minato where it turns east to Kagoshima. It then follows the coast line of Kagoshima-wan northerly and easterly to a point approximately 5 miles southeast of Kokubumachi where it turns inland to Miyakonojo-shi in Miyazaki-ken.

From the Kumamoto-ken boundary to Komenotsu-machi the National Highway closely follows the shore line and has many sharp curves. From Komenotsu to Akune it has few curves or steep slopes except where it passes over a hill just north of Akune-machi. South of Akune-machi it again follows the coast line as far as Sunadake where it turns inland toward Sendai-shi and passes through 2 short tunnels but gains little elevation. At Sendai it crosses the Sendai-gawa on the Ohira (steel) bridge. Halfway between Sendai and Kushikino-machi it cuts across a ridge, maximum road elevation, 300 feet above sea level. From Kushikino it cuts across the peninsula to Kagoshima-shi and passes through the Asahi tunnel (about 200 feet long), and over many short masonry bridges. From Kagoshima north to within 3 miles of Kajiki-machi it hugs the shore and avoids the steep slopes a short distance inland. It crosses the Byu-gawa on the Aira (masonry) bridge. Southeast of Shikine-mura it rises to 1,200 feet within a distance of approximately 4 miles, and has many hairpin curves. From here to the Miyazaki-ken boundary it is fairly level and straight.

In general, primary highways connect small cities and towns and secondary ones connect the primary highways. These secondary roads are often very narrow and passable only for carts and small military vehicles. A short description of the primary prefectural highways is given in Section 2, d below.

b. Administration. The construction and maintenance of national highways is a function of the Ministry of Home Affairs, and administration is uniform throughout Japan. Prefectural, municipal, town and village roads are planned, constructed and maintained by the local authorities concerned.

c. Construction. Detailed information on the construction and surfacing of individual highways within the prefecture is not available. It is likely that the National Highway and the primary prefectural highways are 2-lane gravel-surfaced roads. In Kagoshima-shi the National Highway is probably surfaced with

concrete. Through irrigated rice fields highways are customarily 2 or 3 feet above the surrounding fields. Since Kagoshima-ken is within the typhoon belt washouts are common and sometimes cause serious interruptions in highway transportation. Because of the lack of hard surfacing on nearly all of the highways, the movement of military vehicles will probably create serious maintenance problems.

d. Primary prefectural highways. The primary prefectural highways in Kagoshima-ken, are:

(1) The Sada Highway from its junction with the National Highway south of Shikine-mura follows the shore line very closely south along Kagoshima-wan to Isashiki.

(2) From Furue on Route 1, through Kanoya-shi and Shibushi-machi to Miyazaki-ken border. From Furue to Kanoya crosses a ridge with sharp curves and steep grades. From Kanoya to terminus it is level, fairly straight, and mostly tree-lined. Crosses Hishida-gawa and Anruku-gawa on masonry bridges.

(3) From a point west of Kanoya-shi on Route 2, east and south to Higashi on the Kubota-kawa, via Koyama-machi and Hami. South of Hami it parallels the coast of the Ariake-wan and has many sharp curves.

(4) From Hami north to Kamimachi. At Hami it crosses the Kushira-gawa on 2 bridges, probably wooden; one is about 500 feet long, and the other about 200 feet long. Road is level and straight.

(5) From Route 2, east of Kanoya-shi, to National Highway south of Miyakonojo in Miyazaki-ken, via Arosa, Iwakawa-machi and Sueyoshi-machi. Five miles from beginning point it is straight and level, after which it rises to Arosa, about 800 feet elevation. From here to Iwakawa it has curves but no steep grades. From Iwakawa to Sueyoshi it is straight and level.

(6) From Route 1 south of Shikine-mura to Shibushi-machi via Iwakawa-machi. From beginning to 2 miles inland rises 1,000 feet, thence is relatively level to Iwakawa. From here to Shibushi there are many sharp curves. Road is tree-lined in many places.

(7) From National Highway, south of Kokubumachi to Miyakonojo-shi in Miyazaki-ken via Kokubu and Takarabe. From the National Highway to Ito it passes through a valley. From Ito to Takarabe it crosses over mountains, rising to 1,400 foot elevation, and here it is very curving. Crosses streams and railroad on masonry bridges. From Takarabe to Miyakonojo it is a straight, tree-lined road.

- (8) From Miyanojo-machi east to Yokokawa-machi. A mountain road. Curves at many points.
- (9) From Kajiki-machi north to Kumamoto-ken boundary via Yokokawa-machi and Kurino-machi. A mountain road its entire length; however, grades are probably not very steep. Some sharp curves. Crosses railroad on overheads, underpasses or grade crossings. This is an important highway as far north as the Kirishima National Park, in Kumamoto-ken.
- (10) From Yokokawa-machi northwest to Kumamoto-ken boundary. Road passes through rugged terrain from Yokokawa to its intersections with Route 11, where it passes through irrigated rice fields. At Yamano-machi it starts over rough mountainous terrain to the prefectural border.
- (11) From Miyanojo-machi east to Kurino-machi. A mountain road the whole length.
- (12) From Okuchi-machi west to Mochii via Izumi-machi and Takaono-machi. A mountainous and curving road from Okuchi to Izumi. Tree-lined and through open country from Izumi to Mochii.
- (13) From Komenotsu, near the Kumamoto-ken boundary, south to National Highway at Kajiki-machi via Izumi-machi and Miyanojo-machi. From Komenotsu to Izumi it is straight and level through rice paddy fields. From Izumi to Miyanojo it goes over mountainous terrain and is curving. At Miyanojo it crosses the Sendai-gawa on a masonry bridge. From Kamo-machi to Kajiki passes over level terrain.
- (14) From Sendai-shi north and east to Yamasaki-mura. Parallels Sendai-gawa over level terrain to Yamasaki, where it crosses the river on a medium-span masonry bridge.
- (15) From Ichiki-machi on the west coast to Kagoshima-shi via Makurazaki-machi and Taniyama-machi. An important highway around the Satsuma-hanto. Fairly level and straight most of the way.
- (16) From Izaku-machi east to Taniyama-machi. Mountainous and passes through barren country.
- (17) From Kaseda-machi to Kiire via Chiran-machi. From Kaseda to Chiran the road is fairly level. From Chiran to Kiire it passes through mountain gorge.
- (18) From Chiran-machi south to Shioya, east of Makurazaki-machi. Level, straight road.

3. Water Transport.

Total unloading capacity of prefectural ports accessible to ocean vessels is 2,600 short tons per 10 hour day.

Administration of shipping is under jurisdiction of the Moji Marine Transport Bureau, a local branch of the National Maritime Transportation Section.

See AMS MAP L571; H. O. Charts nos. 5677, 2187, 2403; and also Chap. I, D, 3, above.

a. Komenotsu-machi.

(1) Location. East side of mouth of Komenotsu-gawa (Hirose-gawa). There also is a small boat harbor on the west side of mouth.

(2) Harbor. Protected by 2 breakwaters, but only available for small vessels. Boats can go upstream 2.5 miles.

(3) Clearance. Rail and road.

b. Kurono-seto.

(1) Location. Separates Naga-shima from mainland. Provides short water route to southwestern coast of prefecture.

(2) Description. Depths are not less than 10 fathoms in fairway. Narrowest part of channel is 250 yards. Currents are strong.

c. Ohama-mura.

(1) Location. Northwest coast of Naga-shima.

(2) Harbor. A river that can be entered by small craft at high water.

d. Akune-machi.

(1) Location. At mouth of Takamatsu-kawa.

(2) Harbor. Anchorage for small vessels. Breakwater on north side of river mouth.

(3) Clearance. Rail and road.

e. Sendai-gawa.

(1) Location. Empties 7 miles west of Sendai-shi.

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(2) Description. Navigable by small craft for 30 miles. Boats can cross bar only during calm weather. Channel into river is 4 feet deep.

(3) River landings. Gumizaki is a fishing village on south side of river entrance. Sendai-shi lies 6 miles upstream. A large bridge crosses here. There is rail and road clearance from Sendai.

f. Yoshida (Yoseda-mura).

(1) Location. 2.5 miles southwest of Sendai-gawa; one-quarter mile within entrance of Yoseda-gawa.

(2) Harbor. Within river entrance. Small craft enter with difficulty during high water.

g. Nakakoshiki.

(1) Location. Southwest coast of Kamikoshiki-shima, northern-most island of the Koshiki-retto.

(2) Harbor. Small basin near village.

h. Sato-mura (Hoshi).

(1) Location. Northeast coast of Kamikoshiki-shima.

(2) Harbor. Small basin.

i. Taira.

(1) Location. Northeast coast of Taira-shima, immediately southwest of Kamikoshiki-shima.

(2) Harbor. An inner harbor available to small craft.

j. Teuchi.

(1) Location. South coast of Shimokoshiki-shima, southernmost of the Koshiki-retto.

(2) Harbor. Small vessels can anchor in Teuchi-ko in 7 to 8 fathoms. In northwest part of bay is mouth of small stream which can be entered by boats at high water.

k. Nagahama.

(1) Location. East coast of Shimokoshiki-shima.

(2) Harbor. Basin that can be entered by small craft at high water.

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l. Iimuta.

(1) Location. North coast of Shimokoshiki-shima.

(2) Harbor. Small basin.

m. Katanoura.

(1) Location. West coast of Shimokoshiki-shima.

(2) Harbor. Small stream that can be entered by small craft at high water.

n. Hashima.

(1) Location. 4.5 miles northwest of Kushikino-machi.

(2) Harbor. 48 feet deep in entrance channel.

(3) Landing facilities. Stone pier available to boats at high water.

o. Kushikino-machi.

(1) Location. Short distance within mouth of Gotanda-kawa.

(2) Harbor. Within river mouth. There are three breakwaters; the northern one is detached. Boats can enter at high water during spring and autumn.

(3) Clearance. Rail and road.

p. Kose.

(1) Location. North side of Naga-saki, one mile southwest of Kushikino-machi.

(2) Harbor. Fishing harbor enclosed by 3 breakwaters. Small basin in southeast corner.

q. Ichiki-machi.

(1) Location. Mouth of Minato-gawa.

(2) Harbor. In river mouth. Boats can enter at high water, calm weather only.

(3) Clearance. Rail and road.

## r. Shinkawa.

- (1) Location. South bank within mouth of Manose-gawa, at Fukiage-hama.
- (2) Harbor. In river mouth. Can be entered by vessels drawing less than 5 feet in calm weather only.
- (3) Landing facilities. A quay that does not dry at low water.

## s. Kataura-mura.

- (1) Location. North side of Noma-misaki.
- (2) Harbor. Breakwater protects small fishing harbor. 5.75 fathoms off breakwater. Anchorage in 10 fathoms, deep approach. Tides have springs rise 8.5 feet, neaps 6.2 feet.
- (3) Clearance. Road only.

## t. Nomaike.

- (1) Location. Northwest coast of Noma-misaki.
- (2) Harbor. A salt-water lagoon. Entrance dries at low water. At high water 6 feet in entrance there is a small boat basin in lagoon.
- (3) Clearance. Road only.

## u. Tomari-ura.

- (1) Location. A small bay just north of Minega-saki.
- (2) Anchorage. In 10 to 14 fathoms. Deep entrance. Tides have springs rise 8.5 feet, neaps 6.2 feet.
- (3) Clearance. Road at head of bay.

## v. Makurazaki-machi.

- (1) Location. South coast of Satsuma-hanto.
- (2) Harbor. Depth 7.5 feet. Depth in entrance channel 15 to 21 feet. Fishing basin has 1.25 fathoms and is enclosed by 2 jetties and detached breakwater. Kedo-gawa flows into harbor on west side of town. Can only be entered by small craft at high water in calm sea. A landing quay is enclosed in fishing basin. Unloading capacity is estimated at 650 short tons per 10 hour day.

- (3) Clearance. A private railroad connects with government system.
- (4) Supplies. One water boat of 10-ton carrying capacity.
- (5) Repair facilities. One 200 ton marine railway.

## w. Ishigaki-gawa.

- (1) Location. Empties at Byu, 9.5 miles east of Makurazaki-machi.
- (2) Description. Can be entered by small craft at high water.

## x. Yamakawa-machi.

- (1) Location. West side of entrance to Kagoshima-wan.
- (2) Harbor. During fishing season, from April to June, harbor is headquarters of fishing fleet. Inner part of harbor is an almost landlocked basin. Harbor depth is 120 to 138 feet. Depth of entrance, channel 19.5 feet. Width of entrance channel, 1800 feet. Excellent anchorage in inner harbor, 20 to 30 fathoms. The landing facilities consist of a quay and piers with 8 to 13 feet alongside.
- (3) Clearance. Road only. Rail on north side of Yamakawa-ko.
- (4) Supplies. Water can be supplied to shipping.

## y. Kagoshima-shi.

- (1) Location. Northwest coast of Kagoshima-wan.
- (2) Harbor. (See also AMS Map L902, Kagoshima 138452.) Port of call for Japanese merchant vessels. It is only suitable anchorage for large vessels in Kagoshima-wan. Thought to be a minor naval base, probably used for training purposes. It is naval anchorage and refueling station. The harbor is in two parts: an outer harbor and an inner harbor protected by three breakwaters, the center one of which is detached. A fort stands near the middle of the center breakwater. Approach to outer harbor through main channel has navigable width of 1760 yards. Approach to inner harbor is through 2 narrow passages at either end of detached breakwater, principal one being the southernmost. A basin is in south part of inner harbor. Depths of outer harbor, 10 to 25 fathoms; inner harbor, 3 to 4.75 fathoms; inner harbor basin, 10 feet; main channel to outer harbor,

15 to 23 fathoms; south passage to inner harbor, 5 to 6 fathoms. Tides have springs rise 10.5 feet, neaps 6.5 feet. In outer harbor vessels can anchor in 10 to 15 fathoms. Deep approach.

(3) Landing facilities. Mooring quay (240 yd.) with 24 feet of water midway along west side of inner harbor. Pier consisting of 2 steel and concrete floats north of quay; fairly large vessels can come alongside. Similar pier is opposite south entrance to inner harbor, available only to small vessels. In 1931 it was proposed to widen and deepen the inner harbor and to construct a new quay to provide berthing space for 6 ships at one time. Status of work unknown. Large vessels handle cargo from anchorage. The estimated capacity is 1,300 short tons per 10 hour day. In winter strong winds sometimes interfere. In 1938, 120 steamers (162,577 tons) entered; 130 (172,350 tons) cleared. Sailing vessels: 59 (5,709 tons) entered; 88 (8,058 tons) cleared.

(4) Clearance. Railroad extends along the coast. Spurs serve north part of the inner harbor. Highways parallel the railways, and lead to interior.

(5) Storage. Several one-story warehouses along quay wall. Total of 80 warehouses. Open storage yards available. Extensive naval storage facilities in conjunction with naval anchorage.

(6) Supplies. Water is laid on quay wall, or can be delivered to vessels at anchorage. There are 2 or 3 bulk oil concerns. Oil piped to waterfront by at least one company. Coal is available.

(7) Repair facilities. Ship repair yard, with 262 foot marine railway is in south part of inner harbor. Construction of submarine dock has been reported.

(8) Administration. Harbor Administration Office is on waterfront 2 blocks south of Asahi-dori. Harbor Construction Office is on waterfront adjacent to Central Market. Customhouse is on waterfront at foot of Ishitsuru-dori. Customs house and Harbor Administration are in Sumiyoshi-cho, south of Asabu-dori. There is a branch office of the Osaka Shosen KK, a corporation organized and operated under the national Vessel Transportation and Operation Society.

z. Fukuyama-machi.

(1) Location. Just south of Wakamikono-hana, at north end of Kagoshima-wan.

(2) Harbor. Open. Port of call for small coastal vessels.

(3) Clearance. Road only.

aa. Furue.

(1) Location. West of Kanoya-shi.

(2) Harbor. Best landing place on east side of Kagoshima-wan. Local steamers call. Harbor protected by breakwater. Depth 4.5 feet. Red mooring-buoy in approach to harbor.

(3) Clearance. Terminus of rail line which runs through Takasu-mura, and Kanoya-shi. Road.

bb. Takasu.

(1) Location. Southwest of Kanoya-shi.

(2) Harbor. Small basin. Port of call for local steamers.

(3) Clearance. Connected by rail with Kanoya-shi. Road.

cc. Uchinoura.

(1) Location. Head of Uchinoura-wan, on south side of entrance to Ariake-wan.

(2) Harbor. Enclosed on east side by retaining wall; on its north side by breakwater; on west side by a mole. Small fishing harbor.

(3) Clearance. Road only.

(4) Supplies. Water can be supplied to small vessels from a hydrant.

dd. Kushira-kawa (Kimotsuki-gawa).

(1) Location. Flows into southwest corner of Ariake-wan.

(2) Description. Can be entered by small craft at high water.

ee. Shibushi-machi.

(1) Location. Mouth of Mae-gawa on Ariake-wan.

(2) Harbor. Small inner harbor protected by breakwaters on south and west and by mole on north. Depth of



inner harbor is 4 to 15 feet. Tides have springs rise 6.2 feet, neaps 4.8 feet. Outer anchorage is in depths of 10 fathoms or more about 2 miles from Shibushi-ko. Ariake-wan has been used as a naval anchorage. There is some quayage. Lengths and depths alongside not known. Unloading capacity is estimated at 650 short tons per 10 hour day.

(3) Clearance. Rail and highway serve port.

(4) Storage. Naval fuel supplies stored at head of Ariake-wan.

4. Air Facilities.

Table 30 shows that at the end of 1944 there were 15 "classified" and 10 "reported" airfield or seaplane stations in Kagoshima-ken. All fields whose existence has been established by reasonably conclusive evidence are included in the Classified list. Those fields whose existence is questionable owing to possession of only dubious or insufficient evidence are included in the Report list.

The Kanoya Naval Air Station is under the jurisdiction of the Sasebo Naval District and is believed to be the most important base for long range reconnaissance in southern Kyushu. It has 4 hangars and is equipped with major repair and overhaul facilities.

The Chiran heavy bomber airfield is larger than Kanoya Naval Air Station but believed to be less important.

TABLE 30

Airports & Seaplane Anchorages, 1944, Kagoshima-ken.  
(Alternate names are carried in parentheses after the principal names.)

<u>Name</u>	<u>Type</u>	<u>Approximate locations</u>	<u>Elevation</u>
CLASSIFIED			(in feet)
Byu	LG (u/c)	About 5 mi. S of Chiran-machi	
Chiran	A/D	Just W of Chiran-machi	490 (est)
Ichiki	LG	7 mi. SE of Kushikino-machi	
Izumi	A/D	2 mi. WNW of Izumi-machi	328 (est)
Kagoshima (Sakura; Tempozan)	A/D	2 mi. S of Kagoshima-shi	10 (est)
Kagoshima (Taniyama)	S	2 mi. SSE of Kagoshima-shi	S.L. (est)
Kanoya (Takasu; Tarumizu)	A/D (u/c)	1 mi. SW of Kanoya-shi	215 (est)
Kanoya East (Kasambai; Kasanohara)	A/D	2 mi. ESE of Kanoya-shi	188

<u>Name</u>	<u>Type</u>	<u>Approximate locations</u>	<u>Elevation</u>
CLASSIFIED			(in feet)
Kitahara (Kokubu)	A/D	5 mi. NNW of Kokubu-machi	
Kokubu	LG	Just S of Kokubu-machi	
Kushira (Kusambai; Kasanohara)	A/D (u/c)	5 mi. NE of Kanoya-shi.	264
Shibushi	A/D	2 mi. E of Shibushi-machi	
Shikine	LG	5 mi. SE of Shikine-mura	
Tara (Ibusuki; Junicho; Minato)	S	5 mi. NNE of Yamakawa-machi	
Wakimoto	LG	About 1 m. NNW of Shigetomi-mura	

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Akune	S	In bay just west of Akune-machi	S.L.
Kirishima	LG	Near Kirishima-mura	
Kushikino	LG	Near Kushikino-machi	328 (est)
Miyanojo	LG	Near Miyanojo-machi	328 (est)
Takayama (Koyama)	LG	About 2 mi. NNW of Koyama-machi	82 (est)
Tanega (Nishinoomote)	S	At N end of Tanega-shima	S.L. (est)
Taniyama (Nakashioya)	LG	Just NE of Taniyama-machi	10 (est)
Tara (Ibusuki)	LG	About 1 mi. NE of Ibusuki-machi	
Uchinoura	S	Just E of Uchinoura-machi	S.L. (est)
Yaku-jima	LG	On SW coast of Yaku-jima	

ABBREVIATIONS

- A/D - Airdrome with all-weather runway, or complete facilities, or both.
- L/G - Landing ground without an all-weather runway and without complete facilities.
- S - Fully or partly equipped seaplane station.
- S.L.- Sea level or zero altitude.
- u/c - Under construction.

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## B. COMMUNICATIONS

Kagoshima-ken is included with the following prefectures in a single administrative district under the Kumamoto Bureau of Communications (Kumamoto Teishin-kyoku) of the Ministry of Transportation and Communications (Unyu Tsushin-sho): Fukuoka, Kumamoto, Miyazaki, Nagasaki, Oita and Saga. The headquarters of the district are in Kumamoto-shi, Kumamoto-ken. The bureau, headed by a chief, consists of 4 main departments: business, engineering, management and savings. The chief of the bureau is responsible for all civilian communications activities: telephone, telegraph and postal, within the district.

Actual operation of submarine cables, as well as radio-telegraph and radio telephone, in Kagoshima-ken are nominally in the hands of the International Telecommunications Co., which is controlled by the Japanese government.

Control and supervision of domestic radio broadcasting, including operations of stations and production of programs, is in the hands of the Japanese Broadcasting Corporation (Nippon Hoso Kyokai). This company is under the complete control of the Ministry of Transportation and Communications.

Control of the press and censorship originally was supervised by the Home Affairs Ministry (Naimu-sho) but since the cabinet re-organization in November 1943 it is now supervised by the Cabinet Board of Information (Joho-in).

### 1. Telephone

Kagoshima-ken has the lowest telephone development of any prefecture in Japan. As of 1939 it had approximately 8400 telephones, an increase of 634 telephones since 1937. The number of telephones represents an average of 0.53 telephones for every 100 persons, which compares with 1.38 for Japan proper. In 1940 the total number of local and long distance calls for the Kumamoto Communications Districts was 549,014,000 and 41,673,000 respectively. It is estimated that the daily average of calls handled in Kagoshima-ken for the same year was 145,901 local calls and 11,102 long distance calls. The local calling rate (number of calls per day per telephone) was between 16 and 18, which is extremely high in comparison to call rates in the United States but an average figure for Japan. All telephone messages are rigidly funneled. A telephone call from one communications district to another must pass through the telephone central of each district as well as the local exchange at the end of the call. Because of this funneling of messages long distance circuits are particularly vulnerable at exchanges, and the expansion of the system is limited by the capacity of

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these installations.

In spite of the low telephone development in Kagoshima-ken, this prefecture is an important link in the land network as it serves as the terminus for many submarine cables connecting the Ryukyu Islands as well as many of the small islands to the south of Kyushu (see chapter IV, B, #, Cable.) The main communications circuits enter the prefecture from Kumenotsu-machi in Izumi-gun (32° 04' N. 130° 22' E.) continue south following the Kagoshima main railroad line to Izumi-machi (32° 04' N. 130° 22' E.) and Akune-machi (32° 06' N. 130° 12' E.) along the coast to Sendai-shi (31° 48' N. 130° 18' E.) and to Kushikino-machi (31° 42' N. 130° 16' E.) and Ijuin-machi (31° 38' N. 130° 24' E.) in Hioki-gun. At Ijuin-machi it swings east across the peninsula still paralleling the Kagoshima railroad to Kagoshima-shi. From Kagoshima-shi it follows a northeast course along the Ibusuki RR line to Shigetomi-mura (31° 42' N. 130° 28' E.) Kajiki-machi (31° 44' N. 130° 40' E.) and Kokubu-machi (31° 44' N. 130° 47' E.) in Aira-gun and then to Miyakonjo-shi in Miyazaki-ken. During the last 10 years the Bureau of Communications has constructed, due to the insistence of the Army, an elaborate network of subterranean and submarine cables through-out Japan. For this reason it can be expected that this main communications route in Kagoshima-ken is of cable construction rather than open wire. The underground cables are laid in ducts and are paper insulated and lead covered. The ducts are generally iron tubes but where there is no surface water, earthen or concrete tubes are used.

Telephone service will be found in the majority of the other cities and towns not situated on the main route if they are located on main highways or railroads. The open wire circuits to these cities and towns will be, in most cases, of 1.6 mm. hard drawn copper wire. Telephones will be found in practically all police stations, police substations, and police boxes in the prefectures.

Telephone rates are of two kinds: measured and flat rate. At Kagoshima-shi the rate was 30 yen per year (1938) and the measured rate of 3 sen per call was surcharged. In all other exchanges a flat rate of 60-90 yen per year (1938) was charged; the exact rate being determined according to the number of subscribers.

With the exception of Kagoshima-shi, the telephone exchanges (single position magneto switchboards), along with telegraph installations, will be found in the same buildings as the post offices. In a large majority of cases, one clerk is responsible for all contacts that the general public has with the communications board.

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In Kagoshima-shi there is a separate telephone exchange which is located in the east central section of the city about three-fourths of a mile south east of the city hall and in the same vicinity as the main post office. It is estimated that this exchange, ( a single channel, common battery, manual switchboard) services 4,000-5,000 telephones. A large percentage of these telephones are the wall type. Public telephones are installed in booths on the streets of the business section, in stores, railroad stations and bus terminals. Private branch exchanges ( PBX) will be found in very few of the industrial and business establishments.

There are various radio-telephone installations in the prefecture( see Chapter IV, B, 4, Radio) which are used for communications to many of the islands and as emergency routes in the advent of failure of submarine cables.

2. Telegraph

Kagoshima-shi is the center of all telegraphic activity in Kagoshima-ken. It is connected by direct trunks with the Communications Zone Center at Kumamoto, for which it serves as a subcenter.

Trunk and service lines follow closely the network pattern of telephone circuits. In addition, there are circuits from Akune-machi to Kuronohama (32° 07' N. 130° 12' E. ) Telegraphic lines are of both aerial and underground construction. The telegraph central for Kagoshima-ken is believed to be located in the telephone building at Kagoshima-shi, with branch offices in most of the sub-post offices throughout the city. In the rest of the prefecture, however, telegraph service facilities are located in the second class post offices or railroad stations. In 1936 telegraph service was available in 86 of the 109 third class post offices. Such combination offices are particularly strategic, as they usually contain telephone facilities as well. Ordinary telegrams dispatched from the prefecture in 1936 totaled 1,394,000 as against the total of 1,535,000 delivered for the same year.

It is believed that printer telegraph will be found in Kagoshima-shi. The most common types of equipment are: Western Electric Duplex, Morkum Double Duplex, Teletype, Baudot Multiplex, and the Japanese Letter Printer. The outlying areas depend almost entirely on hand keys. Traffic originating in Kagoshima-ken is routed through Kagoshima-shi, a key center for both national and local service, to the communications zone center at Kumamoto, and another set of circuits to Kumamoto via Miyazaki-Oita-Kumamoto, and another set of circuits via Kushikino-Akune-Kumamoto. Each of these cities is an important link in the Kagoshima-Kumamoto service

link.

Rates for official and private telegrams are 15 Japanese kana characters or 5 European words for 40 sen, with an overcharge of 7 sen for 5 additional Japanese kana characters, or one additional Japanese kana character or one additional European word.

3. Cable

Kagoshima-ken has an extensive and well-planned network of submarine cables running between the mainland and the various large and small islands to the south of Kyushu. The majority of these cables are for telegraph service but telephone circuits may exist in the cables to the Ryukyu Islands. Table 31 lists submarine cable landings in the prefecture in 1944.

TABLE 31

Submarine Cable Landings, 1944, Kagoshima-ken.

FROM	TO	NUMBER OF CABLES	TYPE
Kagoshima 31°36'N. 130°43'E.	Sakura-jima	31°36'N. 130°36'E.	2 Teleg.
Kagoshima 31°49'N. 130°32'E.	Ohama	31°11'N. 130°46'E.	2 Teleg. or Telep.
Ohama 31°11'N. 130°46'E.	Tanega-shima	30°43'N. 130°59'E.	1 Teleg. or Telep.
Ohama 31°11'N. 130°46'E.	Nishi Komi	28°14'N. 129°52'E.	1 Teleg.
Kushikino 31°43'N. 130°15'E.	Anami-O-snima Kamikoshiki- jima	31°49'N. 129°52'E.	1 Teleg.
Kamikoshiki- jima 31°49'N. 129°52'E.	Shimokoshiki- jima	31°42'N. 129°44' E.	1 Teleg.

4. Radio

Kagoshima is well provided with broadcasting facilities. Transmitting equipment is good, and studio relay lines and other related installations are adequate. JOHG, the principal station for the prefecture ( See Table 33) is located in Kagoshima-shi and operates under the control of the Kumamoto Regional Central. JOHG can transmit programs originating in its own studios, the studios of JOAK, Tokyo, and JOG K, the Kumamoto Regional Central. Programs from the studio to transmitter are carried by underground cable. Electric current is

obtained from local power sources, but the station is equipped with a motor generator for use in emergencies. Circuits for service messages necessary for synchronizing programs run parallel to the relay lines. These lines were reported in 1937 to be leased from the Communications Ministry. JOHG is equipped with a receiver to be used if the relay lines are interrupted. The frequency used is 6125 kc. Only 10 percent of the programs are local in origin. Table 33 lists radio stations in the prefecture.

Radio broadcasting is one of the chief means of public instruction in Kagoshima. There are approximately 77,850 licensed receivers or 23.1 radios per 100 families, comparable with 7 million receivers for Japan proper. These receivers are 3 or 4 tube sets similar to small models manufactured in the U.S. and are designed solely for local reception. Short wave reception is prohibited, and there is only one-band covering roughly 550 kc. to 1500 kc. or slightly less than our standard broadcast band. Edison screw-type sockets are used, but it cannot be assumed that any American plug will fit a given Japanese socket. Since 1925 the operation of radio receivers has been licensed in Kagoshima. Each receiver owner is required to post his license disk on the door. Originally, the application fee was one yen and the monthly fee 2 yen. As of April 1945, the monthly rate was doubled, the charge being 6 yen 50 sen for 6 months, or 12 yen for a year. The application fee was abolished. A continuing check is made by repairmen and consultants, who travel throughout Kagoshima under the sponsorship of the Broadcasting Corporation of Japan, and by specially selected repair shops. In this capacity then they are able to watch for indications of illegally constructed or operated receivers and clandestine transmitters.

Public address systems, being an integral part of Japanese life, can be found throughout the prefecture in the parks, railroad stations or schools ( see Table 32); whereas private systems may exist in factories and department stores. Many of the municipal parks in the smaller cities throughout the prefecture have small towers equipped with loud speakers for relaying various programs of general interest. Similar equipment is frequently installed near shrines or other places where crowds gather.

TABLE 32

Installations of the Japan Broadcasting Corp., 1941, Kagoshima-ken

Location	Address	Description
Kagoshima-shi	Tempozan-machi	Broadcasting Station JOHG
Kagoshima-shi	Minami-Hayashidera-machi	Permanent information office
Kagoshima-shi	Gionshu Park	Public address system
Kagoshima-shi	Komoike Park Zoo	Public address system
Kagoshima-shi (scattered)	Narim-temple Park	Public address system
		18 authorized information offices.

TABLE 33

Radio Stations, 1943, Kagoshima-ken

Call*	Frequency	Watts	Remarks
JOHG	1050	500	Broadcasting station
JKI-2	4055	500	) Radio telephone
JKI-3	9055	500	
JKI-4	12105	500	
JKB	260	1500	) Land-to-plane
	333	1500	
	500	1500	
JKB	133	1000	) Ship-to-shore
	143	1000	
	435	1000	
JKF	99	1000	) Radio telegraph
JKG	103	1000	
JKA	4260	500	) range, 1000miles
JKC	7450	500	
JKD	9180	500	
JKE	9960	500	
JKH	3800	500	
KA	-	-	) Meteorological station

There are also a wireless station in the south-west part of town on the west of the Kotsuki-gawa, 3 blocks north of the post office, and another in the heart of midtown, one block east of a large auditorium.

\* All stations are located in Kagoshima-shi

5. Postal Service

For postal service Kagoshima-ken is a part of the Kumamoto Communications District with headquarters in Kamamoto-shi.

In 1936 there were 116 post offices in Kagoshima-ken, classified as shown in Table 34, and located as shown in Table 35.

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TABLE 34

Key	Types of Post Offices, 1936, Kagoshima-ken.	Number
(1)	Class First class; administrative headquarters of communications district.	0
(2)	Ordinary first class	1
(3)	Second class	3
(4)	Special third class	0
(5)	Third class, with telegraph & telephone	73
(6)	Third class, with telegraph only	11
(7)	Third class, with telephone only	0
(8)	Ordinary third class, without telegraph or telephone	0
(9)	Third class, no collection or delivery, with telegraph and telephone	22
(10)	Third class, no collection or delivery, with telegraph only	2
(11)	Third class, no collection or delivery, with telephone only	0
(12)	Third class, no collection or delivery, no telegraph or telephone	1
(13)	Sub-post office; collection and delivery, but no telegraph or telephone	3
		116

TABLE 35

Locations of Post Offices, 1936, Kagoshima-ken.  
(Key numbers indicate class of P.O. as shown in table 34)

Key	Locations	Number
KAGOSHIMA-SHI	2 Kasasa-machi	5
KANOYA-SHI	3 Katsume-mura	5
SENDAI-SHI	3 Nishiminamikata-mura	5
KAGOSHIMA-GUN		
Taniyama-machi	5	
Ishiki-mura	12	
Yoshida-mura	5	
Nishisakurajima-mura	5	
Higashisakurajima-mura	9	
IBUSUKI-GUN		
Yamakawa-machi	5	
Ibusuki-machi	5	
Kiire-mura	5	
Imaizumi-mura	9	
Ei-mura	5	
KAWANABE-GUN		
Chiran-machi	5	
Makurazaki-machi	5	
Mansei-machi	5	
Kaseda-machi	5	
Kawanabe-machi	5	
NIOKI-GUN		
Ijuin-machi	5	
Izaku-machi	5	
Ichiki-machi	5	
Kushikino-machi	5	
Higashiichiki-machi	5	
Kamijuin-mura	5	
Shimoiuin-mura	5	
Tabuse-mura	5	
Ate-mura	5	
Koriyama-mura	5	
Hioki-mura	9	
Nagayoshi-mura	9	
Yoshitoshi-mura	5	
SATSUMA-GUN		
Miyanojo-machi	5	
Hiwaki-machi	5	
Nagatoshi-mura	5	

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SATSUMA-GUN ( cont. )

Key	Locations	Number
Iriki-mura	5	
Takae-mura	5	
Takagi-mura	5	
Mizuhiki-mura	5	
Shimotogo-mura	5	
Kamitogo-mura	5	
Yamazaki-mura	10	
Kumiyo-mura	10	
Tsuruta-mura	5	
O-mura	5	
Sashi-mura	13	
Nagano-mura	5	
Kuroli-mura	13	
Kamikoshiki-mura	9	
Shimokoshiki-mura	9	
Imuta-mura	9	
Sato-mura	9	
IZUMI-GUN		
Izumi-machi	5	
Komenotsu-machi	5	
Akuno-machi	5	
Takaono-machi	5	
Mikasa-mura	5	
Higashinagashima-mura	5	
Nishinagashima-mura	5	
Noda-mura	5	
Okawachi-mura	5	
ISA-GUN		
Okuchi-machi	5	
Yamano-machi	5	
Hishikari-machi	5	
Hatsuki-mura	5	
Honjo-mura	5	
Nishitari-mura	9	
AIRA-GUN		
Kajiki-machi	5	
Kokubu-machi	5	
Kamo-machi	5	
Fukuyama-machi	5	
Kurino-machi	5	
Hayato-machi	9	
Chosa-machi	9	
Yokogawa-machi	5	
Makisono-machi	5	
Shigetomi-mura	5	
Yamada-mura	5	
Mizobe-mura	5	
Shikine-mura	5	
Kiyomizu-mura	5	
Kirishima-mura	5	
Yoshimatsu-mura	5	
Hinatayama-mura	9	
Higashikokubu-mura	5	
SO-GUN		
Iwakawa-machi	5	
Takarabeomachi	5	
Sueyoshi-machi	5	
Shibushi-machi	5	
Ozaki-machi	5	
Tsuneyoshi-mura	5	
Ichinari-mura	9	
Nogata-mura	9	
Nishishibushi-mura	9	
Matsuyama-mura	9	
Tsukino-mura	9	
KIMOTSUKI-GUN		
Tarumizau-machi	5	
Koyama-machi	5	
Oneshime-machi	5	
Uchinoura-machi	5	
Kushira-machi	5	
Higashikushira-machi	5	
Nejime-machi	5	
Takakuma-mura	5	
Shinjo-mura	9	
Ushine-mura	5	
Sata-mura	5	
Tajiro-mura	5	
Mohiki-mura	5	
Aira-mura	5	
KUMAGE-GUN		
Nishinoomote-machi	5	
Nakatane-machi	9	
Minamitane-mura	6	
Kamiyaku-mura	6	
Shimoyaku-mura	6	
OSHIMA-GUN		
O-shima		
Nase-machi	3	
Koniya-machi	5	
Mikata-mura	5	

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OSHIMA-GUN ( cont)	Key	KIKAI-SHIMA	
Yamato-mura	5	Kikai-mura	6
Sumiyo-mura	5	Somachi-mura	6
Tatsugo-mura	5		
Kasari-mura	9	OKIERABU-SHIMA	
Jitto-mura	9		
Nishigata-mura	9	Watomari-machi	6
Uken-mura	6	China-mura	6
Saneku-mura	5		
Chinzei-mura	5	YORON-SHIMA	
TOKUNO-SHIMA		Yoron-mura	6
Kametsu-machi	6		
Isen-mura	13		
Amagi-mura	13		
Higashiamagi-mura	6		

6. Newspapers

As of 1937, there were 116 newspapers and magazines published in Kagoshima-ken; 6 daily editions, 2 exceeding 4 editions per month, and 108 which have less than 3 editions per month. In 1938 the number of daily newspapers was reduced from 6 to 5, a number which may have been further reduced through mergers since that date. The 3 daily newspapers printed in Kagoshima-shi are the Kagoshima Shimbun, the Kagoshima Nichi Nichi Mampo Shimbun, and the Kagoshima Asahi Shimbun.

In keeping with the policies that are being followed by the Japanese newspapers, in that the northern half of Japan is being served by Tokyo newspapers and the southern half by Osaka newspapers, it is very likely that this prefecture is being served by the latter city's papers probably the Osaka Asahi Shimbun and the Osaka Mainichi Shimbun. In addition to their large metropolitan editions, these Osaka papers publish provincial editions, which are preferred by readers in smaller cities and rural areas, since they give local news items together with national and international coverage. Some provincial issues are printed in metropolitan centers and transported by plane and train to the outlying areas.

Although "freedom of the press" is theoretically guaranteed under the Japanese Constitution, the Board of Information has complete authority over the publication of all printed matter. Actual supervision is exercised by the police, to whom a copy of each publication of any nature must be furnished.

C. UTILITIES

1. Gas.

In 1939, one public utility gas enterprise operated in Kagoshima-ken, serving Kagoshima-shi. This company (Nippon Suiden Gasu KK) supplied 4,868 consumers with a total of 2,035,000 cubic meters of gas. This company in 1938 had 61.2 kilometers of mains.

2. Water supply and distribution.

In Kagoshima-ken, where the mean annual precipitation is 88.5 inches, water is plentiful.

According to available records there are 12 known water works in Kagoshima-ken, one owned by a city, 9 by towns and townships, and 2 by private enterprises. Detailed information is available for 5 of these. 24,435 or 7.35 percent of the buildings of the prefecture are supplied with tap service as compared with 27 percent for Japan proper.

There were in 1937, 19,384 water service outlets in the prefecture: 1,382 private; 392 common; one public; 16,222 metered; 1,387 fire hydrants.

Cities, towns and village waterworks are built and maintained by the communities concerned subject to the approval of the Ministry of Welfare (Kosei-sho), when the project is designed to serve more than 10 thousand people, or where the cost is in excess of 30 thousand yen, or where the national government has granted a subsidy. In other cases only the approval of the prefectural governor is required. Private companies may build and operate public water works when the community is unable to do so.

Available data concerning water works in Kagoshima-ken follow (figures for 1937 unless otherwise noted):

a. Kagoshima-shi (190,257 population, 1940).

Population served .....	92,840
Percent of total population .....	49.4
Building units supplied .....	16,881
Percent of total units .....	46.2
Average daily supply (gallons) .....	2,052,600
Average daily per capita consumption (gallons)	22
Length of distribution mains (miles) .....	113.7
Total outlets (all kinds) .....	15,400
Metered outlets only .....	11,760
Fire hydrants (1927) .....	904
Private wells in city .....	8,620

The system is of high pressure type and the ultimate planned capacity is 3,900,000 gallons per day.

Supply is from 5 artesian wells and an intake well 24 feet square by 7 feet deep located in the foothills about one-half mile north of the city.

Distribution is by 2 covered reservoirs of 1,407,000 gallons, total capacity, located at Kaminohara and Kamitasuo-cho. Water is conveyed from the supply source to the reservoirs by means of 8 tunnels 9,226 feet long and interconnected by 16 inch cast-iron pipes. Water is available at the port docks and facilities for delivery to vessels at anchorage are also available.

An indication of water purity may be obtained from the following 1927 record:

	Bacterial colonies lcc <sup>3</sup>
Raw water at source	Max. 8 Min. Mean 5
Finished water in mains	Max. 38 Min. 2 Mean 8

b. Fukuyama-machi, Aira-gun (9,337 population, 1940)

Actual capacity of system (gallons) 1937	....	1,158,000
Planned capacity of system (gallons)	.....	1,650,000
Average daily per capita consumption (gallons)		36
Total outlets	.....	5,131

c. Kasanohara (also known as Kasanbaru, population 8,500 estimated, now probably part of Kanoya-shi.)

Population served	.....	8,500
Percent of total population	.....	100
Daily per capita consumption (gallons)	.....	10

Source of water is from a dam on the Taka-kawa. A filter basin is located near the dam.

d. Miyanojo-machi, Satsuma-gun (13,580 population, 1940)

Population served	.....	3,000
Capacity of system (gallons) (planned)	.....	65,000
Estimated daily per capita consumption (gallons)		22

Source of supply is by drilled artesian well located in town. One reservoir of unknown capacity is located at the well. The water is very cold and clear. The plant was completed in 1926.

e. Uchinoura-machi, Kimotsuki-gun (9,619 population, 1940)

Average daily supply (gallons)	.....	52,875
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Water pressure in lbs. per sq. in.	.....	97.2
Fire hydrants (1927)	.....	60

Source of supply is from springs located in the prefectural forest at Kitakata.

3. Sewage disposal.

Records available do not describe any modern sewage disposal systems in Kagoshima-ken with the exception of a statement that an underground system is operating in Kagoshima-shi. In 1940, plans for construction of a sewage treatment plant in Kagoshima-shi were under consideration.

As elsewhere in Japan, night soil collection is an accepted method for urban sewage disposal. In Kagoshima-shi (1937), 5 thousand homes were served and 140 thousand gallons of night soil were removed, producing 5,113 tons of sludge used as fertilizer. In Makurazaki-machi (1939), 2,500 homes were served in the night soil removal program.

4. Electric power.

At the end of 1943, the electric power generating plants of Japan had an estimated total capacity of 11,400,000 kilowatts and an estimated production of 46,700,000,000 kilowatt hours. The Kyushu Supply Area, comprising all the prefectures of Kyushu, had approximately 15 percent of the total power capacity of Japan and generated approximately 18 percent of the total production of Japan. Kagoshima-ken produced some 8 percent of the total kilowatt hours generated within the Kyushu Supply Area.

The Kyushu Supply Area is sub-divided into three sub-areas or transmission networks: (1) Kokura-Tobata-Yawata (covering these cities and nearby areas of Fukuoka-ken; (2) West Kyushu (covering roughly the remainder of Fukuoka prefecture, also Nagasaki, Saga, and the western portions of Miyazaki, Kumamoto, and Kagoshima prefectures); and (3) East Kyushu (consisting of Oita prefecture and the eastern parts of Miyazaki, Kumamoto, and Kagoshima prefectures). Kagoshima-ken lies in both the west Kyushu and east Kyushu sub-divisions.

The prevailing frequencies are West Kyushu, 60 cycles, and East Kyushu, 50 cycles. Energy transfer between these two sub-divisions is limited by capacity of dual-frequency generators connected to either system, (see Table 36).

a. Capacity and production. Kagoshima-ken has 20 electric generating plants ranging in capacity from 1,000 to 54,811 kilowatts. All but 3 are hydro-electric. The total capacity of these plants at the end of 1941 was 108,830 kilowatts (102,405 kilowatts hydro; 4,500 kilowatts steam; and 1,925 kilowatts

diesel.) Estimated production in 1941 was 629 million kilowatt hours (599 million hydro; 21 million steam; and 9 million diesel). Approximately 19 thousand metric tons of coal (of thermal content of 11,500 B.T.U. per pound) are estimated to have been required for Kagoshima-ken steam plants. Table 36 lists the electric generating plants of Kagoshima-ken. Appendix III gives details on these plants.

b. Transmission & distribution. Electric energy is transmitted and distributed by means of 3-phase, alternating current circuits. Generating plants are of small capacity and are generally located at a distance from their loads. High tension lines are used to connect these plants with substations located near load centers. The 3 principal transmission lines in Kagoshima run north and south. Two of these lines, about 40 kilovolts, connect 2 hydro-plants, Kagoshima No.5 and Tsuruta, and feed energy into Kagoshima-shi. The third line, about 70 kilovolts, connects the Okawa, Honjogawa, Sogi and Sendaigawa plants, and feeds into the network located in Kumamoto-ken.

Distribution is by means of 2.3 to 11 kilovolt circuits. Service to commercial and residential consumers is at standard voltages of 110 and 220. For industrial consumers 440 volt 3-phase service is available.

c. Utilization. The 2 principal industrial users of electric power in Kagoshima-ken, the chemical industry and the food processing industry, consume approximately 50 percent of the total production. The chemical industry accounts for slightly more than one-half of this percentage. Other consumers are mining, wooden manufactures, and textiles.

d. Administration. Electric generation and transmission facilities within Kagoshima-ken, as in the rest of Japan, are in the hands of the Japan Electric Generation and Transmission Company, (Nippon Hassoden K.K.) with headquarters in Tokyo and a main branch office in Fukuoka-shi.

Distribution of electric power throughout Kagoshima-ken is controlled by the Kyushu Electric Distribution Company (Kyushu Haiden K.K.) This company is under the direct control of the Munitions Ministry.

TABLE 36  
Electric Generating Plants, 1944, Kagoshima-ken.  
(1,000 or more kilowatt capacity)

Name	Location	Type & Frequency*	Capacity in kilowatts	Rank in Prefecture
Akina	Koyiya-machi, Oshima-gun	D/H-60	1,925	13
Ambogawa No.1,2,3.	Shimoyaku-mura, Kumage-gun	H-U	54,811	1
Hanasegawa	Tajiro-mura, Kimotsuki-gun	H-50	1,000	20
Honjogawa	Tarumizu-machi, Kimotsuki-gun	H-50	3,000	7
Kagoshima Denki Karyoku	Kagoshima-shi	S-60	1,200	18
Kagoshima Denki No.4	Makisono-machi, Aira-gun	H-60	2,160	11
Kagoshima Denki No.5	Makisono-machi, Aira-gun	H-60	3,450	5
Koshikano	Makisono-machi, Aira-gun	H-U	2,160	11
Koyama	Koyama-machi, Kimotsuki-gun	H-U	2,700	9
Matsuyama	Matsuyama-mura, So-gun	H-U	1,490	16
Okawa	Nejime-mura, Kimotsuki-gun	H-U	3,000	7
Sendai	Sendai-shi	S-U	3,300	6
Sendaigawa	Tsuruta-mura, Satsuma-gun	H-50	9,200	2
Shiohitari	Makisono-mura, Aira-gun	H-U	1,840	14
Sogi	Hatsuki-mura, Isa-gun	H-50	6,360	3
Suifembuchi	Kirishima-mura, Aira-gun	H-U	1,400	17
Taemi	Makisono-machi, Aira-gun	H-U	2,500	10
Tsukino	Tsukino-mura, So-gun	H-U	1,750	15
Tsuruta	Tsuruta-mura, Satsuma-gun	H-50/60	4,384	4
Yuda	Miyanojo-machi, Satsuma-gun	H-60	1,200	18

\*D-Diesel Plant, H-Hydro Plant; S-Steam Plant; U-Unknown



V. SOCIAL ORGANIZATION & CULTURAL INSTITUTIONS.

A. GOVERNMENT & ADMINISTRATION.

1. Prefectural government.

a. Governor (Kenchiiji). The Governor of Kagoshima-ken is of "ordinary" chokunin rank. Prefectural governors are appointed by the Emperor on recommendation of the Premier. They have primary responsibility for the implementation of nationally determined policy at the prefectural level and are accountable to the Ministry of Home Affairs (Naimu-sho). Under the present regional organization of Japan, they are accountable also to the administrative head of the region in which the prefecture is located.

b. Secretariat (Chiji Kambo). The governor's secretariat is composed of the governor's personal assistants, as distinguished from the personnel of the departments. In 1943 in Kagoshima-ken, the governor's secretariat, in addition to a chief of the secretariat (kambo-cho) and a chief secretary (hishoka-cho), concurrently Chief of the Personnel Section, consisted of the following sections:

- Statistics Section (Tokei-ka)
- General Affairs Section (Shomu-ka)
- Personnel Section (Jinji-ka)

c. Departments (Bu). Prefectural administrative functions are performed by departments and sections. In 1943, these departments and the sections thereunder in Kagoshima-ken were as follows (for location of offices, see Chapter II, B.):

- Department of Internal Administration (Naisei-bu)
  - Social Welfare Section (Shakai-ka)
  - Shrines, Temples, & Military Affairs Section (Shaji Heiji-ka)
  - Promotion Section (Shinko-ka)
  - Educational Affairs Section (Gakumu-ka)
  - Sanitation Section (Eisei-ka)
- Department of Economics (Keizai-bu)
  - Agricultural Affairs Section (Nomu-ka)
  - Commerce & Industry Section (Shoko-ka)
  - Raw Silk Section (Sanshi-ka)
  - Forestry Affairs Section (Rimmu-ka)
  - Livestock Section (Chikusan-ka)
  - Marine Products Section (Suisan-ka)
  - Arable Land Section (Kochi-ka)
- Department of Police (Keisatsu-bu) (see Chapter V, B.)

d. Assembly (Kenkai). The prefectural assembly deliberates and votes upon the budget, accounts, prefectural taxes and fees, and public works but may be over-ruled by the Governor. It also may suggest but may not initiate regulations. Prior to June 1943,

prefectural elections occurred concurrently with national elections. Since June 1943, elections to prefectural assemblies have been suspended. In May 1945, the Cabinet approved an election to fill vacancies in prefectural assemblies. In 1935, the membership of the Kagoshima-ken assembly was as follows:

From cities ( <u>shi</u> )	5
From counties ( <u>gun</u> )	38
Total	43

e. Council (Ken Sanjikai). Prefectural councils act for assemblies when they are not in session. Councils consist of members of the assemblies elected by them, the prefectural governor as chairman, and 2 high officials of the prefectures. In 1935, the elected membership of the Kagoshima-ken council was 10.

f. Administrative personnel. In 1936, there were 90 classified civil service employees of sonin rank and 414 of hannin rank in the Kagoshima-ken administration.

2. Representation in the Imperial Diet (Teikoku Gikai).

In 1945, Kagoshima-ken had 12 representatives in the Imperial Diet. They were elected in 1942 from the following election districts:

First	5
Second	4
Third	3

The unsuccessful candidates in the 1942 election from the second election district of Kagoshima-ken prosecuted an action in the Supreme Court against the district's chairman of elections to contest its validity. The election for the district was declared void on 1 March 1945. On 22 March 1945, however, they were again defeated by the incumbents in a special election.

The following is an analysis of the 1937 and 1942 elections of representatives to the Imperial Diet from Kagoshima-ken:

TABLE 37.

Election Analysis, 1937 & 1942, Kagoshima-ken.

	1937	1942
Number of representatives .....	12	12
Candidates for election .....	24	28
Qualified voters .....	309,428	-
Valid votes cast .....	216,478	286,249
Invalid votes cast .....	4,139	-
Voters per 1,000 population .....	193	-
Population represented per member .....	133,825	-

3. Kyushu Administrative Region.

Kagoshima-ken is in the Kyushu Administrative Region, which contains in addition the prefectures of Fukuoka, Saga, Nagasaki, Kumamoto, Oita, Miyazaki and Okinawa. The Office of the Superintendent General (Chiho Sokan Fu) of the Kyushu Region is in Fukuoka-shi in Fukuoka-ken. Since their institution in 1943 as a war-time measure to control Japan's economy, the regions have undergone frequent territorial, functional and organic changes.

4. Local government.

a. Cities (shi). There are 3 municipalities in Kagoshima-ken with the legal status of shi: Kagoshima, Kanoya and Sendai.

(1) Administrative officials. The following are 1935 figures for Kagoshima-shi at which time there was only one shi in Kagoshima-ken:

Mayor .....	1
Assistant mayors .....	2
Treasurer .....	1
Permanent committees .....	73
Other officials (salaried) .....	291

(2) Assembly (Shikai). In 1937, the membership of the Kagoshima-shi assembly was 40. The number of voters was 30,161.

(3) Council (Shi Sanjikai). In 1935, the membership of the Kagoshima-shi council was 10.

b. Towns (machi) and townships (mura). There are 50 towns and 85 townships in Kagoshima-ken (see Chapter II, A.)

(1) Administrative officials. The following are figures for 1935, at which time there were 41 towns and 98 townships in Kagoshima-ken:

Town & township heads:	honorary ...	132
	salaried ...	7
Assistant town & township heads:	honorary ...	132
	salaried ...	6
Treasurers .....		146
Permanent committees .....		614
Ward heads & their representatives .....		2,431
Other officials (salaried) .....		1,808
Total personnel		5,276

(2) Town assemblies (chokai). The following are figures for 1937, at which time there were 41 towns in Kagoshima-ken:

Number of town assemblies in prefecture .....	41
---	----

Total membership .....	1,008
Voters .....	125,016

(3) Township assemblies (sonkai). The following are figures for 1937, at which time there were 98 townships in Kagoshima-ken:

Number of township assemblies in prefecture	98
Total membership .....	1,758
Voters .....	145,896

B. PUBLIC SAFETY

1. Police.

The civil police of Kagoshima-ken in 1938 consisted of the prefectural police chief (keisatsubu-cho), 5 police superintendents (keishi), 30 police inspectors (keibu), 66 assistant police inspectors (keibuho), 148 police sergeants (junsabu-cho), and 791 policemen (junsa). This total personnel of 1,041 is a ratio of one policeman for each 1,605 population, as compared with a national ratio of one policeman for each 1,000 population.

In 1943, the prefectural police department in Kagoshima-shi contained the following administrative sections: Special Higher Police (Tokubetsu Koto Keisatsu-ka) and Police Affairs (Keimu-ka) with police superintendents in charge; and Insurance (Hoken-ka) and Occupations (Shokugyo-ka) with an administrative officer in charge.

Kagoshima-ken has 33 police stations (keisatsu-sho), 62 police substations (keibuho junsabu-cho), 352 police boxes (junsa-chuzai), one water police station (suijo keisatsu-sho), and 33 police detention quarters (keisatsu ryuchiyo). There is a police training school located near the prefectural offices.

The following are locations of police stations:

Kagoshima-shi: (1) Center of city, 500 yards southwest of city hall. (2) Northeastern part of city, 600 yards east-southeast of city hall and 150 yards from waterfront. (3) Water police station, north of central docks, in waterfront area.

Kanoya-shi: South part of city on west side of principal highway about 400 yards south of city hall.

Sendai-shi: Southern outskirts of city about 400 yards west of Sendai railway station on Kagoshima Main Line.

Satsuma-gun: Miyanojo-machi, center of town near bridge across Sendai-gawa.

Izumi-gun: (1) Akune-machi, 200 yards west of town office on west side of highway leading north. (2) Izumi-machi, southwest part of town on east side of north-south road.

Isa-gun: Okuchi-machi, center of town southeast of town office and on west side of highway leading north.

Aira-gun: (1) Kokubu-machi. (2) Kajiki-machi. (3) Yokogawa-machi, center of town southeast of town office and on west side of highway leading north.

So-gun: (1) Shibushi-machi, center of town, about 100 yards south of town office. (2) Iwakawa-machi, junction of the 2 prefectural roads, north of town. (3) Sueyoshi-machi, a center of town at junction of prefectural highways, 200 yards southwest of town office.

Kimotsuki-gun: Onejime-machi, on waterfront near northern outskirts of town, at highway junction.

Kagoshima-gun: Taniyama-machi, 500 yards south of railway station of Ibusuki line, in northern outskirts of town.

Ibusuki-gun: (1) Ei-mura, northeast of junction of 2 highways in the village. (2) Ibusuki-machi.

Kawanabe-gun: (1) Kaseda-machi, center of town between 2 prefectural roads and south of their junction. (2) Chiran-machi, center of town, adjacent to town office, about 200 yards north of intersection of 2 prefectural highways. (3) Makurazaki-machi, center of town near waterfront and about 500 yards west-southwest of the road junction in northeast part of town.

Hioki-gun: (1) Ichiki-machi. (2) Ijuin-machi, 200 yards north of town office, in northern outskirts of town. (3) Izakumachi, 700 yards east of railway station on Nansatsu Line, in extreme eastern part of town.

In addition to the foregoing, the 8 police stations located in the islands off the mainland of Kagoshima-ken, over which the Sendai police station has jurisdiction, are listed below (table 38) in approximate north to south order:

TABLE 38

Island Police Stations, Kagoshima-ken.

Police Station	Location	Towns, Townships Included
Koshiki-shima	Nakakoshiki-shima	Sato-mura Kamikoshiki-mura
Tanega-shima	Nishinoomote-machi Tanega-shima	Nishinoomote-machi Nakatane-machi Minamitane-mura
Yaku-jima	Miyanoura Yaku-jima	Kamiyaku-mura Shimoyaku-mura
O-shima	Nase-machi Amami-O-shima	Jitto-mura Kasari-mura Mikata-mura Nase-mura Sumiyo-mura

Kikai-shima	Akaren	Tatsugo-mura
Koniya	Kikai-shima	Yamato-mura
	Koniya-machi	Kikai-mura
	Amami-O-shima	Somachi-mura
		Chinzei-mura
		Koniya-mura
		Nishigata-mura
		Saneku-mura
		Uken-mura
Tokuno-shima	Kametsu-machi	Amagi-mura
	Tokuno-shima	Higashiamagi-mura
		Isen-mura
		Kametsu-machi
Okierabu-shima	Watomari-machi	China-mura
	Okierabu-shima	Watomari-machi
		Yoron-mura

Also in these islands are a number of police substations. Branches of the Tokuno-shima police station are reported to have been established at Isen-mura and Sam-mura, and a branch of the Okierabu-shima police station at Chabana on Yoron-jima.

A gendarmerie post is located in the northern part of Kagoshima-shi, about 150 yards south of the prefectural buildings.

2. Prisons.

The Kagoshima prefectural prison is located in the extreme west-central section of Kagoshima-shi on the Kotsuki-gawa near the power plant. Administrative personnel in 1938 consisted of: one governor of prisons, 7 chief wardens, one doctor, one interne, 2 chaplains, 6 assistants for industrial work, 73 warders, and 17 hired help with an estimated prison population of 950 inmates.

The governor of Kagoshima prison also has jurisdiction over Oshima branch prison in Oshima-gun, Nase-machi, which in 1938 had administrative personnel of one chief warden, 12 warders and 2 hired help.

Table 39 gives the comparative ratio of prisoners per 100,000 persons in Kagoshima-ken as compared to that of the national population.

TABLE 39

Prisoners, 1929-1938, Kagoshima-ken.  
(per 100,000 persons)

Year	Kagoshima-ken	All Japan
1929	61.6	153.2
1930	75.4	166.8
	88	

1931	82.3	170.9
1932	99.9	188.6
1933	87.8	199.6
1934	76.6	202.2
1935	89.4	190.8
1936	81.9	197.5
1937	79.5	177.4
1938	51.7	157.5
Average	78.6	180.5

3. Firefighting and control.

As of 1937, fire-fighting stations, personnel and equipment in Kagoshima-ken consisted of 173 volunteer fire brigades; 10,832 volunteer fire-brigade personnel; 40 automobile pumps; one motorcycle pump; 108 other type gas-powered pumps; 2 steam engine pumps; 123 hose carts; 202 hand pumps; and 1,145 reservoirs for fire use. There were no special fire stations (police), fire boats or mechanical ladders in Kagoshima-ken at that time.

It was reported in August 1944 that all stone walls around homes and schools in the city of Kagoshima were being removed to facilitate the work of fire fighters.

4. Civilian defense.

In September 1944, it was reported that a defense section had been established in the Kagoshima Prefectural Police Department and that the head of the section was scheduled to be promoted to a police superintendent.

Apparently no special measures for civilian defense have been taken in Kagoshima-ken which have not been inaugurated on a national level.

5. Incidence of crime.

In 1940 in Kagoshima-ken, 5,799 persons were found guilty of crime, a ratio of 3.7 per thousand persons compared to a national ratio of 12 per thousand persons.

Table 40 shows the number of arrests for criminal offenses in Kagoshima-ken during the year 1937 as compared to the total arrests for the whole of Japan.

TABLE 40

Arrests of Criminals, 1937, Kagoshima-ken.

Crime	Kagoshima-ken	All Japan
Interfering with the execution of official duties	11	489
	89	

Restricted

Incendiarism and fires through negligence	252	12,245
Obstruction of traffic	4	831
House-breaking	693	9,268
Forgeries of currencies, documents, or seals	919	18,526
Obscenities, illicit intercourse, & bigamy	99	3,566
Gambling & lotteries	152	40,204
Malfeasance & bribery	11	2,781
Murder & attempted murder	44	2,211
Assault & battery	384	26,590
Accidental injuries, fatalities & occupational accidental injuries	209	21,638
Abortion	4	472
Interfering with capture and imprisonment	1	130
Kidnapping & abduction	20	1,040
Defamation of honor & character	35	1,725
Theft	3,498	436,775
Burglary	8	1,603
Fraud, embezzlement, & blackmail	1,808	280,874
Dispossession	2,169	209,886
Others (miscellaneous)	342	24,624
Sub-total--Arrests for violation penal code	10,663	1,095,838
Army and Navy criminal code violations	10	502
Violations within police court jurisdiction		
Departments ordinance	562	163,919
Prefectural regulation	79	10,598
Violation of prefectural regulation	1,059	333,104
Other criminal law violations	1,092	503,026
Grand Total	13,465	2,106,987

C. LEGAL AFFAIRS.

Justice in Japan is administered on a national basis under the jurisdiction of the Ministry of Justice (Shiho-sho). The Minister of Justice has general supervision of courts and procurators. The theory and practice of legal affairs are uniform for all prefectures.

1. Courts of Appeals (Koso-in).

Below the Supreme Court (Daishin-in), which sits only in Tokyo, are 7 collegiate courts of appeals, located in the following cities: Tokyo, Hiroshima, Nagasaki, Sendai, Nagoya, Osaka and Sapporo.

2. District Courts (Chiho-saibansho).

In general there is one district court in each prefecture of Japan, the Kagoshima District Court being located in Kagoshima-shi, Yamashita-cho.

3. Local Courts (Ku-saibansho).

There are 6 local courts in Kagoshima-ken with 47 branches located as follows:

Restricted

Kagoshima local court (Kagoshima-shi, Yamashita-cho)  
 Ijuin branch court (Hioki-gun, Ijuin-machi)  
 Izaku branch court (Hioki-gun, Izaku-machi)  
 Nishinoomote branch court (Kumage-gun, Nishinoomote-machi)  
 Nakatane branch court (Kumage-gun, Nakatane-machi)  
 Kamiyaku branch court (Kumage-gun, Kamiyaku-mura)  
 Shimoyaku branch court (Kumage-gun, Shimoyaku-mura)  
 Kajiki local court (Aira-gun, Kajiki-machi)  
 Kamo branch court (Aira-gun, Kamo-machi)  
 Kokubu branch court (Aira-gun, Kokubu-machi)  
 Shikine branch court (Aira-gun, Shikine-mura)  
 Yokogawa branch court (Aira-gun, Yokogawa-machi)  
 Kurino branch court (Aira-gun, Kurino-machi)  
 Sueyoshi branch court (So-gun, Sueyoshi-machi)  
 Okuchi branch court (Isa-gun, Okuchi-machi)  
 Takarabe branch court (So-gun, Takarabe-machi)  
 Chiran local court (Kawanabe-gun, Chiran-machi)  
 Kaseda branch court (Kawanabe-gun, Kaseda-machi)  
 Katsuura branch court (Kawanabe-gun, Kasasa-machi)  
 Makurazaki branch court (Kawanabe-gun, Makurazaki-machi)  
 Ei branch court (Ibusuki-gun, Ei-mura)  
 Kiire branch court (Ibusuki-gun, Kiire-mura)  
 Ibusuki branch court (Ibusuki-gun, Ibusuki-machi)  
 Sendai local court (Sendai-shi)  
 Ichiki branch court (Hioki-gun, Ichiki-machi)  
 Iriki branch court (Satsuma-gun, Iriki-mura)  
 Miyanojo branch court (Satsuma-gun, Miyanojo-machi)  
 Akune branch court (Izumi-gun, Akune-machi)  
 Nagashima branch court (Izumi-gun, Higashinagashima-mura)  
 Izumi branch court (Izumi-gun, Izumi-machi)  
 Kamikoshiki branch court (Satsuma-gun, Kamikoshiki-mura)  
 Shimokoshiki branch court (Satsuma-gun, Shimokoshiki-mura)  
 Kanoya local court (Kanoya-shi)  
 Mohiki branch court (Kimotsuki-gun, Mohiki-mura)  
 Tarumizu branch court (Kimotsuki-gun, Tarumizu-machi)  
 Onejimo branch court (Kimotsuki-gun, Onejime-machi)  
 Sata branch court (Kimotsuki-gun, Sata-mura)  
 Kushira branch court (Kimotsuki-gun, Kushira-machi)  
 Uchinoura branch court (Kimotsuki-gun, Uchinoura-machi)  
 Iwakawa branch court (So-gun, Iwakawa-machi)  
 Shibushi branch court (So-gun, Shibushi-machi)  
 Ozaki branch court (So-gun, Ozaki-machi)  
 Oshima local court (Oshima-gun, Nase-machi)  
 Kasari branch court (Oshima-gun, Kasari-mura)  
 Uken branch court (Oshima-gun, Uken-mura)  
 Toho (Higashi kata) branch court (Oshima-gun, Koniya-machi)  
 Kikai branch court (Oshima-gun, Kikai-mura)  
 Kametsu branch court (Oshima-gun, Kametsu-machi)  
 Isen branch court (Oshima-gun, Isen-mura)  
 Amagi branch court (Oshima-gun, Watomari-machi)  
 China branch court (Oshima-gun, China-mura)  
 Yoron branch court (Oshima-gun, Yoron-mura)

4. Police Courts (Keizai-Saibansho)

Police courts are presided over by police officers and generally are held in police stations. (for location see Chapter V, B, 1). Their jurisdiction is limited to misdemeanors involving penalties not exceeding a fine of 20 yen, a detention of not over 20 days, or a combination of both.

## D. HEALTH AND SANITATION

1. Public health organization and services.

In Kagoshima-ken, as in the other prefectures, public health activities and services stem from the prefectural office. Authority over these matters rests with the prefectural governor.

In Kagoshima-ken as of 1943, under the direction and supervision of the governor, the Health (or Sanitation) Section (Eisei-ka) of the Prefectural Department of Internal Administration (Naisei-bu), assisted by the Prefectural Department of Police (Keisatsu-bu) carried out the prefectural phases of the national health program (consisting of sanitation, epidemic disease control, chronic disease prevention, collection of vital statistics, medical care, etc.) as well as local health activities. The organization of the Health Section, the specific functions it serves, and the nature of the public health activities of the Police Department are not definitely known. Although detailed information is not available for Kagoshima-ken on the organization of public health in cities, towns and villages, it is believed to be the same as in other rural prefectures.

Numerous semi-official and private organizations, such as the Kagoshima Medical Society, the Kagoshima Medical Practitioners' Association, the Kagoshima Branch of the Japanese Red Cross Society, local health unions, and other community organizations cooperate with official agencies in measures to improve the health of the people and are reported to have been mobilized to function in war emergency conditions.

As of 1937, Kagoshima had no medical or dental schools, no medical research or public health institutes and no large urban areas (except Kagoshima-shi), to attract the most highly skilled medical and public health personnel. The ratio of physicians in actual practice to population (1938) was very low (4.6 per 10 thousand), and relatively few hospitals and other facilities were reported in the area. Although war needs have most likely depleted the already small ranks of medical personnel in Kagoshima-ken, it is believed that the number of medical facilities has been increased considerably and public health services have been mobilized for emergency conditions.

2. Medical facilities.

For 1938, an incomplete listing of hospitals shows Kagoshima-ken as having 5 public hospitals with a total bed capacity of 260 and 35 private hospitals with a bed capacity of 755. The above list does not include leprosaria or charity, mental, tubercular or prostitute hospitals. There are at least 9 hospitals in Kagoshima-shi, including a Red Cross Hospital, a military hospital and a prefectural hospital.

One health center was established in 1937 under the National Health Center Act. It is believed to be in Sendai-shi. In addition to furnishing medical treatment, this institution is responsible for giving intensive training to public health personnel needed for local health programs.

Although only 2 hospitals for mental patients are reported, it may be assumed that other facilities are available for hospitalization since Kagoshima-ken has a relatively large number of these patients. In 1936 there were (reported cases) 2,037 male and 1,007 female patients. Similarly, it may be assumed that facilities in addition to the 2 tuberculosis institutions are provided for treating tuberculosis patients. Furthermore, from the large number of communicable disease hospitals, isolation wards, medical clinics (shinryojo), dental clinics, trachoma treatment centers, medical stations, and infant health centers, reported for Japan proper in 1938, it can be assumed that some of these institutions will be found in Kagoshima-ken.

Mineral springs used as health resorts for treatment, recuperation and bathing purposes are found throughout the prefecture; mainly in the north central area. Some of the spas are Ibusuki-machi, Izaku-machi, Yunamoto, Soeda, Daio, Kurinodake, Shikobitashi, Auraku, Yamoyo, Kirishima, Hinatayama.

An incomplete list of the medical institutions and facilities in Kagoshima-ken follows:

- a. Kagoshima Prefectural Hospital, Kagoshima-shi.
- b. Military hospital, Kagoshima-shi.
- c. Municipal Kagoshima Hospital, Kagoshima-shi, Yamashita-cho: 40 beds, one doctor, 2 nurses, and one pharmacist (1938)\*.
- d. Municipal Kagoshima Sanatorium, Kagoshima-shi, Ushuku-cho (1938).
- e. Municipal Sujaki Hospital, Kagoshima-shi, Shiyoa-cho (1938).
- f. Municipal Oaje Hospital, Kagoshima-shi, Yokushi-cho (1938).

g. Red Cross Society Tuberculosis Sanitorium\*\*, Kago-shima-shi: There is a Red Cross hospital reported for Kago-shima-shi. It is believed to be the same institution as the one listed here.

h. Hoshizuka Keisai-en (National Leprosaria), Kanoya-shi: 720 beds, reported to have had 955 patients in June 1941, one medical officer (chief, 3rd grade), 4 medical officers (one 6th grade, 3 7th grade), one administrative official (5th grade) (1943).

i. Sendai Health Center, Sendai-shi (1937).

j. Makurazaki Clinic, Makurazaki-machi: one doctor, 2 nurses, one pharmacist (1938).

k. Prefectural Oshima Hospital, Oshima-gun, Nase-machi (1938).

l. Kagoshima Hoyoin\*\*(prefectural mental) (exact location not known).

m. Kagoshima Sanitorium for Wounded Soldiers (exact location unknown): Five medical officers, one administrative official, and one pharmacist (1943).

\* Dates shown are the dates of the information given.

\*\*Two mental hospitals are reported for Kagoshima-ken, 2 tuberculosis sanitoria, 16 "substitute" venereal disease clinics, 2 to 4 bacteriological laboratories, and 35 private hospitals as of 1938.

### 3. Medical Personnel and Schools.

The ratio of practicing physicians to population in 1938 was one per 2,176 persons (4.6 per 10 thousand). This is appreciably lower than the national figure of 7.2 per 10 thousand for the same year. Of more specific interest is the ratio of doctors to population in urban and rural areas. In 1938, the ratio was one doctor per 1,654 persons (6 per 10 thousand) in urban districts and one per 2,303 persons (4.3 per 10 thousand) in rural districts. Corresponding national figures are 11.9 doctors per 10 thousand urban population and 4.7 per 10 thousand rural population. Thus Kagoshima (urban and rural combined) approximates the average of all rural Japan. Consequently, it is not surprising to note that there are approximately twice as many midwives and practitioners of acupuncture, moxa, cautery and massage as there are doctors in this prefecture. The number of practitioners of these traditional treatments is shown in Table 41 because of the reported extensive use of them by the rural population of Japan. Since Kagoshima-ken is

predominantly rural, these practitioners must be considered as playing a significant role in the medical picture of the prefecture.

The number of veterinarians (913 in 1938) also exceeds the number of physicians and is consistent with Kagoshima's having the second largest number of slaughter houses (31) in Japan.

No medical or dental schools are reported for Kagoshima-ken. There is a veterinary school in the area: the Higher Professional School of Agriculture and Forestry (Kagoshima Koto Norin Semmon Gakko). No data is available concerning its enrollment.

Medical personnel in Kagoshima are listed in Table 41.

TABLE 41  
Medical Personnel, 1936 & 1938, Kagoshima-ken.

Year	Doc-tors	Dent-ists	Pharma-cists*	Veteri-narians	Midwives	Nurses	Practitioners of Acupuncture, Moxacautery and Massage
1936	1,046	272	167		1,527	897	1,230
1938	1,055*	309	177	913	1,332	1,068	

\*Of this number 18 are women. Of the total of 1,055, only 730 doctors are in actual practice, 144 in urban centers and 586 in rural.

### 4. Vital Statistics.

In Kagoshima, as in other prefectures, birth reports (shussho todoke-ide) and death reports (shibo todoke-ide) are registered at district (prefectural), municipal, town or township offices where the individual identification registers (koseki) are kept. Reports are then forwarded through the prefectural office in Kagoshima-shi to national agencies.

Birth and mortality rates for Kagoshima are shown in Table 42 below:

TABLE 42  
Birth and Death Rates, 1920-38, Kagoshima-ken.  
(per 1,000 population)

Kagoshima-ken	Average yearly rate, intercensal periods			Yearly rates	
	1920-25	1925-30	1930-35	1937	1938
	Birth Rates				
	34.1	33.1	32.8	33.4	28.8

Restricted

Japan proper	34.8	33.1	32.8	30.6	26.7
U.S.	22.7	20.0	17.4	17.1	17.6
	Death Rates				
Kagoshima-ken	18.9	17.6	17.1	17.0	17.9
Japan proper	22.2	19.5	18.0	17.0	17.4
U.S.	12.1	11.9	11.0	11.3	10.6

Birth rates in Kagoshima-ken are slightly higher than the national average and are approximately twice as high as those for the United States. It will be noted, that in contrast to the U.S. and Japan, Kagoshima birth rates have remained constant from 1920 to 1937. In 1938 there was a sharp decline in both Kagoshima and Japan proper.

Kagoshima did not parallel the national lowering of the death rates for the period shown and, as in the case of Japan proper, had rates considerably higher than the United States.

Infant deaths are incompletely reported for Kagoshima. On the basis of incomplete figures, the rates per 100 live births for the years 1934 to 1938 are 9.8, 8.6, 9.2, 8.2, and 9.7 respectively. The rate for Japan proper in 1938 was 11.4.

The leading causes of deaths in Kagoshima-ken are shown in Table 43.

TABLE 43

Causes of Death, 1938, Kagoshima-ken & Japan.

	Kagoshima		Japan	
	Deaths	Rate per 100,000	Deaths	Rate per 100,000
Tuberculosis (23-32)*	3,091	194.7	148,827	207.9
Pneumonia (107-109)	3,003	189.2	118,153	165.1
Cerebral hemorrhage (82)	2,611	164.5	126,861	177.2
Senility (162)	2,097	132.1	98,772	138.0
Nephritis (130-132)	1,751	110.3	61,996	86.6
Diarrhea & enteritis (120) (over one year of age)	1,588	100.0	58,491	81.7
Diarrhea & enteritis (119) (under one year of age)	1,295	81.6	58,465	81.7
Cause of death ill-defined (200)	1,220	76.9	36,255	50.7
Disease of early infancy(157-161)	1,068	67.3	79,246	110.7
Meningitis (79)(non-tuberculous)	986	62.1	36,748	51.3
Disease of heart (90-95)	956	60.2	47,461	66.3
Cancer (45-53)	900	56.7	50,447	70.5
Bronchitis (106)	862	54.3	26,178	36.6
Pleurisy (110)	671	42.3	20,980	29.3
Drowning (183)	533	33.6	10,505	14.7

Restricted

Sepsis (non-puerperal)(36)	472	29.7	9,203	12.9
Non-specific disease of stomach & duodenum (118)	470	29.6	16,858	23.6
Peritonitis due to causes unknown (129)	452	28.4	20,384	28.5
Disease of liver & gall bladder (124-127)	422	26.6	13,567	19.0
Asthma (112)	388	24.4	9,648	13.5
Ulcer of stomach & duodenum(117)	327	20.6	13,279	18.6
Total deaths, all causes	28,874		1,259,805	

\*Numbers refer to diseases in International List of Causes of Death.

It is apparent from the cases reported that respiratory diseases are of primary importance in Kagoshima-ken. Tuberculosis, pneumonia, bronchitis, pleurisy and asthma accounted for 8,015 deaths, or 28 percent of all deaths in 1938. The significance of tuberculosis is not unrecognized in Kagoshima-ken. The Japanese Red Cross Society established one of its sanatoria here and, in 1927, the prefectural office sent the director of the sanatorium to several foreign countries to investigate methods of prevention. Of the categories of disease listed in Table 43, 5 are indicative of inadequate diagnoses: "senility", "cause of death ill-defined", "sepsis", "non specific diseases of the stomach and duodenum" and "peritonitis due to causes unknown". For the first 2 of these vague categories, crude death rates per 100 thousand in New York City for the same year were 0.3 and 0.2 as compared with Kagoshima's very high rates of 132.1 and 76.9.

The large number of deaths (533) caused by drowning in 1938 may be attributed either to unusual storms or to the usual accidents incident to the extensive small-boat fishing off the southern coast of Kyushu by the people of the prefecture. Only 2 prefectures had a larger number of drownings: Hyogo (668) and Hokkaido (618).

In Kagoshima-ken in 1938, there were 105 deaths caused by beri-beri, 81 by diabetes, 123 by puerperal diseases, and 195 suicides.

5. Communicable Diseases.

Epidemic, contagious and parasitic diseases, as shown in Table 44, accounted for 17 percent of the deaths in Kagoshima and 18 percent of the deaths in Japan in 1938.

TABLE 44  
Deaths from Communicable Diseases,  
1938, Kagoshima-ken.

Disease (Population 1938)	Number of Deaths	
	Kagoshima (1,588,268*)	Japan (71,570,244)
	97	Restricted



Intestinal typhoid (1)**	19	7,819
Paratyphoid fever (2)	1***	297
Smallpox (6)	1	6
Measles (7)	277	4,997
Whooping cough (9)	203	8,871
Diphtheria (10)	28***	4,135
Influenza (11)	99	7,646
Dysentery (13a)	7***	5,550
Ekiri (13b)	61***	16,416
Erysipelas (15)	69	8,409
Cerebrospinal meningitis (16)	16	715
Sleeping sickness (17)	12	1,088
Meningococcus meningitis, epidemic (18)	9	580
Carbuncle (20)	1	10
Tetanus (22)	159	1,775
Tuberculosis of respiratory organs (23)	2,397	107,442
Tuberculosis of all other organs (24-32)	694	41,385
Tuberculosis, all forms (23-32)	3,091	148,827
Leprosy (33)	22	337
Syphilis (34)	124	4,412
Gonococcus infection and other venereal diseases (35)	3	47
Sepsis (non-puerperal)(36)	472	9,203
Malaria (38)	1	207
Other diseases due to protozoa, helminths and hemorrhagic jaundice due to spirochaete (39)	37	1,545
Bacterial disease of duodenum (40)	20	280
Amoebic cyst of liver (41)	2	4
Other diseases caused by helminths excluding filariasis (42 a,b,c,d,f,g,)	4	364
Filariasis (42e)	48	129
Mycosis (43)	6	418
Other epidemic or parasitic diseases (44)	4	207
All epidemic, infectious & parasitic diseases (1-44)	4,838	229,708
All diseases (1-200)	28,874	1,259,805
Percentage of deaths caused by (1-44)	17	18

\*By interpolation: 1935 and 1940 population.

\*\*International List of Causes of Death.

\*\*\*Another source lists no deaths for paratyphoid fever, 40 deaths for diphtheria, 15 deaths for dysentery and 84 deaths for ekiri. The corresponding figures for Japan proper are similarly in disagreement.

Kagoshima-ken had more than one-third of all the deaths in Japan from filariasis and one-tenth of all the deaths from tetanus. As shown in Table 45, the available data on morbidity indicates a much lower incidence of diphtheria, typhoid fever, dysentery and ekiri than Japan proper and a much higher case-fatality rate for diphtheria and ekiri. One death from smallpox was reported in 1938.

TABLE 45

Diphtheria, Typhoid & Paratyphoid Fever, Dysentery & Ekiri, (1938), Kagoshima-ken.

	Cases		Fatality rate per 100		Morbidity rate per 100,000*		Crude death per 100,000*	
	Kago-shima	Japan	Kago-shima	Japan	Kagoshima	Japan	Kago-shima	Japan
Diphtheria	86	28,420	33	14	5.4	39.7	1.8	5.4
Typhoid fever	108	42,132	18	17	6.8	58.9	1.2	9.7
Paratyphoid fever	17	6,117	6	5	1.1	8.5	0.1	0.4
Dysenter (including ekiri)	477	80,221	25	25	30.1	112.1	4.3	28.2
Ekiri	78	32,728	47	47	4.9	45.7	3.8	21.7

\*Population determined by interpolation: 1935 and 1940 population.

Vaccination against smallpox is compulsory. It is given in 2 periods: (a) within 6 months after birth, and in the case of negative result repeated before the following June; (b) in the 10th year after birth. In 1936, first period vaccinations in Kagoshima totaled 51,403 and second period vaccinations totaled 41,261. In all 86,833 persons received one or more vaccinations against smallpox.

Although morbidity data on venereal diseases are not available, the fact that 16 out of a total of 200 venereal disease clinics in Japan are located in Kagoshima-ken, indicates clearly the relatively high incident of these diseases.

Results of physical examinations for children in public and private elementary schools in 1935 showed that 15.1 percent of those examined in Kagoshima-ken had trachoma and 0.30 percent had one or more contagious skin diseases. Comparable national percentages were 10.33 and 2.09 respectively. The size of the sample examined was not reported.

6. Medical Supply.

There are no large drug manufacturing plants listed for Kagoshima-ken. Twenty-eight small medicine manufacturers were reported for this area out of a total of 4,218 for all of Japan in 1936. For the same year there were 4,565 retailers of patent medicines and 2,329 patent medicine peddlers in the prefecture.

No army or navy medical supply depots are listed for Kagoshima-ken. However, it is believed that medical supplies will

be found at military and navy establishments, and it is likely that some of the underground warehouses, reported to have been constructed recently, will be found there. Kagoshima is dependent upon Tokyo and Osaka laboratories for its vaccines and sera.

7. Sanitation, Port Quarantine, and Public Health Laws.

Water supply and sewage disposal are covered in Chapter IV, C, 2 and 3.

From the large number of veterinarians in Kagoshima it is assumed that slaughter-house sanitation and meat inspection are adequately covered here.

In contrast to other areas in Japan, such as Osaka and Tokyo, where the percentage of cremations is over 90, in Kagoshima only approximately 5 percent of the dead were cremated in 1938. Local custom favors internment in Kagoshima-ken.

Specific data on other phases of sanitation in the prefecture, as distinguished from other prefectures, are not available.

Of the 5 temporary quarantine stations in Japan, one is in Kagoshima-shi. Medical and veterinary inspection are provided here and facilities are available for destruction of rats and insects.

Public health laws and regulations applicable to all of Japan on narcotics control, epidemic disease control, food and water sanitation, sewage disposal, public hospitals, etc. obviously apply to Kagoshima-ken as well. The substance of local health ordinances is unknown.

E. PUBLIC WELFARE.

1. Organization.

The public welfare program in Kagoshima-ken is conducted on a national basis according to standards and policies established by the Ministry of Welfare, (Kosei-sho). Provincial administration is conducted by the Social Welfare Section (Shakai-ka) under the Prefectural Department of Internal Administration (Naisei-bu). The mayors of the cities and the heads of towns and townships are responsible for the distribution of relief. These officials are assisted by paid welfare directors in the cities (shi.). There are 44 welfare districts (homen) in the urban areas of Kagoshima-ken. These districts are serviced by District Welfare Committees (homen-iin) composed of volunteer social workers who do the actual field work. They also maintain in the municipal offices an index file (homen-caado) of families receiving assistance.

a. Kagoshima-shi. Kagoshima-shi is divided into 5 relief districts which are served by 60 volunteer social workers. There are 3 orphanages; one public (capacity 60), 2 Catholic (capacity 340); 23 day nurseries (capacity 184); and 2 pawn shops. Of these, the following names and addresses are known:

- Nazareto-ryo (orphanage) 30 Yokushi-cho. Catholic.
- Shiragiku-Yoikuen (orphanage and day nursery) Komatsubara, Taniyama-cho. Catholic.
- Seimei Kishimusha (Holy Name Hostel for Girls) Gumamoto-cho. Catholic.
- Yamashita Aijien (nursery and kindergarten) 190 Yamashita-cho. Catholic.
- Kei Ai Kwan (kindergarten). Methodist.

The amount of money spent for relief in Kagoshima-shi is higher than that of comparable cities in surrounding prefectures.

b. Sendai-shi. Sendai is divided into 15 relief districts served by 16 volunteer social workers. There are 5 day nurseries (capacity 260) and one pawn shop.

c. Makurazaki-machi. Makurazaki is divided into 15 relief districts served by 14 volunteer social workers. There are 2 private orphanages (capacity 180), and 3 day nurseries (capacity 240).

d. Ei-mura. Ei is divided into 7 relief districts served by 7 volunteer social workers. There are 4 day nurseries (capacity 289) and one pawn shop.

2. Kinds of assistance.

a. Poor relief: for the aged and infirm over 65; children under 13; persons ill or disabled; maternity cases. Application is made through the volunteer welfare workers at the municipal offices. Financial support: one-half national, one-half prefectural. The amount of money spent for relief in Kagoshima-ken is less than the national average but it is in accord with that of surrounding prefectures. Relief standards appear low.

b. Mothers' and children's relief: for children under 14 and supporting adults. Application is made through the volunteer social workers at the Municipal offices. Financial support; one-half national, one-fourth prefectural, one-fourth municipal.

c. Veteran's relief: for incapacitated veterans and their dependents and for survivors of deceased military personnel. Application is made through the municipal offices of "The Information Service for Soldiers' Families". Financial support: entirely national.

d. Other services of the Social Welfare Section: removal

of neglected children from their homes, recommendation for tax cancellation, provision for burial of indigents.

e. Minimum cost services: 2 public markets, 12 public pawn shops.

f. Institutions: 5 childrens' institutions, 14 day nurseries, and one reformatory.

F. EDUCATION.

1. Educational System.

The educational policies and administration of all schools in Japan (with the exception of naval and military schools, which are under the Navy and War Ministries, and a few other institutions under the jurisdiction of other government offices) are under the control of the Ministry of Education (Mombu-sho). These schools may be classified into 3 groups, according to establishing authority as follows:

a. National government schools.

b. Public schools.

(1) Those established by prefectures.

(2) Those established by cities.

(3) Those established by towns and townships.

c. Private schools.

Government schools are under the direct supervision of the Ministry of Education, which also supervises directly all schools of higher education, both public and private.

The prefectural government through the Educational Affairs Section (Gakumu-ka) of the Department of Internal Administration, is responsible to the National Ministry of Education for the supervision of all secondary and elementary schools in the prefecture, both public and private. The actual management of a school is the responsibility of the governmental unit which established it: national government, prefecture, city, town, or township.

2. Elementary Schools.

In 1935, there were 150,322 boys and 147,124 girls of elementary school age (6 to 14 years) in the prefecture. Of this number, 1,232 boys and 1,468 girls were exempted from attendance at school.

There were at this time 650 primary schools, including 147 ordinary elementary schools (jinjo shogakko), and 503 ordinary higher elementary schools (jinjo koto shogakko) in-

cluding detached classrooms or branch schools (bunkyojo). There were 5,380 elementary school classes in the prefecture.

In 1935, there were 7,603 elementary school teachers in the prefecture or an average of 9.2 teachers per school, as follows:

a. Regular elementary school teachers: 5,951.

Ordinary: 4,806

Higher: 1,145

b. Teachers holding licenses for special subjects: 967.

Ordinary: 423

Higher: 544

c. Assistant teachers: 123.

Ordinary: 119

Higher: 4

d. Substitute teachers: 562.

Ordinary: 449

Higher: 113

With the exception of Ishiki-mura and Yoshida-mura (Kagoshima-gun), each town and mura in the prefecture had at least one elementary school (see table 46)

TABLE 46

Public Schools, 1938, Kagoshima-ken, Exclusive of Technical Schools & Boys' Middle Schools.

Place	Ordinary Elementary Schools (6 grades)	Ordinary Higher Elementary Schools (8 grades)	Detached Classes	Girls
				High Schools T-Technical
KAGOSHIMA-SHI	9	18	--	--
KANOYA-SHI	--	12	3	1
SENDAI-SHI	--	4	--	1
KAGOSHIMA-GUN				
Taniyama-machi	--	8	2	--
Ishiki-mura	--	--	--	--
Yoshida-mura	--	--	--	--
Nishisakurajima-mura	--	2	1	--
Higashisakurajima-mura	2	1	1	--
IBUSUKI-GUN				
Yamakawa-machi	--	3	--	--
Ibusuki-machi	--	4	--	1

Restricted

Kiire-mura	--	5	1	--
Imaizumi-mura	--	3	--	--
Ei-mura	--	10	--	--
KAWANABE-GUN				
Chiran-machi	--	7	--	1 (T)
Makurazaki-machi	--	5	--	1
Mansei-machi	--	3	--	--
Kaseda-machi	--	6	1	1
Kawanabe-machi	1	6	--	1 (T)
Kasasa-machi	--	4	--	--
Katsume-mura	--	2	--	--
Nishiminamikata-mura	1	5	--	--
HIOKI-GUN				
Ijuin-machi	--	3	--	--
Izaku-machi	2	5	--	1
Ichiki-machi	--	2	--	--
Kushikino-machi	1	7	--	--
Higashiichiki-machi	1	6	--	--
Kamijuin-mura	--	4	--	--
Shimoiuin-mura	--	5	--	--
Tabuse-mura	2	2	--	--
Ate-mura	--	3	--	--
Koriyama-mura	--	4	--	--
Hioki-mura	--	3	--	--
Nagayoshi-mura	--	2	--	--
Yoshitoshi-mura	--	2	--	--
SATSUMA-GUN				
Miyanojo-machi	2	2	--	1
Hiwaki-machi	3	2	--	--
Nagatoshi-mura	--	1	--	--
Iriki-mura	--	4	1	--
Takae-mura	--	3	--	--
Takagi-mura	--	6	--	--
Mizuhiki-mura	--	2	--	--
Shimotogo-mura	--	2	--	--
Kamitogo-mura	--	5	--	--
Yamazaki-mura	--	3	--	--
Kumiyo-mura	--	1	--	--
Tsuruta-mura	--	4	--	--
O-mura	2	2	--	--
Sashi-mura	--	1	--	--
Nagano-mura	--	1	1	--
Kuroki-mura	--	1	--	--
Kamikoshiki-mura	3	2	--	--
Shimokoshiki-mura	--	5	1	--
Imuta-mura	--	1	--	--
Sato-mura	--	1	--	--
IZUMI-GUN				
Izumi-machi	3	1	2	1

Restricted

Komenotsu-machi	1	3	3	--
Akune-machi	5	2	2	1
Takaono-machi	1	1	1	--
Mikasa-mura	1	2	1	--
Higashinagashima-mura	6	2	--	--
Nishinagashima-mura	2	2	--	--
Noda-mura	1	1	--	--
Okawachi-mura	1	1	--	--
ISA-GUN				
Okuchi-machi	--	3	--	1
Yamano-machi	--	2	1	--
Hishikari-machi	--	3	--	--
Hatsuki-mura	--	2	--	--
Honjo-mura	--	1	--	--
Nishitari-mura	--	1	1	--
AIRA-GUN				
Kajiki-machi	1	3	1	1
Kokubu-machi	2	1	--	1
Kamo-machi	3	2	--	1
Fukuyama-machi	2	3	1	--
Kurino-machi	4	1	--	--
Hayato-machi	--	4	--	--
Chosa-machi	--	3	--	--
Yokogawa-machi	--	3	--	--
Makisono-machi	2	4	--	--
Shigetomi-mura	1	1	--	--
Yamada-mura	2	2	--	--
Mizobe-mura	--	2	--	--
Shikine-mura	1	2	--	--
Kiyomizu-mura	4	1	--	--
Kirishima-mura	2	3	--	--
Yoshimatsu-mura	--	1	--	--
Hinatayama-mura	--	1	--	--
Higashikokubu-mura	2	3	1	--
SO-GUN				
Iwakawa-machi	--	4	--	--
Takarabe-machi	1	3	--	--
Sueyoshi-machi	3	6	--	1
Shibushi-machi	3	4	--	--
Ozaki-machi	--	4	--	--
Tsuneyoshi-mura	2	2	--	--
Ichinari-mura	--	2	--	--
Nogata-mura	1	1	1	--
Nishishibushi-mura	3	3	--	--
Matsuyama-mura	--	3	--	--
Tsukino-mura	1	1	--	--
KIMOTSUKI-GUN				
Tarumizu-machi	1	4	--	--
Koyama-machi	2	5	--	1

Restricted

Oneshima-machi	--	4	--	--
Uchinoura-machi	--	2	4	--
Kushira-machi	--	3	--	1 (T)
Higashikushira-machi	--	2	--	--
Nejime-machi	1	4	--	--
Takakuma-mura	2	1	--	--
Shinjo-mura	--	1	--	--
Ushine-mura	--	3	--	--
Sata-mura	1	5	1	--
Tajiro-mura	--	2	--	--
Mohiki-mura	1	1	1	--
Aira-mura	2	1	1	--
<b>KUMAGE-GUN</b>				
Nishinoomote-machi	4	7	1	1 (T)
Nakatane-machi	6	1	--	--
Minamitane-mura	2	5	--	--
Kamiyaku-mura	4	4	--	--
Shimoyaku-mura	--	4	--	--
<b>OSHIMA-GUN</b>				
<b>O-shima</b>				
Nase-machi	1	1	--	1
Koniya-machi	1	6	--	--
Mikata-mura	--	6	2	--
Yamato-mura	--	5	--	--
Sumiyo-mura	1	3	2	--
Tatsugo-mura	6	1	--	--
Kasari-mura	6	3	--	--
Jitto-mura	--	3	--	--
Nishigata-mura	--	4	2	--
Uken-mura	--	5	--	--
Saneku-mura	--	5	--	--
Chinzei-mura	--	6	--	--
<b>Tokuno-shima</b>				
Kametsu-machi	1	2	--	--
Isen-mura	--	3	4	--
Amagi-mura	--	3	1	--
Higashimagi-mura	1	3	--	--
<b>Kikai-shima</b>				
Kikai-mura	--	2	2	--
Somachi-mura	3	1	--	--
<b>Okierabu-shima</b>				
Watomari-machi	--	4	--	--
China-mura	--	5	--	--

3. Secondary Schools. (1935).

There were 15 boys' middle schools (chu-gakko), with 383 instructors and 9,183 students. Kagoshima-ken Middle School

Restricted

Number One is located in Kagoshima-shi, Yakushi-cho; and Middle School Number 2 is located in Kagoshima-shi, Kaminohana-cho.

There were 20 girls' high schools, (Table 46) with 326 instructors and 7,654 students; 4 girls' technical high schools, with 16 instructors and 495 students.

The 27 technical schools were classified as follows:

a. Four industrial schools, with 66 instructors and 1,040 students.

b. Nine agricultural schools, with 97 instructors and 1,778 students.

c. Six commercial schools, with 101 instructors and 1,995 students.

d. One fishery school, with 17 instructors and 189 students.

e. One vocational school, with 21 instructors and 408 students.

f. Six trade schools, with 88 instructors and 1,330 students.

The locations of the following technical schools are known:

Satsunan Prefectural Technological School:

Kawanabe-gun, Chiran-machi

Kajiki Prefectural Technical School:

Aira-gun, Kajiki-machi

Izumi Prefectural Technical School:

Izumi-gun, Izumi-machi

Kagoshima-ken Industrial School:

Kagoshima-shi, Kusamuta-cho

Girls' Municipal Industrial School:

Kagoshima-shi, Kaminohana-cho

Kanoya Prefectural Agriculture School:

Kimotsuki-gun, Kushira-machi

Miyanojo Prefectural Sericultural Farming School:

Satsuma-gun, Miyanojo-machi

Isa Prefectural Agriculture and Forestry School:

Isa-gun, Okuchi-machi

Kaseda Prefectural Agricultural School:

Kawanabe-gun, Kaseda-machi

Tanejimi Prefectural Agricultural and Forestry School:

Kamaga-gun, Nishinoomote-machi

Kagoshima Higher Commercial School: (Teachers:20, Student capacity: 450) (Library: 6,035 volumes)

Kagoshima-shi

Kagoshima-ken Commercial School:

Kagoshima-shi, Shimoarato-cho

Kagoshima Government Higher Agriculture and Forestry School:

Kagoshima-shi, Kamiatato-cho

Courses: Agriculture, Agricultural chemistry, Forestry, Sericulture.

Completion time: 3 years, Budget: ¥ 230,000, Library: 26,000 volumes.

Number of students: 331 (1936). Dependent institutions: Detached farm, 54,489 acres; Toso Experimental Farm (for fruit and vegetables), 20,137 acres; Takakuma Forestry Experimental Station, 7,610,835 acres; Tanega-shima Stock Farm, 1,072,218 acres; Ebusuki Botanical Experiment Station, 4,447 acres; Sata Forestry Experiment Station, 775,594 acres; Sakura-jima Lava Experiment Station, 1,108 acres.

Kagoshima Higher Practical School:

Kagoshima-shi, Kitakorai-cho

Mukurazaki Prefectural Fisheries School:

Kawanabe-gun, Makurazaki-machi

Kagoshima-ken Navigation School:

Kagoshima-shi, Shimoarato-cho

Konejime Prefectural Vocational School:

Kimotsuki-gun, Nejime-mura

#### 4. Special and Higher Schools.

a. Deaf, Dumb, and Blind Schools. In 1935 there was 1 prefectural deaf and blind school in Kagoshima-shi, Kusamuta-cho, with 11 teachers for 52 blind students, and 12 teachers for 91 deaf students.

b. Normal Schools. There are in the prefecture 3 normal schools, with 50 teachers and 945 students.

Kagoshima-ken Normal School:

Kagoshima-shi, Musashi-cho

Kagoshima Girls' Normal School:

Kagoshima-shi, Yamashita-cho

Seinen Teachers Training School:

Kagoshima-shi

c. Higher Schools. The Government Seventh Higher School is located in Kagoshima-shi. In 1939, it had 41 teachers, 540 students and a library containing 46,600 volumes.

5. Young Men's Schools. In 1935 there were 179 young men's schools, with 712 teachers and 45,767 students.

6. Private Schools. There were known to be 19 private schools in the prefecture in 1939, as follows:

a. One on the elementary school level, with 41 girl students.

b. One on the middle school level, the Fukuyama Middle School in Aira-gun, Fukuyama-machi with 8 teachers and 66 students.

c. Fourteen business schools, with 121 teachers and 1,246 pupils (522 boys, 724 girls).

d. Three other schools, with 30 teachers and 56 pupils.

Kagoshima Higher Colonization School is located in Kagoshima-shi, Jummoto-cho.

#### G. ASSOCIATIONS.

There is a Chamber of Commerce and Industry in Chikumachi, Kagoshima-shi, and a fisheries association in Yamakawamachi, Ibusuki-gun.

#### H. CULTURAL INSTITUTIONS.

##### 1. Temples.

Nishi-hongan-ji, Kagoshima-shi. This immense Buddhist temple is a branch of the temple of the same name in Kyoto. It is marked by all the splendor and luxury usually associated with temples of this sect. The elaborate high altar is richly decorated in a manner reminiscent of the Nikko mausolea.

Terukuni-jinsha, Kagoshima-shi. A temple dedicated to Shimazu Nariakara, Daimyo of Satsuma, an exceptionally enlightened ruler who introduced many western inventions into his holdings.

Nanshu-jinsha located in Kagoshima-shi is dedicated to Saigo Takamori, the brave but misguided leader of the Satsuma rebellion, who lost his life in the insurrection.

Jokomyo-ji is in Kagoshima-shi, within the precincts of this shrine is located the tomb of Saigo and many of his followers who perished in the Satsuma rebellion.

##### 2. Villas.

Iso Shimazutei, (Iso Goten) in Kagoshima-shi is a villa of the Shimazu family which stands in the midst of a garden rich in natural beauty.

##### 3. Libraries.

The Kagoshima-ken Library in Kagoshima-shi, founded in 1934, is reported to have approximately 60,000 volumes.

VI. WHO'S WHO IN KAGOSHIMA-KEN

This chapter consists of a listing, divided into 2 parts, of prominent persons reported to be residents of Kagoshima-ken. List "A" classifies persons by cities, according to occupation. Those names starred with an asterisk (\*) indicate persons who are believed to have some knowledge of English.

List "B" is an alphabetical directory which presents available biographical information concerning persons in List "A". A date in parenthesis placed after a statement, e.g. "(1940)", indicates the date of the report giving that information.

The use of the occupational List "A" will aid in locating experienced personnel in various fields. The alphabetical directory, List "B", will in some instances aid in identifying persons and in checking their background and experience.

Local Japanese records or files on persons should prove useful whenever they can be secured. Certain key sources of this nature are listed here:

1. The Koseki.

Each city, town, and township maintains a record of all families domiciled within the unit, including the names of all members of the family, even though they may be living elsewhere, together with the dates of their birth, marriage, and death. The files of the community also indicate the following classifications of individuals: foreigners, Koreans, and laborers. It will be noted that every individual is listed in at least 2 different places, the Koseki of his native city, town, and township and the police box of the district where he actually resides.

2. Police Registers.

a. The central files of the Special Higher Police (Tokubetsu Koto Keisatsu) which are kept in the police stations.

b. Kempai (military police) records of political offenders. The location of these files is unknown except that they would be under military custody.

c. Local police box records which list the name, age, address, and occupation of each person living within the district.

d. Finger-print files. Finger-printing is less extensively used than in the United States; only about 5 million prints are available. Files are maintained by the Tokyo and Osaka metropolitan police.

3. Files of National Employment Exchanges.

These exchanges, located in Kagoshima-shi, Sendai-shi, and Kanoya-shi, maintain a record of all employable persons, listing his occupation and present employment. In villages and towns having no employment exchanges, the same information is found in the village office or city hall.

4. Files of Public Welfare Offices.

Lists are kept of the homen-iin, prominent persons in the community doing volunteer welfare work. These persons are of the wealthy, leisured class, and have training in public relief techniques. The homen-iin number about 10 to 200 persons in each city, depending upon its size. Homen-iin are known to be active in Kagoshima, Sendai, and Kanoya.

5. Postal Savings Accounts Records.

Records of postal savings accounts are kept in local post offices. Each account lists the name, address, occupation, and amount of deposit.

6. Other Sources.

Other sources of names are bank records, municipal tax rolls, corporation employment records, military draft records, and the Shokuin-Roku (Roster of Government Officials, an annual registry of the Imperial Cabinet).

A. LIST BY CITIES ACCORDING TO OCCUPATION.

ASSOCIATIONS

IKEHATA, Tokuzo  
YASAKI, Kenji

Chairman, Kagoshima Chamber of Com.  
Chairman, Yamakawa Fishery Assn.,  
Yamakawa-machi.

COMMUNICATIONS

KOHARA, Shumme

Edit. chief, Kagoshima Nippo,  
Kagoshima-shi.

COERTS AND LAW

ICHIKAWA, Suekuma

MATSUI, Zenichi

MIKUMO, Sumisaburo

Chief Public Procurator, Kagoshima  
District Court.  
Procurator, Kagoshima District Court,  
Kagoshima-shi.  
Chief, Kagoshima District Court.

EDUCATION

KAGOSHIMA-SHI

Restricted

ASANO, Takayuki  
HASHIMOTO, S.  
KUSANO, Iwao  
OKADA, Tsunesuke  
SUZUKI, Tasuku  
\*TANIGUCHI, Kumanosuke

Pres., Seventh Higher School.  
Librarian, 7th Higher School.  
Kagoshima Higher Agr. & For. School.  
Former Pres., 7th Higher School.  
Pres., Kagoshima Higher Com. School.  
Pres., Kagoshima Higher Agr. & For. School.

GOVERNMENT AND ADMINISTRATION

Pref. Gov't. Officials

KUBAYAMA, Hiroshi  
ARAI, Zentarō  
SUSUKIDA, Yoshitomo  
KOJIMA, Tokuo  
KAJIKI, Seiichi  
TAKAYAMA, Tadashichi  
NISHIGAKI, Hidemasa

Pref. governor.  
Former pref. governor.  
Former pref. governor.  
Head of the Secretariat.  
Chief, Statistics Sect.  
Chief, Gen'l. Aff. Sect.  
Chief, Personnel Sect. & Promot. Sect.

IKEDA, Nagakichi  
TOMITAKA  
SUEMATSU, Torao  
KATAOKA, Kazukame  
YAMAGUCHI, Masao  
WATANABE, Nobuo  
IKEDA, Yasukichi  
YONEYAMA, Tsuneji  
SHIBA, Arao  
YAMADA, Jozaemon  
MOTO, Tatsune  
EBITSUKA, Kenichi  
OGAWA, Oi  
TOKITA, Yoshio (or)  
KAMIMURA, Kentarō  
UCHIMURA, Kiyoshi  
ONO  
OKUNO, Masachin  
SHINFUKU, Kensuke

Head of Internal Aff. Dept.  
Chief, Soc. Welf. Sect.  
Chief, Shrines & Temples Sect.  
Chief, Educ. Aff. Sect.  
Chief, Sanitat. Sect.  
Head of Economics Dept.  
Chief, Agric. Aff. Sect.  
Chief, Comm. & Ind. Sect.  
Chief, Raw Silk Sect.  
Chief, Forestry Sect.  
Chief, Livestock Sect.  
Chief, Marine Products Sect.  
Chief, Arable Land Sect.

Head of Police Dept.  
Chief, Employm. Sect.  
Chief, Insur. Sect.  
Chief, Spec. Higher Pol. Sect.  
Chief, Police Aff. Sect.

KAGOSHIMA-SHI OFFICIALS.

HIDAKI, Hikoro  
KUME, Shigeo  
MAEDA, Shingo  
KAWAKAMI, Chikatoshi  
IWAMATSU, Chikayoshi  
KAWAGOE, Hansuke

Mayor  
Former mayor  
Deputy mayor  
Treasurer  
Chief, Police station  
Head, Nat'l Employm. Exch.

SENDAI-SHI OFFICIALS.

TERADA, Ichimasa  
KODAMA, Teichi

Mayor  
Deputy mayor

Restricted

KAWARA, Takasuke  
INOUE, Kazuji  
SATO, Ainosuke

Treasurer  
Chief, Police station  
Head, Nat'l. Employm. Exch.

KANOYA-SHI OFFICIALS.

TAKEUCHI, Takemaru  
TSUKANO, Michio  
NIMOTO, Shoichiro  
KURIBARA, Tokiyoshi

Mayor  
Deputy mayor  
Treasurer  
Head, Nat'l. Employm. Exch.

KAGOSHIMA ISLAND POLICE OFFICIALS.

HONDA, Hitoshi  
TAKADA, Motoe  
HIRABARA, Yoshisuke  
UCHIYAMA, Hisamatsu  
MOTOYAMA, Sadashi  
OSAKO, Yuichi  
UYENO, Mikichi  
HONDA, Takeo  
ANRAKU, Nobutaka  
TABATAKE, Kaneo  
SAGARA, Jujiro  
MATSUMOTO, Totaro  
TANAKA, Kamiyasu  
UYEHARA, Sakae  
KOTAMA, Keichiki  
AKAZAWA, Satoru  
SHIEDA, Isamu  
MIDO, Yoshisuke

Assistant inspector, Koshiki Jima  
Inspector, Tanega Shima  
Assistant inspector  
Quarantine inspector  
Assistant inspector, Yaku Shima  
Inspector, Oshima  
Assistant inspector  
Assistant inspector  
Assistant hygiene expert  
Assistant hygiene expert  
Quarantine inspector  
Quarantine doctor  
Assistant inspector, Kikai Jima  
Inspector, Koniya  
Assistant inspector  
Quarantine inspector  
Assistant inspector, Tokuno Shima  
Assistant inspector, Okinoyerabu Jima

HEALTH AND SANITATION.

\*MAEDA, Aya  
HAYASHI, Fumio, Dr.

Nurse, Kagoshima-shi  
M.D., head, Gov't. Leprosarium,  
Kimotsuki-gun.

HOUSING.

Architects.

IWASHITA, Matsuo  
KARIYA, Enseio  
NIIMA, Jiro  
OMEZATO, Masa

Member, Building Institute  
Member, Building Institute  
Member, Building Institute  
Member, Architectural Institute

MINING.

TEJIMA, Torao

Supt., Mitsui Kushikino Mine



MISCELLANEOUS.

Presumed to speak English

KAGOSHIMA-SHI

- \*ARITOMI, Ikuo
- \*HIRATA, Aikichi
- \*KOMAKI, Heizo
- \*KORA, Mizuho
- \*MORI, Kenkichi
- \*NISHI, Haruhiko
- \*OGATA, Kichi
- \*ONO, Morihide Toyo
- \*TANGE, Ume
- \*HIRATA, Tojiro

OTHER CITIES, TOWNS, TOWNSHIPS

- |                    |                              |
|--------------------|------------------------------|
| *HAYASAKI, Yashima | Imuta-mura, Satsuma-gun      |
| *ONITSUKA, Kinki   | Akune-machi, Izumi-gun       |
| *NARIAKI, Kozake   | Shigetomi-mura, Aira-gun     |
| *NOMA, Mazuma      | Shigetomi-mura, Aira-gun     |
| *SONODA, Kanemitsu | Nishi-Kokubu-machi, Aira-gun |

B. ALPHABETICAL DIRECTORY.

- AKAZAWA, Satoru: Quar. Insp., Koniya Pol. Sta. (1939).  
 ANRAKU, Nobutaka: Asst. Hyg. Expert, Oshima Pol. Sta. (1939).  
 ARAI, Zentaro: Former Governor of Kagoshima-ken. b. Tochigi-ken, 1896; grad. Tokyo Imp. Univ. Eng. Litt., 1921; sec. Reconstruction Bur. of Home Ministry; private sec. to Premier and Education Minister; chief, Highway and River Section, Home Ministry; chief, Personnel section of same; dir., Social Affairs Bur., Welfare Ministry, Nov. 1938. Listed in Who's Who, 1941.  
 \*ARITOMI, Ikuo: Attended Univ. of Michigan. Address: 147 Koneshima-mura, Kagoshima-shi.  
 ASANO, Takayuki: Pres., Seventh Higher School, Kagoshima-shi (1944).  
 EBITSUKA, Kenichi: Chief, Marine Products Sect. (E.C. Dept.) (1943).  
 \*HAYASAKI, Yashima: b. 1894; attended St. Paul's College, Tokyo, 1914; Columbia Univ., 1921-24, B.S.; Res.: 53 Imuta-mura, Satsuma-gun.  
 HASHIMOTO, S.: Librarian, 7th Higher Sch., Kagoshima-shi.  
 HAYASHI, Fumio, Dr: M.D.; head of Hoshizuka Keiai-en (Gov't. Leprosarium); b. Hokkaido, 1900; grad. Hokkaido Imp. Univ., 1926. Address: Kimotsuki-gun. Listed in Who's Who, 1941-42.  
 HIDAKI, Hikoro: Mayor of Kagoshima-shi; Vice-pres., Nat'l. Mayor's Assoc. (1945).  
 HIRABARA, Yoshisuke: Asst. Insp., Tanega Shima Pol. Sta. (1939).  
 \*HIRATA, Aikichi: Reported to speak English and French; b. 1885; Keio Univ., Tokyo, 1906; N.Y. Univ., 1909; Columbia Ext., 1915-16. Address: Kagoshima-shi.  
 \*HIRATA, Tojiro: b. 1889; attended Columbia Univ. Ext., 1921-22. Address: Akune-machi, Izumi-gun.

HONDA, Hitoshi:

HONDA, Takeo  
 ICHIKAWA, Suekuma

IKEHATA, Tokuzo

IKEDA, Nagakichi

IKEDA, Yasukichi

INOUE, Kazuji  
 IWAMATSU, Chikayoshi

IWASHITA, Matsuo

KAJIKI, Seiichi

KAMIMURA, Kentaro  
 KARIYA, Enseio

KATAOKA, Kazukame:

KAWAGOE, Hansuke

KAWAKAMI, Chikatoshi  
 KAWARA, Takasuke  
 KODAMA, Toichi  
 KOHARA, Shumme

KOJIMA, Tokuo

\*KOMAKI, Heizo

- Asst. Insp., Koshiki Jima Pol. Sta. (1939)  
 Asst. Insp., Oshima Pol. Sta. (1939)  
 Chief Pub. Proc., Kagoshima Dist. Ct., formerly Chief Pub. Proc. of the Yamagata Dist. Ct. (1945)  
 Chairman, Kagoshima Chamber of Com. & Ind.; director, Oshima Ind. Co.; aud., Kagoshima Asahi Shimbun and Kagoshima Lumber Co.; b. Kagoshima-ken, 1883; attended Keio Univ; succeeded father's occupation and re-organized it; chairman, Kagoshima Chamber of Com. and Ind. since 1941. Address: 73 Kajiya-machi, Kagoshima-shi. Listed in Who's Who, 1941-42.  
 Head, Int. Aff. Dept., Pref. Gov't. (1943)  
 Chief, Agric. Aff. Sect., Econ. Dept., Pref. Govt. (1943)  
 Chief, Police Sta., Sendai-shi (1943)  
 Chief, Police Sta., Kagoshima-shi (1943)  
 Constr. Engr., Mem. Building Inst. Address: 19 Kenei Jutaku, Shimorata-cho, Kagoshima-shi (1930)  
 Chief, Statistics Sec., Pref. gov't. (1943)  
 Head, Pol. Dept., Pref. Govt. (1943)  
 Constr. Engr., Mem. Building Inst. Address: Mokuda Shinchu Kajiki-machi, Aira-gun (1930)  
 Chief, Educ. Aff. Sect., Pref. gov't. (1943)  
 Head of Nat'l. Employm. Exch., Kagoshima-shi (1943)  
 Treas., Kagoshima-shi (1943)  
 Treasurer of Sendai-shi (1943)  
 Asst. mayor of Sendai-shi (1943)  
 Ed. chief, Kagoshima Nippo; member of Japan Press Assoc. Address: Kagoshima-shi (1943)  
 Head of the Secretariat, Pref. gov't. (1943)  
 b. 1888; attended Kagoshima Commercial School, 1902-07; Pacific Grammar Sch.; Wilson's Bus. College, Seattle, 1910-12; Columbia Ext., 1920-21, business course. Address: Kagoshima-shi.

Restricted

\*KORA, Mizuho

KOTAMA, Keichiki  
KUBAYAMA, Hiroshi  
KUME, Shigeo  
KURIBARA, Tokiyoshi

KUSANO, Iwao

\*MAEDA, Aya

MAEDA, Shingo  
MATSUI, Zenichi

MATSUMOTO, Totaro

MIDO, Yoshisuke

MIKUMO, Sumisaburo

\*MORI, Kenkichi

MOTO, Tatsune

MOTOYAMA, Sadashi

\*NARIAKI, Kozake

NIIMA, Jiro

NIIMOTO, Shoichiro

\*NISHI, Haruhiko

NISHIGAKI, Hidemasa

\*NOMA, Mazuma

Dr. Attended Univ. of Penna.  
Address: 70 Higashi Sengo Ku-cho,  
Kagoshima-shi  
Asst. Insp., Koniya Pol. Sta. (1936)  
Governor of Kagoshima-ken (1943)  
Former mayor of Kagoshima-shi (1943)  
Head of the National Employment  
Exch. in Kanoya-shi (1943)  
Associated with Kagoshima Higher  
Agriculture & Forestry Sch.; Kami,  
Arata-machi, Kagoshima-shi (1936)  
b. 1908; attended St. Luke's college  
of Nursing, Tokyo, 1927-30; Post  
Grad. Course in Nursing, 1930-31;  
Columbia S.S., nursing, 1931-32.  
Res.: 101 Takashi-cho, Kagoshima-shi  
Deputy mayor of Kagoshima-shi (1943)  
Produrator, Kagoshima District Ct.  
Kagoshima-shi (1944)  
Quarantine Dr., Oshima Pol. Sta.  
(1936)  
Asst. Insp., Okinoyerabu Pol. Sta.  
(1936)  
Chief, Kagoshima District Court,  
Kagoshima-shi (1944)  
b. 1890; attended Broadway High  
Sch., Seattle, Wash., 1910-14;  
Univ. of Wash., 1914-17; Columbia  
Univ., 1917-18; George Washington  
Univ., 1918-19, M.A.; Address:  
Kagoshima-shi  
Chief, Livestock Sect., Pref. Govt.  
(1943)  
Asst. Insp., Yaku Shima Pol. Sta.  
(1936)  
Reported to be a competent English-  
Japanese translator. Address:  
Shigetomi-mura, Aira-gun  
Constr. Engr., Mem. Building Inst.  
Address: 55 Yakushi-cho, Kagoshima-  
shi (1930)  
Treasurer of Kanoya-shi (1943)  
b. 1894; attended Tokyo Impl Univ.,  
1914-18, D.L., Columbia S.S. & Ext.,  
1919-21. Address: Kagoshima-shi  
Chief, Pers. Sect., Secretariat,  
Pref. Gov't. (1943)  
Attended Harvard Univ. Address:  
98 Hiramatsu, Shigetomi-mura, Aira-  
gun.

Restricted

\*OGATA, Kichi

OGAWA, Oi

OKADA, Tsunesuke

OKUNO, Masachin

OMEZATO, Masa

\*ONITSUKA, Kinki

\*ONO, Morihide Toyo

ONO

OSAKO, Yuichi  
SAGARA, Jujiro

SATO, Ainosuke

SHIBA, Arao

SHIEDA, Isamu

SHINFUKU, Kensuke

\*SONODA, Kanemitsu

SUEMATSU, Torao

SUSUKIDA, Yoshitomo

b. 1889; attended Keio Univ., Tokyo,  
1909-12; Columbia Ext., 1913-14.  
Address: Kagoshima-shi  
Chief, Arable Land Sect., Pref.  
Govt. (1943)  
Former pres. 7th Higher Sch.,  
(Zoshikan). b. Saitama-ken, 1883;  
grad. Tokyo Imp. Univ., litt., 1910;  
principal Kawagoe Mid. Sch; prof.  
Nagoya Com. Coll; sch. inspector  
and secr. Education Dept; dir.  
Niigata Higher Sch; Address: 2 of  
34 Yakushi-cho, Kagoshima-shi.  
Listed in Who's Who, 1941  
Chief, Spec. Higher Pol. Sect.,  
Pref. Govt. (1943)  
Constr. Engr., mem. Archit. Inst.  
Address: Kagoshima Ginko Hoten  
Kojibu, Muika-cho, Kagoshima-shi  
(1940)  
Indiana Univ; Episcopalian. Address:  
Akune-machi, Izumi-gun (1923)  
b. 1892; attended Carnegie Inst. of  
Technology, Pittsburgh, 6 months;  
Columbia Ext., 1915-16. Address:  
Takashi-cho, Kagoshima-shi  
Chief, Insur. Sect., Pol. Dept.,  
Pref. Govt. (1943).  
Insp., Oshima Pol. Sta. (1936)  
Quarantine Insp., Oshima Pol. Sta.  
(1936)  
Head of the Natl. Employment Exch.  
Sendai-shi (1943)  
Chief, Raw Silk Sect., Pref. Govt.  
(1943)  
Asst. Insp., Tokuno (island) Pol.  
Sta. (1936)  
Chief, Pol. Aff. Sect., Pref. Govt.  
(1943)  
Attended Univ. of Calif., Berkeley.  
Address: Nishi Kokubu-machi, Aira-gun  
Chief, Shrines and Temples Sect.,  
Pref. Govt. (1943)  
Former Governor, Kagoshima-ken; b.  
Akita-ken, 1897; grad. Tokyo Imp.  
Univ., law, 1920, entering civil  
service; dir. of police affairs depts.,  
Okayama and Hiroshima pref; vice-  
minister of Public Peace Ministry of  
Manchoukuo; governor, Gumma-ken,  
1940-41; governor, Kagoshima-ken,  
1941. Address: Yamashita-cho,  
Kagoshima-shi. Listed in Who's Who  
1941-42.

Restricted

SUZUKI, Tasuku President, Kagoshima Higher Com. Sch; b. Hyogo-ken, 1882; grad. Tokyo Imp. Univ., law, 1908; instructor, Kagawa Pref. Com. Sch.; prof. Nagasaki and Hikone Higher Com. Sch; president Takaoka Higher Com. Sch., 1930-38; present post 1938. Address: c/o Higher Com. Sch., Kagoshima-shi. Listed in Who's Who, 1941-42.

TABATAKE, Kaneo Asst. Hygiene expert, Oshima Pol. Sta. (1936)

TAKADA, Motoe Insp., Tanega Shima Pol. Sta. (1936)

TAKAYAMA, Tadashichi Chief, Gen'l. Aff. Sect., Secretariat, Pref. Gov't. (1943)

TAKEUCHI, Takemaru Mayor of Kanoya-shi (1943)

TANAKA, Kamiyasu Asst. Insp. Kikai Jima Pol. Sta. (1936)

\*TANGE, Ume Attended Columbia S.S., 1923, Chemistry. Address: Kagoshima-shi.

\*TANIGUCHI, Kumanosuke President, Kagoshima Higher Agr. & For. Coll; b. Ehime-ken, 1882; grad. Tokyo Imp. Univ. Agr., 1908; Prof. Kagoshima Agr. & For. Coll., 1912; sent to Eur. and Amer. for study, 1919; present post, Apr., 1938. Address: 815 Tokiwa-machi, Kagoshima-shi. Listed in Who's Who, 1941-42.

TEJIMA, Torao Supt., Mitsui Kushikino Mine; b. Kanagawa-ken, 1896; attended Tokyo Imp. Univ., 1921-24; mining & metallurgical engr., Mitsui Kamioka Mine, 1924-29. Address: Kushikino-machi, Hioki-gun. (1929)

TERADA, Ichimasa Mayor of Sendai-shi (1943)

TOKITA, Yoshio Chief of the Police Dept. of Kagoshima-ken; former sec. of Tokyo Metropolis (1944)

TOMITAKA Chief, Soc. Welf. Sect., Pref. Gov't. (1943)

TSUKANO, Michio Deputy mayor of Kanoya-shi (1943)

UCHIMURA, Kiyoshi Chief, Employm. Sect., Pol. Dept., Pref. Govt. (1943)

UCHIYAMA, Hisamatsu Quarantine Insp., Tanega Shima Pol. Sta. (1936)

UYEBARA, Sakae Insp., Koniya Pol. Sta. (1936)

UYENO, Mikichi Asst. Insp., Oshima Pol. Sta. (1936)

WATANABE, Nobuo Head, Economics Dept., Pref govt. (1943)

YAMADA, Jozaemon Chief, Forestry Sect., Pref. Govt. (1943)

Restricted

Restricted

YAMAGUCHI, Masao Chief, Sanitat. Sect., Pref. Govt. (1943)

YASAKI, Kenji Chairman of Yamakawa Fisher Assn., Yamakawa-machi.

YONEYAMA, Tsuneji Chief, Comm. & Ind. Sect., Pref. govt. (1943)

Restricted

## APPENDIX I.

## MANUFACTURES

## A. LIST OF MANUFACTURERS.

TEXTILES

1. Dai Nippon Boseki.  
Kagoshima-shi.  
cotton yarn; cotton piece goods, rayon and staple fibre mixtures.  
Branch plant---main office in Osaka.

CHEMICALS

2. Showa Sanyo.  
Shikaya.  
alcohol.

MACHINERY, TOOLS, AND APPLIANCES

3. Bukmei Shokai.  
28, Hinoguchi-cho, Kagoshima-shi.  
farm machinery.
4. Furikawa Tekkojo.  
21 Suzaki-cho, Kagoshima-shi.  
internal combustion engines.
5. Hachimitsu Gomei Kaisha.  
7237 Higashito, Sendai-shi.  
refining machinery.
6. Ishiguro Tekkosho.  
98 Sumiyoshi-cho, Kagoshima-shi.  
internal combustion engines.
7. Kagoshima Denki.  
Kagoshima-shi.  
carborundum.
8. Kato Tekkosho.  
109 Nishi Sengoku-cho, Kagoshima-shi.  
construction machinery.
9. Kitamura Tekkojo.  
15 Sumiyoshi-cho, Kagoshima-shi.  
internal combustion engines.
10. Mitsuma Tekkojo.  
2058 Itsube, Nase-machi, Oshima-gun.  
internal combustion engines.

11. Nagamine Tekkosho.  
17 Sumiyoshi-cho, Kagoshima-shi.  
internal combustion engines.
12. Nakagawa Tekkosho.  
133 Ogawa-cho, Kagoshima-shi.  
farm machinery.
13. Nihara Imono Kojo.  
7089 Higashito, Sendai-shi, Satsuma-gun.  
farm machine tools.
14. Oda Tekkosho.  
109 Sengoku-cho, Kagoshima-shi.  
spinning tools, farm machinery.
15. Onishi Tekkojo.  
64 Sumiyoshi-cho, Kagoshima-shi.  
internal combustion engines.
16. Ota Tekkosho.  
10 Niye, Koniya-machi, Oshima-gun.  
internal combustion engines.
17. Sakamoto Tekkosho.  
2 Nishi Sengoku-cho, Kagoshima-shi.  
farm machinery.
18. Sako Tekkosho.  
110 Torii-cho, Kagoshima-shi.  
internal combustion engines.
19. Showa Tekkosho.  
30 Suzaki-cho, Kagoshima-shi.  
construction machinery.
20. Takahashi Tekkosho.  
Shibushi-machi, So-gun.  
construction machinery.
21. Takahashi Tekkosho.  
6605 Shibushi-machi, So-gun.  
internal combustion engines.
22. Tanabe Kikai Kojo.  
36 Minami Hayashidera-cho, Kagoshima-shi.  
mining farm, refining machinery.
23. Uemura Tekkosho.  
9378 Shimoniyo, Kushikino-machi, Hioki-gun.  
internal combustion engines.

- 24. Ueno Tekkosho.  
4888 Nakana, Kanoya-shi.  
farm machinery.
- 25. Yoshimi Tekkosho.  
2943 Makurozaki, Makurazaki-machi, Kawanabe-gun.  
internal combustion engines.
- 26. Yoshimi Tekkosho.  
38 Hama-machi, Kagoshima-shi.  
mining implements.

AIRCRAFT, RAILROAD EQUIPMENT, AND SHIPS

- 27. Fukuzaki Zosensho.  
Mairitsuchi, Suzaki-cho, Kagoshima-shi.  
ship repairs.
- 28. Ikoma zosensho.  
9364 Shimona, Kushikino-machi, Hioki-gun.  
wooden ships.
- 29. Kagoshima Railroad Repair shops.  
Kagoshima-shi.  
Repairs cars only. Only shops south of Shimonoseki coast area.
- 30. Kagoshima-Shipyard.  
Kagoshima-shi.  
Supplementing naval shipbuilding and repair facilities.  
Reported to be repair yard for small vessels. One marine railway.
- 31. Kanoya Naval Air Station Aircraft Arsenal.  
Kanoya-shi.  
Aircraft assembly and repair.
- 32. Kawabata Zosenzo.  
2227 Kaneku, Nase-machi, Oshima-gun.  
ships.
- 33. Makurazaki Shipyard.  
Makurazaki-machi, Kawanabe-gun.  
Supplementing naval shipbuilding and repair facilities.  
One marine railway (300 tons)
- 34. Okashita Zosensho.  
9070 Shimona, Kushikino-machi, Hioki-gun.  
wooden ships.
- 35. Sasaki Zosensho.  
6176 Fukumoto, Yamakawa-machi, Ibusuki-gun.  
miscellaneous ships.

- 36. Shinonara Zosensho.  
6117 Narikawa, Yamakawa-machi, Ibusuki-gun.  
miscellaneous ships.
- 37. Tanabe Tekkosho.  
2400 Korimoto, Kagoshima-shi.  
Aircraft floats; unspecified aircraft parts.
- 38. Umigata Zosen.  
Location unknown.  
wooden ships.

B. PRODUCTS.

(Numbers refer to companies in List A.)

TEXTILES

- Cotton piece goods (principally calicos) 1.
- Cotton yarns 1.
- Raw and thrown silk
- Rayon and staple fibre mixtures 1.
- Silk piece goods (principally coarse silk, narrow weaves)

CHEMICALS

Alcohol 2

MACHINERY, TOOLS, AND APPLIANCES

- Carborundum (abrasives) 7.
- Construction machines 8, 19, 20.
- Farm machinery 3, 12, 14, 17, 22, 24.
- Farm machine tools 14.
- Internal combustion engines 4, 6, 9, 10, 11, 15, 16, 18, 21, 23, 25.
- Mining implements 26.
- Mining machinery 22.
- Refining machinery 5, 22.
- Spinning tools 14.

TRANSPORTATION

- Aircraft floats 37.
- Ships 32, 35, 36.
- Ships--wooden 28, 34, 38.

APPENDIX II  
RAILROAD LINES

The following railroad lines are discussed in this appendix:

1. Kagoshima Main Line.
2. Nippo Main Line.
3. Hisatsu Line.
4. Kitto Line.
5. Ibusuki Line.
6. Shibushi Line.
7. Furue Line.
8. Miyanojo Line.
9. Yamano Line.
10. Nansatsu Railroad.
11. Satsunan Central Line.
12. Kagoshima Tramway.
13. Koyama Logging Railroad.
14. Unchinomaki Logging Line.
15. Logging Railroad, Isa-gun.
16. Logging Railroad, Isa-gun.
17. Logging Railroad, Kimotsuki-gun.
18. Logging Railroad, Kimotsuki-gun.
19. Railroad in Kimotsuki-gun.
20. Logging Railroad, So-gun.

Mileages given the tables of this appendix are correct within one percent in nearly all cases. Bridge and tunnel lengths are approximate unless carried out to inches or decimals. Bridges up to 200 feet in length are designated as "short span" bridges.

1. Kagoshima Main Line.

Passenger traffic: Between boundary of Kumamoto-ken and Sendai-machi: 10 trains daily each way (1937); 8 trains daily each way (estimated 1945); section between Sendai-machi and Kagoshima-shi: 11 trains daily each way (1937); 9 trains daily each way (estimated 1945).

Average speed for express trains is 31 m.p.h.

TABLE 47

Stations & Important Features, Kagoshima Main Line, Kagoshima-ken.

Mileage from Kumamoto-ken Border	Feature
0.0	RR enters Kumamoto-Kagoshima Border

- 3.2
- 6.0
- 7.3
- 9.9
- 11.9
- 15.1
- 18.6
- 22.2
- 26.8
- 31.6
- 35.4
- 37.1
- 37.4
- 39.0
- 40.9
- 44.8
- 47.7
- 50.0
- 51.7
- 55.1
- 60.0
- 65.4
- 65.6
- 66.0
- 68.0

- 179.9 miles from Shimonoseki
- Komenotsu station
- Izumi station
- Nishiizumi station
- Takaono station
- Nodago station.
- Origuchi station
- Akune station
- Ushinohama station
- Matsuyama station
- Kusamichi station
- Kami-Sendai station
- Junction with Miyanojo Line from north
- Sendai-shi station
- Kumanozoya station
- Konbanchaya station
- Kushikino station
- Ichiki station
- Shimauchi station
- Higashiichiki station
- Junction with Nansatsu RR from south
- Ijuin station
- Manjuishi station
- R.R. car repair shop
- Junction with Ibusuki Line also spur 0.2 miles long to south
- Nishi Kagoshima station
- Kagoshima station terminal of line, and Kagoshima RR yard

TABLE 48

Bridges & Overheads\*, Kagoshima Main Line, Kagoshima-ken.

Mileage from Kumamoto-ken Border	Type & Length	Obstacle
0.0	Short span	Creek
0.6	Short span	Creek
1.5	Short span	Creek
1.7	Short span	Creek
4.1	Short span	Creek
5.7	Short span	Creek
6.1	Short span	Creek
6.3	Steel 500 ft.	Komenotsu-gawa
7.2	Short span	Creek
9.3	Short span	Takaono-gawa
11.3	Short span	Noda-gawa
12.2	Short span	Creek

## Restricted

*14.9	Short span	Prefectural highway
17.3	Short span	Creek
19.0	Short span	River
22.5	Short span	Creek
*23.5	Short span	Improved road
24.8	Short span	Creek
*24.9	Short span	Improved road
26.5	Short span	Creek
*27.3	Short span	Unimproved road
34.0	Short span	Stream
35.0	Short span	Shin-gawa
*35.2	Short span	Prefectural highway
36.2	Steel, 800 ft.	Stream
36.8	Steel, 1000 ft.	Sendai-gawa
*37.1	Short span	Improved road
*37.2	Short span	Improved road
*37.5	Short span	Prefectural highway
37.6	300 ft.	Stream
38.0	Short span	Kumanojo-gawa
*38.5	Short span	Unimproved road
39.1	Short span	Stream bed
39.2	Short span	Stream bed
*40.6	Short span	Prefectural highway
*41.3	Short span	Unimproved road
*43.0	Short span	Unimproved road
*44.4	Steel, 300 ft.	Prefectural highway and stream
46.6	Steel, 300 ft.	Yabusa-gawa
46.7	Short span	Creek
46.9	Short span	Creek
*47.0	Short span	Improved road
48.9	Short span	Creek
50.4	Short span	Creek
51.4	Short span	Creek
51.5	Steel, 400 ft.	Stream
53.8	Short span	Creek
55.5	Short span	Creek
64.9	Short span	Creek
65.0	Short span	Creek
65.1	Short span	Creek
65.7	Short span	Creek
*66.2	Short span	City street
*66.25	Short span	City street
*66.3	Short span	City street
*66.35	Short span	City street
*66.4	Short span	City street
65.5	300 ft.	Kotsuki-gawa
*66.6	Short span	City street

TABLE 49

Tunnels, Kagoshima Main Line  
Kagoshima-ken.

Restricted

## Restricted

Mileage from Kumamoto-ken Border	Length (in feet,
23.3	800
24.7	400
27.4	300
28.1	300
28.9	700
53.2	1,200
54.9	400
62.2	2,000
63.5	1,500
66.9	2,000

### 2. Nippo Main Line.

Passenger traffic: Between Kagoshima and Hayato: 12 trains daily each way (1937), 11 trains daily each way (estimated 1945); between Hayato and Miyazaki border: 9 trains eastbound, 8 westbound, daily (1937), 8 trains eastbound, 7 westbound, daily (estimated 1945).

Average speed for express trains, 31 m.p.h.

Freight traffic: 4,300,000 metric tons (including weight of rolling stock) hauled between Kagoshima-shi and Hayato (estimated 1944).

TABLE 50

Stations & Important Features, Nippo Main Line,  
Kagoshima-ken.

Mileage from Kagoshima Station	Feature
0.0	Kagoshima station, southern terminal
0.2	Ryugamizu station
4.2	Shigetomi station
8.5	Tegahi station
10.5	Kajiki station
12.9	Hayato station
17.2	Junction, with Hisatsu line from north
17.6	Kokubu station
19.4	Kirishimajingu station
27.1	Kitanaganoda station
30.7	Osumiokawa station
33.9	Kitamata station
37.0	Takarabe station
39.2	RR leaves prefecture, Kagoshima-Miyazaki border
40.8	

Restricted

TABLE 51

Bridges & Overheads\*, Nippo Main Line,  
Kagoshima-ken.

Mileage from Kagoshima Station	Length & Type	Obstacle
9.0	Steel, 400 ft.	Omoi-gawa
11.1	Steel, 300 ft.	Byu-gawa
12.3	Steel, 200 ft.	Amikake-gawa
*12.4	Short span	City street
*12.7	Short span	City street
13.2	Short span	Stream
17.8	250 ft.	Shin-gawa
20.3	150 ft.	Turida-gawa
*20.4	Short span	Prefectural highway
23.1	Short span	Prefectural highway
23.6	Short span	Creek
23.8	Short span	Creek
*26.6	Short span	Prefectural highway
32.3	Short span	Creek
32.5	Short span	Creek
*33.2	200 ft.	Prefectural highway & creek
34.0	300 ft.	Mizoguchi-gawa
34.9	Short span	Creek
*37.8	Short span	Prefectural highway
38.6	Short span	Yokoichi-gawa
39.6	Short span	Mae-gawa

TABLE 52

Tunnels, Nippo Main Line,  
Kagoshima-ken.

Mileage from Kagoshima Station	Length (in feet)
0.9	1,300
2.6	200
4.5	1,100
5.1	1,300
13.4	1,000
14.5	1,300
21.4	700
22.0	1,000
22.6	6,200
24.0	700

24.6	800
25.3	600
25.5	200
26.7	200
27.5	1,300
30.0	100
30.2	1,100
32.8	200
32.9	300
33.1	200
34.2	700
34.8	400
35.1	1,000

3. Hisatsu Line.

Passenger traffic: Between Hayato and Yoshimatsu: 7 trains northbound, 8 southbound daily (1937 and estimated 1945); between Yoshimatsu-mura and Kumamoto-ken border: 5 trains daily each way (1937 and estimated 1945). Average speed for fast trains is 25 m.p.h. Freight traffic: 4,300,000 metric tons yearly, including weight of rolling stock (estimated 1944).

TABLE 53

Stations & Important Features, Hisatsu Line,  
Kagoshima-ken.

Mileage from Hayato Station	Feature
0.0	Hayato station, southern terminal at Hayato Station on Nippo Main Line
0.4	Leaves Nippo Main Line
4.5	Hyokiyama station
7.1	Kareigaha station
10.7	Makisono station
14.2	Osumiyokogawa station
18.1	Kurino station, junction with Yamano line
22.7	Yoshimatsu station, begins double track
23.1	Junction with Kitto Line from north end of double track
25.3	RR leaves prefecture, Kagoshima-Miyazaki-ken Border



TABLE 54

Bridges & Overheads\*, Hisatsu Line,  
Kagoshima-ken.

Mileage from Hayato Station	Length & Type	Obstacle
*0.4	Short span	Prefectural highway
2.4	Short span	Stream
9.9	Short span	Creek
12.3	Short span	Creek
12.8	Short span	Kinzan-gawa
*13.9	Short span	Prefectural highway
14.0	Short span	Kinzan-gawa
*15.0	Short span	Prefectural highway
*16.6	Short span	Prefectural highway
18.7	300 ft.	Sendai-gawa
18.9	Short span	Creek
19.3	Short span	Creek
23.3	Short span	Creek
23.5	Short span	Creek

TABLE 55

Tunnels, Hisatsu Line,  
Kagoshima-ken.

Mileage from Hayato Station	Length (in feet)
2.6	900
2.8	100
2.9	200
3.4	500
4.0	900
8.8	400
9.3	2,000
13.5	800
15.8	300
19.7	2,100
24.0	700
25.2	400

4. Kitto Line.

Passenger traffic: Between Yoshimatsu-mura and Miyazaki-ken Border: 8 trains eastbound, 9 westbound, daily (1937 and estimated 1945).

Average speed for fast trains, 25 m.p.h.

TABLE 56

Stations & Important Features, Kitto Line,  
Kagoshima-ken.

Mileage from Yoshimatsu Station	Feature
0.0	Yoshimatsu Station, western terminal at Hayato. Uses Hisatsu Line to Yoshimatsu
0.4	Leaves Hisatsu Line
2.0	RR leaves prefecture, Kagoshima-Miyazaki-ken Border

TABLE 57

Bridges & Overheads\*, Kitto Line,  
Kagoshima-ken.

Mileage from Yoshimatsu Station	Length & Type	Obstacle
*0.9	Short span	Prefectural highway
1.0	Short span	Sendai-gawa
*1.2	Short span	Prefectural highway

5. Ibusuki Line.

Passenger traffic: Between Yamakawa-machi and Nishi-Kagoshima: 11 trains daily each way (1937 and estimated 1945); between Nishi-Kagoshima and Kagoshima-shi: 9 trains daily each way (1937 and estimated 1945).

Average speed for fast trains is 21 m.p.h.

TABLE 58

Stations & Important Features, Ibusuki Line,  
Kagoshima-ken.

Mileage from Kagoshima Station	Feature
0.0	Kagoshima station, northern terminal
2.0	Nishi-kagoshima station
2.4	Leaves Kagoshima Main Line
6.4	Taniyama station
10.5	Goneno station
12.4	Hirakawa station
14.3	Uchikiba station
16.4	Nakamyo station
18.0	Kiire station
20.2	Maenohama station

Restricted

23.2	Nukumi station
25.0	Satsuma Imazumi station
26.6	Miyagahama station
28.3	Niguwatsuden station
29.7	Ibusuki station
35.2	Tamakawa station, southern terminal

TABLE 59

Bridges & Overheads\*, Ibusuki Line, Kagoshima-ken.

Mileage from Kagoshima Station	Length & Type	Obstacle
3.8	Short span	Tagami-gawa
5.0	Short span	Creek
6.2	150 ft.	Nagata-gawa
7.8	Short span	Creek
*11.6	Short span	Prefectural highway
18.5	Short span	Hachiman-gawa
21.2	Short span	Sugi-gawa
22.8	Short span	Creek
23.3	Short span	Tanoki-gawa
*25.5	Short span	Prefectural highway
26.9	Short span	Minato-gawa
28.2	Short span	Creek
*31.3	Short span	Prefectural highway

TABLE 60

Tunnels, Ibusuki Line, Kagoshima-ken.

Mileage from Kagoshima Station	Length (in feet)
11.3	500
15.5	500
18.8	1,100
23.6	400
31.9	200
32.1	300

6. Shibushi Line.

TABLE 61

Stations & Important Features, Shibushi Line, Kagoshima-ken.

Restricted

Mileage from Miyazaki-ken Border	Feature
0.0	RR enters prefecture, Miyazaki-Kagoshima-ken border
0.9	Sueyoshi station
4.6	Ibakita station
6.4	Iwakawa station
9.0	Osumi-Matsuyama station
11.9	Nawase station
16.1	Anraku station
18.5	Junction with Furue Line from west
19.1	Shibushi station
21.9	Osuminatsui station
23.5	RR leaves prefecture, Miyazaki-ken border

TABLE 62

Bridges & Overheads\*, Shibushi Line, Kagoshima-ken.

Mileage from Miyazaki Border	Length & Type	Obstacle
0.7	200 ft.	Stream
4.4	Short span	Creek
6.2	Short span	Mae-gawa
10.7	Short span	Hishita-gawa
*13.5	Short span	Prefectural highway
14.4	Short span	Creek
15.0	Short span	Creek
15.7	Short span	Creek
16.4	200 ft.	Anraku-gawa
*18.3	200 ft.	Prefectural highway
19.7	200 ft.	Mae-gawa
*20.7	Short span	Prefectural highway
22.1	Short span	Creek

TABLE 63

Tunnels, Shibushi Line, Kagoshima-ken.

Mileage from Miyazaki Border	Length (in feet)
7.6	1,000
10.8	600
11.6	400
12.2	1,300
20.1	500

Restricted

Restricted

Restricted

7. Furue Line.

TABLE 64

Stations & Important Features, Furue Line, Kagoshima-ken.

Mileage from Furue Station	Feature
0.0	Furue station, western terminal
0.7	Funama station
1.7	Arahira station
3.2	Station
4.1	Takasu station
5.2	Shimmura station
6.2	Osuminosato station
7.9	Tasaki station
9.3	Kanoya station
10.2	Shimotasaki station
11.4	Kawanishi station
12.6	Naganota station
13.5	Aira station
14.7	Ronji station
15.3	Osumi Koyama station
16.8	Shimo-Obaru station
18.2	Kushira station
18.6	Fumoto station
21.8	Kamimachi station
24.2	Hishida station
27.0	Junction with Shibushi Line
27.6	Shibushi station, eastern terminal

TABLE 65

Bridges & Overheads\*, Furue Line, Kagoshima-ken.

Mileage from Furue Station	Length & Type	Obstacle
12.8	Short span	Creek
13.6	Short span	Aira-gawa
*13.8	Short span	Unimproved road
16.2	Short span	Lowlands
16.4	Short span	Kimotsuki-gawa
22.1	Short span	Tawara-gawa
24.4	250 ft.	Hishita-gawa
26.2	200 ft.	Anraku-gawa

8. Miyanojo Line.

Restricted

Restricted

TABLE 66

Stations & Important Features, Miyanojo Line, Kagoshima-ken.

Mileage from Sendai-shi Station	Feature
0.0	Sendai-shi, western terminal at Sendai-shi station on Kagoshima Main Line.
0.2	Leaves Kagoshima Main Line
4.0	Kuchimogo station
6.2	Yoshinoyama station
8.1	Hiwaki station
11.4	Iriki station
12.9	Satsumaya Madaki station
16.5	Miyanojo station
18.3	Sashi station
19.5	Satsuma Yuda station
21.0	Satsuma Tsuruda station
23.2	Satsuma Gumyo station
27.4	Satsuma Nagano station
36.0	Junction with Yamano Line.
37.1	Okuchi Station, eastern terminal

TABLE 67

Bridges & Overheads\*, Miyanojo Line, Kagoshima-ken.

Mileage from Sendai-shi Station	Length & Type	Obstacle
9.6	Short span	Hiwaki-gawa
11.6	Short span	Prefectural highway
12.3	Short span	Creek
12.5	200 ft.	Kubuki-gawa
*13.1	Short span	Prefectural highway
17.4	200 ft.	Ana-gawa
*23.9	Short span	Prefectural highway
*24.8	300 ft.	Prefectural highway Ana-kawa
26.9	Short span	Ana-kawa

There is one 300 foot tunnel, 11.1 miles from Sendai-shi station.

9. Yamano Line.

TABLE 68

Restricted

Stations & Important Features, Yamano Line,  
Kagoshima-ken.

Mileage from Kurino Station	Feature
0.0	Kurino station, southern terminal at junction with Hisatsu Line
0.2	Hisatsu Line leaves Hisatsu Line
4.0	Yunoo station
7.0	Hishikari station
10.5	Junction with Miyanojo Line
11.6	Okuchi station
14.4	Yamano station
21.0	Kagoshima-Kumoto-ken border

TABLE 69

Bridges & Overheads\*, Yamano Line,  
Kagoshima-ken.

Mileage from Kurino Station	Length & Type	Obstacle
0.8	Steel, 200 ft.	Sendai-gawa
1.0	Short span	Lowlands
1.6	Short span	Creek
2.3	Short span	Creek
3.5	Short span	Creek
4.4	Short span	Creek
8.6	Short span	Ichiyama-kawa
13.4	Short span	Stream
14.6	Short span	Juso-gawa
*14.8	Short span	Logging R.R.
15.6	Short span	Logging R.R.
17.0	Short span	Logging R.R.
18.2	Short span	Logging R.R.
18.8	Short span	Logging R.R.
20.0	Short span	Logging R.R.
20.1	Short span	Creek

There are 2 tunnels, both 400 feet long, 19.4 and 19.6 miles from Kurino Station.

10. Nansatsu Railroad.

TABLE 70

Stations & Important Features, Nansatsu Railroad,  
Kagoshima-ken.

Mileage from Ijuin Station	Feature
0.0	Ijuin station, northern terminal on Kago Shimma Main Line

0.2	Leaves Kagoshima Main Line
2.4	Kaminioki station
4.6	Hioki station
6.2	Yoshitoshi station
7.6	Nagayoshi station
9.6	Fukiagenama Station
10.9	Izaku station
12.0	Minammi Fukiagenama station
13.6	Kita Buse station
14.8	Miname Tabuse station
16.1	Ata station, junction with Sat-sunan Central Line
17.6	Kaseda station, spur extends 1.6 miles west to Satsuma Ohasaki-machi station
18.8	Kami Kaseda station
19.7	Uchiyamada station
20.5	Kamiuchiyamada station
22.0	Higo station
23.0	Tsunuki station
24.4	Kami Tsunuki station
25.1	Kukino station
26.8	Kinzan station
28.7	Kago station
29.9	Makurazaki station, southern terminal

TABLE 71

Bridges & Overheads\*, Nansatsu Railroad,  
Kagoshima-ken.

Mileage from Ijuin Station	Length & Type	Obstacle
0.2	Short span	Shimo Tanikuchi-gawa
1.0	Short span	Stream
*1.1	Short span	Prefectural highway
*3.2	250 ft.	Prefectural highway and Okawa
5.0	Short span	Creek
7.4	200 ft.	Nagayoshi-gawa
7.9	Short span	Creek
8.9	Short span	Ono-gawa
10.3	Short span	Creek
14.4	Short span	Creek
14.6	Short span	Creek
15.2	Short span	Creek
17.0	250 ft.	Manose-gawa

Restricted

27.3  
28.8

Short span  
Short span  
Creek  
Creek

There are 2 tunnels: one, 1,100 feet long, and 1.4 miles from Ata station, the other 1,000 feet long and 18.9 miles from Ata station.

Restricted

Restricted

11. Satsunan Central Line.

TABLE 72

Stations & Important Features, Satsunan Central Line, Kagoshima-ken.

<u>Mileage From Ata Station</u>	<u>Feature</u>
0.0	Ata station, western terminal on Nansatsu Line.
0.1	Leaves Nansatsu Line.
1.3	Hanase station.
2.8	Satsuma Shirakawa station.
4.8	Imamura station.
5.5	Satsuma Kawanabe station.
6.2	Noma station.
6.7	Hirose station.
7.8	Ono station.
8.9	Jyogasaki station.
9.7	Chiran station, eastern terminal.

TABLE 73

Bridges, Satsunan Central Line, Kagoshima-ken.

<u>Mileage From Ata Station</u>	<u>Length &amp; Type</u>	<u>Obstacle</u>
6.4	Short span	Hirose-gawa
8.2	Short span	Creek
9.5	Short span	Fumoto-gawa

There is one tunnel 300 feet long, 4.2 miles from Ata station.

12. Kagoshima Tramway.

Personnel: 342 employers (1942).  
Rolling stock: 51 passenger cars; 1 freight car (1942).  
Passengers and income: carried 11,707,000 passengers;  
656,000 yen (1942).

TABLE 74

Stations & Important Features, Kagoshima Tramway, Kagoshima-ken.

<u>Mileage From Taniyama Station</u>	<u>Feature</u>
0.0	Taniyama station, southern terminal, at Mukaikawara.
0.5	Station in Naminohira.
1.3	Station in Wakita.
1.7	Station in Korimoto.

Restricted

- 2.5 Station in Kajiwarasako.
- 2.9 Station in Kamoike.
- 3.3 Station in north Kamoike.
- 3.7 Station.
- 4.1 Station in southern Kagoshima-shi.
- 4.8 Branch line, extends north and east. Six-tenths mile along the branch a sub-branch extends 1.3 miles north and terminates at a station in northern Kagoshima; on this sub-branch is a masonry overhead 600' long over the Kagoshima Main Line. One and two-tenths miles from the junction with the main tramway line, the branch line terminates at a station opposite the Kagoshima station on the Kagoshima Main Line.
- 5.0 Branch line 0.3 mile long, leads southwest to a station. A bridge 250 ft. long spans the Katsuki-gawa, on this branch.
- 5.9 Station.
- 6.5 Station.
- 6.9 Ishiki station, northern terminal.

TABLE 75

Bridges, Kagoshima Tramway, Kagoshima-ken.

<u>Mileage From Taniyama Station</u>	<u>Length &amp; Type</u>	<u>Obstacle</u>
1.1	Short span	Wakita-gawa
2.4	Short span	Shin-kawa
3.4	200 ft.	Katsuki-gawa

13. Koyama Logging Railroad.

TABLE 76

Stations & Important Features, Koyama Logging Railroad, Kagoshima-ken.

<u>Mileage From Koyama</u>	<u>Feature</u>
0.0	Koyama, northern terminal near Osumi-Koyama station on Furue Line.
3.1	Tunnel, 400 ft. long.
5.2	Tunnel, 200 ft. long.
6.0	Spur, 2.7 miles long, extending east.
6.7	Oryuno, southern terminal.

14. Unchinomaki Logging Line.

The Western terminal is on a prefectural highway 0.4 miles north of O-Neshime. The railroad extends eastwardly for a distance of 12.4 miles.

15. Logging Railroad, Isa-gun. The western terminal of this line is opposite Satsuma Ohakuchi station on the Yamano Line. The railroad extends easterly for a distance of 6.6 miles to the Miyazaki-ken border. There is one short span bridge 3.2 miles from the western terminal.

16. Logging Railroad, Isa-gun. The western terminal is opposite Yamano station on the Yamano line. The railroad extends eastwardly for a distance of 5.3 miles.

17. Logging Railroad, Kimotsuki-gun. The railroad extends westwardly for a distance of 2.7 miles. The eastern terminal is an inlet of the pacific ocean to a stream on the east slope of Arase-yama.

18. Logging Railroad, Kimotsuki-gun. The railroad extends westwardly for a distance of 4.4 miles to the eastern terminal on Uchinora-wan lumber mill.

19. Railroad in Kimotsuki-gun. The southern terminal is Minato-saki and extends northernly for a distance of 2.2 miles.

20. Logging Railroad in So-gun. This railroad enters the prefecture at the Miyazaki border, follows the valley of a stream, and terminates 3.9 miles to the north.

## ELECTRIC GENERATING PLANTS

The following abbreviations are used in this appendix:

Technical terms.

a	ampers
ac	alternating current
adv	advertisement
ave	average
Btu	British thermal uni
C	centigrade
cap	capacity
conn	connection
cont	continuous
cm	centimeter
cm <sup>2</sup>	square centimeter
cyc	cycles
dc	direct current
D-D	delta-delta-(transformer connection)
D-Y	delta-Y (transformer connection)
econ	economical
eff	effective
est	estimated
F	Fahrenheit
ft	feet
ft <sup>2</sup>	square feet
hp	horsepower
in	inch
inc	includes
in <sup>2</sup>	square inch
kg	kilogram
kg/cm <sup>2</sup>	kilograms per square centimeter
km	kilometer
kv	kilovolt
kva	kilovolt-ampere
kw	kilowatt
kwh	kilowatt-hour
lb	pound
lbs/in <sup>2</sup>	pounds per square inch
m	meter
m <sup>2</sup>	square meter
m <sup>3</sup>	cubic meter
m <sup>3</sup> /sec	cubic meters per second
max	maximum
max pk	maximum peak
min	minute
mini	minimum
no	number
opp	opposite
pf	power factor
ph	phase
qv	which see
reg	regular capacity
reg pk	regular peak
res	reserve, reserve capacity

rpm	resolutions per minute
sec	second
spec	special capacity
supp	supplement, Supplementary capacity
t	ton
t/hr	tons per hour
v	volt
Y-Y	transformer connection
@	each
*	indicates that kw have been estimated from kva at 80 percent power factor

Non-Japanese trade names

AC	Allis-Chalmers Mfg. Co.
AEG	Allgemeine Elektrizitäts-Gesellschaft
ASEA	Allmänna Svenska Elektriska Aktiebolag
B	Boving & Co., Ltd.
BBC	Brown, Boveri & Co., Ltd.
BTH	British Thomson-Houston Co., Ltd.
B & W	Babcock & Wilcox Co.
D	Dicker
EC	Erie City Boiler Co.
EE	English Electric Co., Ltd.
EW	Escher, Wyss Co.
G	Green Economizer Co.
GE	General Electric Co.
H	Heine
IPM	I. P. Morris Co.
MV	Metropolitan-Vickers Electrical Co., Ltd.
P	Pelton Steel Casting Co.
R	Russell
S	Shepardson
SB	Sulzer Brothers, Ltd.
SS	Siemens Schukert Werke A. G.
STAL	Svenska Turbin fabriks Aktiebolaget Ljungstrom
V	Voith
W	Westinghouse Electric & Mfg. Co.
WE	Western Electric Co.

## AKINA DIESEL PLANT

Installed capacity: 1,925 kw, (as of Sept. 1930).  
 Date of construction: unknown; in operation as early as Sept. 1930 and as recently as Mar. 1940.  
 Details: particular capacities (in kw.): 60 reg.; 1,865 supp. This plant operates its reg. cap. (60 kw) on water and its supp. cap. on diesel oil, both on 60 cyc.

## AMBOGAWA NOS. 1, 2, 3 HYDRO PLANTS

Capacity commonly in use: 3 plants totaling 54,811 kw.  
 Source of power: Ambo-gawa.  
 Date of construction: construction began in 1938; completion of the 3 plants scheduled for 1941.  
 Details: particular capacities (in kw.): 19,752 reg.; 35,059 spec.

## HANASEGAWA HYDRO PLANT

Capacity commonly in use: 1,000 kw., (as of Dec. 1934).  
 Source of power: Hanase-gawa.  
 Date of construction: unknown; plant in operation as early as Dec. 1926 and as recently as Mar. 1940.  
 Details: particular capacities (in kw.): 1,000 installed cap.; 360 reg.; 640 spec.  
 Eff. head: 235 ft.  
 Turbines: 1 @ 1,500 hp., Francis-type, Dengyosha-make.  
 Generators: 1 @ 1,000 kw., 3-ph., 6,600 v., 750 rpm., 50 cyc., Shibaura-make.  
 Transformers: 4 (incl. one res.) @ 500 kva., 1-ph., 6.6, 6.4, 6.2/22 kv., D-Y conn., water-cooled, 50 cyc., shell-type, SS-make.

## HONJOGAWA HYDRO PLANT

Capacity commonly in use: 3,000 kw., (as of Dec. 1936).  
 Source of power: Honjo-gawa and 5 other rivers.  
 Date of construction: completed Mar. 1926; in operation Mar. 1940.  
 Details: particular capacities (in kw.): 3,000 installed cap.; 1,088 reg.; 1,912 spec.  
 Eff. head: 1,153 ft.  
 Turbines: one @ 5,180 hp., Pelton-type, Voith-make.  
 Generators: @ 3,000 kw., 3-ph., 6,600 v., 500 rpm., 50 cyc., Yasukawa-make.  
 Transformers: 4 (incl. one res.) @ 1,250 kva., one-ph., 22/6.6, 6.4, 6.2 kv., Y-D conn., water-cooled, 50 cyc., core-type, Yasukawa-make; 4 (incl. one res.) @ 2,500 kva., one-ph., 6.6, 6.4, 6.2/38.15 kv., D-Y conn., water-cooled, 50 cyc., core-type, Meidensha-make.

## KAGOSHIMA DENKI KARYOKU STEAM PLANT

Company: Kyushu Denki KK; formerly Kagoshima Denki KK.  
 Installed capacity: 1,200 kw., (as of Oct. 1932).  
 Date of construction: unknown; in operation as early as Dec. 1926 and as recently as Mar. 1940.  
 Details: particular capacities (in kw.): 1,000 supp.; 200 res.  
 Boilers: 4 (incl. one res.) @ B&W-type, 200 lbs/in<sup>2</sup>, 382° F., 4,020 ft<sup>2</sup>., B&W-make.  
 Turbines: one @ 2,000 hp. Curtis-type, GE-make.  
 Generators: one @ 1,200 kw., 3-ph., 6,500 v., 60 cyc., GE-make.

## KAGOSHIMA DENKI NO. 4 HYDRO PLANT

Capacity commonly in use: 2,160 kw., (as of Sept. 1930).  
 Source of power: Matsunaga-gawa of the Shin-kawa system.  
 Date of construction: unknown; in operation as early as Dec. 1926 and as recently as Sept. 1930.  
 Details: particular capacities (in kw.): est. 2,550 installed cap.; 1,300 reg.; 860 spec.  
 Eff. head: 320 ft.  
 Turbines: 2 @ 1,300 hp., Pelton-type, EW-make. A third turbine has probably been added.  
 Generators: 2 @ 850 kw., 3-ph., 3,500 v., 400 rpm., 60 cyc., GE-make. A third generator has probably been added.  
 Transformers: 4 (incl. one res.) @ 700 kva., one-ph., 3.5, 3.4, 3.3/66, 63, 60 33, 31.5 kv., D-D conn., water-cooled, 60 cyc., core-type, Shibaura-make.

## KAGOSHIMA DENKI NO. 5 HYDRO PLANT

Capacity commonly in use: 3,450 kw., as of Mar. 1931.  
 Source of power: Kanayama-gawa and Nakatsu-gawa of the Shinkawa system.  
 Date of construction: unknown; in operation as early as Nov. 1928 and as recently as June 1931.  
 Details: particular capacities (in kw.): est. 3,500 installed cap.; 2,065 reg.; 1,395 spec.  
 Layout: aqueduct-type.  
 Eff. head: 125 ft. (Kagayama-gawa) and 300 ft. (Nakatsugawa).  
 Turbines: one @ 2,700 hp., Francis-type, EW-make. One @ 1,500 hp., Francis-type, EW-make. At least one more has been added since.  
 Generators: one @ 1,400 kw., 3-ph., 3,500 v., 514 rpm., 60 cyc., Shibaura-make. One @ 800 kw., 3-ph., 3,500 v., 720 rpm., 60 cyc., Shibaura-make. At least one more has been added since.  
 Transformers: 4 (incl. one res.) @ 1,120 kva., one-ph., 3.5, 3.4, 3.3/33 kv., D-D conn. water-cooled, 60 cyc., shell-type, Shibaura-make.



## KOSHIKANO HYDRO PLANT

Capacity commonly in use: 2,160 kw., (as of Dec. 1936).  
 Source of power: a branch of the Kanayama-gawa.  
 Date of construction: unknown; in operation as early as Dec. 1934 and as recently as Mar. 1940.

## KOYAMA HYDRO PLANT

Capacity commonly in use: 2,700 kw.  
 Source of power: Takayama-kawa of the Kimotsuki-gawa system.  
 Date of construction: construction was begun Feb. 1937, at which time completion was scheduled for 1938; probably completed since.  
 Details: particular capacities (in kw.): 700 reg.; 2,000 spec.; 2,700 reg. pk.

## MATSUYAMA HYDRO PLANT

Capacity commonly in use (in kw.): 1,490.  
 Source of power: Hishita-gawa.  
 Date of construction: construction was begun Nov. 1936, at which time completion was scheduled for 1937. Plant was reported still under construction Sept. 1938 but has probably been completed since.  
 Details: particular capacities (in kw.): 360 reg.; 1,130 spec.

## OKAWA HYDRO PLANT

Capacity commonly in use: 3,000, as of Dec. 1936.  
 Source of power: O-kawa.  
 Date of construction: founded Mar. 1920; in operation Mar. 1940.  
 Details: particular capacities (in kw.): 2,000 installed cap.; 1,100 reg.; 1,900 spec.  
 Eff. head, 370 ft.

## SENDAI STEAM PLANT

Installed capacity: 3,300 kw., as of Dec. 1936.  
 Date of construction: construction was begun Nov. 1934 and completed Oct. 1935; in operation Mar. 1940.

## SENDAIGAWA HYDRO PLANT

Capacity commonly in use: 9,200 kw., as of Dec. 1934.  
 Source of power: Sendai-gawa.  
 Date of construction: completed Oct. 1917; in operation Mar. 1940.  
 Details: particular capacities (in kw.): \*13,680 installed cap.; 16,700 max. pk.  
 Eff. head: 61.8 m.; flow, 39.3 m<sup>3</sup>/sec.  
 Turbines: 3 @ 6,400 hp., reaction-type, horizontal-shaft, EW-make.  
 Generators: 3 @ 5,700 kva., 3-ph., 6,600 v., 50 cyc., Mitsubishi-make.

Transformers: 7 @ 2,800 kva., one-ph., 6.6/66 kv., D-Y conn., water-cooled, shell-type, Hitachi-make.

## SHIOHITARI HYDRO PLANT

Capacity commonly in use: 1,840 kw., (as of Dec. 1935).  
 Source of power: Kaneyama-gawa of the Shin-kawa system.  
 Date of construction: completed Dec. 1934; in operation Mar. 1940.  
 Details: particular capacities (in kw.): 1,840 reg.

## SOGI HYDRO PLANT

Capacity commonly in use: 6,360 kw., (as of Dec. 1936).  
 Source of power: Sendai-gawa.  
 Date of construction: founded Dec. 1908; in operation Mar. 1940.  
 Details: particular capacities (in kw.): \*5,088 installed cap.; 6,360 reg.  
 Eff. head: 110 ft.  
 Turbines: 4 @ 2,250 hp., Francis-type, Voith-make.  
 Generators: 4 @ 1,590 kva., 3-ph., 200 v., 500 rpm., 50 cyc., SS-make.  
 Transformers: 4 (incl. one res.) @ 2,500 kva., one-ph., 2/38.1 kv., D-Y conn., water-cooled, 50 cyc., shell-type, Yasukawa-make; 2 @ 150 kva., one-ph., 2/11 kv., V-V conn., self-cooled, 50 cyc., shell-type, SS-make.

## SUITEMBUCHI HYDRO PLANT

Capacity commonly in use: 1,400 kw., (as of Dec. 1934.)  
 Source of power: Shin-kawa.  
 Date of construction: completed May 1928; in operation Mar. 1940.  
 Details: particular capacities (in kw.): \*1,040 installed cap.; 1,025 reg.; 375 spec.  
 Eff. head: 56 ft.

## TAEMI HYDRO PLANT

Capacity commonly in use (in kw.): 2,500, as of July 1933.  
 Source of power: believed to be Kaneyama-gawa.  
 Date of construction: founded Aug. 1921; in operation Mar. 1940.  
 Details: particular capacities (in kw.): 1,780 reg.; 720 spec.; est. 3,660 installed cap.

## TSUKINO HYDRO PLANT

Capacity commonly in use: 1,750 kw., (as of Feb. 1935).  
 Source of power: Hishida-gawa system.  
 Date of construction: unknown; under construction Feb. 1935, and in operation Mar. 1940.  
 Details: particular capacities (in kw.): 730 reg.; 1,020 spec.

TSURUTA HYDRO PLANT

Capacity commonly in use: 4,384 kw., (as of Dec. 1936).  
 Source of power: Sendai-gawa.  
 Date of construction: founded Nov. 1924; in operation Mar. 1940.

Details: particular capacities (in kw.): \*4,450 installed cap.; 2,360 reg.; 2,024 spec.  
 Eff. head: 53 ft.  
 Turbines: 3 @ 2,400 hp., Francis type, EW-make.  
 Generators: 3 @ 1,850 kva., 3-ph., 3,300 v., 214/257 rpm., 50/60 cyc., GE-make.  
 Transformers: 4 (incl. one res.) @ 1,850 kva., one-p., 3.4, 3.3, 3.2/38.15 kv., D-Y conn., water-cooled, 50 cyc., shell-type, Shibauro-make. 3 @ 900 kva., one-ph 3.45, 3.3, 3.15/38.15, 33 kv., D-Y conn., water-cooled, 60 cyc., core-type, Yasukawa-make. 3 @ 400 kva., one-ph., 3.3/11 kv., D-Y conn., water-cooled, 60 cyc., shell-type, Hitachi-make.

YUDA HYDRO PLANT

Capacity commonly in use: 1,200 kw., (as of Dec. 1934).  
 Source of power: Sendai-kawa.  
 Date of construction: founded July 1921; in operation Mar. 1940.

Details: particular capacities (in kw.): 1,200 installed cap.; 4,600 reg.; 740 spec.  
 Eff. head: 30 ft.  
 Turbines: 2 @ 850 hp., Francis-type, EW-make.  
 Generators: 2 @ 600 kw., 3-ph., 11,000 v., 360 rpm., 60 cyc., GE-make.

APPENDIX IV.

PLACE NAMES AND LOCATIONS.

<u>SHI</u>		<u>LAT. N.</u>	<u>LONG. E.</u>
KAGOSHIMA		31.35	130.33
KANOYA*		31.23	130.51
SENDAI		31.50	130.15
<u>MACHI</u>	<u>GUN NO.**</u>	<u>LAT. N.</u>	<u>LONG. E.</u>
Akune	6.	32.01	130.12
Chiran	3.	31.22	130.26
Chosa	8.	31.45	130.37
Fukuyama	8.	31.38	130.51
Hatayo	8.	31.44	130.43
Higashiichiki	4.	31.41	130.22
Higashikushira	10.	31.23	130.59
Hishikari	7.	32.02	130.39
Hiwaki	5.	31.43	130.47
Ibusuki	2.	31.15	130.36
Ichiki	4.	31.07	130.44
Ijuin	4.	31.37	130.24
Iwakawa	9.	31.35	131.00
Izaku	4.	31.31	130.21
Izumi	6.	32.03	130.22
Kajiki	8.	31.45	130.40
Kametsu	12.	27.44	129.01
Kamo	8.	31.46	130.34
Kesasa	3.	31.25	130.10
Kaseda	3.	31.25	130.19
Kawanabe	3.	31.23	130.24
Kokubu	8.	33.44	130.46
Konejime (see Nejime)			
Komenotsu	6.	32.07	130.20
Koniya	12.	28.08	129.18
Koyama	10.	31.21	130.57
Kurino	8.	31.57	130.44
Kushikino	4.	31.43	130.16
Kushira	10.	31.24	130.57
Makisono	8.	31.53	130.44
Makurazaki	3.	31.16	130.18
Mansei	3.	31.24	130.15
Miyanojo	5.	31.54	130.27
Nakatane	11.	30.34	131.01
Nase	12.	28.22	129.30
Nejime	10.	31.09	131.48
Nishinoomote	11.	30.44	131.00
Okuchi	7.	32.03	130.36

Restricted

Onejime	10.	31.15	130.47
Osaki	9.	31.26	130.58
Shibushi	9.	31.28	131.06
Sueyoshi	9.	31.39	131.01
Takaono	6.	32.49	131.11
Takarabe	9.	31.44	131.01
Taniyama	1.	31.31	130.31
Tarumizu	10.	31.31	130.42
Uchinoura	10.	31.17	130.04
Watomari	12.	27.23	128.39
Yamakawa	2.	31.12	130.38
Yamano	7.	32.06	130.35
Yokokawa	8.	31.54	130.42

<u>MURA</u>	<u>GUN NO.</u> **	<u>LAT. N.</u>	<u>LONG. E.</u>
Aira	10.	31.21	130.54
Amagi	12.	27.51	128.55
Ata	4.	31.26	130.21
China	12.	27.20	128.34
Chinzei	12.	28.22	129.28
Ei	2.	31.16	130.25
Hatsuki	7.	32.01	130.29
Higashiamagi	12.	27.51	128.56
Higashikokubu	8.	31.43	130.44
Higashinagashima	6.	32.15	130.11
Higashisakurajima	1.	31.34	130.40
Hinatayama	8.	31.46	130.44
Hioki	4.	31.35	130.20
Honjo	7.	31.59	131.19
Ichinari	9.	31.37	130.51
Imaizumi	2.	33.17	130.37
Imuta	5.	31.46	129.48
Iriki	5.	31.48	130.26
Isen	12.	27.40	128.56
Ishiki	1.	31.38	130.29
Jitto (10 islands)	12.	29.40	129.30
Kamijuin	4.	31.35	130.26
Kamikoshiki	5.	31.51	129.50
Kamitogo	5.	31.54	130.21
Kamiyaku	11.	30.25	130.30
Kasari	12.	28.29	129.42
Katsume	3.	31.23	130.20
Kiire	2.	31.22	130.30
Kikai	12.	38.18	129.56
Kirishima	8.	31.51	130.52
Kiyomizu	8.	32.37	130.53
Koniya	12.	28.08	129.18
Koriyama	4.	31.41	130.28
Kumiyo	5.	31.58	130.32
Kuroki	5.	31.53	130.31
Matsuyama	9.	31.34	131.02

Restricted

Mikasa	6.	32.06	130.12
Mikata	12.	28.18	129.30
Minamitane	11.	30.25	130.57
Mizobe	8.	31.51	130.39
Mizuhiki	5.	31.50	130.15
Mohiki	10.	31.32	130.53
Nagano	5.	31.46	130.20
Nagatoshi	5.	31.47	130.21
Nagayoshi	4.	31.33	130.21
Nase	12.	28.22	129.30
Nishigata	12.	28.15	129.12
Nishiminamikata	3.	31.17	130.15
Nishinagashima	3.	32.11	130.07
Nishisakurajima	1.	31.36	130.38
Nishishibushi	9.	31.32	130.02
Nishitara	7.	32.00	130.35
Noda	6.	32.04	130.15
Nogata	9.	31.30	130.57
Okawachi	6.	32.04	130.28
O	5.	31.50	131.30
Saneku	12.	28.10	129.12
Sashi	5.	31.55	130.29
Sata	10.	31.05	130.44
Sato	5.	31.51	130.55
Shigetomi	8.	31.43	130.35
Shikine	8.	31.42	130.48
Shimoijuin	4.	31.41	130.25
Shimokoshiki	5.	31.41	129.42
Shimotogo	5.	31.55	130.18
Shimoyaku	11.	30.18	130.30
Shinjo	10.	31.27	130.44
Somachi	12.	28.20	130.00
Sumiyo	12.	28.16	129.26
Tabuse	4.	31.28	130.22
Tajiro	10.	31.11	130.51
Takae	5.	31.50	130.11
Takagi	5.	31.54	130.14
Takakuma	10.	31.29	130.52
Tatsugo	12.	28.26	129.36
Tsukino	9.	31.34	131.00
Tsuneyoshi	9.	31.35	130.55
Tsuruta	5.	32.01	130.28
Uken	12.	28.14	129.14
Ushine	10.	31.33	130.45
Yamada	8.	31.51	130.36
Yamasaki	5.	31.51	130.15
Yamato	12.	33.09	130.30
Yoron	12.	27.02	128.25
Yoshida	1.	31.43	130.32
Yoshimatsu	8.	32.01	130.44
Yoshitoshi	4.	31.34	130.21

Restricted

\* Includes the former Hanaoka-mura and Oaira-mura of Kimotsuki-gun.

- \*\*Gun:
1. Kagoshima
  2. Ibusuki
  3. Kawanabe
  4. Hioki
  5. Satsuma
  6. Izumi
  7. Isa
  8. Aira
  9. So
  10. Kimotsuki
  11. Kumage
  12. Oshima

Restricted

TABLE OF WEIGHTS AND MEASURES

		Weight	
1 momme (10 fun)	-	0.1323 oz.	- 3.750 grams
1 kin (160 momme)	-	1.323 lb.	- 0.600 kilograms
1 kan (1000 momme)	-	8.267 lb.	- 3.750 kilograms
1 koku (fish) - 40 Kan			
1 ounce	-	7.560 momme	
1 pound	-	120.958 momme	
1 short ton	-	241.916 kan	
1 gram	-	0.266 momme	
1 kilogram	-	266.666 momme	
1 metric ton	-	1666.66 kin	

		Length	
1 shaku (10 sun)	-	11.930 inch	- 30.303 centimeters
	-	0.994 foot	- 0.303 meter
1 ken (6 shaku)	-	5.965 feet	- 1.818 meters
1 cho (60 ken)	-	0.678 mile	- 109.090 meters
1 ri (36 cho)	-	2.440 miles	- 3.927 kilometers
1 shaku (cloth measure)	-	1.25 shaku	
1 tan (a roll of cloth)	-	approx. 25-30 shaku	
1 hiki (cloth)	-	a tan	
1 inch	-	0.084 shaku	
1 foot	-	1.006 shaku	
1 yard	-	3.017 shaku	
1 mile	-	885.123 ken	- 0.4098 ri
1 meter	-	3.300 shaku	
1 kilometer	-	550,000 ken	- 0.2546 ri

Restricted

Area

1 sq. shaku	-	0.988 sq. foot	
1 tsubo (36 sq. shaku)	-	3.954 sq. yards	
1 se (30 tsubo)	-	118.614 sq. yards	- 0.992 are
1 cho (100 se)	-	2.45	- 0.0099 sq. kilo- meter
1 sq. ri	-	5.955 sq. miles	- 15.424 sq. kilo- meters
1 tan - 10 se			
1 sq. foot			
1 sq. Yard			
1 acre			
1sq. mile			
1 are	-	30.250 tsubo	
1 hectare	-	1.008 cho	
1 sq. kilometer	-	100.833 cho	

Capacity

1 cho (10 go)	-	3.812 pints (U.S.)	-	1.804 litres
1 cu. shaku	-	0.983 cu. foot	-	27.826 litres
1 cu. tsubo	-	7.861 cu. yards	-	6.010 kilolitres
1 koku (dry)	-	4.960 bushels (British)		
	-	5.119 bushels (U.S.)		
1 koku (timber)	-	approx. 10 cu. feet		
1 shakujime (timber)	-	approx. 12 cu. feet		
1 cu. foot	-	1.0176 cu. shaku		
1 cu. yard	-	27.474 cu. shaku		
1 gallon (U.S.)	-	2.098 sho		
1 bushel (British)	-	1.305 cu. shaku		
1 litre	-	0.554 sho		
1 kilolitre	-	35.937 cu. shaku		
1 cu. metre	-	35.937 cu. shaku		
1 koku (liquid)	-	10 to	-	100 sho - 1000 go