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HEADQUARTERS
ALLIED AIR FORCES
S.W.P.A.

COPY No.

15 JULY 1945

TARGET STUDY

Korea

OBJECTIVE DATA ANNEX

CONFIDENTIAL

TARGET STUDY

OF

KOREA

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Rashin (Plan of Port)
Jinsen
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Genzan
Keijo

I N T R O D U C T I O N

The following discussion of important targets in Korea includes information from all sources now available at this Headquarters. Since recent reconnaissance photographs of the targets are not now obtainable, information presented below may in cases differ from the current status of some targets discussed. The major purpose of this orientation study, however, is to give a brief and general description of each important target known in Korea, emphasizing its relation to the enemy's war effort.

TERRAIN

The peninsula of Korea, jutting southward from Manchuria between the Yellow and Japan Seas, has a coast line some 5,400 miles long. Added to this are some 1,018 nearby islands, which make a total coastline of 10,700 miles. The northern third of Korea is a rough mountain mass separated from Manchuria by the deeply trenched valleys of the Amnok-kang and Tuman-gang. Southward from these mountains the Taeback Range, a long barrier of lower, rough mountains, extends to the end of the peninsula. Mountain and hill spurs extend westward from the Taeback Range to the coast of the Yellow Sea. The principal lowlands of Korea lie between these mountain spurs. All long rivers of Korea, except the Tuman-gang at the north, flow westward from the Taeback Range.

The south and west coasts are highly irregular, with alternating beach-fringed lowlands and rocky headlands. There are numerous off-lying islands, rocks, reefs and shoals, all typical of a drowned coastline. Broad, drying mud-flats and sand bars, and a large tidal range, add to the difficulty of approach along the west and south coasts. The east coast, however, is fairly regular, with small, beach-bordered, pocket valleys separated from one another and from the interior by steep mountains with swift streams. Approaches from the sea are relatively clear.

STRATEGIC IMPORTANCE

Korea has a well developed and fairly extensive network of military airfields connecting with those in Manchuria and providing bases for air cover of Korea Strait and the Yellow Sea. Our information on these airfields is limited, but at least seven airbases, two airdromes and five landing grounds have been confirmed by photographs; only these airfields will be discussed in this report. Supplementary data will be distributed as photos and more recent and reliable information become available.

Northwestern Korea is one of the principal iron ore and pig iron centers under the Japanese control. The upper northeastern section of Korea includes the largest iron mine under Japanese influence and nearby iron and steel production centers at Seishin provide materials for further processing in Japan Proper. The Konan area, a relatively isolated region on the upper east coast, is the site of the Empire's largest basic chemicals plant and has the greatest development of hydro-electric power in Korea. The southern half of Korea has various industries and is the principal rice bowl of the country. In fact, the whole west coast of Korea is one of the main rice-growing areas under Japanese control. It has been estimated producing around 700,000 tons of rice for export to Japan.

There are many industrial targets in Korea, but the following are rated as key targets in Japan's wartime economy:

Chosen Nitrogen Fertilizer Co. at Konan
Japan Iron Works (Seishin) at Seishin
Japan Iron Works (Kenjiho) at Kenjiho
Agochi Coal Liquefaction Plant at Agochi

The extensive and modern harbor facilities at Rashin, Seishin, Fusan and elsewhere are an important factor in Japan's ability to utilize easily Korean iron ore and pig iron, Konan basic chemical products and bulk materials from Manchuria. The ports in southern Korea give the mainland of Asia rail terminals very near Japan Proper. Fusan, located where the mainland is only 125 miles from Japan, is a major trans-shipment point between the mainland and Japan Proper. The new ports at Seishin and Rashin on the northeast coast, however, will become of increasing importance as the Allied air and sea blockade increases over the South Yellow and South Japan Seas.

Korea's war importance to Japan depends heavily on its railroad system, for it is by this means that goods are carried to ports for trans-shipment to Japan. The transportation and port facilities of Korea thus provide lucrative targets for paralyzing communications with Japan. The principal rail line is the double-tracked, standard gauge route from Manchuria down the west coast and across to Fusan at the SE tip of Korea. Of considerable importance, however, are the rail lines in northeastern Korea, connecting Manchuria with the still relatively protected sea route to Japan via the new ports of Rashin and Seishin.

The following is a list of major targets in Korea (Target Nos. are AOF numbers):

I. IMPORTANT AIRFIELDS:

Heijo A/B	T.N. 84.3-271
Genzan A/B	T.N. 84.4-306
Gunzan A/B	T.N. 84.8-319
Keijo SW A/B	T.N. 84.6-326
Keijo W A/B	T.N. 84.6-327
Fusan A/B	T.N. 84.7-360
Saishu I. No. 1 A/B	T.N. 84.8-371

II. MAJOR TRANSPORTATION TARGETS

A. BRIDGES

T.N. 84.6-42	Ryuzan Bridges	37.30.55N, 126.57.00E
T.N. 93.2-77	Shingishu Bridges	40.06.50N, 124.23.15E
T.N. 84.3-91	Heijo I Bridges	38.59.10N, 125.44.45E
T.N. 89.3-91	Heijo II Bridges	38.59.25N, 125.44.30E
	Kogen Bridge	39.26.45N, 127.15.00E
T.N. 84.7-106	Waikan Bridges	36.59.35N, 128.23.45E
T.N. 84.3-211	Shinanshu Bridges	39.37.25N, 125.36.05E
T.N. 84.1-19	Nanyo Bridge	42.56.05N, 139.49.35E

B. CLASSIFICATION YARDS:

	Taiden Yards	36.19 N, 127.16 E
T.N. 84.6-124	Suishoku Freight Yards	37.35N, 126.54 E
	Anto Yards	36.34 N, 128.43E

C. RAILROAD SHOPS

1.	Ryuzan RR Workshops	T.N. 84.6-43
2.	Fusan RR Workshops	T.N. 84.7-97
3.	Heijo RR Shops & Yards	T.N. 84.3-73

III. MAJOR INDUSTRIAL TARGETS

1.	Chosen Nitrogen Fertilizer Co.	T.N. 84.2-1
2.	Japan Iron Works (Seishin)	T.N. 84.1-28
3.	Japan Iron Works (Kenjiho)	T.N. 84.3-66
4.	Agochi Coal Liquefaction Plant	T.N. 84.1-125
5.	Chosen Riken Metals Co.	T.N. 84.3-67
6.	Chosen Oil Refinery	T.N. 84.8-88
7.	Chosen Nitrogen Explosives Factory	T.N. 84.2-2
8.	Japan Explosives Co.	T.N. 84.3-60
9.	Heijo Army Arsenal	T.N. 84.3-61

IV. IMPORTANT HARBORS & NAVAL BASE

1.	Seishin	T.N. 84.1-13
2.	Rashin	T.N. 84.1-14
3.	Jinsen	T.N. 84.6-45
4.	Konan	T.N. 84.4-89
5.	Fenzan	T.N. 84.7-97
6.	Fusan	T.N. 84.3-76
7.	Chinnampo	T.N. 84.7-101
8.	Chinkai Naval Baso	

MAP A

JAPANESE AIR FACILITIES IN KOREA

125° 130° 40° 35°

Hsi-feng
Hsi-an
Chia-p'i-kou
Yen-chi
Hun-ch un
An-t'u
Agochi
Fu-sung
KWANEI
YUKI
Meng-chiang
MOSAN
RASHIN
DAISO
Ch'ing-yuan
MUKDEN
Fu-shun
Lao-cheng
T'ung-hua
Lin-chiang
SEISHIN
RANAN
SHINKAHACHIN
Ch'ang-poi-shan
KEIZANCHIN
Eian
Chien-ch'ang
Huai-jen
Chasons
KOZAN
KOKAI
KOKAI
KISSHU
IGEN
K'uan-tien
Joshin
TANSEN
Shinuijubu
An-Tung
SHINGISHU
KANKO W.
KOGEN
KANKO
KONAN
Konan)
TASHITO
SENSEN
TEISHU
ANSHU
Sinch'ang-ni
YOTOKU
GENZAN
GENZAN
HEIJO
HEIJO E
HEIJO S.
ONSEIRI
Chinnampo
Kenjiho
DAIDO RIVER
KOJO
KINJO
KYOSHINRI
JOYO
SARIIN
TETSUGEN
Haeju
KAISHU
HAKUSEN
KAIJO
BUNZAN
KIMPO
SHUNSEN
Syunsen
KORYU
KORYO
JINSEN
JINSEN
KEIJO E.
KEIJO S.W.
Heisyo
HEITAKU
TENAN
CHUSHU
UTCHIN
Ten-an
CHOCHIN
Anhun
KOSHU
TAIDEN
ANTO
Kumch'on
KOKEI
GEIJITSU BAY
GUNZAN
GUNZAN
RIRI
RIRI
TAIKYU
TAIKYU
TOKUSHIN
URUSAN
URUSAN
NANGEN
KOSHU S.
KOSHU
MASAN
Masan
Konyang
KAIUNDAI
FUSAN
SHISEN
JUNTEN
MOPPO
REISU
REISU
TOEI
CHIN
Izuhara
Moji
Sasebo
GOTO-RETTO
KYUSHU

LEGEND

- AIRBASE
- AIRDROME
- LANDING GROUND
- REPORTED AIRFIELDS -FROM ALL AVAILABLE SOURCES.
- SEAPLANE FACILITIES

CHEJU-DO
Cheju
SAISHU NO 2.
SAISHU I. NO I.

REPRODUCED BY 955TH ENGR TOPO. CO. AVN

A I R F A C I L I T I E S

Korean airfields are used primarily for training purposes and as staging bases for aircraft enroute from the Empire to Manchuria and China. With the constant Allied air attacks on enemy airfields in Japan, the air facilities in Korea, still temporarily safe from aerial attack, are serving as excellent training and rear bases for replacements for the Japanese mainland. With the immediate possibility of Allied air attacks on Manchuria and Korea, the Korean airfields will play a major role in the air defense of the region.

A complete list of airfields and S/P facilities in Korea, including those not yet confirmed by photographs but believed to be in existence, is given at the end of this chapter. On our map is shown a total of 14 airfields confirmed by photographs and captured documents; an additional 34 are believed to be in use judging from all available sources. Among the 14 confirmed airfields there are 7 airbases, 2 airdromes and 5 landing grounds. The airbases are complete with major facilities, and some include important repair and supply depots.

FUSAN A/B (Pusan) Target No. 84.7-360
(Plate 1)

Location: 35.10 N, 129.08 E. Seven miles NE of Fusan on the E bank of a river.

Runway: One runway, 6500' x 970', NW-SE, still under construction.

Dispersal: There are 21 fighter revetments.

Facilities: The following facilities are SE of the center of the field: 1 double hangar, 2 shops, 2 barracks buildings, 5 miscellaneous buildings, 1 storage building.
The area to the S contains one storage building and a control and administration building.

Defenses: 2 M A/A S of runway.

Remarks: This field is used by both the Army and Navy as a depot for combat fighter and bomber aircraft. Construction still in progress.

GENZAN A/B (Wonsan) Target No. 84.4-306
(Plate 2)

Location: 39.10 N, 127.29 E. The airfield is on E side of Wonsan P'o.

Runways: No. 1 - 3850' x 230' ENE/WSW
No. 2 - 3000' x 230' N/W

Dispersal: There are 58 fighter revetments.

Facilities: SW of center of field are 4 medium hangars (95' x 125'), 2 large hangars (165' x 185'), an administration building, 3 shops, and 10 miscellaneous buildings.

S of above area are 3 medium hangars, 1 large hangar, 1 small hangar, 3 shops, 9 miscellaneous buildings and an open storage area.

SW of field is a barracks area.

Defenses: 2 M A/A on roof of administration building.

Remarks: This is a Navy field for operational training of combat type fighter aircraft.

GUNZAN A/B (Kunsan) Target No. 848-319
(Plate 3)

Location: 35.57 N, 126.38 E. The field is 7 miles SW of Gunzan, just S of Gunzan harbor.

Runways: No definite runways; longest operational run is 6300' x 990' NW-SE.

Dispersal: 7 bomber revetments. Perhaps more, but incomplete coverage prevents exact count.

Facilities: Seven double hangars, one large hangar, several shops.

Aircraft Activity: 22 Feb. 1945. 2 probable Lily, 2 probable Kate or Jill, 1 possible Luke, 30 SE u/i.

Remarks: Branch of Tachiarai Army Air School.

HEIJO A/B (P'yongyang) Target No. 84.3-271
(Plate 4)

Location: 39.02 N, 125.47 E. Ten mi NE of Hei jo, on E bank of Daido-ko.

Runways: 3575' x 290' N/S.

Dispersal: 55 fighter revetments and 6 bomber revetments.

Facilities: E of runway are six large hangars and 3 double hangars. 21 storage ammunition revetments.

Defenses: 3 L A/A, W of field; 2 L A/A, N of field; 6/6 M A/A, E of field; 11/11 H A/A, S of the E dispersal area.

Remarks: The Heijo Army Airbase is an important army field with an air arsenal and depot adjoining to the E. Fighter training. Information as of 21 Dec. 44.

HEIJO EAST L/G. (P'yongyang East)
(Plate 10)

Location: 39.01 N, 125.50 E. The field is 4-1/2 miles E of center of Heijo.

Runway: Approximately 2300' x 220' NW-SE.

Remarks: The field was under construction as of Dec 1944, but is believed to be completed and probably either a landing ground or an airdrome.

HEIJO SOUTH L/G (Chuwa)

Location: 38.51 N, 125.46 E. About 1-1/2 miles SW of Chuwa and 11-1/2 miles S of Heijo.

Runway: Surfaced runway NW/SE. Dimensions not given.

Dispersal: Taxiways and possible dispersal area under construction

along SW side of runway.

Facilities: Barracks and possible shops along NE side of runway.

KANKO WEST L/G (Hamhung West)

Location: 39.54 N, 127.30 E. About 1-1/2 mi W of Kanko.

Runways: Intersecting runways (paved):

2830' x 120' (in strip 3650' x 300') E-W
2660' x 120' (in strip 3200' x 600') NW-SE
2540' x 120' NNE-SSW
2480' x 120' N-S

Facilities: 6 misc. buildings on NE side.

Remarks; Reported base of 7th Field Air Repair Depot.

KEIJO SW A/B (K'yongsong) Target No. 84.6-326
(Plate 5)

Location: 37.32 N, 126.51 E. The field is 4-1/2 mi SW of Kyongsong or Keijo on alluvial plain.

Runways: Two runways: 1650' x 50' E-W; 1150' x 50' NE-SW.

Facilities: 3 hangars and several workshops reported.

Remarks: This field is a training base for Army fighter aircraft.

KEIJO WEST A/B (Kyongsong-Yongdungp'o) Target 84.6-327
(Plate 6)

Location: 37.32 N, 126.53 E. The field lies seven mi WNW of Yongdungpo (Eitoho)

Runways: No. 1 - 5000' x 250', NW/SE; No. 2 - 3600' x 250' NE/SW; No. 3 - 2900' x 250' E/W; No. 4 - 2200' x 250' N/S.

Dispersal: 32 fighter revetments.

Facilities: One large and one medium hangar, two medium hangars under construction.

Remarks: Information as of 18 Jan 45.

KONAN L/G (Hungnam)

Location: 39.47 N, 127.32 E. Five miles SW of Konan.

Runway: Field measures 4850' NW-SE x 4000' NE-SW. Sod-surfaced field and it appeared in good condition.

Facilities: Hangars and service facilities on S edge of field.

SAISHU I No. 1 A/B (Cheju-do No. 1) Target No. 84.8-371
(Plate 7)

Location: 33.12 N, 126.16 E. The airfield is situated on the SW point of Cheju-do or Saishu Island.

Runways: No definite runways. The field is rectangular in shape with an additional area to the SE being leveled, giving a maximum length of 3900' N-S and 3500' E-W.

Dispersal: 34 A/P revetments.

Facilities: E of field: 9 shops, 3 medium hangars and 1 control building.
NE of field: 12 medium hangars, 6 small hangars, 6 storage sheds, and a prob. wireless installation.
SW of field: Possible radar station.

Remarks: This field is used by both the Army and Navy as a depot for fighter and bomber aircraft.

SAISHU I No. 2 A/D (Cheju-do No. 2)

Location: 33.31 N, 126.30 E. The airfield lies on the N central coast of Saishu Island.

Runways: There are two, rolled, crossed-turf strips, trending E-W and NW-SE. No other information available.

Remarks: This is a Navy field.

SHINGISHU L/G
(Plate 8)

Location: 40.06 N, 124.24 E. At Shingishu City, 115 mi SSE of Shenyang.

Runways: Two crossed runways 6000' x 325' NNE/SSW and 2175' x 140' NNW/SSE.

Dispersal: 22 revetments

Facilities: 1 large hangar, 2 small hangars, shops.

Defenses: Unknown.

TAIKYU (TAEGU) A/D Target No. 84.7-359

Location: 35.54 N, 128.40 E about 3.5 mi ENE of Taegu, 1 mi E of Kumho-gang.

Runway: 3280' concrete

Remarks: Branch of Tachiarai Army Air School.

CHINKAI S/P BASE (Chinhae-man) Target No. 84.7-361

Location: 35.08 N, 128.39 E. 1-3/4 mi S of Chinhae at the SW end of a peninsula which extends SSE from Chinhae, 7.3 mi SE of Masan.

Alighting Area: Limited to 1-1/4 mi N-S and 1 mi E-W.

Facilities: 2 hangars and 2 ramps. Concrete apron, fuel and repair facilities.

Remarks: Home base of Chinkai Naval Air Unit.

DAISO (Taecho) S/P STATION Target No. 84.1-251

Location: 42.10 N, 130.16 E.

Alighting Area: Unlimited

Facilities: 1 ramp, barracks, oil and bomb storage, power plant.

TOEI (T'ongyong) S/P STATION Target No. 84.7-362

Location: 34.50 N, 128.25 E. 0.8 mi SSW of Tong-yong, 0.5 mi ESE of Tongdong-li.

Alighting Area: Located N and E of the station.

Facilities: 1 ramp 68' wide, 550' x 240' concrete apron, 6 shops.

REISU (Yosu) S/P STATION Target No. 84.8-370 (Plate 9)

Location: 34.44 N, 127.45 E.

Facilities: 1 - 700' ramp and 1 - 400' ramp, both under construction. No other information.

****

AIR FACILITIES IN KOREA

Air Facilities confirmed by photographs or captured documents:

NAME	COORDINATES	CLASSIFICATION
Fusan	35.10 N, 129.08 E	A/B
Genzan	39.10 N, 127.29 E	A/B
Gunzan	35.57 N, 126.38 E	A/B
Heijo	39.02 N, 125.47 E	A/B
Heijo E	39.01 N, 125.50 E	L/G
Heijo S	38.51 N, 125.46 E	L/G
Kanko W	39.54 N, 127.30 E	L/G
Keijo SW	37.32 N, 126.51 E	A/B
Keijo W	37.32 N, 126.53 E	A/B
Konan	39.47 N, 127.32 E	L/G
Saishu I. No.1	33.12 N, 126.17 E	A/B
Saishu I. No.2	33.31 N, 126.30 E	A/D
Shingishu	40.06 N, 124.24 E	L/G
Taikyu	35.54 N, 128.40 E	A/D
Chinkai	35.08 N, 128.39 E	S/P Base
Daiso	42.10 N, 130.16 E	S/P Station
Reisu	34.44 N, 127.45 E	S/P Station
Toei	34.50 N, 128.25 E	S/P Station

Air Facilities reported by all other available sources:

NAME	COORDINATES
Bunzan	37.58 N, 126.35 E
Chin I.	34.27 N, 126.14 E
Chochiin	36.35 N, 127.23 E
Daido River	38.45 N, 125.25 E
Geijitsu Bay	36.04 N, 129.22 E
Heitaku	36.58 N, 127.05 E
Kaijo	37.58 N, 126.33 E
Kaishu	38.02 N, 125.42 E
Kaiundai	35.15 N, 129.10 E
Keizanchin	41.25 N, 128.10 E
Kimpo	37.08 N, 126.40 E

NAME	COORDINATES
Kokai	41.05 N, 126.36 E
Koryu	37.50 N, 128.58 E
Koshu	36.26 N, 127.08 E
Koshu S	35.08 N, 126.40 E
Kozan	41.05 N, 128.18 E
Kwanei	42.26 N, 129.44 E
Kyoshinri	38.27 N, 128.27 E
Moppo	34.47 N, 126.23 E
Mosan	42.12 N, 129.12 E
Onseiri	38.53 N, 125.13 E
Rashin	42.14 N, 130.17 E
Reisu	34.45 N, 127.48 E
Riri	35.56 N, 126.56 E
Shariin	38.30 N, 125.40 E
Shisen	35.05 N, 128.05 E
Shunsen	37.57 N, 127.50 E
Taiden	36.20 N, 127.30 E
Tashito	39.58 N, 124.25 E
Teishu	39.45 N, 125.10 E
Tenan	36.50 N, 127.10 E
Tokushin	35.51 N, 127.08 E
Urosan	35.30 N, 129.25 E
Totoku	39.09 N, 126.54 E
Daiso S/P Station	42.10 N, 130.18 E
Jinsen S/P Station	37.30 N, 126.35 E

PLATE I

FUSAN A/B, KOREA
35° 10' N., 129° 08' E.

REPRODUCED BY 955TH ENGR TOPO C ... A.F.

PLATE 2

GENZAN A/B, KOREA
39°10' N., 127°29' E

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 3

GUNZAN A/B, KOREA
35°58' N., 126°38' E.

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 4

HEIJO A/B, KOREA
39° 02' N.. 125° 47' E.

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 5

KEIJO S.W. A/B, KOREA
37°32' N., 126°55' E.

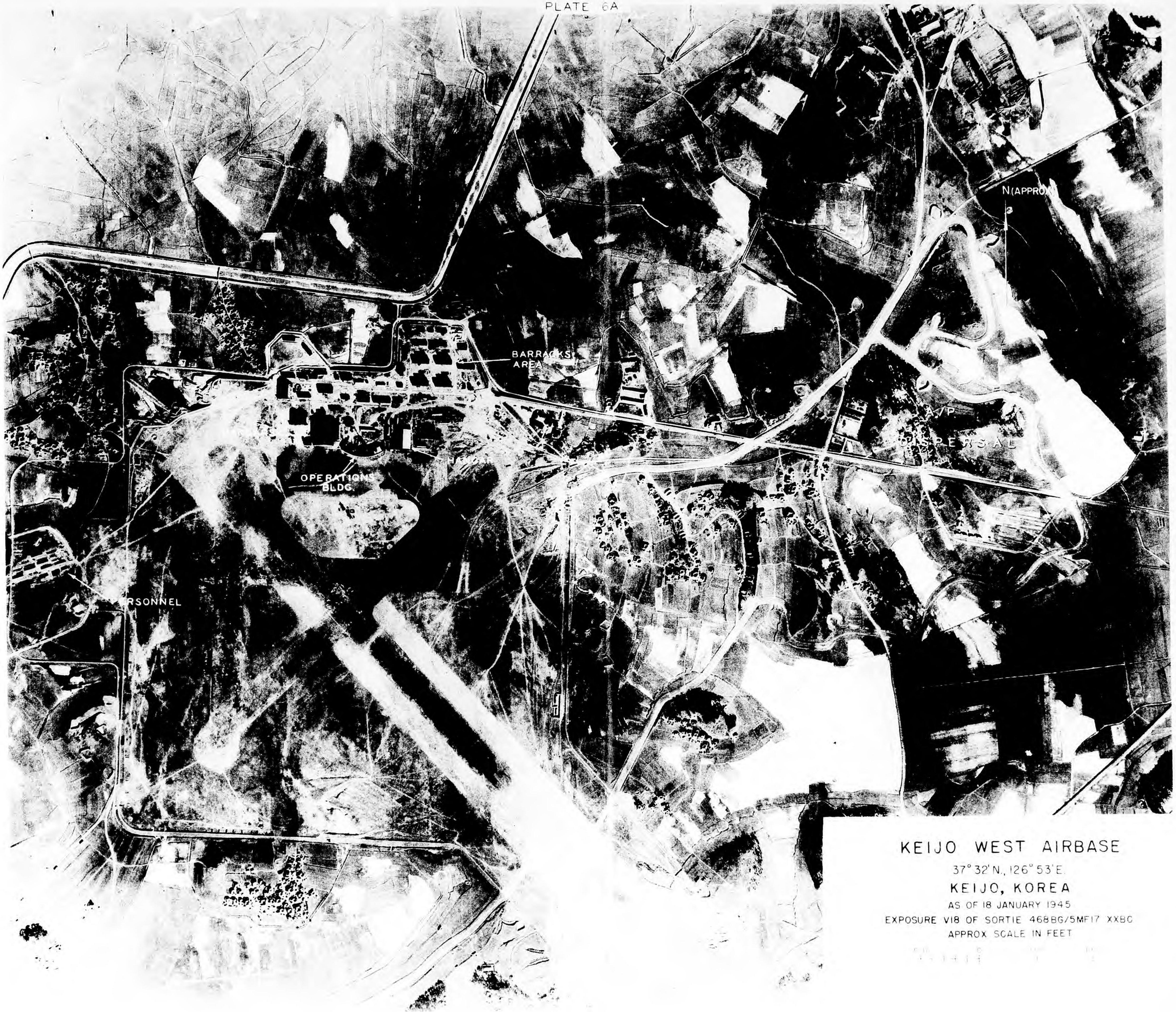
REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 6

KEIJO W. A/B, KOREA
37°32'N., 126° 53' E.

REPRODUCED BY 955TH ENGR TOPO. CO AVN

PLATE 6A



KEIJO WEST AIRBASE

37°32'N., 126°53'E.

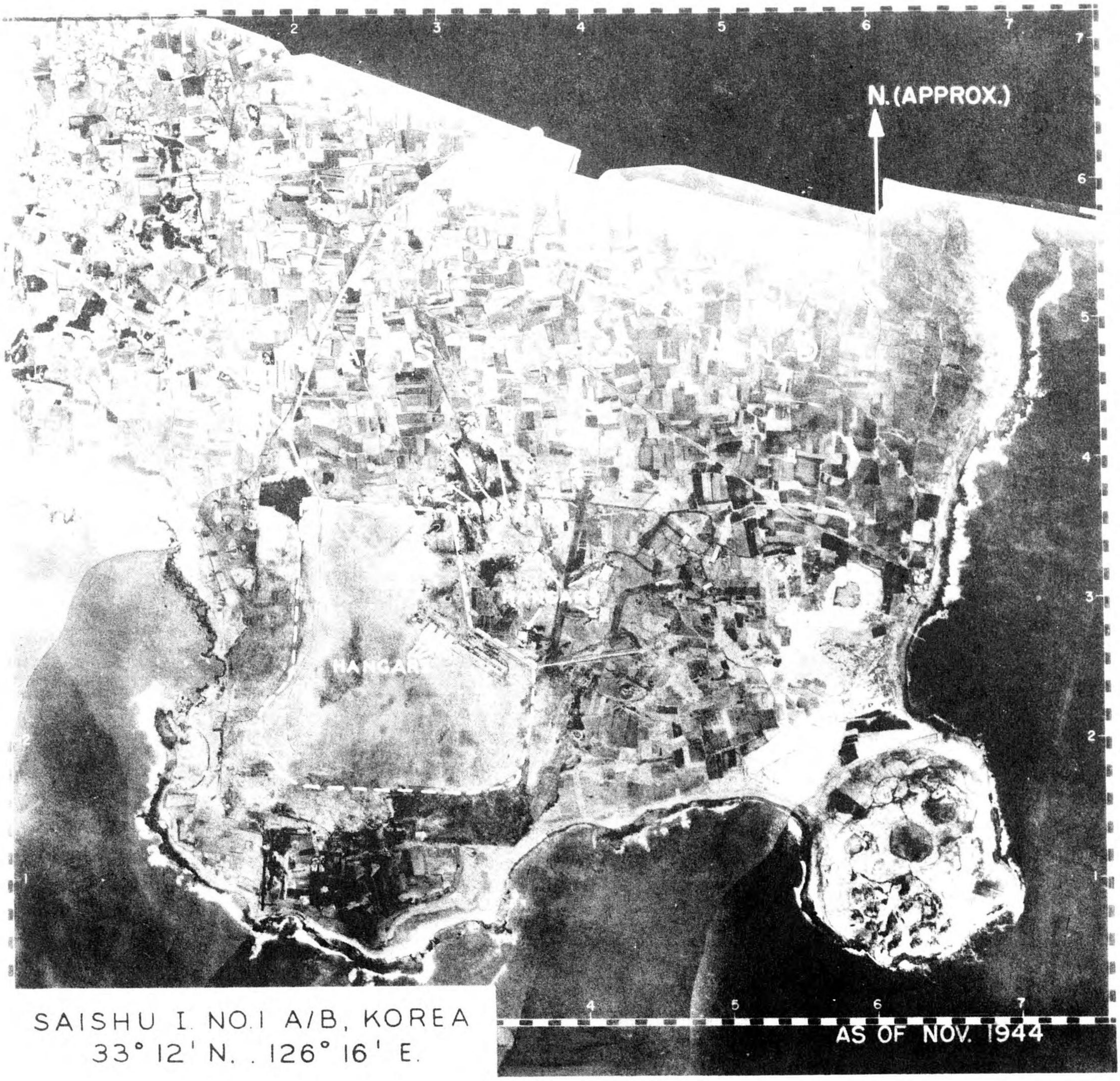
KEIJO, KOREA

AS OF 18 JANUARY 1945

EXPOSURE V18 OF SORTIE 468BG/5MF17 XXBC

APPROX SCALE IN FEET

PLATE 7



SAISHU I. NO.1 A/B, KOREA
33° 12' N. . 126° 16' E.

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MAP 8
SURVEY OF KOREA

GUNZAN

Scale 1 : 12,500

0 1,000 2,000 3,000 Feet

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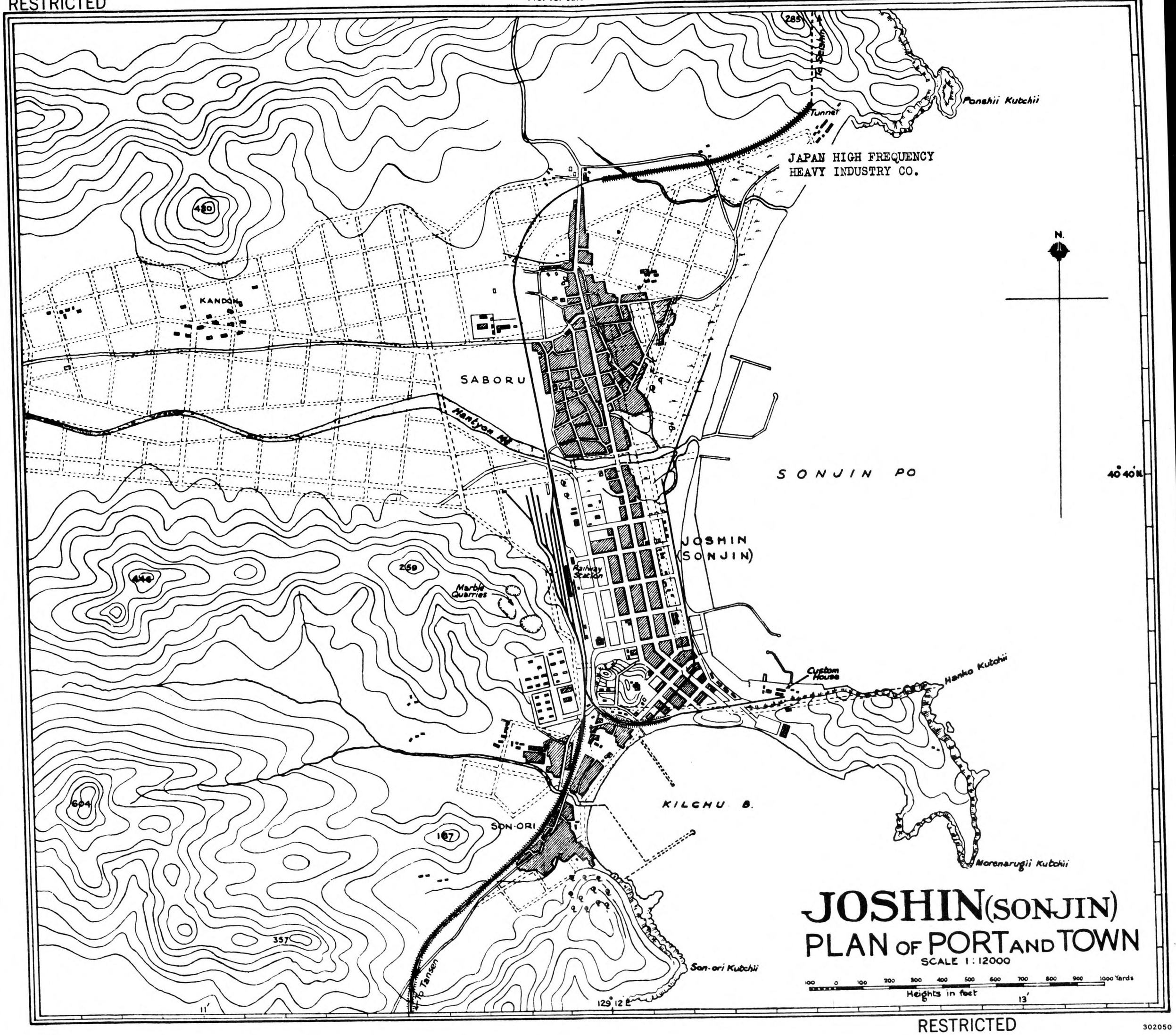
MAP 10
SURVEY OF KOREA



302050

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MAP 9
SURVEY OF KOREA

HEIJO

To Shingishu, Manpochin, & Genzan
Roundhouse and new freight yards.
West Heijo R. R. Station
Daido Gun County office
Daido Police Station
RUBBER FACTORY
City Water Reservoir
Conduit Bridge
RYORA ISLAND
City Water Purification Plant
Air Field
HANGARS
Showa Aircraft Plant and Military Air Base with Barracks
Race Track
To Onoda Cement Plant
Large new army Barracks about two miles east
TO SHOKORI
Prison For Women
Union Mission Hospital
To Chinnampo
Prison
Slaughter House
Anti-Aircraft Unit
City Off.
Main Police Station
Provincial Govt.
Fire Dept
Garrison Hospital
Infantry 77th Regiment
Chamber of Commerce
Main Post Office
Steel Bridge
Army Intendance Office
Military Police
Private Warehouse
Army Barracks
City Hospital
Court House (Fu)
Army Drill Ground
Army Depot
Heijo R.R. Station
R. R. Barracks
Army Arsenal
Ferry
DAIDO RIVER
Oil Storage
Oil Storage
Electric Plant
Sugar Refinery
SAKU ISLAND

0 500 1000
SCALE IN YARDS
0 1/4 1/2
STATUTE MILES
SCALE 1:10,000

RESTRICTED

HEIJO

RESTRICTED

廊

SCALE 1:10,000

0 500 1000
SCALE IN YARDS

0 1/4 1/2
STATUTE MILES

Army Intendance Office
Main Post Office
Military Police
Steel Bridge
Private Warehouse
Army Barracks
City Hospital
Court House (Fu)
Army Drill Ground
Army Depot
Hello R.R. Station
R. R. Barracks
Army Arsenal
Silk Co.
Oil Storage
Oil Storage
Electric Plant
Sugar Refinery
YOKAKU ISLAND
Standard Oil
Nippon Oil Company
Kanebo Textile Company
RAILROAD WAREHOUSES
SPINNING MILLS
Corn Products Plants
To Fusan

1. FIELD
2. PLACE NAME
3. SCHOOL
4. BANK
5. POST OFFICE (SUB-STATION)
6. MAIN POST OFFICE
7. POLICE SUB-STATION
8. MAIN POLICE STATION
9. TEMPLE
10. SANDY GROUND
11. EARTH BANK
12. RIVER
13. ELEVATED LAND
14. ELECTRIC RAIL LINE
15. RAILROADS
16. ROADS

LEGEND

科	名	學	銀	郵 便	郵 便	派 出	警 察	寺	砂	堤	川	高	電 車	鐵	道
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
地	所	校	行	所	局	所	署	祝	地	防	沼	地	線	道	路

著者發行兼印刷者 平壤府大和町壹番地 脇坂喜之助

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昭和八年七月十五日發行

302049

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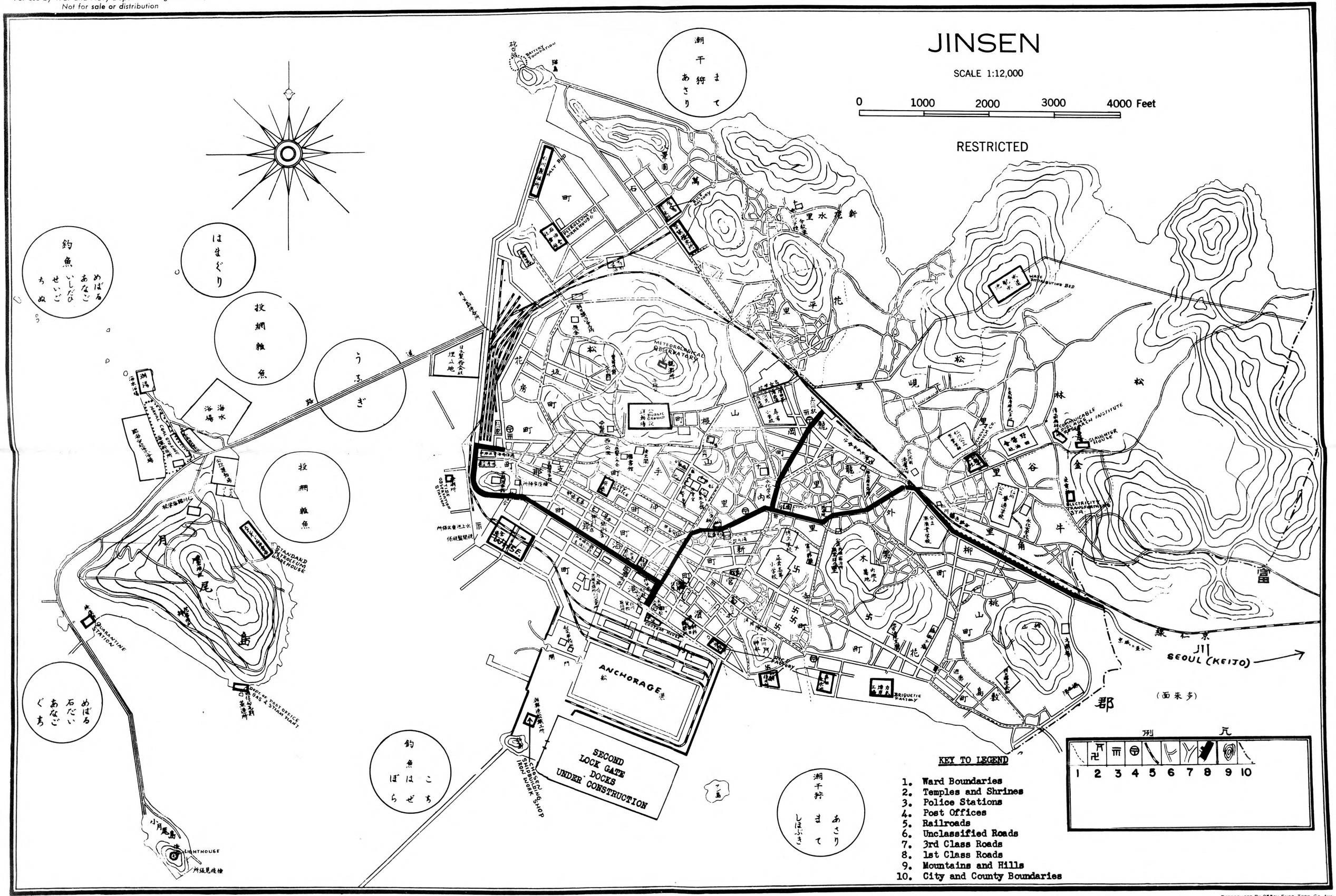
MAP 18
SURVEY OF KOREA



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CHOSEN GOVERNMENT-GENERAL BUILDING

KEIJO IMPERIAL UNIVERSITY

HIGHER INDUSTRIAL SCHOOL

CENTRAL EXPERIMENTAL STN.

BARRACKS

ANTI AIRCRAFT GUN EMPLACEMENT

ANTI AIRCRAFT GUN EMPLACEMENT

EAST GATE

TOBACCO PLANT

RAILROAD TUNNELS

SHINGISHYU

STANDARD OIL CO.

BANK OF CHOSEN

MAIN SHOPPING DISTRICT

KEIJO (SEOUL) R.R. STATION

KEIJO PRISON

GOVT.-GENL. OFFICIAL RESIDENCE

ANTI AIRCRAFT GUN EMPLACEMENT

NAM SAN (SOUTH MOUNTAIN)

UNDERGROUND MILITARY INSTALLATIONS

ARTILLERY CORPS

ORDNANCE DEPOT

ARMY WAREHOUSE

GUN POWDER MAGAZINE

INFANTRY REGIMENT

79th REGIMENT

78th REGIMENT

OFFICIAL RESIDENCE

OFFICIAL RESIDENCE

TO SHINSON

RESERVOIR

RIFLE RANGE

DRILL GROUND

CAVALRY BARRACKS

NAN SAN (SOUTH MOUNTAIN)

KEIJO PRISON

TO SHINSON

ARTILLERY CORPS

ORDNANCE DEPOT

ARMY WAREHOUSE

GUN POWDER MAGAZINE

INFANTRY ARMORY

RESERVOIR

79th REGIMENT

78th REGIMENT

OFFICIAL RESIDENCE

UNDERGROUND MILITARY INSTALLATIONS

RIFLE RANGE

DRILL GROUND

CAVALRY BARRACKS

ARMY PRISON

RYUZAN RAILROAD SHOPS

MILITARY POLICE

MILITARY COMMAND

RAILWAY EMPLOYEES' RESIDENCE

GOVT-GENL. OFFICIAL RESIDENCE

BRIGADE H.Q.

ENGINEERING CORPS

CAVALRY

ARMY DRILL GROUND

TO GENZAN

DOUBLE RAILROAD BRIDGES ACCROSS KAN RIVER

KEIJO AIRDROME AND EITOHO INDUSTRIAL AREA SOUTH OF KAN R.

KAN RIVER

VEHICLE AND STREET CAR BRIDGE

KEIJO

SCALE 1:12,000

0 1000 2000 3000 4000 Ft

KEY TO LEGEND

1. Ward Boundary
2. Ward and Neighborhood Name
3. Modern Rerouted Roads
4. Bridges
5. Ferry
6. Steel Bridge (R.R.)
7. " " (Walking)
8. Street Car Line
9. Railroads
10. Streams, Rivers, Ponds and Lakes
11. Mountains
12. City Wall
13. Township Boundary
14. County Boundary

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GENZAN

Scale 1 : 12,300

0 1,000 2,000 3,000 Feet

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GENZAN BAY

Tide Observation Station
Quarantine Hospital
City Office
Genzan Harbor
Chamber of Commerce
Post Office
Meteorological Observatory
Custom Office
Police Station
Rice Factory
SEKIDEN-SEN (R.)
R.R. Employees Barracks
Lumber Factory
Genzan R.R. Station
RAILROAD TO LAND
Starch Company
Electricity Company
TEXAS OIL CO.
OLD SEKIDEN-SEN
Chosen Petroleum Co. Refinery
STANDARD OIL CO.
CHOSEN PETROLEUM COMPANY REFINERY
OIL TANKS
ROAD TO KATSUMA PENINSULA
RAILROAD TO KEIJO

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RASHIN

PLAN OF PORT

SCALE 1:25,000

0 1/2 1
MILE

Heights in metres
Projected work shown thus

RESTRICTED

14' 15' 16' 130°17' 18' 130°18'

To Yuki

Cavalry Remount Depot

Oil Tanks

Railroad

Rashin Railway Station

PARK

PARK

RASHIN
(NEW PORT)

Hangar

KANDON

Barracks

Oil Tanks

Mole No 1.

Wharves

Mole No 2.

Dockyard

Mole No 3.

Railroad

KANSHIN

Arsenal

Military Installation
Details Unknown

42° 13' N.

Wharves projected

SHINSHIN
(Sodjjuri)
Military Warehouse

MENDJANI

RASHIN BAY
(KORNILOFF BAY)

Conical Knob

SHOSOTO
ISLAND

Road

RASHIN

Military Installation
Details Unknown

You Kuti

Joseitan
(Radioref Pt)

SHOTO
(Mosquito Id)

Low Pt

Donaldson Pt

DAISO TO
ISLAND

KAKU TO
(Cormorant Id)

42° 10'

RASHIN B
(KORNILOFF BAY)

Conical Knob

SHOSOTO
ISLAND

RASHIN

Military Installation
(Details Unknown)

You Kuti

Jotsitan
(Radioref Pt.)

Low Pt.

Donaldson Pt.

DAISO TO
ISLAND

Beckingham Pt.

SHOTO
(Mosquito Id.)

KAKU TO
(Cormorant Id.)

42° 10'

11'

9'

14' 15' 16' 130° 17' E. 130° 18' E. 18' 20'

RESTRICTED 302053

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SEISHIN

PLAN OF PORT

Scale 1/12,000

0 500 1000 Yards

RESTRICTED

47' 48' 129°49'E. 50' 51'

41°46'N

To Yujo

Railway Workshops

OIL STORAGE

TEXAS OIL CO.

Railway Station

Being reclaimed

Drain

To Ranan

River Yujo (Old)

Being Reclaimed

River Yujo (after diversion)

(Projected)

Under Construction

Tyorma San 333'

Military Enclosure

Military Godown

Wharf No 2

Wharf No 1

Wharf No 3

Wharf No 4.

Small Harbour

Mole

Seishin

Factories

Fishing Harbour

Sanyon San 771

320

80

615 Komaru San

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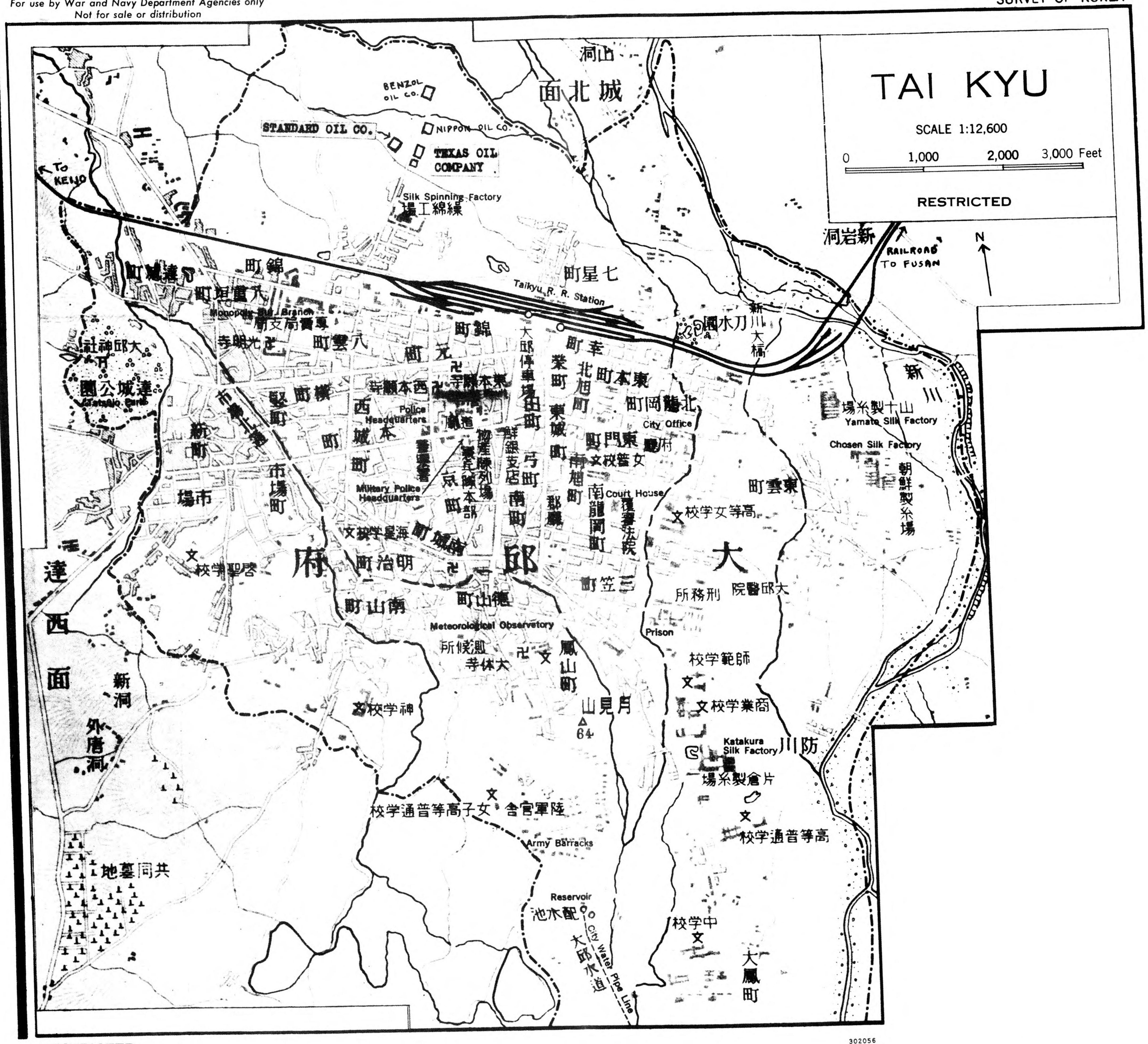
MAP 16
SURVEY OF KOREA



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302056

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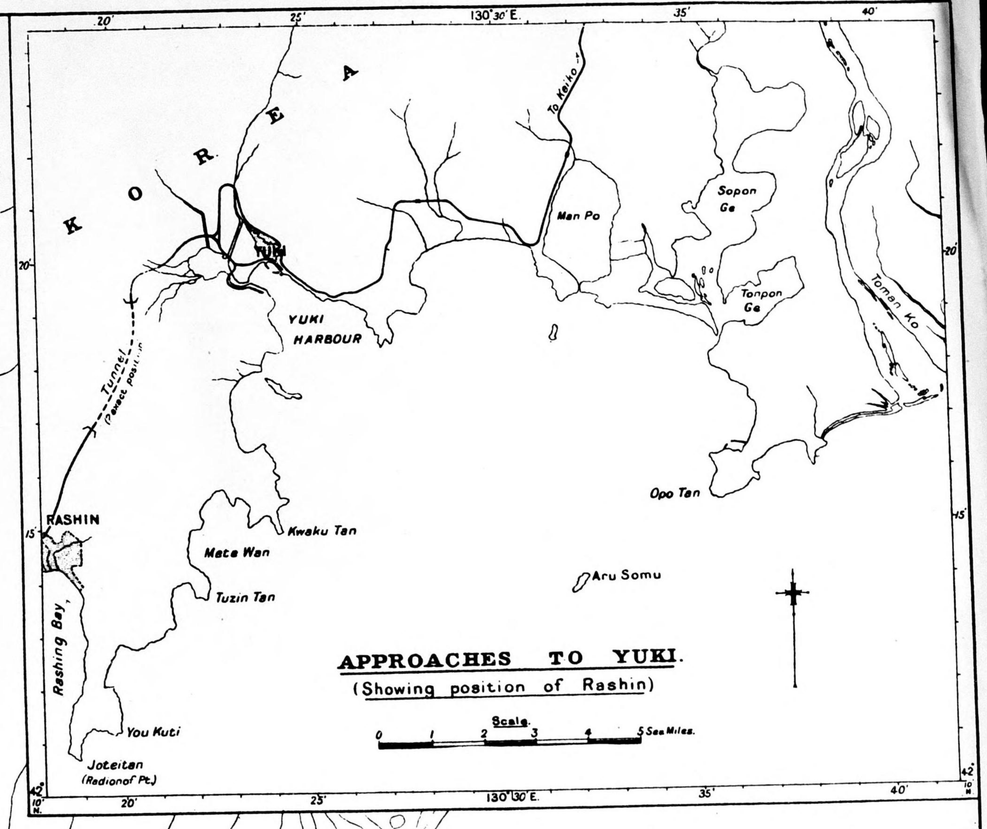
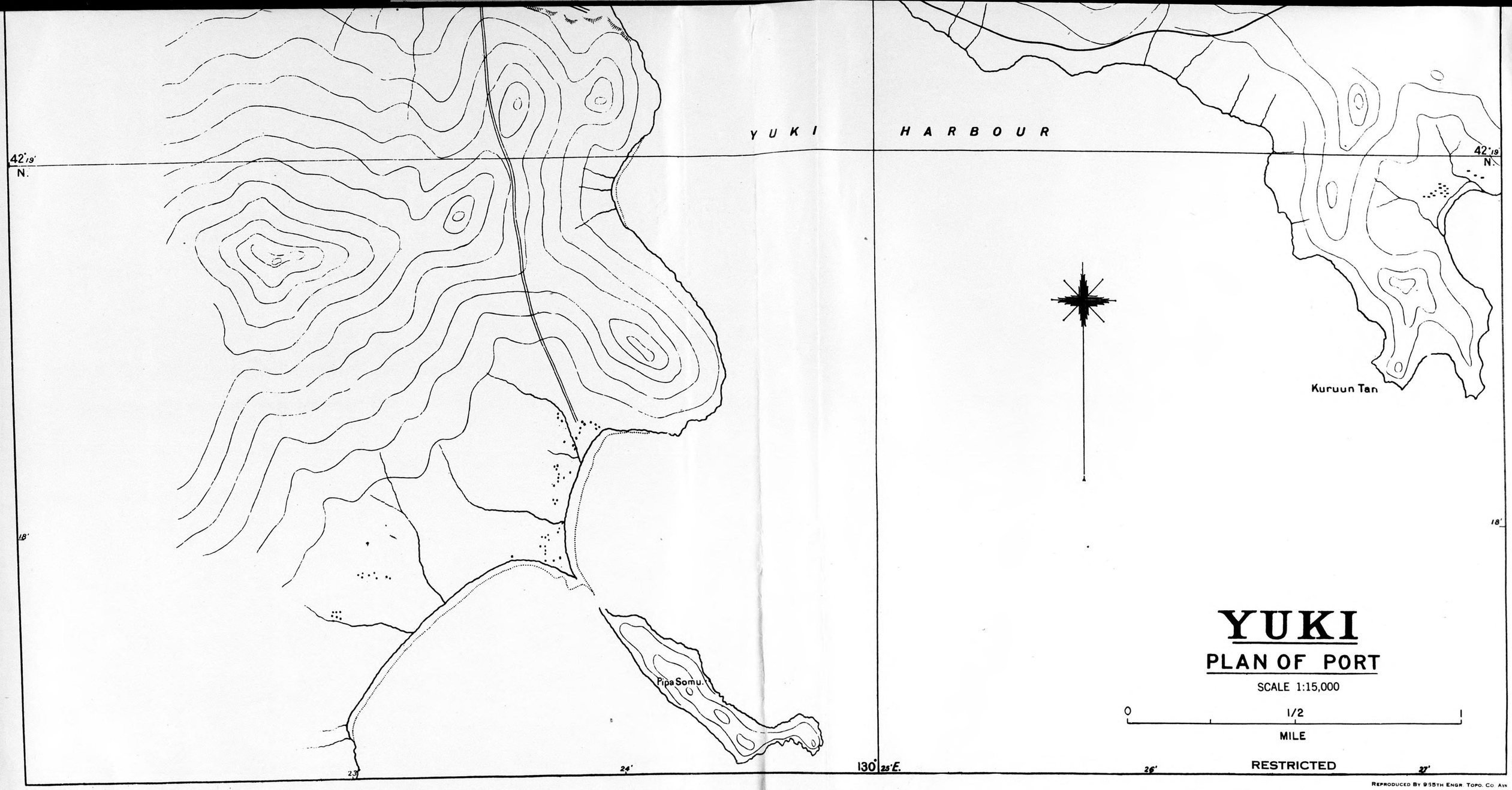
Road to Chinghsing
Power Station
Railway Station
Engine Shed
RIVER TODAI
RIVER YUKI
Projected
Projected
Temple
YUKI
Fire Station
S.Sig.
Shrine
Jetty
SMALL HARBOUR
Breakwater
To Rashin
To Rashin
LAKE RYUSUIUKO
Under construction
Wharf
To Nanyo
To Sensuira
YUKI HARBOUR
Kuruun Tan
130°25' E.
22'
24'
21'
20'
18'
42°19' N.



APPROACHES TO YUKI.
(Showing position of Rashin)
Scale.
0 1 2 3 4 5 Sea Miles.

YUKI



YUKI

PLAN OF PORT

SCALE 1:15,000

0 1/2 1

MILE

RESTRICTED

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PLATE 7A

SAISHU ISLAND NO.1 AIRBASE

33°12'N., 126°16'E.

SAISHU ISLAND, KOREA

AS OF 11 NOVEMBER 1944

EXPOSURES VI-5 OF SORTIE 462BG/4MB16/462AC311-1 XXBC

APPROX. SCALE IN FEET

1000 0 1000

SAISHU ISLAND NO.1 AIRBASE
33°12'N., 126°16'E.
SAISHU ISLAND, KOREA
AS OF 11 NOVEMBER 1944
EXPOSURES VF-5 OF SORTIE 4628G/4MB16/462AG3
APPROX SCALE IN FEET
1000 0 1000
EAST CHINA SEA
ARBITRARY GRID
02
03
04
05
06
07
08
09
10
11
01
02
03
04
05

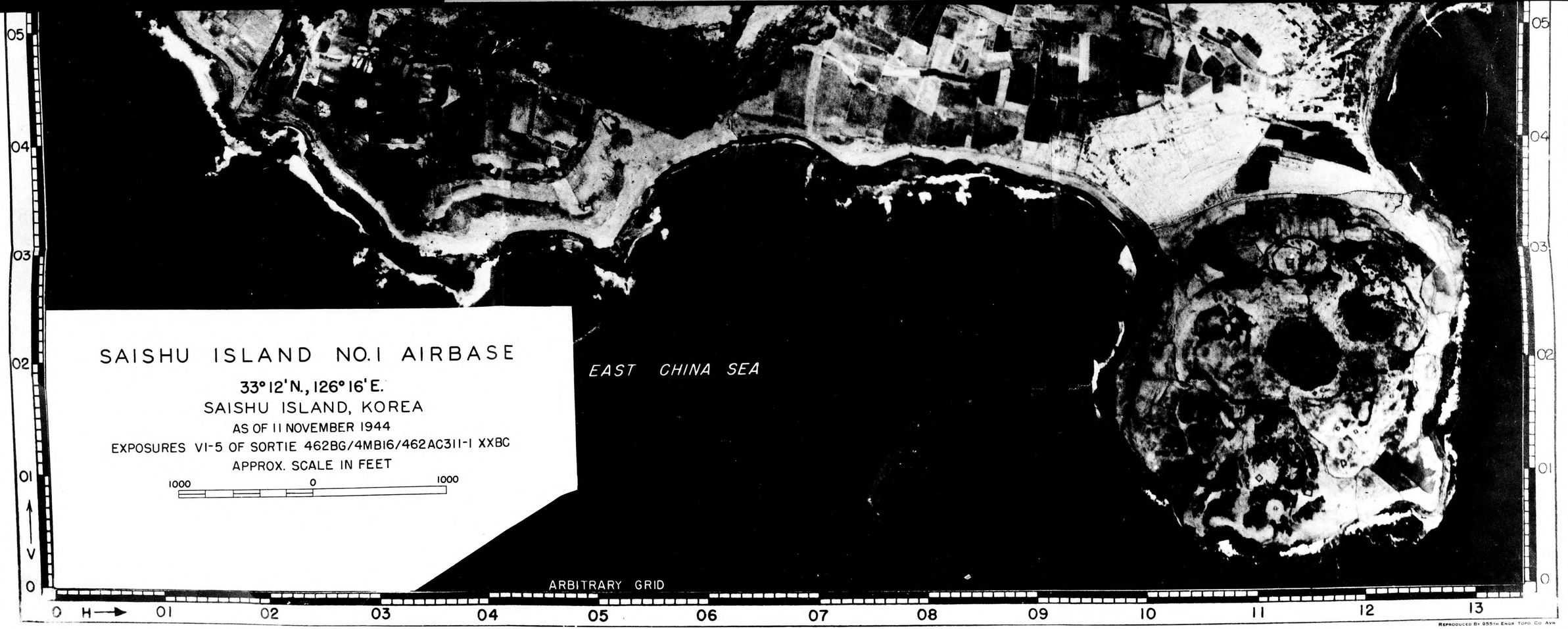

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PLATE 8

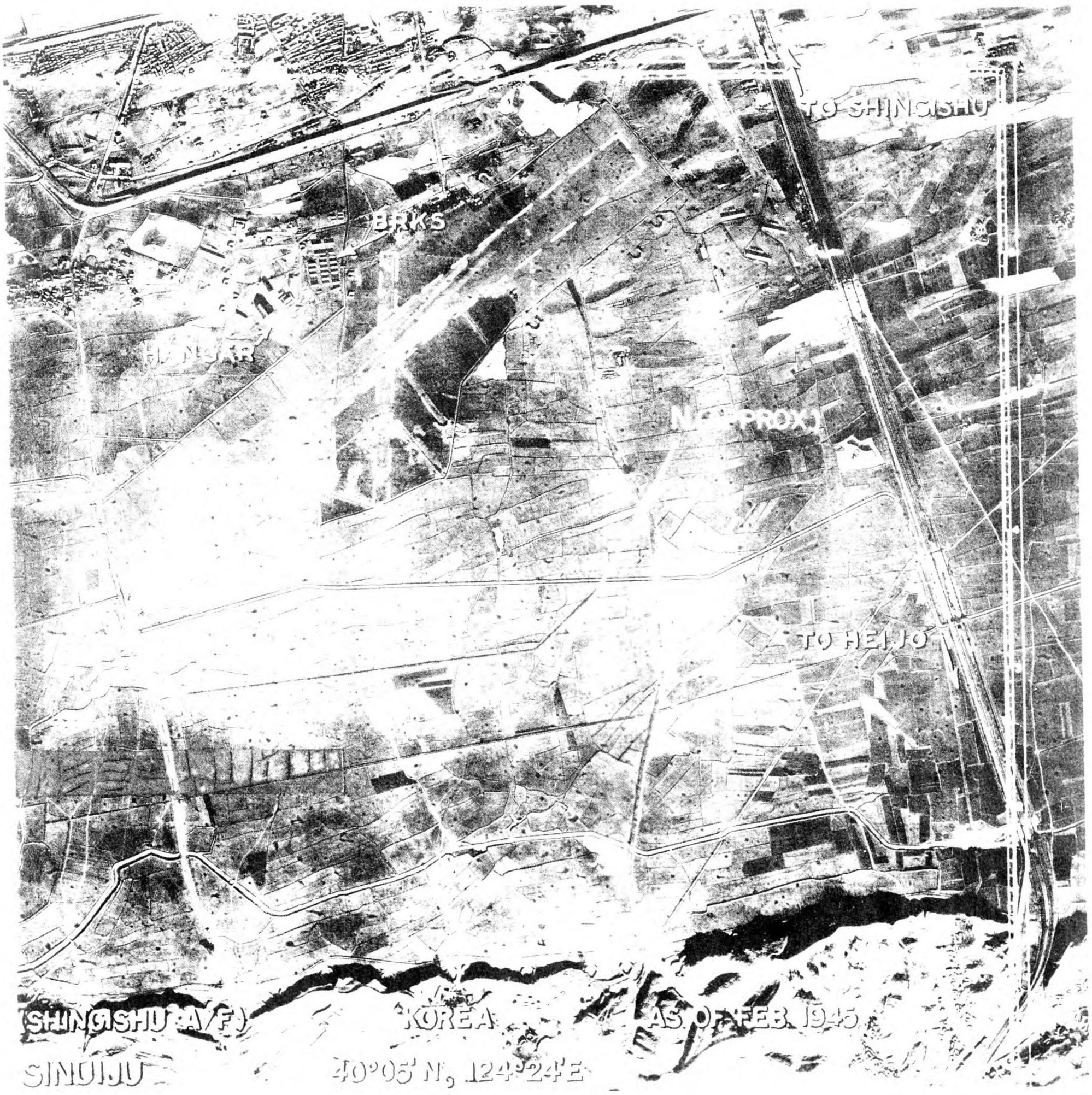

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PLATE 8

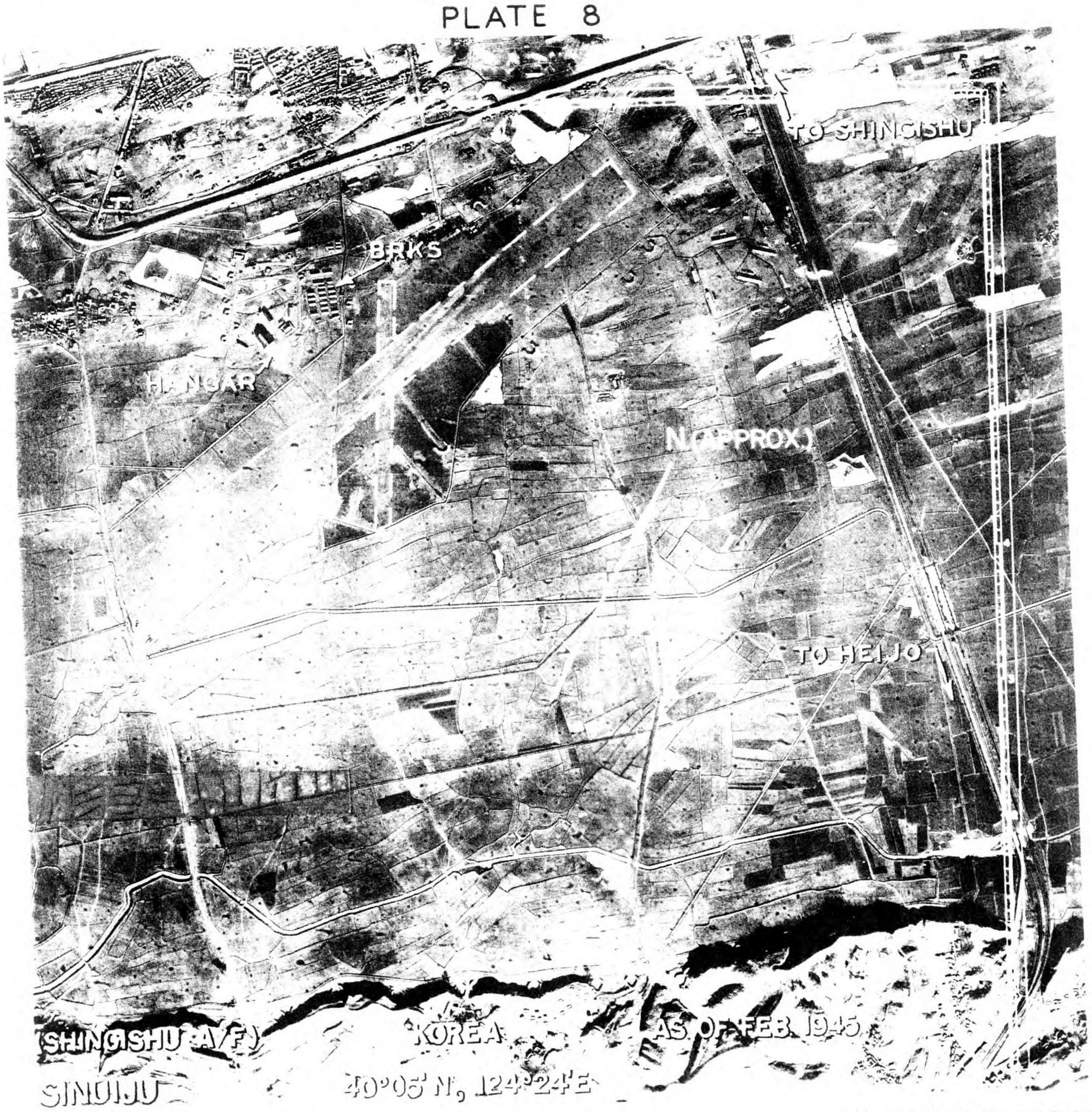

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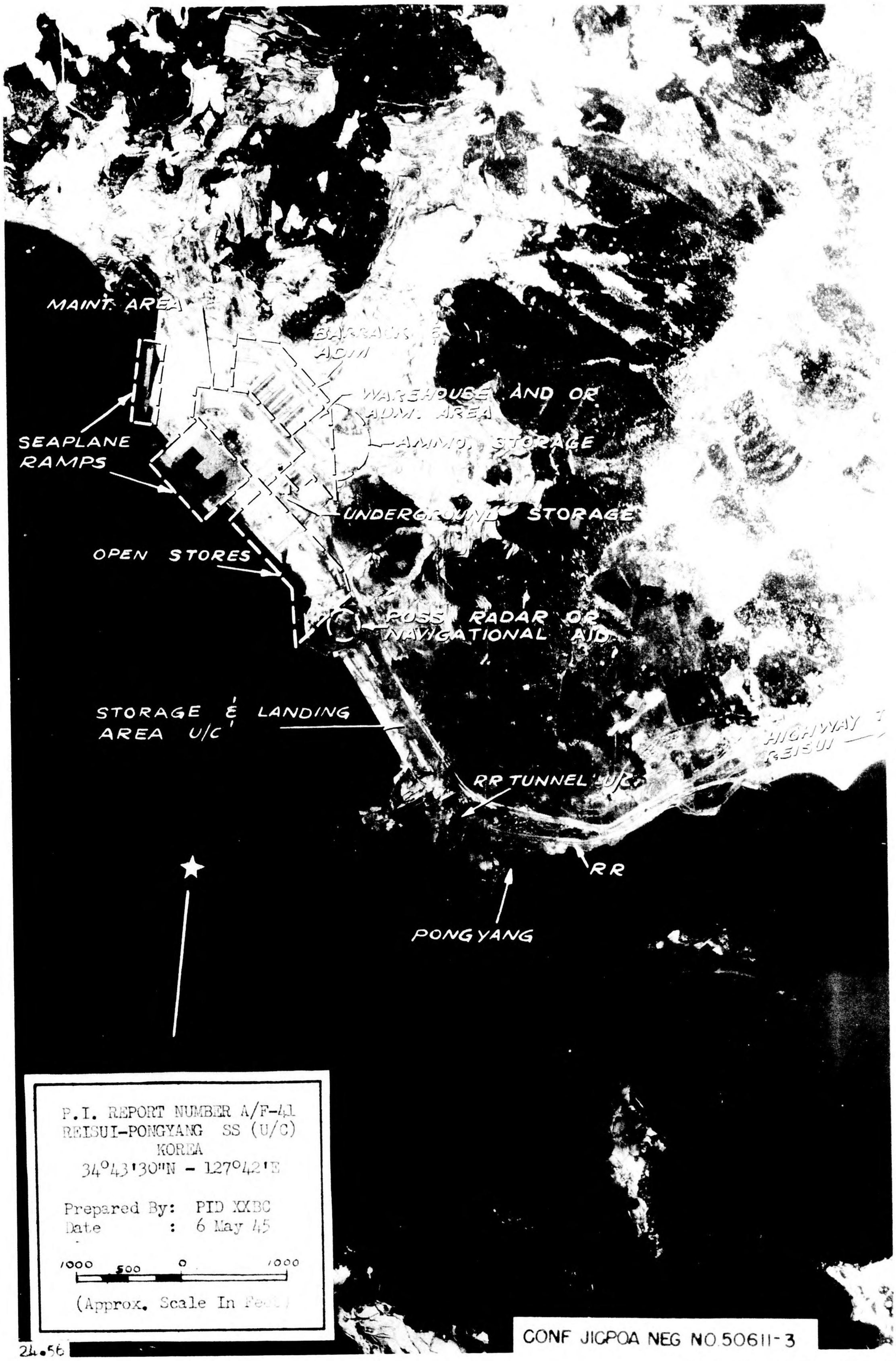
PLATE 9



P.I. REPORT NUMBER A/F-41
REISUI-PONGYANG SS (U/C)
KOREA
34°43'30"N - 127°42'E

Prepared By: PID XXBC
Date : 6 May 45

1000 500 0 1000

(Approx. Scale In Feet)

24.56

CONF JICPOA NEG NO.50611-3

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MAP B

MAJOR INDUSTRIES IN KOREA

125° 130° 40° 35°

Chio-pi-kou
Agochi Coal Liquefaction Plant
Target No. 84.1-125

Mozan Iron Mine
Target No. 84.1-32

Japan Iron Works
Target No. 84.1-28
Mitsubishi Iron Co.
Target No. 84.1-29

Kyosen Hydro-Electric Plant No. 1
Target No. 84.1-212

Fusen Hydro-Electric Plant No. 1
Target No. 84.2-8

Choshin Hydro-Electric Plant No. 1
Target No. 84.2-4
Choshin Hydro-Electric Plant No. 2
Target No. 84.2-5

Japan High Frequency
Heavy Industry
Target No. 84.1-31

Snako Ore Loader
Target No. 84.1-127

Chosen Nitrogen Fertilizer Co.
Target No. 84.2-1
Chosen Nitrogen Explosives Factory
Target No. 84.2-2
Motomiya Chemical Plant
Target No. 84.2-3

Chosen Chemical Industry
Target No. 84.3-59

Heijo Army Arsenal
Target No. 84.3-61
Showa Aircraft Factory
Target No. 84.3-65

Chosen Oil Refinery
Target No. 84.8-88
Rising Sun Petroleum
Target No. 84.6-90

Japan Iron Works
Target No. 84.3-66

Kasen Hydro-Electric Plant
Target No. 84.5-122

Sanchoku Steam Power Plant
Target No. 84.5-112

Chosen Riken Metals Co.
Target No. 84.3-67
Japan Mining Co. Smelter
Target No. 84.3-68
Chinnampo Coal Depot
Target No. 84.3-77

Japan Explosives Co.
Target No. 84.3-60

Nefetsu Steam Power Plant
Target No. 84.5-113

Korea Refining Co. (Copper)
Target No. 84.6-116

MUKDEN, Fu-shun, Lao-cheng, Hsi-feng, Hsi-an, Ch'ing-yuan, T'ung-hua, Meng-chiang, Fu-sung, An-t'u, Yen-chi, Hun-ch un, Agochi, YUKI, SHINSHIN, SEISHIN, RANAN, Eian, Lin-chiang, SHINKAMACHIN, Ch'ang-poi-shan, Chosons, Chien-ch'ang, Huei-jen, KOKAI, IGEN, K'uan-tien, An-Tung, Shinuijubu, SENSEN, ANSHU, Sinch'ang-ni, HEIJO, Chinnampo, Kenjiho, SARIIN, Haeju, KINJO, TETSUGEN, Syunsen, JINSEN, Anhun, CHUSHU, Ten-on, Kumch'on, KOKEI, RIRI, GUNZAN, NANSEN, KOSHU, JUNTEN, Konyang, Masan, TANTO, TAIKYU, HOKO, URUSAN, UTCHIN, KORYO, JOYO, KOJO, GENZAN, KANKO, KOSEN, Joshin, TANSEN, Heisyo, Izuhara, Sasebo, GOTO-RETTO, Moji, Cheju, CHEJU-DO, KOREA STRAIT, YALU RIVER

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I N D U S T R I E S

Korea is not only a strategic link in the supply route for Japanese military operations on the Asiatic mainland, but is now a highly important source for essential war materials sorely needed in Japan.

Northern Korea is the most important part of the country industrially. An abundance of hydro-electric power has made possible the development of important chemical and non-ferrous metals industries, particularly in the Konan region on the northeast coast. Nearly all of Korea's iron and steel plants are situated in Northern Korea near the coalfields and iron mines. Central Korea is significant both industrially and agriculturally. The production of machinery, metals, ordnance and construction materials centers in the Keijo-Jinsen-Fuhei district. Southern Korea is essentially agricultural; rice is the principal crop but cotton and other staples are grown in substantial quantities. Fusan is important for the manufacture of railroad equipment and for shipbuilding.

Although Korean industry has been greatly expanded during the past 15 years, much of its output is still furnished by small plants. Household industry remains sizeable in many fields and accounted for about one-fifth of the gross value of industrial production in 1939.

AIRCRAFT

Little is known about the aircraft industry in Korea, whose principal functions are believed to be repair, overhaul, and modification. The Army Air Arsenal at Heijo (believed to be the Showa Aircraft Factory) is one of the 2 or 3 largest installations doing this type of work on the mainland.

SHOWA AIRCRAFT FACTORY. Target No. 84.3-65

The factory is across the Daido River about 5 miles E of Heijo (39.01 N, 125.51 E).

This plant is reported to be assembling aircraft and manufacturing parts of airplanes.

ARMS AND MUNITIONS

The munitions industry in Korea is apparently small. The Army arsenal at Heijo has been greatly expanded recently and is the most important in the country.

The output of military explosives is unknown, but production is probably being carried on at many locations which have not been reported. It is also likely that small plants formerly manufacturing nitrogeneous fertilizer and industrial explosives may now manufacture military explosives.

CHOSEN NITROGEN EXPLOSIVES FACTORY Target No. 84.2-2
(Plate 11 & 13A)

The Chosen Nitrogen Explosives Factory, located in Konan (39.49 N, 127.35 E), is one of the largest pre-war manufacturers of industrial explosives in Korea. It is now manufacturing industrial explosives, high explosives, detonators, etc. The plant is considered of modern construction.

There are a number of storage revetments NW of the factory.

JAPAN EXPLOSIVES CO. Target No. 84.3-60

The Japan Explosives Co., located at Kaishu (38.02 N, 125.41 E), is a large plant, with a pre-war production of: 11,000 metric tons of dynamite, 54,000 cases of percussion caps, 77,000 cases of fuses, 500 metric tons of glycerol, and 100,000 metric tons of powder planned. There are several concrete buildings, most of which are three or four stories high.

Storage tunnels are reported in surrounding hills.

HEIJO ARMY ARSENAL Target No. 84.3-61
(Plates 12, 12A, & 12B)

The Heijo Army Arsenal, located in the city of Heijo (39.00 N, 125.44 E) is one of the two major arsenal centers on the Asiatic mainland. The production of small arms and ammunition, artillery shells, hand grenades, bombs, and mines is reported to approach that of Mukden Arsenal in Manchuria, but Heijo does not produce the heavy ordnance turned out at Mukden. Some transport and artillery vehicles are made here, but no artillery. Much of the small, household industry in Heijo is integrated with the activities of the arsenal. Numbers of small machine shops supply the shell loading plant.

CHEMICAL INDUSTRY:

Chemicals were Korea's largest industry before the war, accounting for 1/3 of the value of manufactured products in 1939. The output of the chemical industry in 1939 was valued at 502,000,000 yen, about 16 times as large as that in 1931. An important factor in this expansion has been the large development of hydro-electric power potential of the country.

Korea's proportion of the total capacity available to Japan is greatest in industries closely associated with munitions manufacture, especially nitrogen fixation and glycerol refining, of which Korea has 1/5th and 1/4th, respectively, of the capacity of Japan, Korea, Manchuria and Formosa. The products of these industries are used in whole or in part by munitions plants within Korea.

CHOSEN NITROGEN FERTILIZER CO. Target No. 84.2-1
(Plates 13 & 13A)

The Chosen Nitrogen Fertilizer Co, located at Konan (39.50 N, 127.38 E), is the largest heavy Chemical Plant in the Japanese Empire. It has also a large production of non-ferrous metals. Pre-war annual capacity of the plant is as follows:

90,000 metric tons of Nitrogen (ammonia)
75,000 tons of Nitric Acid
2,000 tons of Glycerine
420,000 tons of Sulphuric Acid
500,000 tons of Ammonium (Sulphate)

The plant also produces large quantities of phosphate fertilizer and substantial amounts of hydrochloric acid, hard oils, soap, ash and coke.

All the buildings are believed to be of modern construction, some with reinforced concrete, others with sheet metal

over steel frames. There are no well defined critical points in plant. Heavy general attack is probably necessary to insure neutralization.

MOTOMIYA CHEMICAL PLANT Target No. 84.2-3
(Plate 13A)

The Motomiya Chemical Plant, located at Konan (39.51 N, 127.35 E), is the largest chlorine and electrolytic caustic soda plant under Japanese control. It also has a capacity of 50,000 metric tons per year of carbide.

CHOSEN CHEMICAL INDUSTRY Target No. 84.3-59

The Chosen Chemical Industry, at Junsen (39.25 N, 125.57E), is a small plant manufacturing ammonia, sulphuric acid, and fertilizer. Estimated annual capacity of fertilizer is 40,000 tons.

The plant is modern, with reinforced concrete and sheet metal buildings.

COAL AND COKE

Korean coal production, mostly lignite for synthetic oil and anthracite, was estimated to be 5,000,000 metric tons in 1940. No suitable coal is known to exist for large scale metallurgical coke. Most of the coking coal for Korean industries is being imported from North China. The bulk of anthracite production is from the Heijo region while lignite is from the Agochi and Eian regions where it is used for hydrogenation.

Chinnampo is the principal shipping point of anthracite coal destined for Japan.

CHINNAMPO COAL DEPOT Target No. 84.3-77

The depot, the largest of its kind in Korea, with an area approximately 1400' x 1400' on the Daido River waterfront, is an important shipping point for anthracite coal to Japan.

The West section of the installation consists of a storage yard, while the East section comprises the main coaling pier. The coaling pier has two mechanical loaders capable of handling 400 tons of coal per hour.

The storage yard has two unloaders which are probably capable of unloading or loading large vessels.

Three small piers are along the waterfront.

ELECTRIC POWER

Six hydro-electric developments in North Korea and two large steam stations in South Korea provide the country with a large year-round supply of electric energy which is basic to Korea's industries.

The North Korea network, interconnecting hydro-plants with a capacity of more than 1,500,000 kw, serves industries at Konan, Heijo-Chinnampo and in the Keijo-Jinsen districts.

The two steam plants represent 75% of the capacity available to the South Korea network.

CHOSHIN HYDRO-ELECTRIC PLANT No. 1 Target No. 84.2-4

The Choshin Hydro-electric Plant No. 1, located north of Kanko (40.13 N, 127.18 E), is a key plant in the Choshin power development. Estimated capacity in 1939, 180,000 kw.

There are four to five penstocks leading to a concrete power house measuring approximately 300' x 85'. There are also four to five horizontal turbo generators. Power lines lead 35 miles south to Konan.

CHOSHIN HYDRO-ELECTRIC PLANT No. 2 Target No. 84.2-5

Plant No. 2, which lies approximately 3 miles south of Plant No. 1 (40.10 N, 127.19 E), has an installed capacity of 100,000 kw.

There are four penstocks and four vertical turbo-generators. The swidth-gear and tie-in with the North Korea network is directly NW of the plant.

FUSEN HYDRO-ELECTRIC PLANT No. 1 Target No. 84.2-8

The Fusen Hydro-Electric Plant No. 1 (40.21 N, 127.34 E) is the key plant in the Fusen Power development. Installed capacity is 128,000 kw.

There are four exposed penstocks leading to a concrete power house (250' x 80') approximately 8700 feet SE. The plant has four horizontal turbo-generators and a transformer yard directly East. Power lines lead 35 miles S via the Kiroku switching station at Konan. Water led by tunnel thru successive hydroplants downstream, with total capacity of 72,000 kw.

SANCHOKU STEAM POWER PLANT Target No. 84.5-112

The Sanchoku Steam Power Plant (approx. 37.26 N, 129.10E) is one of the two key generating stations in S Korea network. Capacity is 50,000 kw. Exact location unknown.

NEIETSU STEAM POWER PLANT Target No. 84.5-113

The Neietsu Steam Power Plant (37.11 N, 128.26 E), together with the Sanchoku Steam Power Plant, constitute the two key generator stations in the South Korea network. Capacity estimated at 100,000 kw. Coal is brought by aerial cableway from mine on nearby ridge.

KASEN HYDRO-ELECTRIC PLANT Target No. 84.2-122

Located on Kitakan R. (38.06 N, 127.42 E) with installed capacity of 110,000 kw scheduled for completion in 1942. The plant serves the Keijo region and is linked with North Korea network.

SEIHEI HYDRO ELECTRIC PLANT Target No. 84.5-122

Located on Kitakan River approximately 25 miles ENE of Keijo City (37.43 N, 127.25 E). Installed capacity 63,000 kw. The plant serves Keijo region and North Korea network.

KYOSEN HYDRO-ELECTRIC PLANT No. 1 Target No. 84.1-212

This plant is situated on the upper branches of the Kyosen River (40.45 N, 128.30 E). Installed capacity, 144,000 kw. Water is diverted from two reservoirs on upper branches of Kyosen River.

There are four penstocks and horizontal turbo-generators. Three other successive hydro-plants downstream have an aggregate capacity of 96,000 kw.

IRON AND STEEL

Korean pig iron capacity is estimated at approximately 1,000,000 metric tons, or about 10% of total capacity under Japanese control. Korea iron industry relies principally on local ore, in contrast with the steel industry of Japan which is dependent upon overseas sources.

The steel capacity of Korea is considerably below the pig iron capacity, which indicates a substantial pig iron tonnage for export. The importance of Korean pig iron production to Jap industry lies in the economy in sea shipment of pig iron, rather than bulk raw materials, to Japan.

All but a fraction of Korea's pig iron capacity is concentrated in two plants of the Japan Iron Works - at Seishin and at Kenjiho.

JAPAN IRON WORKS (SEISHIN) Target No. 84.1-28

This is reported to be Korea's largest plant (41.45 N, 129.46 E) producing pig iron and 4th in the Empire's current pig iron production.

Known equipment: one 700-ton blast furnace and one furnace capacity unknown. Estimated annual pig iron production has been around 620,000 metric tons, but there are recent indications that this may now be as low as 220,000 tons. Iron ore is supplied from Mozan Iron Mine. Production estimate in 1945: pig iron, 310,000 tons or 2.8% of Japanese production; and 245,000 tons of steel ingots or 1.6% of Japan's total steel production.

MITSUBISHI IRON CO Target No. 84.1-29

Reported large plant 2 miles W of Seishin (41.46 N, 129.47E) producing luppe (sponge iron), which is important in the production of special steels. Iron ore is supplied by the Mozan Iron Mine.

Known equipment: 4 Krupp Renn Units (30-ton rotary kilns) with total annual capacity of 180,000 metric tons of luppe. Luppe production possibly increased since original plans called for 12 kilns with total capacity of 500,000 metric tons. One kiln produces nickel luppe.

JAPAN HIGH FREQUENCY HEAVY INDUSTRY CO. Target No. 84.1-31
(Plate 14)

Plant located in the city of Joshin (40.41 N, 129.12 E). In 1938 plant produced 20,000 metric tons of cobalt, manganese, stainless and other high quality steels.

Equipment includes: steel manufacturing plant, with one known 10-ton furnace and others of unknown capacity; transformer unit; electrolyic furnace plant; and forging plant. Electric furnaces produce steel from sponge iron ores from Rigen Mine. Rolling mill facilities reported in 1940.

MOZAN IRON MINE Target No. 84.1-32

Mozan Iron Mine (42.14 N, 129.16 E) is the largest in the Far East.

The ore has to be concentrated for blast furnace use. Concentrating plant reported to have a capacity of 2,500,000 metric tons of 67% concentrate. Concentrate plant, probably most vulnerable installation, lies North of RR on the lower south slope of a mountain 2 miles E of Mozan. Ore crushing mill and two known concentrators, possibly three. Buildings are concrete and steel with corrugated roofs. Sintering plant may have been erected near concentrating plant.

Approximately 1,000,000 metric tons of concentrates required for blast furnaces in Seishin. Surplus concentrates (estimated at 1,500,000 metric tons) may be shipped to Shako Ore Loader (Target 84.1-127) via Hakugan and Kisshu Junction, or in part through Seishin, for export to Japan.

JAPAN IRON WORKS (KENJIHO) Target No. 84.33-66
(Plate 15)

Japan Iron Works in Konjiho (38.44 N, 125.37 E) is the largest steel plant in Korea and the second largest in pig iron production. Estimated percentages of total Japanese Empire production (1943):

Pig Iron	3%
Steel Ingot	2%
Rolled Products	2%
Coke	4%

Equipment and total annual capacities in metric tons:

4 Blast furnaces	400,000 Pig Iron
Open Hearth Furnaces	240,000 Steel
Rolling Mill	175,000 shapes and plates
5 Batteries of coke oven	470,000 coke

SHAKO ORE LOADER Target No. 84.1-127

The Shako Ore Loader (40.12 N, 128.39 E) is the shipping point for Rigen Iron Mine. While Rigen Mine production is not believed to exceed 200,000 metric tons per year, the ore does not require concentration and can be shipped directly to blast furnaces in Japan proper.

The ore-loading pier, 430' long, is of mono-rail trackway type with loading capacity of 200 tons per hour. This is far in excess of local requirements and may be used for shipment to Japan of Mozan concentrated ore to expedite turn-around time of ships and relieve congestion at Seishin. The pier is in a well-sheltered location and connected by coastal RR to the northern mine areas.

NON-FERROUS METALS

A basic part of the long-range Japanese plan for a self-sufficient Empire has been the development of the extensive deposits of aluminous shales, magnesite, copper, lead and zinc ores in Korea and Manchuria. Korea has led in the construction and operation of plants due in part to the earlier completion of various units in extensive hydro-electric projects, as well as to the early development of railroads tapping the mining regions.

CHOSEN NITROGEN FERTILIZER CO. Target No. 84.2-1
(Plate 13, 13A) (Also see discussion under "Chemical Industry").

In addition to the production of nitrogen, nitric acid, glycerine, sulphuric acid and ammonium sulphate, the Chosen Nitrogen Fertilizer at Konan (39.50 N, 127.38 E) has also a large production of ingot of aluminum, alumina, and magnesium and a small production of copper and lead.

Estimated 1943 capacity was 3000 metric tons from local magnesite ore, accounting for 25% of the Japanese capacity.

The estimated 1945 capacity of alumina (Al_2O_3) is 24,000 metric tons and Aluminum (Al) is 12,000 metric tons. There is an electrode factory near the aluminum plant.

CHOSEN RIKEN METALS CO. Target No. 84.3-67
(Plate 16)

The Chosen Riken Metals Co. at Chinnampo (38.43 N, 125. 23 E) is the second largest aluminum and magnesium producer in Korea. Magnesium is produced by electrolysis of brine. Salt is supplied from the Government salt fields at Koryo Bay. There was reportedly planned a pig iron production of 70,000 to 100,000 metric tons, but its status is not known.

Estimated 1945 production is 5000 metric tons of aluminum and 20,000 metric tons of alumina. Magnesium production 1943 was estimated at 5000 metric tons of 8% of total production of the Japanese Inner Zone.

The heavy electric power requirements are supplied by Suiko hydro-electric plant on Yalu River in Manchuria.

The plant of reinforced concrete, and located at SW end of Chinnampo on open reclaimed land extending into tidal flats which dry at low tide.

JAPAN MINING CO SMELTER Target No. 84.3-68
(Plate No. 19)

The Japan Mining Co. Smelter at the NE end of Chinnampo (38.44 N, 125.26 E) is on an irregularly-shaped peninsula extending into the tidal flats which dry at low tide. The Chosen Nissan Chemical Co. plant is also within the compound. The smelter and associated buildings, occupy an area approximately 3320' x 3200'.

Estimated 1943 capacity of the Japan Mining Co. Smelter is as follows:

Lead - 12,000 metric tons or 20% of Inner Zone capacity
Copper - 6,000 metric tons or 4% of Inner Zone capacity
Zinc - 12,000 metric tons or 15% of Inner Zone capacity

The 1940 capacities of the Chosen Nissan Chemical Co. plant have been estimated as follows:

Ammonium sulphate - 50,000 tons
Super-phosphates - 100,000 tons

The Smelter has 600' chimney. Workers totalled 6000 before the war.

KOREA REFINING CO. Target No. 84.6-116

The Korea Refining Co at Choko (36.01 N, 126.42 E) is the only large copper refinery in Korea and on Asiatic mainland. Estimated 1943 capacity was 10,000 metric tons or 7% of Inner Zone capacity.

PETROLEUM

Korea has extensive coal deposits and plants to recover oil from coal were established in the country before such exploitation in Manchuria. In recent years, however, Manchurian synthetic oil development has been much more extensive.

Production of oil in Korea is believed limited to the output of the large synthetic plant at Agochi north of Rashin and to the small Korea Coal Industry Plant at Eian south of Seishin.

CHOSEN OIL REFINERY Target No. 84.8-88
(Plate 17)

The Chosen Oil Refinery at Gensan (39.09 N, 127.28 E) is the largest Korean Oil Refinery and equal in size to Manchurian Petroleum Co at Dairen, largest refinery in Manchuria. The plant accounts for approximately 5% of Inner Zone capacity. Estimated annual capacity (1943) is as follows:

Crude oil	- 1,650,000 bbls
Cracking	- 412,500 bbls
150-octane	- 4,500 bbls

The plant is reported to have new high grade lubrication oil refinery.

There are at least 10 storage tanks with approximately 35,000 bbls capacity in area S of plant. Warehouse storage reported along S and W sides of compound. Road separating refinery and tank farm serves as fire break.

RISING SUN PETROLEUM CO. STORAGE Target No. 84.6-90

The Rising Sun Petroleum Co. Storage, SE of Bumyo RR Station (39.14 N, 127.22 E), had an estimated capacity of 165,000 bbls in 1943 with at least 11 tanks. Warehouse capacity is 340,000 cu. ft., with a floor space of 24,500 sq. ft. The entire plant compound covers about one square mile.

There is a can plant within the compound with a capacity of 250,000 cans per month.

Loading facilities include eight inch floating pipeline, 500' long, from wood jetty with loading capacity of 1,300 bbls per hour. Tins and drums are loaded by lighters. Several pipelines run from jetty to tank farm.

AGOCHI COAL LIQUEFACTION PLANT Target 84.1-125

The Agochi Coal Liquefaction Plant W of Agochi (42.33N, 130.21 E) is rated as the second largest synthetic oil plant in Japanese Empire. Estimated 1945 production: 1,300,000 barrels or approximately 12% of total Inner Zone production.

KOREAN COAL INDUSTRY CO. Target No. 84.1-126

The Korean Coal Industry Co. located at Eian began operations in 1932. The annual production in 1937 was estimated to be 80,000 bbls of oil products accounting for less than 1% of Inner Zone oil production. No details are available.

PLATE 10

39° 01' N, 125° 50' E

AS OF DEC. 44
TARGET NO. 84.3-65

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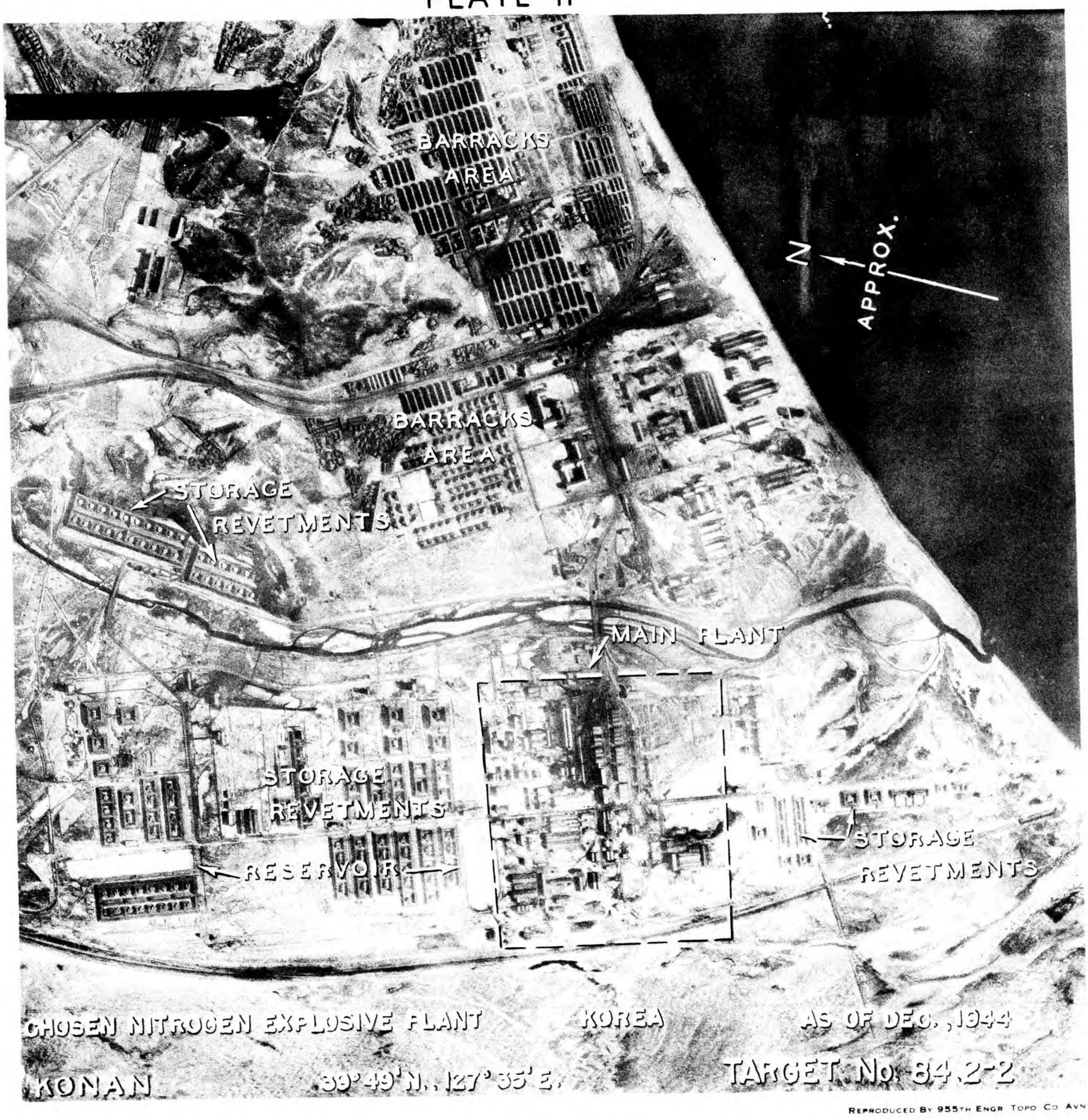
PLATE II

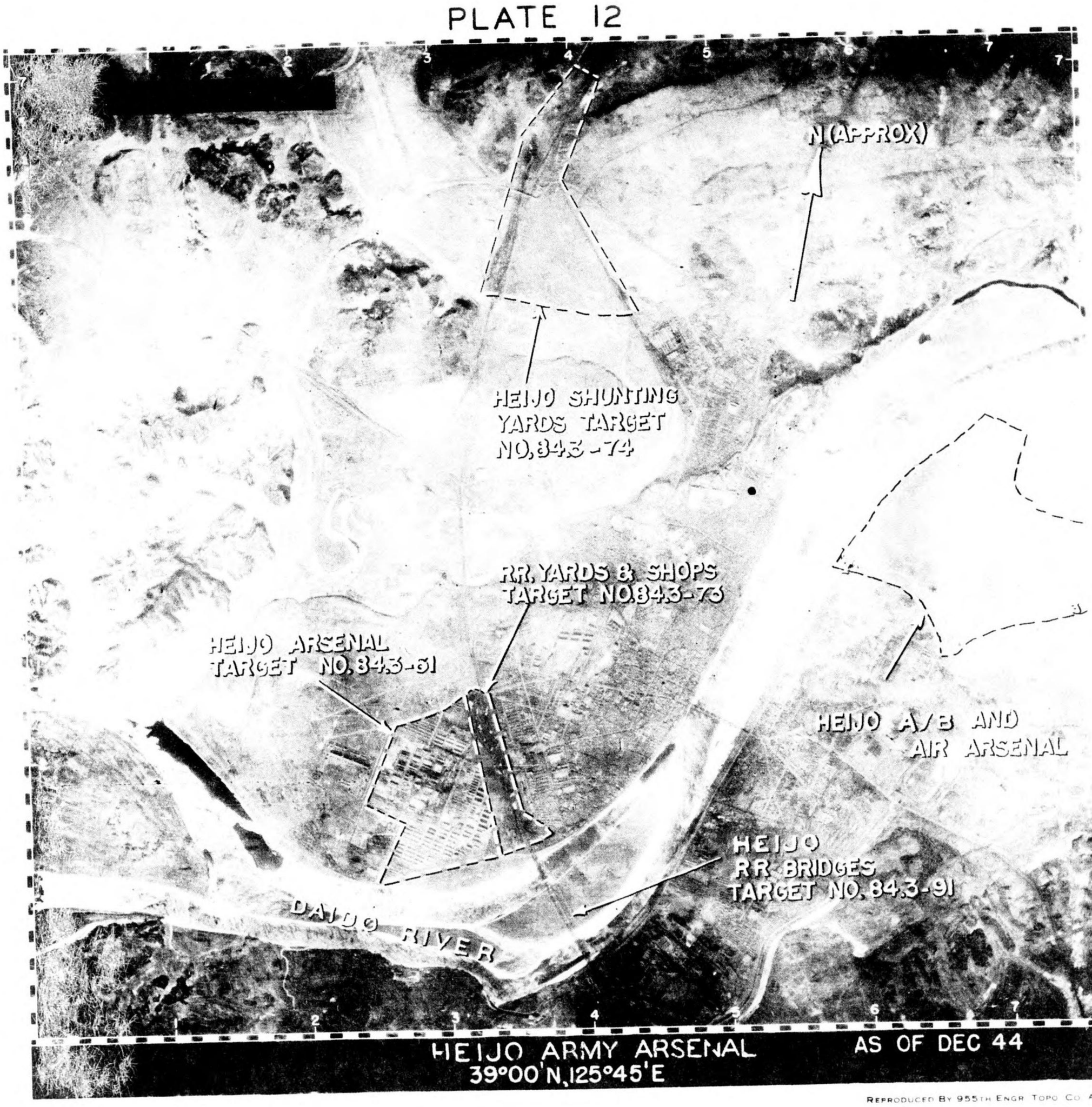


CHOSEN NITROGEN EXPLOSIVE PLANT KOREA AS OF DEC., 1944

KONAN 39°49' N., 127°35' E. TARGET No. 84-2-2

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 12



REPRODUCED BY 955TH ENGR TOPO CO AVN

JOINT TARGET GROUP • WASHINGTON, D. C.

HEIJO ARMY ARSENAL

HEIJO, KOREA

TARGET No. 84.3–61

COORDINATES 39° 00′ N 125° 44′ E

PHOTOGRAPHED 10 DECEMBER 1944

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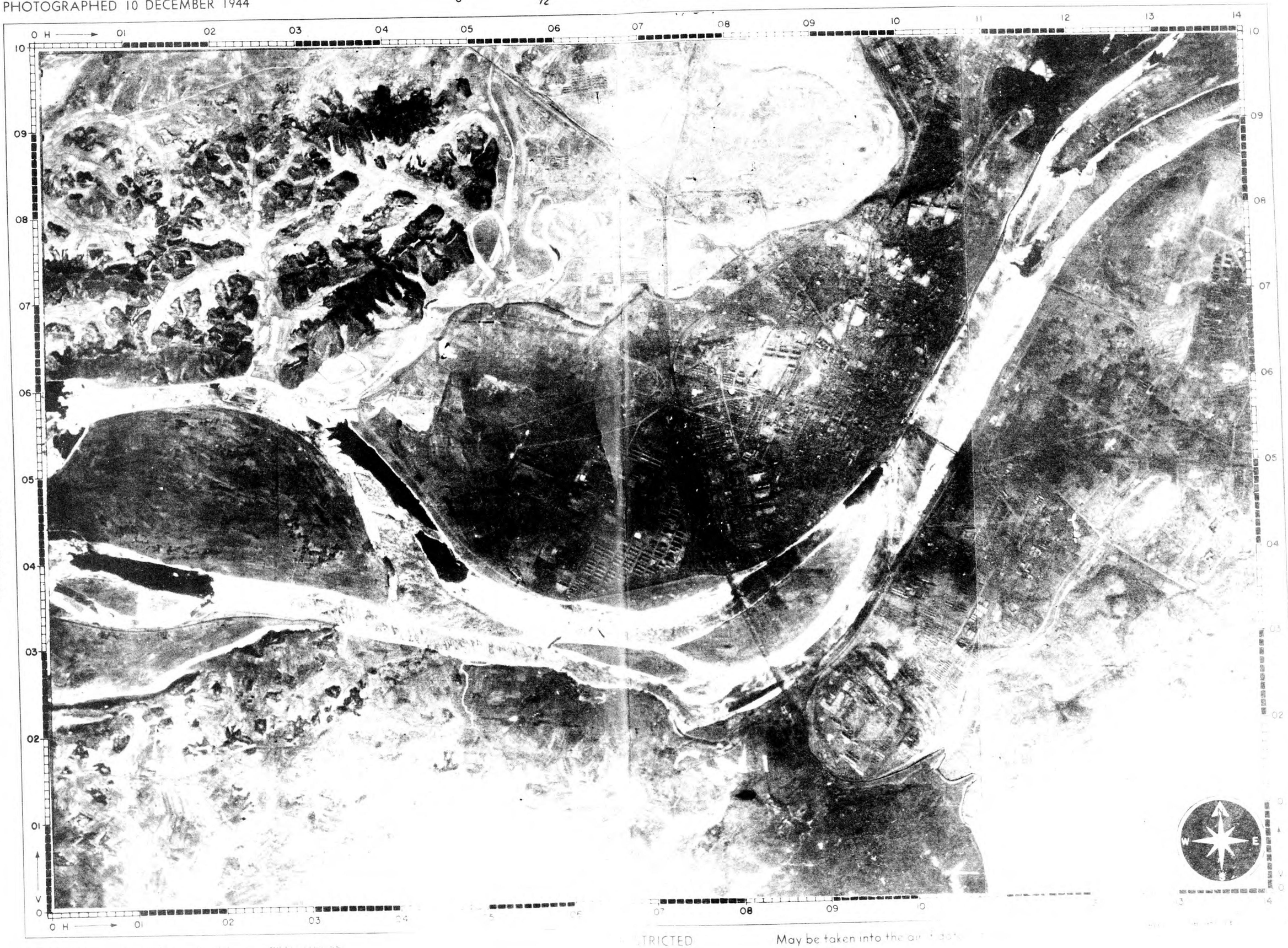
0 ½ 1 MILE

1:32 000 APPROX.

ILLUSTRATION No. 84.3–61 12–A

ISSUED 28 MARCH 1945

RESTRICTED



HOLDERS OF JTG FOLDERS SHOULD INSERT THIS SHEET IN AIR TARGET SYSTEM FOLDER: JAPANESE ARMAMENT.

RESTRICTED

May be taken into the air

JOINT TARGET GROUP • WASHINGTON D. C.

HEIJO ARMY ARSENAL
HEIJO, KOREA

TARGET No. 84.3–61

COORDINATES 39° 00′ N 125° 44′ E

PHOTOGRAPHED 10 DECEMBER 1944

ILLUSTRATION No. 84.3–61 12-B

ISSUED 28 MARCH 1945

CONFIDENTIAL

0 500 1000 1500 2000 2500 3000 FEET

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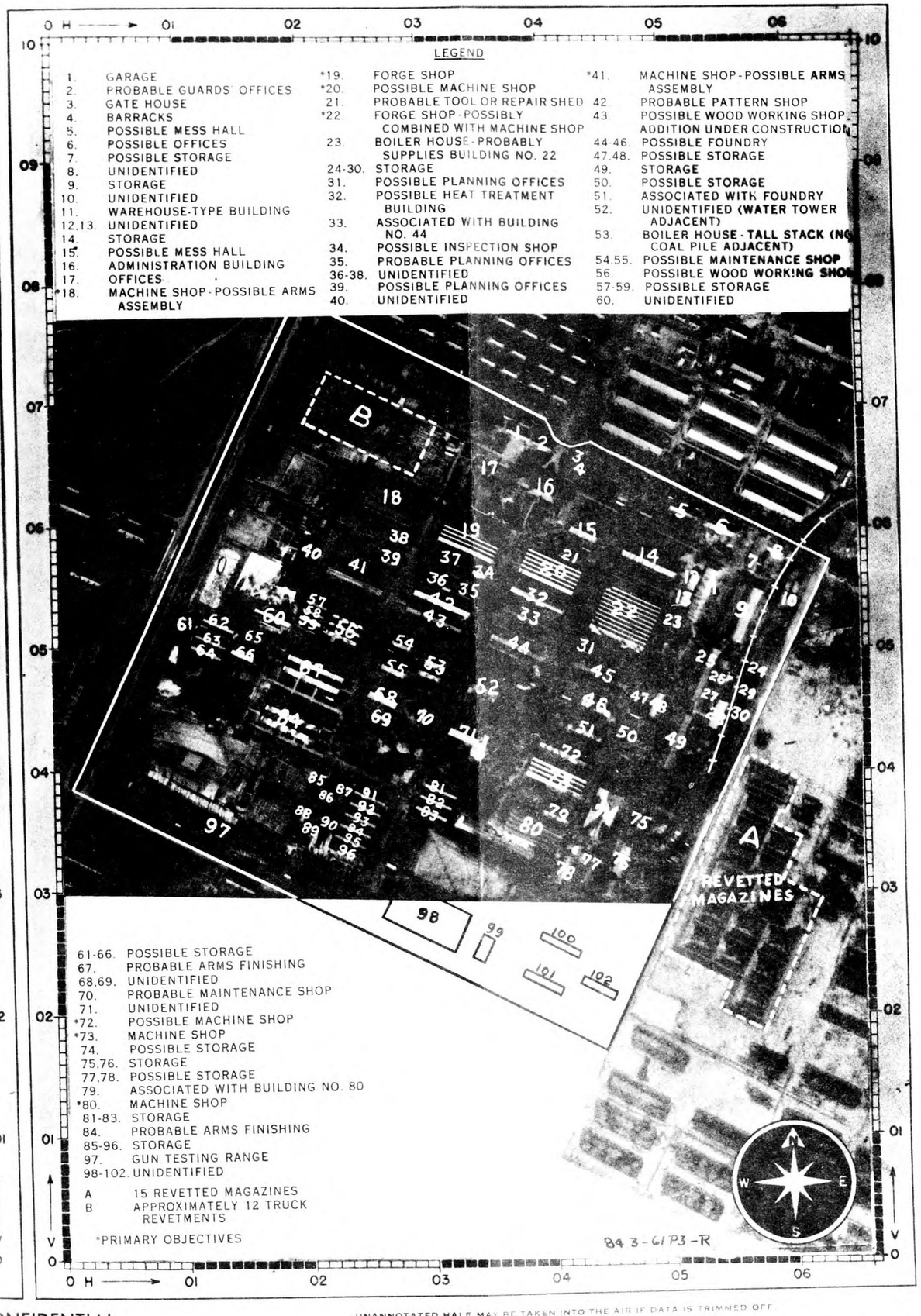
HOLDERS OF JTG FOLDERS SHOULD INSERT THIS SHEET IN AIR TARGET SYSTEM FOLDER: JAPANESE ARMAMENT.



LEGEND

1.	GARAGE	*19.	FORGE SHOP	*41.	MACHINE SHOP - POSSIBLE ARMS ASSEMBLY
2.	PROBABLE GUARDS' OFFICES	*20.	POSSIBLE MACHINE SHOP		
3.	GATE HOUSE	21.	PROBABLE TOOL OR REPAIR SHED	42.	PROBABLE PATTERN SHOP
4.	BARRACKS	*22.	FORGE SHOP - POSSIBLY COMBINED WITH MACHINE SHOP	43.	POSSIBLE WOOD WORKING SHOP - ADDITION UNDER CONSTRUCTION
5.	POSSIBLE MESS HALL				
6.	POSSIBLE OFFICES	23.	BOILER HOUSE - PROBABLY SUPPLIES BUILDING NO. 22	44-46.	POSSIBLE FOUNDRY
7.	POSSIBLE STORAGE			47,48.	POSSIBLE STORAGE
8.	UNIDENTIFIED	24-30.	STORAGE	49.	STORAGE
9.	STORAGE	31.	POSSIBLE PLANNING OFFICES	50.	POSSIBLE STORAGE
10.	UNIDENTIFIED	32.	POSSIBLE HEAT TREATMENT BUILDING	51.	ASSOCIATED WITH FOUNDRY
11.	WAREHOUSE-TYPE BUILDING			52.	UNIDENTIFIED (WATER TOWER ADJACENT)
12,13.	UNIDENTIFIED	33.	ASSOCIATED WITH BUILDING NO. 44	53.	BOILER HOUSE - TALL STACK (NO COAL PILE ADJACENT)
14.	STORAGE				
15.	POSSIBLE MESS HALL	34.	POSSIBLE INSPECTION SHOP	54,55.	POSSIBLE MAINTENANCE SHOP
16.	ADMINISTRATION BUILDING	35.	PROBABLE PLANNING OFFICES	56.	POSSIBLE WOOD WORKING SHOP
17.	OFFICES	36-38.	UNIDENTIFIED	57-59.	POSSIBLE STORAGE
*18.	MACHINE SHOP - POSSIBLE ARMS ASSEMBLY	39.	POSSIBLE PLANNING OFFICES	60.	UNIDENTIFIED
		40.	UNIDENTIFIED		

61-66.	POSSIBLE STORAGE
67.	PROBABLE ARMS FINISHING
68,69.	UNIDENTIFIED
70.	PROBABLE MAINTENANCE SHOP
71.	UNIDENTIFIED
*72.	POSSIBLE MACHINE SHOP
*73.	MACHINE SHOP
74.	POSSIBLE STORAGE
75,76.	STORAGE
77,78.	POSSIBLE STORAGE
79.	ASSOCIATED WITH BUILDING NO. 80
*80.	MACHINE SHOP
81-83.	STORAGE
84.	PROBABLE ARMS FINISHING
85-96.	STORAGE
97.	GUN TESTING RANGE
98-102.	UNIDENTIFIED
A	15 REVETTED MAGAZINES
B	APPROXIMATELY 12 TRUCK REVETMENTS

*PRIMARY OBJECTIVES

PUBLISHED IN OFFICE OF AC/AS INTELLIGENCE, A. A. F., BY COMBINED PERSONNEL OF UNITED STATES AND BRITISH SERVICES FOR THE USE OF ALLIED FORCES.

CONFIDENTIAL

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ANNOTATED HALF IS NOT TO BE TAKEN INTO THE AIR

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JOINT TARGET GROUP • WASHINGTON D. C.

HEIJO ARMY ARSENAL
HEIJO, KOREA

TARGET No. 84.3–61

COORDINATES 39° 00′ N 125° 44′ E

PHOTOGRAPHED 10 DECEMBER 1944

ILLUSTRATION No. 84.3–61 12-B

ISSUED 28 MARCH 1945

CONFIDENTIAL

0 500 1000 1500 2000 2500 3000 FEET

0 1/4 1:6000 APPROX. 1/2 MILE

HOLDERS OF JTG FOLDERS SHOULD INSERT THIS SHEET IN AIR TARGET SYSTEM FOLDER: JAPANESE ARMAMENT.

84.3-61P3-L

LEGEND

1. GARAGE
2. PROBABLE GUARDS' OFFICES
3. GATE HOUSE
4. BARRACKS
5. POSSIBLE MESS HALL
6. POSSIBLE OFFICES
7. POSSIBLE STORAGE
8. UNIDENTIFIED
9. STORAGE
10. UNIDENTIFIED
11. WAREHOUSE-TYPE BUILDING
12,13. UNIDENTIFIED
14. STORAGE
15. POSSIBLE MESS HALL
16. ADMINISTRATION BUILDING
17. OFFICES
*18. MACHINE SHOP - POSSIBLE ARMS ASSEMBLY
*19. FORGE SHOP
*20. POSSIBLE MACHINE SHOP
21. PROBABLE TOOL OR REPAIR SHED
*22. FORGE SHOP - POSSIBLY COMBINED WITH MACHINE SHOP
23. BOILER HOUSE - PROBABLY SUPPLIES BUILDING NO. 22
24-30. STORAGE
31. POSSIBLE PLANNING OFFICES
32. POSSIBLE HEAT TREATMENT BUILDING
33. ASSOCIATED WITH BUILDING NO. 44
34. POSSIBLE INSPECTION SHOP
35. PROBABLE PLANNING OFFICES
36-38. UNIDENTIFIED
39. POSSIBLE PLANNING OFFICES
40. UNIDENTIFIED
*41. MACHINE SHOP - POSSIBLE ARMS ASSEMBLY
42. PROBABLE PATTERN SHOP
43. POSSIBLE WOOD WORKING SHOP; ADDITION UNDER CONSTRUCTION
44-46. POSSIBLE FOUNDRY
47,48. POSSIBLE STORAGE
49. STORAGE
50. POSSIBLE STORAGE
51. ASSOCIATED WITH FOUNDRY
52. UNIDENTIFIED (WATER TOWER ADJACENT)
53. BOILER HOUSE - TALL STACK (NO COAL PILE ADJACENT)
54,55. POSSIBLE MAINTENANCE SHOP
56. POSSIBLE WOOD WORKING SHOP
57-59. POSSIBLE STORAGE
60. UNIDENTIFIED
61-66. POSSIBLE STORAGE
67. PROBABLE ARMS FINISHING
68,69. UNIDENTIFIED
70. PROBABLE MAINTENANCE SHOP
71. UNIDENTIFIED
*72. POSSIBLE MACHINE SHOP
*73. MACHINE SHOP
74. POSSIBLE STORAGE
75,76. STORAGE
77,78. POSSIBLE STORAGE
79. ASSOCIATED WITH BUILDING NO. 80
*80. MACHINE SHOP
81-83. STORAGE
84. PROBABLE ARMS FINISHING
85-96. STORAGE
97. GUN TESTING RANGE
98-102. UNIDENTIFIED

A 15 REVETTED MAGAZINES

B APPROXIMATELY 12 TRUCK REVETMENTS

*PRIMARY OBJECTIVES

84.3-61P3-R

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PLATE 13

TARGET NO. 84.2-1

CHOSEN NITROGEN FERTILIZER CO

39°50'N., 127°38'E.

KONAN, KOREA

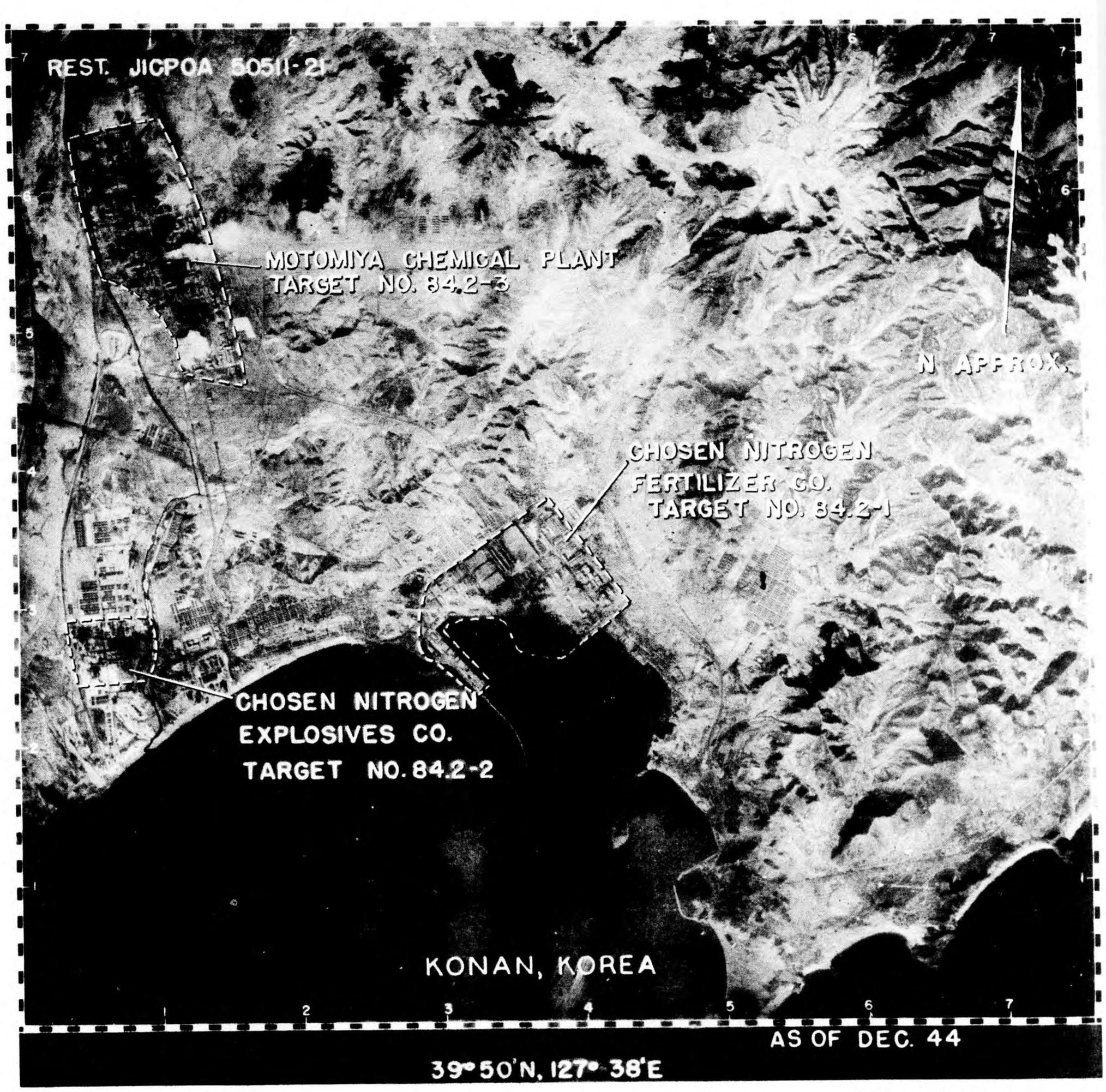
AS OF 21 DECEMBER 1944

EXPOSURE 2V4 OF SORTIE 468BG/4MR44 XXBC

APPROX SCALE IN FEET

500 0 500 1000

PLATE 13A



REPRODUCED BY 955TH ENGR TOPO CO AAF

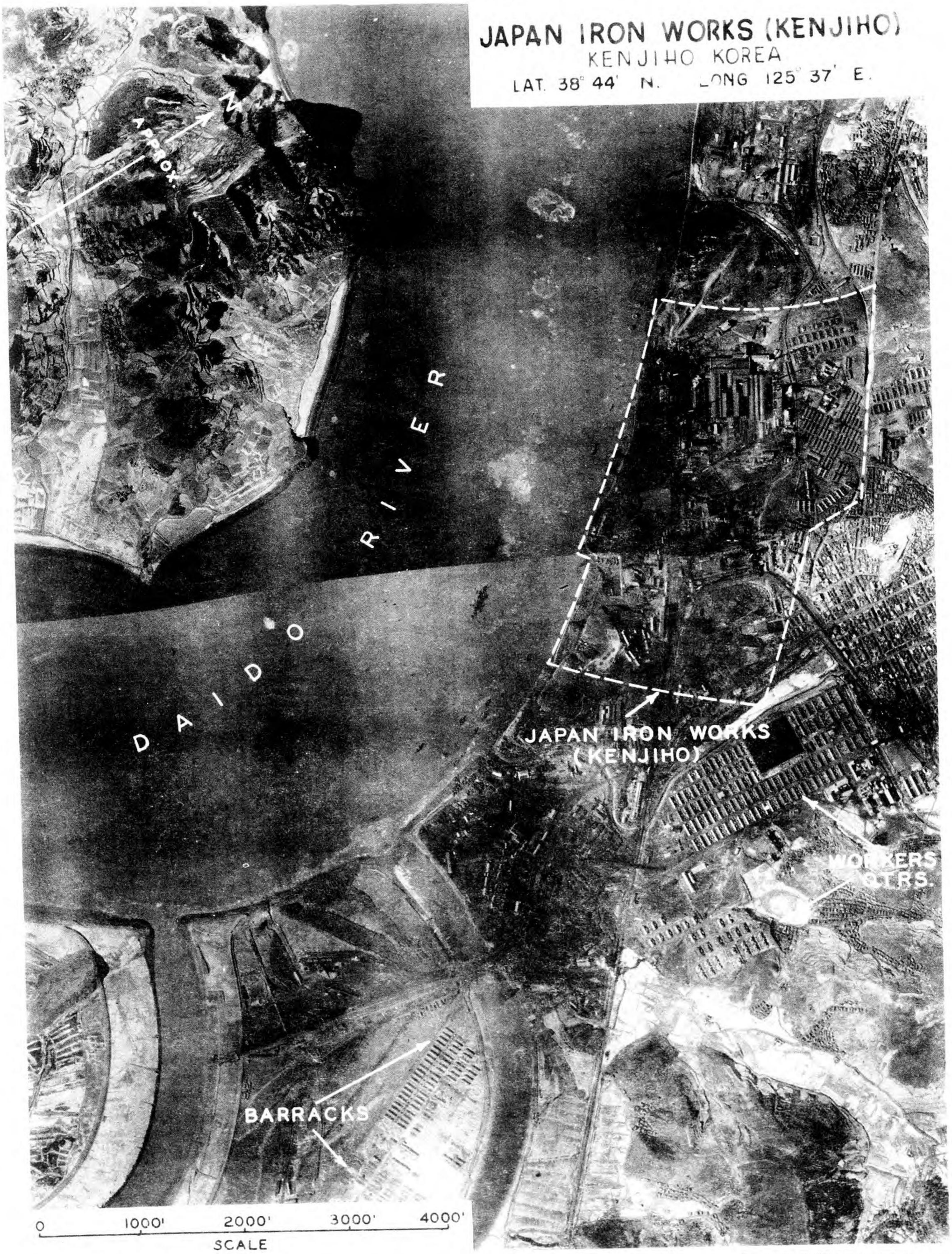
PLATE 14

CONF JICPOA NEG NO. 50611-4

SPECIAL P.I. REPORT NUMBER 32
JAPAN HIGH FREQUENCY HEAVY INDUSTRY CO.
(AAF Target No. 84.1 - 31)
JOSHIN, KOREA 40°41'N - 129°12'E
Prepared By: PID XXBC Date: 7 May 1945

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 15



REPRODUCED BY 955TH ENGR TOPO CO APO

PLATE 16

REPRODUCED BY 955TH ENGR. TOPO. CO. AVN

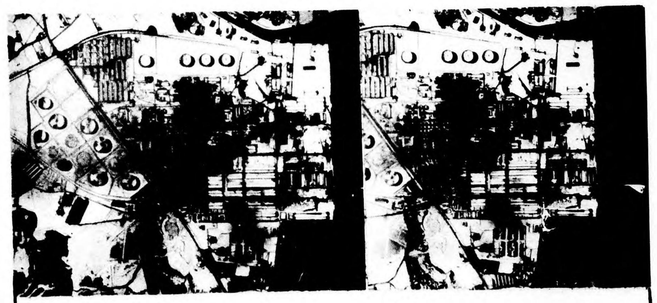
CHOSEN OIL REFINERY

GENZAN., KOREA

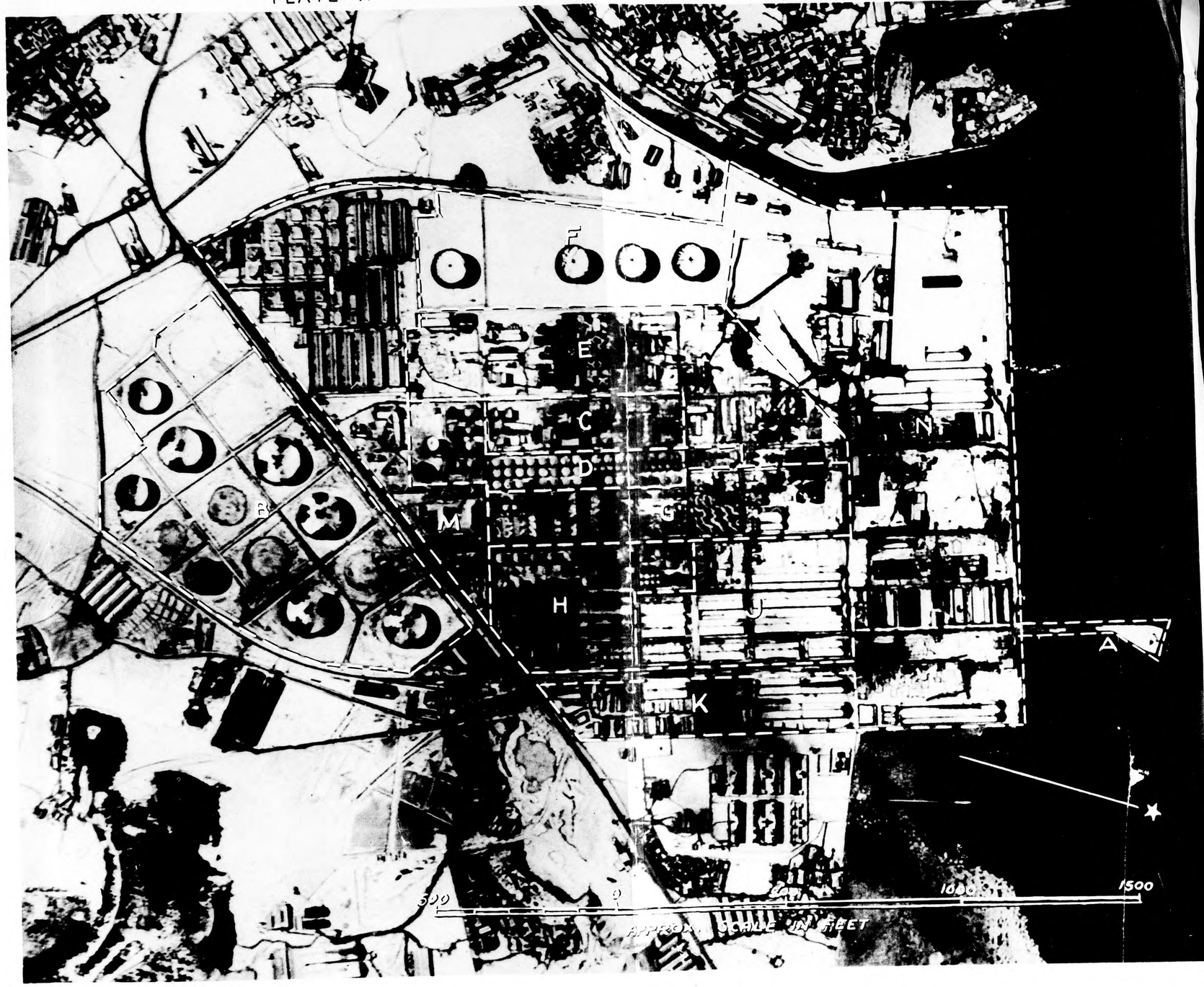
LAT. 39° 09' N., LONG. 127° 28' E.

LEGEND

A. Receiving Pier.
B. Tank Farm - Crudes.
C. Cracking Units.
D. Run-down Tanks.
E. Duo-Sol Plant.
F. Tank Farm - Lubes.
G. Refining Section.
H. Final Processing Section.
I. Lube and Wax Storage (Prob.).
J. Other Products Storage.
K. Piping and Tubing Yard.
L. Drum Reconditioning Yard.
M. Administration Bldg.
N. Miscellaneous Whses. and Bldgs.



...REOGRAM OF REFINERY



MAP C

HARBORS AND NAVAL BASE IN KOREA

Yuki Harbor
Target No. 84.1-15

Rashin Harbor
Target No. 84.1-14

Seishin Harbor
Target No. 84.1-13

Joshin Harbor
Target No. 84.1-132

Konan Harbor

Genzan Harbor
Target No. 84.4-89

Chinnampo Harbor
Target No. 84.3-76

Jinsen Harbor
Target No. 84.6-45

Gunzan Port
Target No. 84.8-100

Masan Harbor
Target No. 84.7-130

Moppo Harbor
Target No. 84.8-99

Fusan Harbor
Target No. 84.7-97

Chinkai Naval Base
Target No. 84.7-101

Reisui Harbor
Target No. 84.8-98

Reproduced By 955th Engr Topo. Co Avn

H A R B O R F A C I L I T I E S

AND

N A V A L B A S E

The major ports of Korea are industrial centers and they also serve as the principal exits for supplies and raw materials moving to Japan from Korea and Manchuria. Korean port facilities have been developed largely to serve adjacent industries and to trans-ship cargo at railroad terminals. Fusan and Rashin are the most important ports in Korea.

The southern ports of Fusan, Masan, Reisui, Moppo, Gunzan and Jinsen are principally significant in the movement of coal, iron and foodstuffs from North-central Korea, Southern Manchuria and North China. These ports permit the saving of considerable shipping space owing to the short voyage between the mainland and Japan. This affects particularly the use of small coasters and wooden vessels, since on short runs limitations imposed by slower speed and poorer sea qualities of these craft are minimized. The estimated annual capacities of Korea's southern ports as of 10 Apr 45 are as follows:

Fusan	6,194,000 metric tons
Masan	2,475,000 metric tons
Reisui	1,089,000 metric tons
Moppo	1,089,000 metric tons
Gunsan	396,000 metric tons
Jinsen	5,115,000 metric tons

The northern ports of Korea, Yuki, Rashin, Seishin, Shako, Konan and Genzan, primarily serve the north Korean and southeast Manchurian hinterland, but could also serve central and northwest Korea, and southwest Manchuria and north China to which they are connected by rail. Coal, iron ore and food stuffs make up the bulk of the traffic. The estimated annual capacities of the northern ports of Korea as of 10 Apr 45 are as follows:

Yuki	2,400,000 metric tons
Rashin	7,530,000 metric tons
Seishin	5,820,000 metric tons
Joshin	1,980,000 metric tons
Shako	1,170,000 metric tons
Konan	4,650,000 metric tons
Genzan	3,480,000 metric tons

The two important Yellow Sea ports of Korea, Chinnampo and Kenjiho, are within the area producing pig iron, iron ore, coal, salt & foodstuffs. Estimated annual capacity of Chinnampo is 1,980,000 metric tons, and Kenjiho, 600,000 metric tons.

HARBOR FACILITIES:

SEISHIN HARBOR: Target No. 84.1-13

Seishin Harbor (41.47 N, 129.50 E) is the shipping point for Mozan Iron Mine, the largest of iron mines under Japanese control. The port has been a fishing center and export point for Manchurian soy-beans, bean cake and wheat.

The port is a break-water type. The quay provides about 3000' of berthing space with RR spurs and warehouses.

RASHIN HARBOR Target No. 84.1-14

Rashin Harbor (42.13 N, 130.18 E) is the most extensive and modern port of Korea. It is a naturally sheltered, deep-water harbor lying about 60 miles SW of Vladivostok. At least six 985' piers on reclaimed land, with RR spurs, warehouses and travelling cranes, provide about 12,000' of berthing space. Two more similar piers may be completed. Quay N of piers with RR freight yards adjacent provide additional 1000' of deep-water berthage.

YUKI HARBOR Target No. 84.1-15

Small, deep-water port about 7 mi NNE of Rashin (42.20 N, 130.24 E). Concrete quay on S side of harbor provides 1600' of berthing space with a 24' depth alongside. It has a parallel freight yard and freight sheds. The small break-water enclosed basin on NE side is relatively shallow. Yuki has been a lumber export point.

JINSEN HARBOR and TIDAL BASIN Target No. 84.6-45
(Plate 18)

Located on the middle of the W coast of Korea, (37.28 N, 126.37 E), with a well-protected, ice-free, natural harbor. Jinsen is the port for Keijo (Kyongsong), approximately 20 miles East.

The tidal basin and lock gate, completed in 1923, are used to adjust wharf facilities with the 30' tide. Water area of basin is 1500' x 720'.

There is a total of 3500 linear feet of wharfage paralleled on N side by RR spurs. Warehouses align the RR along the quay N and NW of basin.

A new basin, six times as large as old one, has been reported under construction. A 30-ton floating crane is said to be present.

CHINNAMPO HARBOR Target No. 84.3-76
(Plate 19)

Chinnampo Harbor (38.43 N, 125.24 E), the largest and best equipped on W coast, lies on the Daido River 20 miles upstream. It is the principal port for the Heijo industrial and mining region and the site of an important naval coal depot (Target No. 84.3-77). Two non-ferrous metals factories are at Chinnampo: the Chosen Riken Metals Co. plant (Target No. 84.3-67) producing aluminum and magnesium and the Japan Mining Co. plant (Target No. 84.3-68) which produces lead, copper, and low grade zinc. Principal exports are rice, soy beans, iron anthracite coal and paper.

The harbor has an artificial basin with 4000' of berthage of varying depths. Reportedly dredged to take 10,000 ton vessels.

There are RR spurs and freight sheds at the port and three travelling cranes are present. Rice warehouses are around the harbor.

GENZAN (Wonsan) HARBOR Target No. 84.4-89
(Plate 20)

Genzan is well sheltered, deep harbor formed by a small peninsula inside Eiko Bay (39.10 N, 127.26 E). A stone quay about 900' long provides berthing alongside RR spurs for vessels drawing up to 23 feet.

Genzan has been a regular port of call for coastwise and Japan-bound shipping, but has never been a commodity port. Small drydock is reported.

FUSAN HARBOR Target No. 84.7-97
(Plate 21, Target Chart No. 351)

Fusan (35.07 N, 129.03 E) is the leading port of Korea. Only 125 miles from Japan, Fusan has been used principally for military supplies and troops entering the continent, and rice, cotton, steel and coal bound for Japan. It is also reported to be the regular assembly point for Japanese convoys. Although primarily devoted to commerce, Fusan has some industries, including the Chosen Heavy Industry Co., largest shipbuilding company in Korea.

The double-track Fusan-Mukden railroad terminates at the waterfront. One pier is used for direct transfer of railway cargo and passengers to a ferry that connects directly with a similar landing facility at Shimonoseki in Japan.

Fusan is divided into a North and South harbor, both with artificial breakwater protection. Total of 4000' berthage space alongside 2 piers. No. 1 pier 966'; No. 2 pier, 1380' long with five freight sheds, 250' x 60' each and seven RR spurs. There are several small piers. Small, 253-foot drydock located on N side of Makino Island.

REISUI HARBOR Target No. 84.8-98
(Plate 22)

Reisui (Yoshu), on the SE coast of Korea (34.45 N, 127.44 E), is an auxiliary port for Fusan, lying about 80 miles to the NE. It is newly-developed and was formerly a small fishing village.

In 1941, the port was reportedly used by the Japanese Army as a staging point for transport of troops and supplies from Japan to bases in NE Asia. Use of the port for Naval purposes also has been reported.

Reisui is the terminus of a 9- to 10-hour sea route connecting Korea with Hakata, on Kyushu. It is enclosed by a breakwater and connected by single-track branch line to Mukden-Fusan mainline, via Riri and Taiden junctions.

MOPPO HARBOR Target No. 84.8-99
(Plate 23)

Naturally protected and of deep-water (34.47 N, 126.23 E), with an outer anchorage. Terminus of the single-tracked branch line leaving the Mukden-Fusan mainline at Taiden. Some naval-base development reported.

Pontoon wharf 340' long used by vessels under 2000 tons. Prewar commodity shipments were chiefly regional agricultural products by vessels of the coastal type.

GUNZAN HARBOR Target No. 84.8-100
(Plate 24)

This important rice-shipping port (35.59 N, 126.43 E) is connected to the Mukden-Fusan mainline by a single-track line via Riri Junction and by the coastal line to Tenan.

The only landing facilities for deep-draft vessels are three pontoon piers, each capable of accommodating a 3,000-ton ship of about 20-foot draft. There are also 19 piers for fishing boats and other small craft.

MASAN HARBOR Target No. 84.7-130
(Plate 25)

Masan, in southeastern Korea about 30 miles W of Fusan and 5 miles NW of Chinkai (35.12 N, 128.33 E), is the center of the Chinkai Naval District. The protected harbor can provide 16 second- and 41 third-class anchorages, and the water area to southward provides about 18 first-class anchorages.

The port is a new development, with warehouses and dry-dock facilities reportedly built since 1940. Believed to supplement Fusan in handling Shimonoseki Strait traffic.

JOSHIN HARBOR Target No. 84.1-132

Joshin (40.40 N, 129.12 E), a major fishing center now being developed as an industrial port, is on the NE coast of Korea. The exports include lumber, crude magnesite ore and magnesia. The Japan High Frequency Heavy Industry Co. (Target No. 84.1-31), a producer of steel products, is situated at Joshin.

KONAN HARBOR (Hungnam)

Konan, on the E coast of Korea about 40 miles N of Wonsan (39.50 N, 127.37 E), has been developed in the last 12 years to import the raw materials and export the products of four large industrial plants on or near the water-front. Among these are Chosen Nitrogen Fertilizer Co. (Target No. 54.2-1) and Motomiya Chemical Plant (Target No. 84.2-3).

Konan has only 4 deep-draft landing facilities, but these can accommodate 11 vessels from 300 to 500 feet long, drawing 20 to 30 feet, and one 225-foot vessel drawing 16 feet. Dock No. 1, which provides most berthage, is equipped for intensive cargo handling; it has a large rail-track footage, four 10-ton travelling bridge cranes and one 40-ton crane. It is estimated that 8,000 long tons can be discharged per day alongside the landing facilities, and 7,500 long tons into lighters in the stream. Estimated annual capacity is 4,650,000 metric tons.

The most serious limitation to the port is its small size, which provides only 1 second- and 7 third-class anchorage berths. Vessels waiting to berth often have to anchor in the roadstead which is exposed to the south, southeast and southwest.

NAVAL BASE

CHINKAI NAVAL BASE Target 84.7-101

Chinkai Naval Base (39.09 N, 128.38 E), the only Naval base target known in Korea, is a minor naval station and mine

base with three small harbors. The west harbor can accommodate eight destroyers. Dockyard facilities were reported to be in the central and east harbors. The base is capable of doing minor repairs to destroyers and mine layers.

Equipment includes one 50-ton floating crane, several small cranes, an obsolete 2000-ton floating dock, several small slips, small machine shop and foundry. Several storage buildings situated north of the west harbor have a capacity of several thousand mines. There is an oil storage area on the peninsula that separates the central and the east harbors, with the eight large tanks having a capacity of about 500,000 bbls. The ships bunker at jetty at the foot of the hill.

A small naval air station lies to the south.

PLATE 18

JINSEN, KOREA

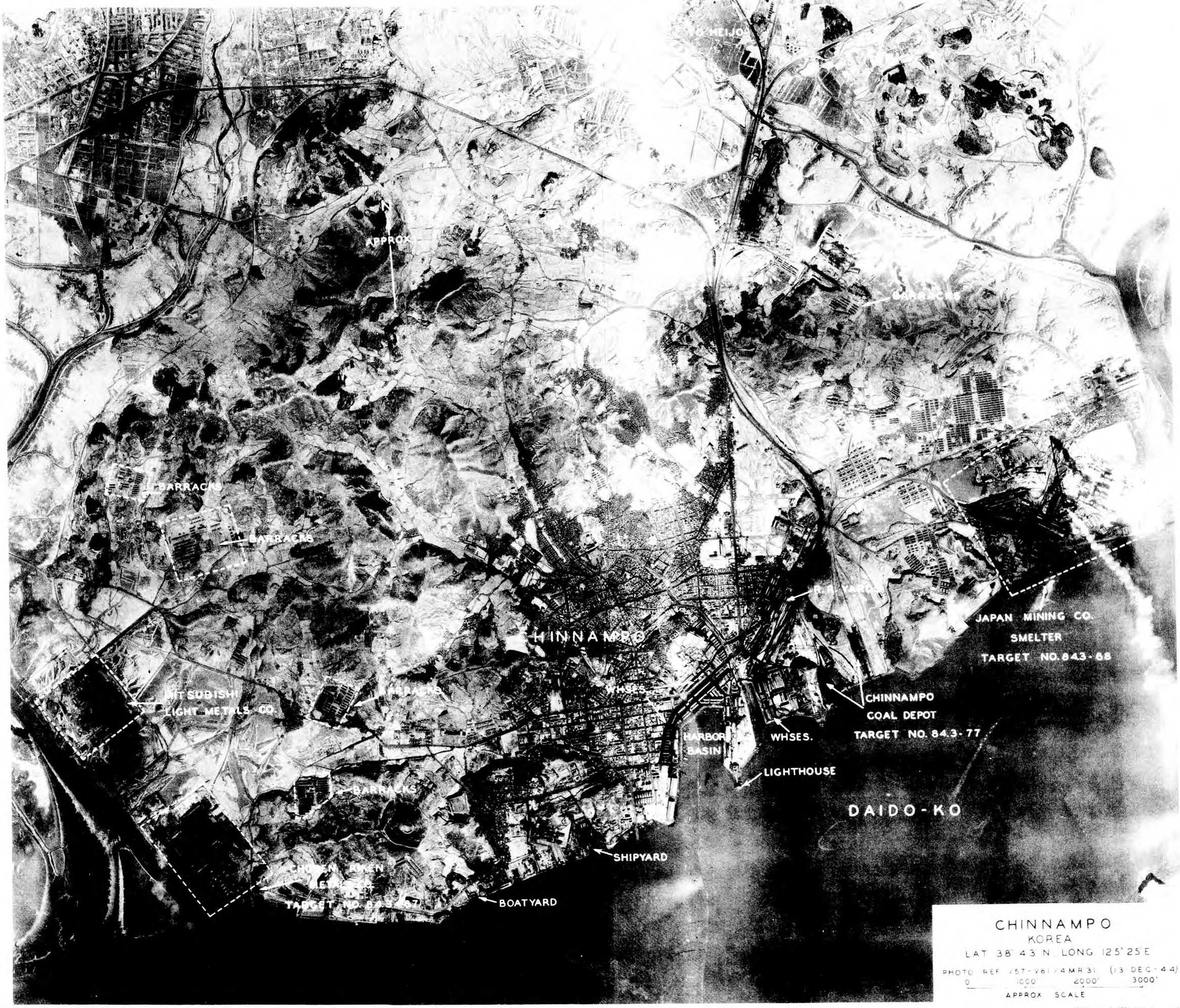
37°28'N., 126°37'E.

AS OF JAN., 1945

84.6 - 3517

REPRODUCED BY 955TH ENGR. TOPL. BN. A.A.F.

PLATE 19

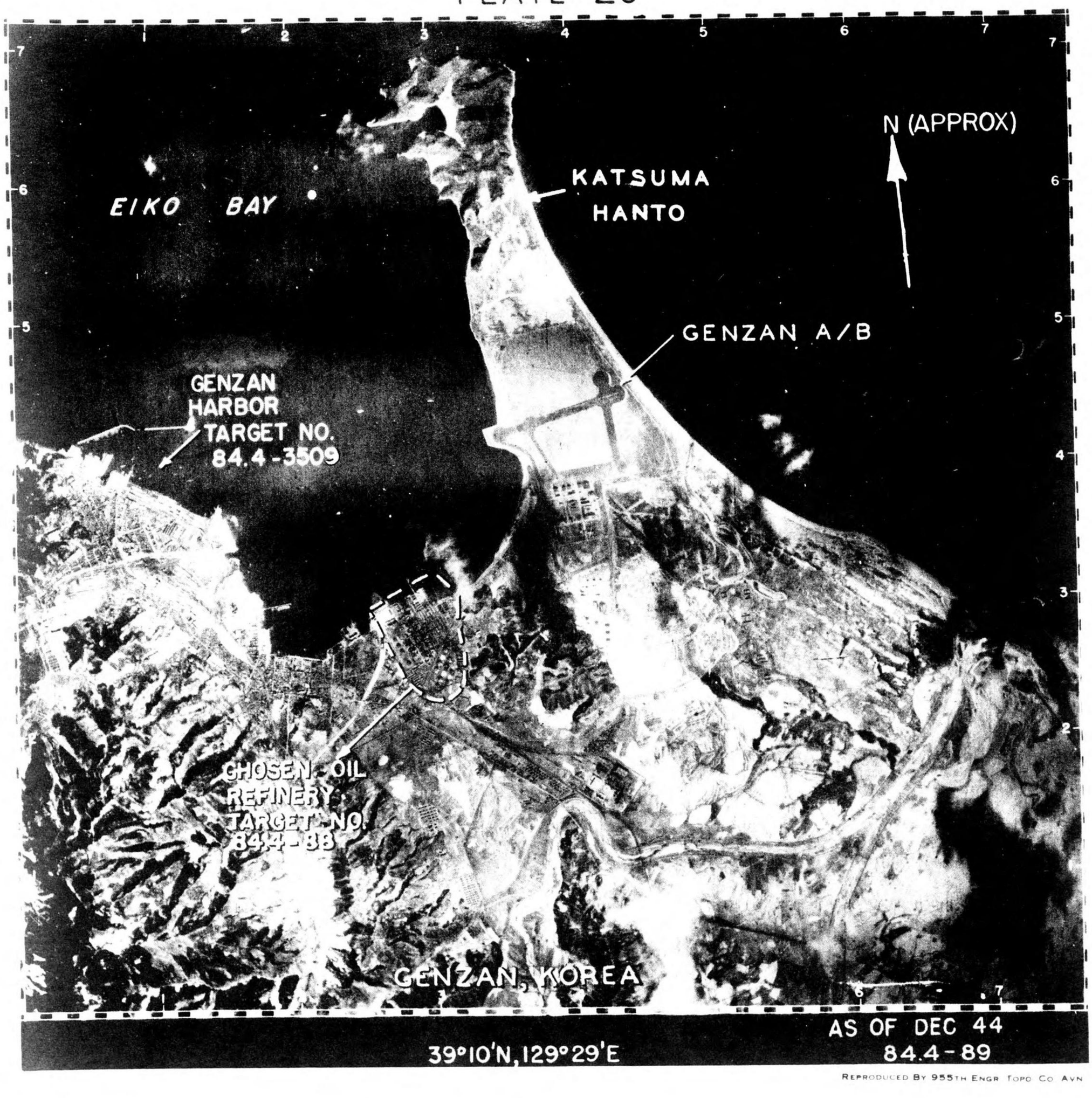


CHINNAMPO
KOREA
LAT 38° 43' N LONG 125° 25' E

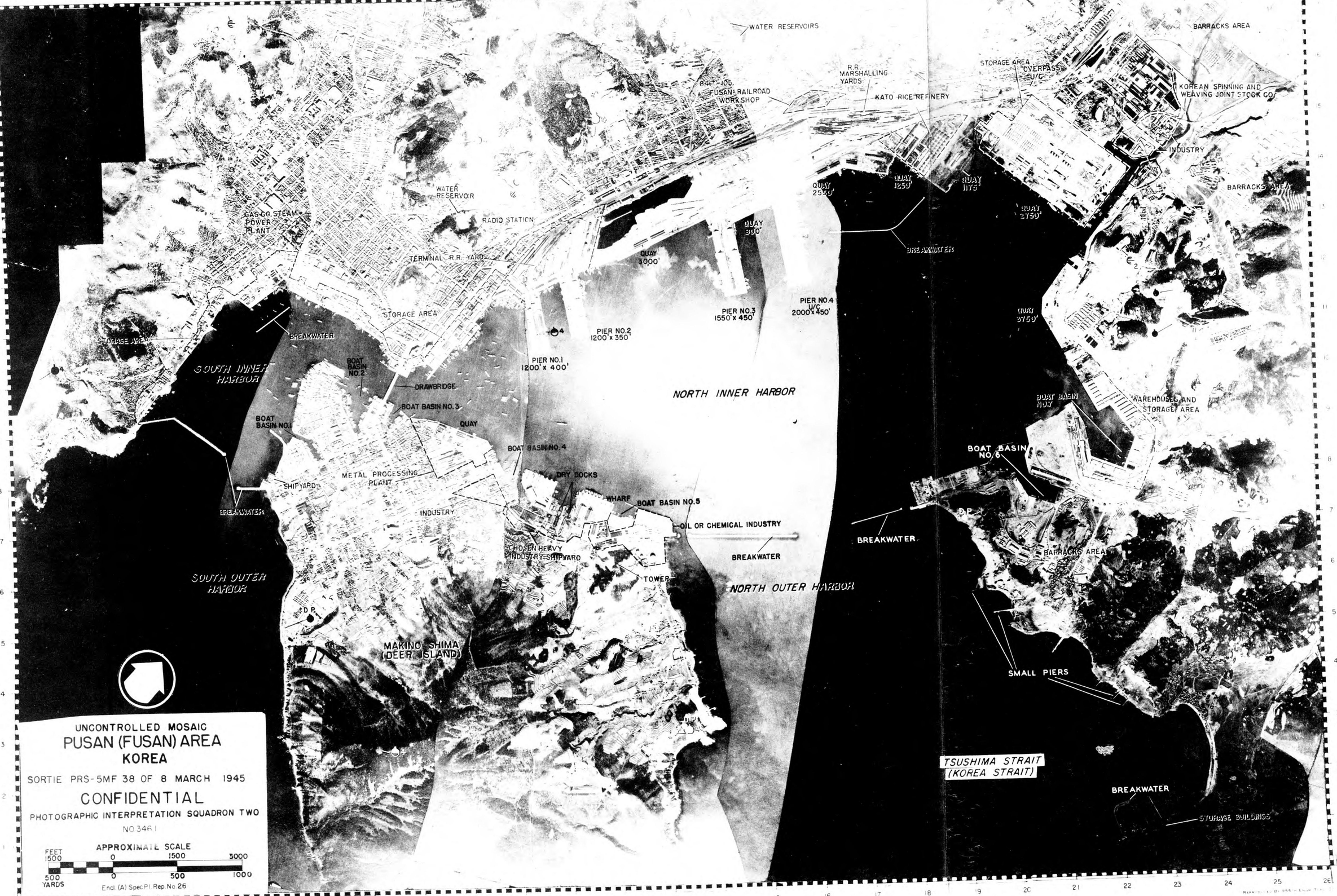
PHOTO REF 157-V61/4MR31 (13 DEC 44)

0 1000' 2000' 3000'
APPROX SCALE

PLATE 20



REPRODUCED BY 955TH ENGR TOPO CO AVN



UNCONTROLLED MOSAIC

PUSAN (FUSAN) AREA
KOREA

SORTIE PRS-5MF 38 OF 8 MARCH 1945

CONFIDENTIAL

PHOTOGRAPHIC INTERPRETATION SQUADRON TWO

NO 3461

APPROXIMATE SCALE

FEET 1500 0 1500 3000

500 YARDS 0 500 1000

Encl (A) Spec Pl Rep No 26

TARGET CHART No. 351

FUSAN DOCKING & WHSE. AREA

35° 07'N – 129° 05'E

Korea

RESTRICTED

RAKUTOGU DELTA

SAMNANGJIN

TOU IS.

NAKTONG RIVER

MEKI IS.

ULSAN

TORAI (TONGNAE)

R.R. STA

X 2074

X 2118

R.R. STA

WORKERS BKS.

FUSAN A/F

R.R. YD.

SUIEI (SUYONG)

PROB. A/A

IND.

R.R. YD. – UNCONST.

X 1356

239 X

S/L

X 1402

STRIP MINE

IND.

R.R. CAR SHOPS

X 736

BKS.

S/L

X 583

IND.

RICE MILL

3 D/P

X 1031 TEXTILE MILL

BKS.

SUIEI (SUYONG) BAY

X 1649

4 GUNS-4 A/A

S/L

AMMO. STG.

X 463

X 1339

R.R. YDS.

QUAY & WHSE. AREA

2-6 A/A & PROB. RADAR

WHSE. AREA

420 X

RESERVOIRS

ORE DOCKS

DOCKING & WHSE. AREA

AMMO. STG.

FUSAN (PUSAN)

BKS.

X 1328

413 X

739 X

CAPE NAKU

4 GUNS-S/L

WHSE AREA

556 X

4 A/W

4 A/A PROB. S/L

RICE REF.

608 X

2-4 GUN D/P

TERMINAL R.R. YD.

480 X

PROB. C/D & A/A

4 A/A RADIO

TSUSHIMA STRAIT (KOREA STRAIT)

593 X

CAPE HARITO

SHIPYARDS

IND. & OIL STG.

IND.

DRAW BRIDGE

CHOSEN HEAVY IND. CO.

5 GUN D/P & D/P

PROB. S/L

IND.

BOAT YD.

IND.

X 1065

CAPE SENGAN

RADIO

1293 X

4 C/D-S/L PROB. 4 A/W

MAKINO (MOK) IS.

1179 X

462 X CHO IS.

2-4 GUN BATT.

S/L-4 GUNS 2 OCCUPIED

CAPE SUGU

S/L

517 X

X 761

BKS. AREA

X 425

KAMUNEI BAY

CAPE TENGEN

4 A/A-PROB. S/L

CAPE SEIN

799 X

LIGHTHOUSE

653 X

X TO IS. 96

SAENG IS.

315 X SO IS.

APPROX. NORTH

SEA OF JAPAN

14TH U.S.A.A.F.

APRIL 1945

COMPILED BY PHOTOGRAMMETRY SECTION, 4TH PHOTO TECHNICAL UNIT

AUTHORITIES:
TRI-METROGON PHOTOGRAPHS
U.S. HO CHART NO. 5312
A.A.F. TARGET CHART NO. 847-97

SCALE 1:63,360

1 0 1 2 3 4 MILES 5

ELEVATIONS IN FEET

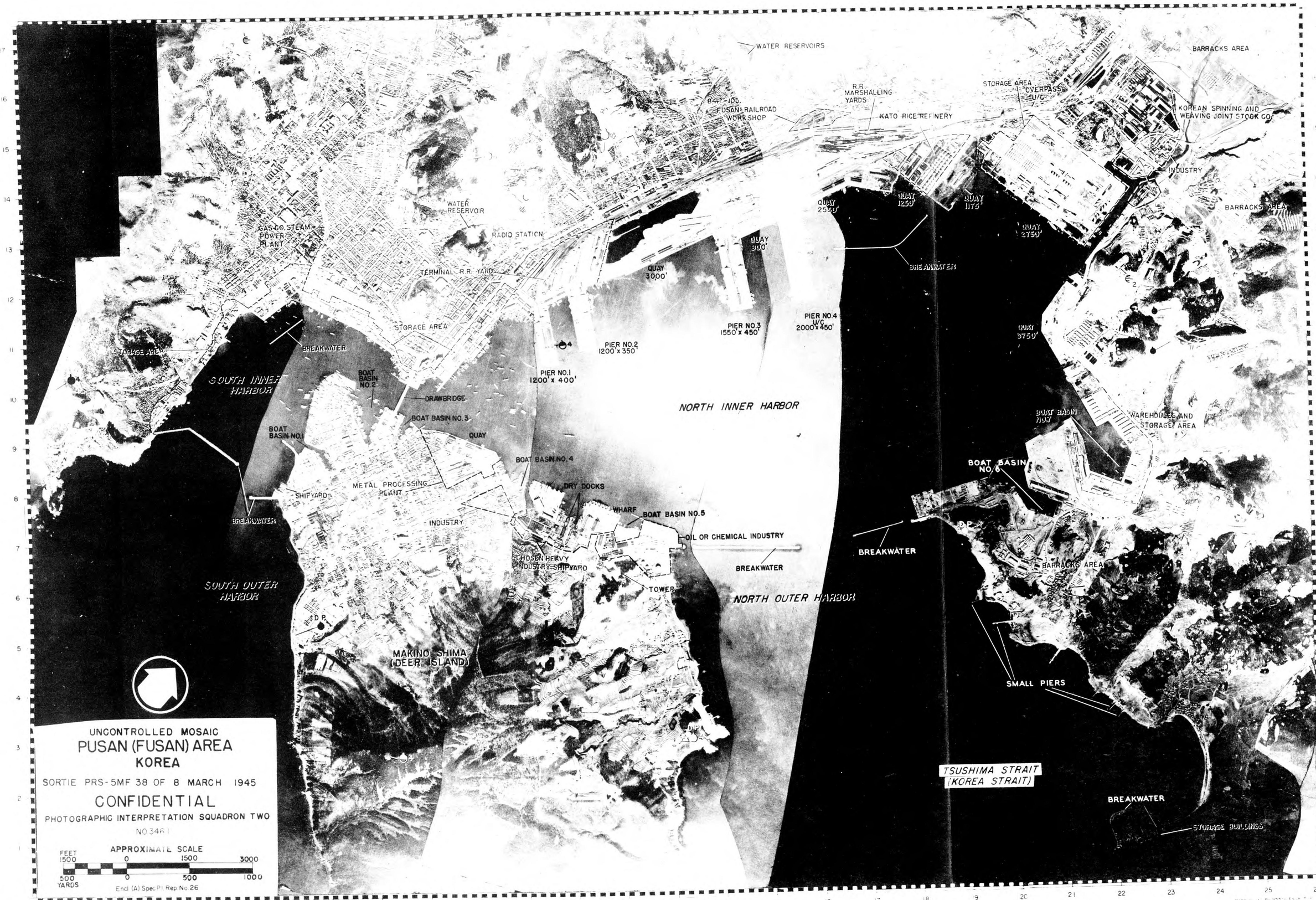
LEGEND:

CONCENTRATED TARGETS

AREA TARGETS

CITIES & TOWNS

PHOTOGRAPHS-XX B.C.,
REPRODUCED BY 955TH ENGR. TOPO. CO. AVN
TARGETS FROM 18TH. P.I.D.
FIRST EDITION



UNCONTROLLED MOSAIC

PUSAN (FUSAN) AREA
KOREA

SORTIE PRS-5MF 38 OF 8 MARCH 1945

CONFIDENTIAL

PHOTOGRAPHIC INTERPRETATION SQUADRON TWO

NO 3461

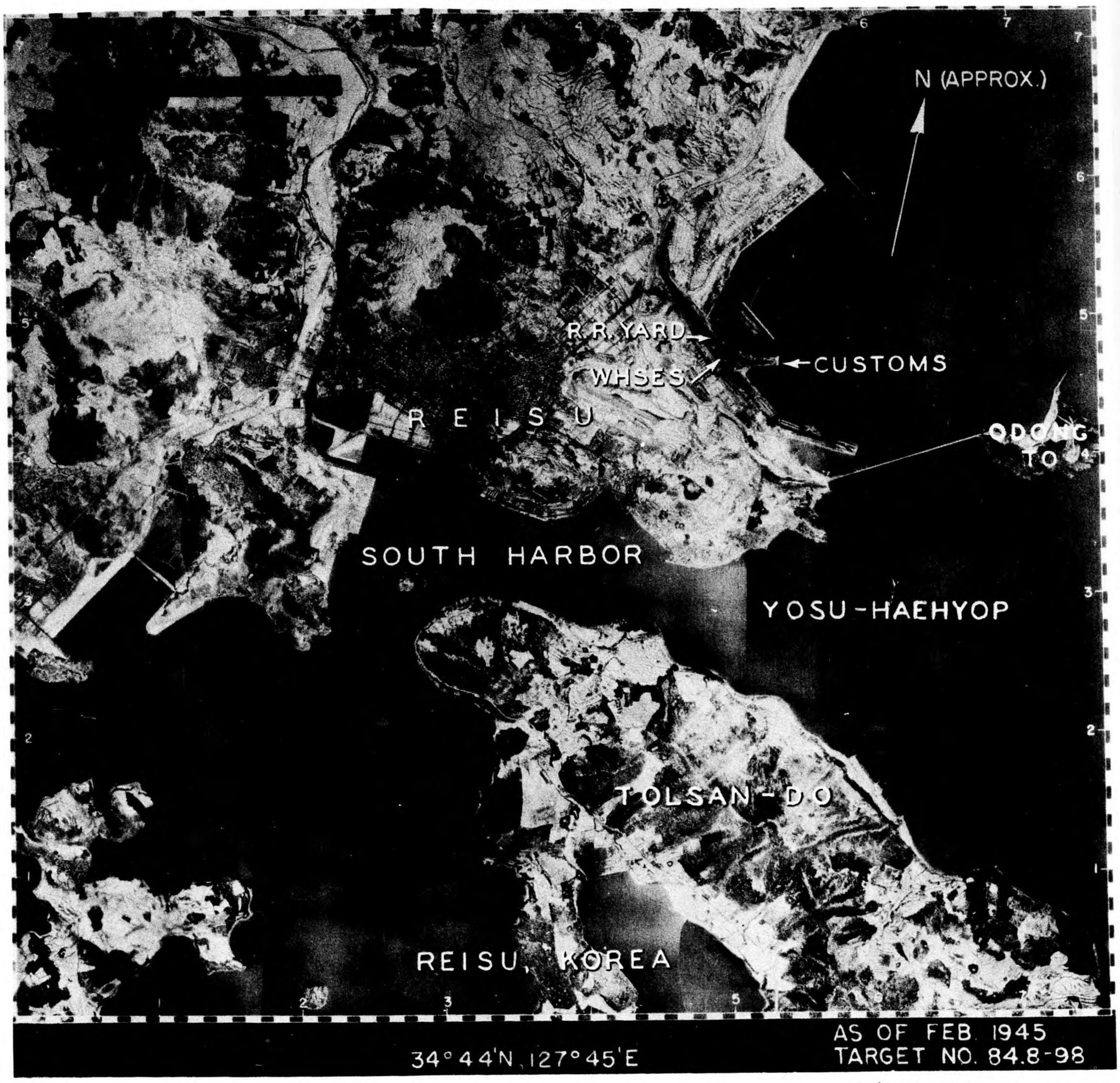
APPROXIMATE SCALE

FEET 1500 0 1500 3000

500 YARDS 0 500 1000

Encl (A) Spec PI Rep No 26

PLATE 22



REPRODUCED BY 955TH ENGR. TOPO. CO. AVN

PLATE 23

MOPPO HARBOR, KOREA

LAT 34 47 N LONG 126 23 E

TARGET NO 84-8-99

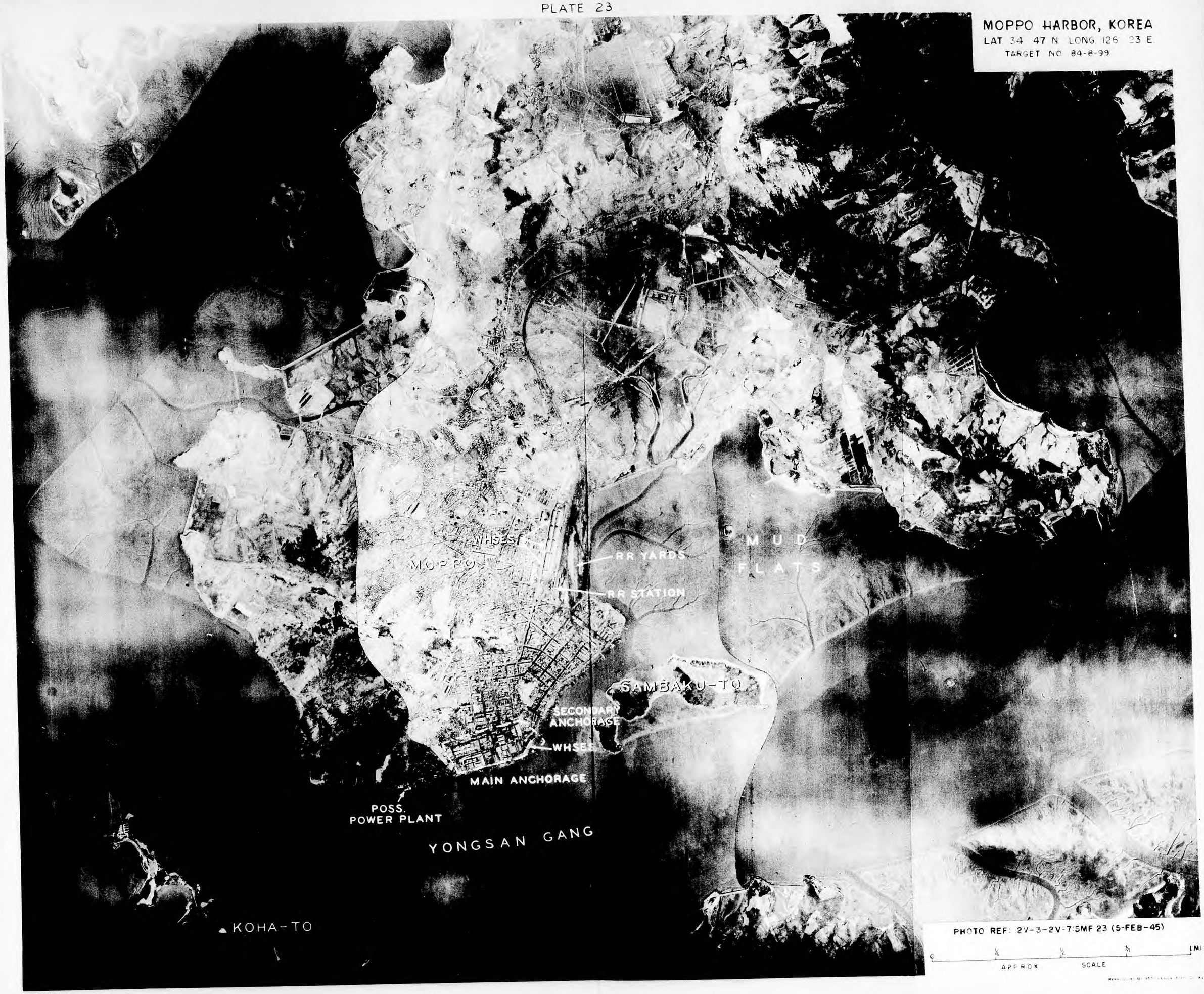


PHOTO REF: 2V-3-2V-7:5MF 23 (5-FEB-45)

0 ¼ ½ ¾ 1 MI

APPROX SCALE

PLATE 24

REPRODUCED BY 955TH ENGR TOPO CO AVN

PLATE 25

REPRODUCED BY 955TH ENGR TOPO CO AVN

MAP D.

RAILROADS OF KOREA

IMPORTANT BRIDGES
REPAIR SHOPS
CLASSIFICATION YARDS

MANCHURIA
U.S.S.R.
EAST CHŌSEN BAY
WEST CHŌSEN BAY
SEA OF JAPAN
YELLOW SEA
KOREA STRAIT
TSŪSHIMA STRAIT
SHIMOJIMA
KAMIJIMA
IKI IS.
KYŪSHŪ (JAPAN)
SAISHŪ ISLAND

Nanyō, Kunjū, Kami-sambō, Shin-asan, Kainei, Yūki, Rashin, Reirin, Mosan, Komosan, Yujo, Seishin, Ranan, Shuotsuonjō, Hōkō, Engandō, Ensha, Keizanchin, Hakugan, Kisshū, Shin-fukujō, Jōshin, Jokaishin, Tansen, Shōkō, Kunsen, Chungsan-ni, Rigen Iron Mine, Hokusei, Shin-hokusado, Shakō, Shōkōri, Seikori, Gorōri, Kankō, Kodo-ri, Fusen-kohan, Hōzan, Ryūgen-ri, Kōshō, Kaiko, Kisen, Kyūshinri, Buhyōri, Kyūjōdō, Tokusen (Mine), Hakusen, Kaisen (Mine), Mochūri, Teishū, Shin-anshū, Junsen, Kisō, Ryūhei-ri, Kōgen, Senhan, Sennairi, Genzan, Ampen, Chōsen, Kasenri, Uchi-kongō, Shōdō, Kinjō, Tatsugen, Sempori, Jōyō, Kōryō, Sanchoku, Heikairi, Antō, Gikō, Hokō, Eisen, Keishū, Yūsen, Urusan, Sanrōshin, Shōgen, Chinkai, Fusan, Shinshū, Nonsō, Rakutō, Taikyū, Kinkō, Kansan, Shōshū, Kanshō, Renzan, Eidō, Kinsen, Taiden, Yōsen, Kōkei, Choko Pier, Gunzan, Kiri, Zenshū, Shin-taijinri, Sensen-ri, Seiyū, Tanyō, Nangen, Kokujo, Shōteiri, Kōshū, Rashū, Junten, Reisui, Moppo, Hōjō, Shōkō, Shunsen, Tōtosen-ri, Sei-heiri, Dojōri, Ichisan-ri, KEIJŌ, Ryūzan, Jinsen, Yōhei, Genshū, Teisen, Risen, Reishu, Suigen, Chōkoin, Anjo, Chūshū, Ten-an, Seian, Chōchiin, Kōjō, Yōkai, Nansen-ten, Kinsen, Kaishū, Shinsen, Chōen, Ōshin, Jōkai, Shariin, Kosui-ri, Chinnampo, Ryūkō, Heijō, Shōkori, Kanjino, Nan River, Dodo R., Ryūkō, Kōshū, Sempori, Shōdō, Uchi-kongō, Kasenri, Chōsen, Ampen, Genzan, Kōgen, Senhan, Sennairi, Ryūhei-ri, Kisō, Junsen, Shukusen, Shin-anshū, Teishū, Mochūri, Kaisen (Mine), Tokusen (Mine), Hakusen, Kyūjōdō, Kaiko, Kisen, Kyūshinri, Buhyōri, Suiho, An-tung, Shingishū, Yōshi, Nanchi-dō, Tashito, Taiandō, Chi-an, Mampochin, Kōkai, Kōshō, Hōzan, Shin-fukujō, Kisshū, Hakugan, Keizanchin, Engandō, Ensha, Yujo, Ranan, Seishin, Shuotsuonjō, Hōkō, Reirin, Mosan, Komosan, Rashin, Yūki, Kainei, Shin-asan, Kami-sambō, Kunjū, Nanyō

11-5, 1-23, 1-19, 1-18, 1-18a, 1-11, 5-2, 5-4, 6-4, 6-2, 1-3, 10-1, 2-13, 2-35, 4-8, 4-9, 4-6

Yalu River, Tokuro River, Chōshin River, Fusen R., Kyōsen R., Taitei R., Daidō River, Nan R., Dodo R., Nan River, Kanjino R., Han River, Imjin River, Kan R., Minami-kan River, Kōsen R., Kim-kon R., Kinko R., Isen R., Non R., Rakutō R., Hanhan R., Naijō R., Hoijō R., Senshin R., Kim R., Kansan R., Rakutō R., Kinko R., Kim R., Bon R., Kan R., Shōyō R., Kiko-kan R., Tumen R.

Railroad lines: 1-13, 14, 101-111, 201-205

Hundred-Thousand Yard World Polyconic Grid, Band IIIN, Zone "C"
Last three digits are omitted

126° LONGITUDE EAST OF GREENWICH

PROVINCES OF KOREA

MANCHURIA, KAINEI, MOSAN, KANKYŌ-HOKUDŌ, SEISHIN, OKEIZANCHIN, SOZAN, SHINGISHŪ, HEIAN-HOKUDŌ, GEMPŌRI, KANKYŌ-NANDŌ, TANSEN, OONSEN, KOYŪ, HEIAN-NANDŌ, EAST CHŌSEN BAY, SEA OF JAPAN, WEST CHŌSEN BAY, HEIJŌ, GENZAN, OKOKUZAN, KANJŌ, KAISHŪ, KŌKAI-DŌ, KŌGEN-DŌ, KEIKI-DŌ, HAKUUN, KINSEN, YELLOW SEA, CHŪSEI-HOKUDŌ, CHŪSEI-NANDŌ, KEISHŌ-HOKUDŌ, GUNZAN, TAIKYŪ, KEISHŪ, KEISHŌ-NANDŌ, KŌSHŪ, SHIMOJIMA, KAMIJIMA, IKI, KYŪSHŪ, SAISHŪ IS, EAST OF GREENWICH 126°, 128°, 130°

LEGEND

Government Railroads
- Double Track 1.435 m. gage
- Single Track 1.435 m. gage
- Single Track 0.762 m. gage
- Under Construction

Private Railroads
- Single Track 1.435 m. gage
- Single Track (Electrified) 1.435 m. gage
- Single Track 0.762 m. gage

- International boundary
- Rivers

Note

RAILROAD LINES:
1-13 ____ Standard-Gage Government (1.435 Meters)
14 ____ Narrow-Gage Government (0.762 Meters)
101-111 ____ Standard-Gage Private (1.435 Meters)
201-205 ____ Narrow-Gage Private (0.762 Meters)

- IMPORTANT BRIDGES
- REPAIR SHOPS
- CLASSIFICATION YARDS
- R R CROSSING OVER DAM

20 0 20 40 60 80 100 120 Miles
20 0 20 40 60 80 100 120 140 160 180 Kilometers

Basic Map-Survey of Korea
No. 3D2041
Scale 1:1,500,000

Drawn by D.E.C.
Checked by A.N.
Submitted by A.L. Gowin
Approved by A.A.T.

PLATE I

REPRODUCED BY 955TH ENGR TOPO CO. AVN

T R A N S P O R T A T I O N

Korean railroads play a major role in the movement of troops and war materiel between Japan and the Manchuria-North China region. The main rail-lines have terminals at seaports near the Empire. These are now of increasing importance as the air and sea blockade is effectively reaching out over the Yellow and South Japan Seas, for it is from these ports that urgently needed foodstuffs, steel, iron, munitions and oil are shipped to Japan. All Korean railroads discussed in this report are standard gauge, 4' 8-1/2".

The Fusan-Shingishu double-tracked line, shown as Line No. 1 on the map+, is the principal railroad of Korea. At Antung on the northwest border it connects with the double-tracked Mukden-Antung line, thus providing a direct and short rail link with Peiping. Branch lines lead from the main Fusan-Shingishu line to the south and west coast ports of Reisui, Moppo, Gunzan, Jinsen and Chinnampo. In Southern Korea to the east of the mainline is the Fusan-Keijo (Line 8), a single-track, alternate route between these major cities.

The next most important railroads in Korea are those in the northeast section serving the new ports of Rashin and Seishin, and connecting them with Manchuria. The Seishin-Kami-sambo railroad (Line 3), and the Rashin-Kami-sambo (Line 4), form an inland loop joining Rashin and Seishin via the Manchurian border. These single-track lines connect with Manchurian railroads at Kami-sambo, Nanyo and Kunju. The Rashin-Nanyo section is reportedly double tracked, or in the process of being made so.

A secondary line, the Heijo-Kampochin railroad (Line 11), provides a fourth connection with Manchurian railroads. The Teishu-Suiho RR (Line 108), a private line, is an alternate route to the Teishu Penhsihu section of the Fusan-Mukden connection. Secondary lines providing connections between the west and northeast Korean railroads are the Keijo-Yujo RR (Line 2), and the Junsen-Kogen RR (Line 12).

STRATEGIC TARGETS

There are a number of important targets, destruction of which would materially reduce the effectiveness of the Korean railroads. In our discussion we shall indicate major targets for (a) isolation of Korea from Manchuria and (b) interdiction of Korean rail transport.

In the following discussion Air Objective Folder (AOF) numbers are used in all cases where they exist; since the AOF's are not complete in their scope, some important targets are not so numbered. In the case of bridges, two numbers are used following the system adopted in SES 156. A number such as 1-19 indicates that the target is bridge No. 19 on RR No. 1, the Fusan-Shingishu RR. Where both AOF and SES numbers have been designated, they are listed in the title.

RAIL ISOLATION OF KOREA FROM MANCHURIA

Destruction of the following five bridges would completely isolate the Korean railroads from Manchuria.

+Lines are numbered according to SES Study No. 156, "Railroads of Korea".

SHINANSHU BRIDGES, Target 84.3-211 or No. 1-19.
(Plates 26, 27A)

Over the Seisen River between Shinanshu and Mochuri at 39.37 N, 125.36 E.

Old Bridge, 3680', single track. 13 parker steel truss spans, 200', and 18 deck plate girder spans, 60'. (Spans 1-7, from the South end, are plate girder, spans 8-20 are steel truss, spans 21-31 are plate girder.) 30 piers, concrete with stone facing. 2 abutments, probably concrete.

New Bridge, 200' up-stream. The piers were in place on 13 December 1944 but no superstructure had been erected. It is probably completed at this date. When completed, it will be 3720' long and possibly consist of 12 parker steel truss spans, 200', and 22 deck plate girder spans, 60'. The 200' spans will be numbers 11-22 from the south end.

A third bridge of similar length under construction 400' further up-stream will probably be a highway bridge.

KUNJU BRIDGE No. 4-6

Over the Tumen River at Kunju at 42.54 N, 130.13 E. Single track. No other information available. This bridge connects with a Manchurian railroad but not with the Manchurian network.

NANYO BRIDGE Target 84.1-19 or No. 4-8
(Plate 27B)

Over the Tumen River at Nanyo at 42.56 N, 129.50 E. 21 spans, steel deck plate-girder. Combination single track RR, and single lane highway bridge. 20 piers, concrete with stone facing. 2 abutments, concrete with stone facing. A length of approximately 1500' for this bridge is given in two reports. A 21 span bridge of this type would usually be between 1260' and 1470' long. This is the most important international bridge in northeast Korea.

KAMI-SAMBO BRIDGE Target 84.1-20 or No. 4-9
(Plate 27C)

Over the Tumen River at Kami-sambo at 42.41 N, 129.46 E. 980' long. Single track with sidewalk. 14 spans, 70', deck plate-girder. 13 piers, concrete with stone facing. 2 abutments, concrete.

MAMPOCHIN BRIDGE Target No. 11-5
(Plates 28, 29A)

Over the Yalu River near Mampochin at 41.10 N, 126.17 E. Single track. Length not definitely established - one report states it is less than 2950' long and another states it is 1900' long. Approximately 12 spans.

Two other important international railroad crossings, Shingishu Bridges and Suiho Dam, are of less strategic value because destruction of the Shinanshu Bridges listed above cuts the lines they serve at a single point.

SHINGISHU BRIDGES Target 93.2-77 or 1-23
(Plates 29B, 30)

Over the Yalu River between Shingishu and Antung at 40.07 N, 124.23 E. Old Bridge, 3090' long, single track with sidewalk. 12 spans, (5 spans, 315' and 6 spans, 200', steel through truss; 1 swing span 321', steel through truss). 12 piers (includes 1 swing pier), concrete with stone facing. Spans 1-6 from the south, or Shingishu end, are 200' each and the swing span is No. 9.

New Bridge, 3090' double track, 12 spans (6 spans 315' suspended steel through truss and 6 spans 200' continuous through truss). 12 piers, probably concrete with stone facing. Two abutments, probably concrete with stone facing. Spans 1-6 from the south end are 200' through truss and spans 7-12 are suspension with the towers on piers 7, 8, 10, 11. The new bridge is 200' upstream.

This is the most important international bridge in Korea. (Note: SFS 156 gives the total length of the old bridge as 3107'; the Manchuria Areas Obfol reports it as 3000'; while JANIS 75 states it is 3097'.)

SUIHO DAM Target 93.2-56

Over the Yalu River at Suiho at 40.27 N, 124.55 E. The railroad crosses the river on the dam which is concrete, 3100' long and 300' high.

INTERDICTION OF KOREAN RAIL TRANSPORT

Disruption of the rail communications within Korea can be effectively accomplished by the destruction of several key bridges, classification yards and factories. A study of the accompanying railroad map of Korea shows that a major bottleneck exists at Keijo. Completion of the Ampen-Keishu RR (Line 9) would materially reduce this bottleneck, but all evidence so far indicates that this has not yet been done. For this reason, and others that will be indicated below, Keijo area provides the most important concentration of lucrative railroad targets in Korea.

BRIDGES

RYUZAN BRIDGES Target 84.6-42 or 1-11.
(Plate 31)

Over the Kan River just south of Ryuzan at 37.31 N, 126.57 E, approximately 2-1/4 miles SW of Keijo RR Station. Two parallel identical bridges. Each 2060', single track. 10 spans, 206', steel through truss. 9 piers, concrete with stone facing. Abutments, concrete with stone facing. Each north approach is over a 1600' trestle. Clearance above MW is 53 feet.

A third bridge has been completed 300' downstream. It is 2060' long, single track. 10 spans, truss and suspension. 9 piers. 2 abutments. The lengths of the spans are undetermined but spans 1, 2, 4, 5, 7, 8, 10, from the south end, are equal length and less than 200'. Spans 4 and 5, 7 and 8 are suspension spans with piers 4 and 7 serving as supporting piers in the center of each span. Spans 1 and 10 are anchor spans. Suspension towers are built on piers 2, 3, 5, 6, 8, 9. The north approach is over a 1600' trestle. Clearance above MW is approximately 53 feet.

HEIJO I BRIDGES Target 84.3-91 or 1-18
(Plates 32, 33)

Over the Daido River at the south side of Heijo City at 38.59 N, 125.45 E. Two parallel bridges. Old bridge, 1503', single track. 10 spans (4 spans, 60' deck plate-girder and 6 spans, 200', steel through truss). 9 piers, concrete with stone facing. 4 abutments, concrete with stone facing. Spans 2-7 from the south end are steel truss and 1, 8-10 are deck plate girder. The north end is on Yokaku Island.

New bridge 1503', probably double tracked. 10 spans (6 spans, 200', steel cantilever, and 4 spans, 60' beam). 9 piers, probably concrete with stone facing. 2 abutments, probably concrete with stone facing spans 2-7 from S end are cantilever and 1, 8-10 are deck plate girder. The N end is on Yokaku Island.

HEIJO II BRIDGES Target 84.3-91 or 1-18a
(Plates 32, 33)

Over the Daido River at the south side of Heijo City, at 38.59 N, 125.44 E. Two parallel structures. Old bridge 1436', single track. 9 spans (3 spans, 60', deck plate girder and 6 spans, 200', steel through truss). 7 piers, concrete with stone facing. 4 abutments, concrete with stone facing. Spans 2-7 from the S end, which is on Yokaku Island, are steel truss and spans 1, 8-9 are deck plate girder. A short section between spans 7 and 8 is built on an earth dyke.

New bridge, 1500', probably double tracked. 12 spans (5 spans, 200', steel cantilever and 7 spans, 60', beam. 10 piers, probably concrete with stone facing. 4 abutments, probably concrete with stone facing. Spans 2-6 from the S end, which is on Yokaku Island, are steel cantilever and spans 1, 7-12 are deck plate girder. A short distance between spans 9 and 10 is built on an earth dyke.

KOGEN BRIDGE Target No. 2-13

Over the Sennan River approximately 3600' N of Kogen junction at 39.27 N, 127.15 E. No details are available. If this bridge were severed, NE Korea would be isolated from the rest of Korea.

WAIKAN BRIDGES Target 84.7-106 or 1-3

Over the Rakuto River near Waikan at 36.00 N, 128.24 E. Two parallel identical structures. Each approximately 1540', single track. 9 spans (7 spans, 200', steel through truss and 2 spans, 140', plate). 8 piers, probably concrete with stone facing. The plate spans are at one end of the bridge.

CLASSIFICATION YARDS

Only three large classification yards are definitely known to be operational on the Korea railroads. Large traffic tie-ups can be achieved relatively easily by bombing these targets.

SUISHOKU FREIGHT YARDS Target 84.6-124

Approximately 4 miles west of Keijo at 37.35 N, 126.54 E. Hump gravity type. This is the largest classification yard in Korea and serves all the railroads entering Keijo.

TAIDEN YARDS

At the junction of the Fusan-Shingishu RR and the Taiden-Moppo RR, Line 5, 36.19 N, 127.16 E.

ANTO YARDS

At the junction of the Fusan-Keijo RR and the Kinsen-Anto RR, Line 1b, at 36.34 N, 128.43 E.

Two other important yards are as follows:

HEIJO SHUNTING YARDS Target 84.3-74
(Plates 12, 32)

Just N of Heijo at 39.03 N, 125.44 E. Constitutes the north part of a large triangle formed by a spur loop and the main line. Three sidings, one of which is West Heijo Station, are along the triangle. There is no trackage within the triangle. These yards are not considered of prime importance.

FUSAN TERMINAL YARDS
(Plates 21, 34).

Near the wharf area in North Fusan at 35.07 N, 129.03 E, this is the south terminal of the Fusan-Shingishu RR. These yards appear to be a large rolling stock storage area, as well as a classification yard.

RR SHOPS

Since there is an acute shortage of rolling stock in Korea and the whole of Northeast Asia, railroad workshops are important targets. If the operations of three main government factories were suspended there would be a serious curtailment in the manufacture of locomotives, freight and passenger cars, and steel for bridge construction as well as other items necessary for railroad construction, repair and maintenance. These three factories are:

RYUZAN RR WORKSHOPS Target 84.6-43
(Plate 31)

Located just west of Ryuzan Station in the Keijo area at 37.32 N, 126.58 E. These are the largest railway repair shops in Korea and also build new rolling stock and other railroad equipment.

FUSAN WORKSHOPS Target 84.7-105
(Plates 21, 34)

Located in north Fusan at 35.07 N, 129.03 E, along the quayside and at the east side of the terminal yards; these shops build locomotives and cars. They are also reported to build railway ferry boats. (Note: Not all of the shops area is indicated on Plate 21.)

HEIJO RR SHOPS AND YARDS Target 84.3-73.
(Plates 12, 32, 33)

Located just off the north end of Heijo II RR Bridge at 39.00 N, 125.44 E. These shops are principally for the repair of freight cars. They also manufacture rolling stock and other equipment.

Other targets of lesser strategic value, but nonetheless of importance, are shown on the accompanying map.

SHINANSHU BRIDGES

KOREA

LAT. 39°40'N. LONG. 125°36'E.

PHOTO REF.: 27/4MR 32 (13 DEC.'44)

0 1000' 2000' 3000' 4000'

SCALE

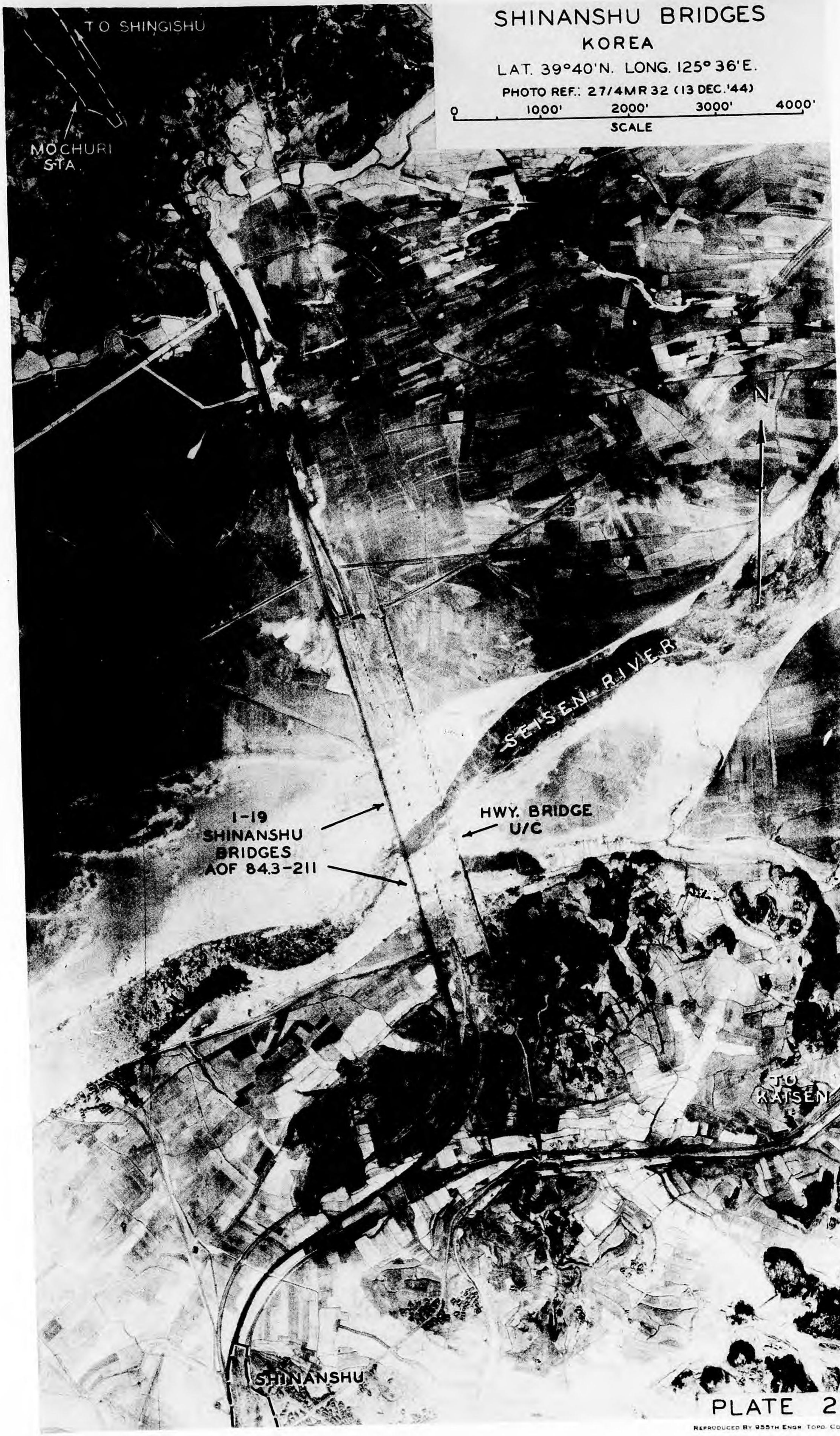
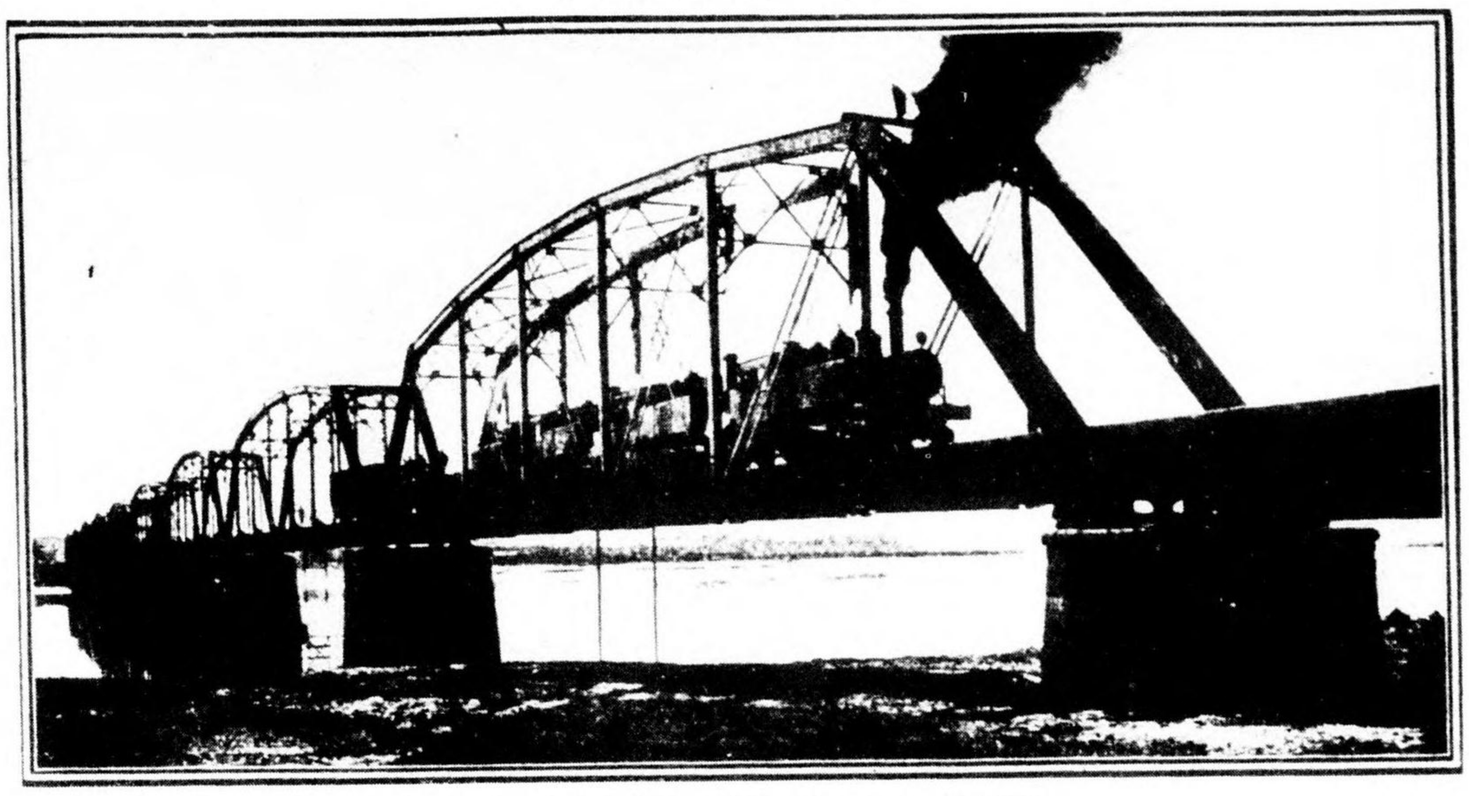


PLATE 26

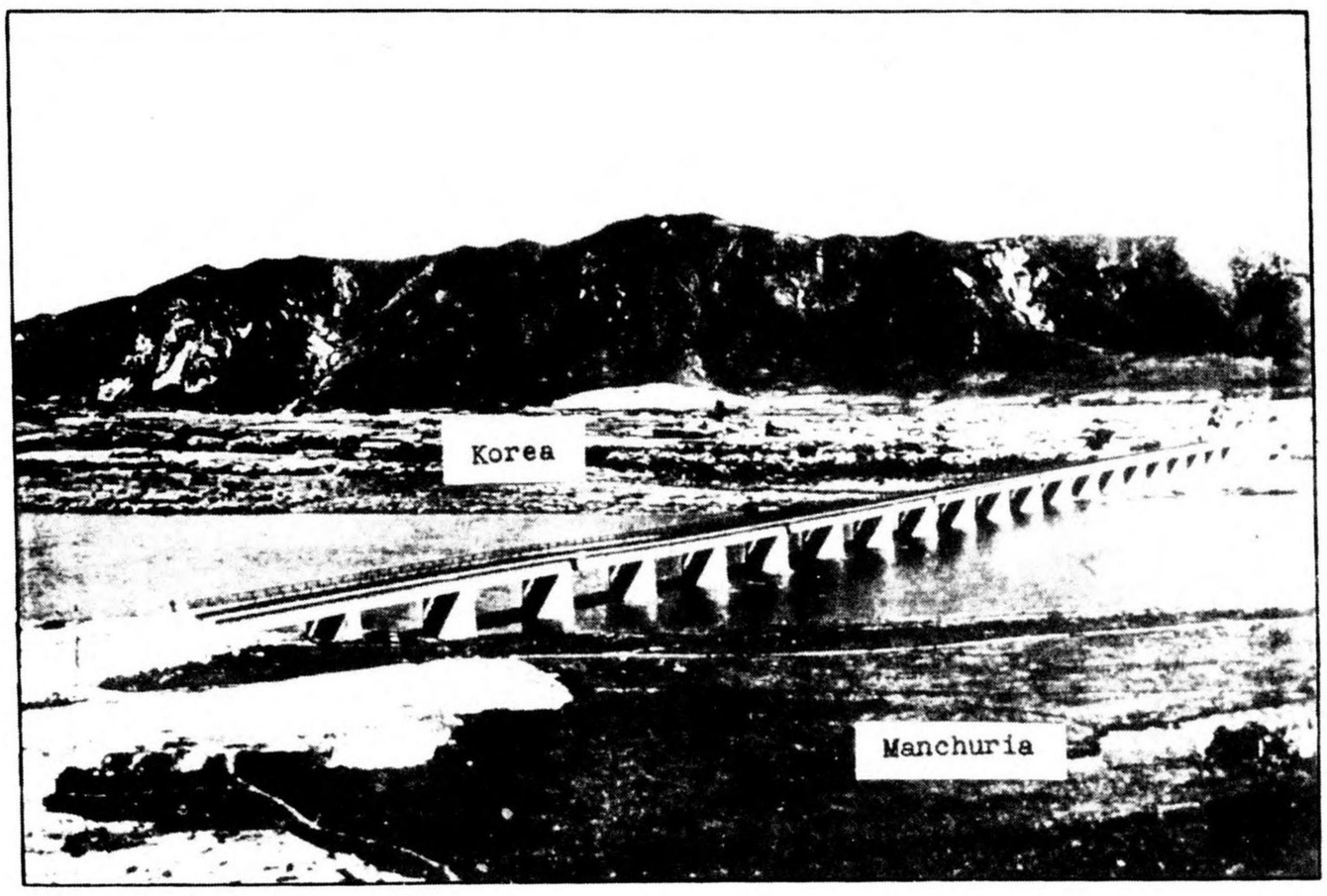
REPRODUCED BY 955TH ENGR TOPO. CO. AVN

PLATE 27



SHINANSHU BRIDGE. KOREA
NO. 1-19, AOF. NO. 84.3 - 211
LAT. 39°40'N. LONG. 125°36'E.
PROBABLY LOOKING SW
PRE-WAR PHOTO

A



REPORTED AS

NANYO BRIDGE. KOREA
NO. 4-8, AOF. NO. 84.1 - 19
LAT. 42°56'N. LONG. 129°50'E.
LOOKING EAST
PRE-WAR PHOTO

B

REPORTED AS

KAMI-SAMBO BRIDGE. KOREA
NO. 4-9. AOF NO. 84.1-20
LAT. 42° 41'N. LONG. 129°46'E.
DIRECTION UNKNOWN
PRE-WAR PHOTO

C

REPRODUCED BY 955TH ENGR TOPO. CO AVN

MAMPOCHIN BRIDGE
KOREA

LAT. 41° 10' N. LONG. 126° 17' E.

PHOTO REF.: L32/4MR (21DEC.44)

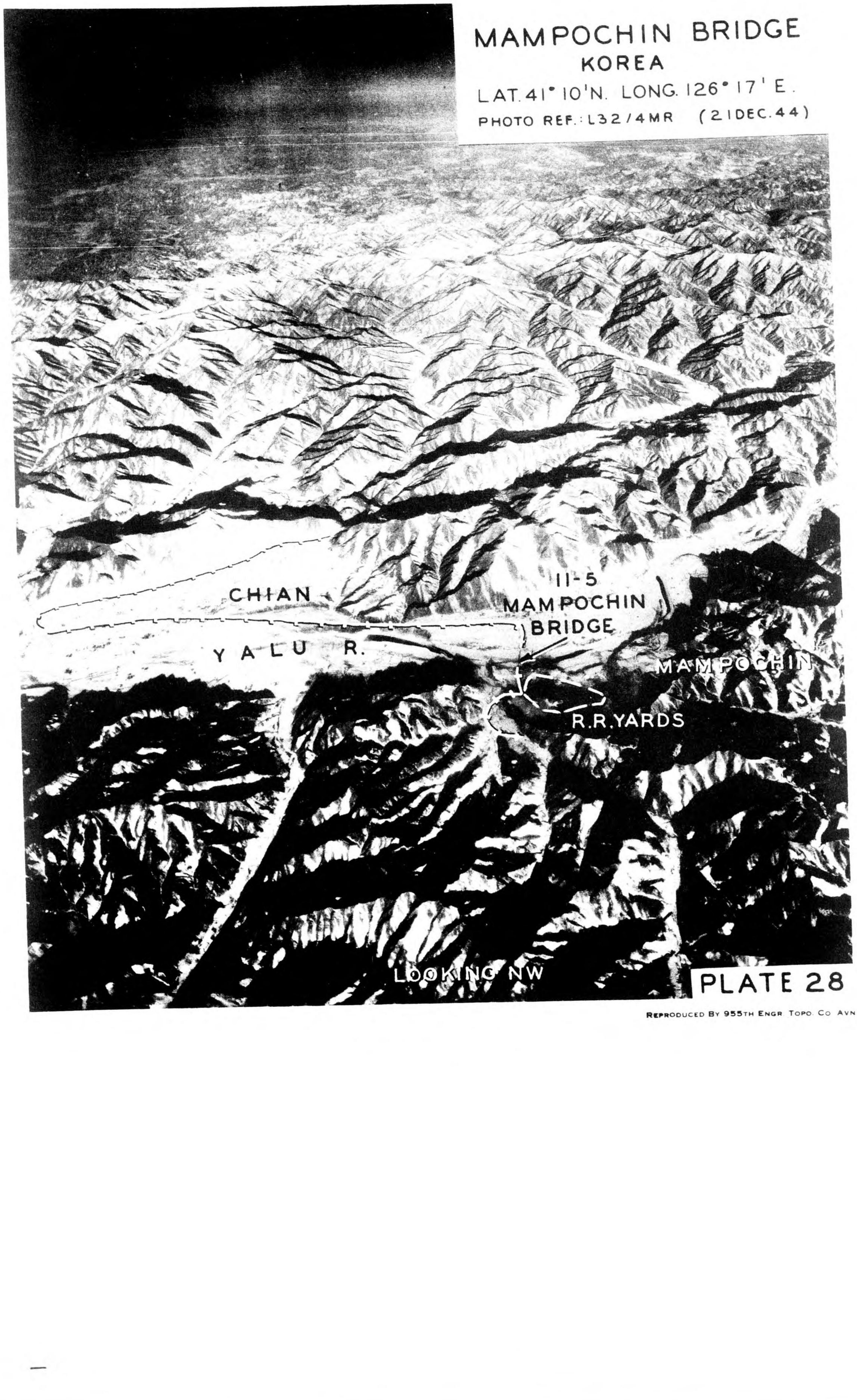
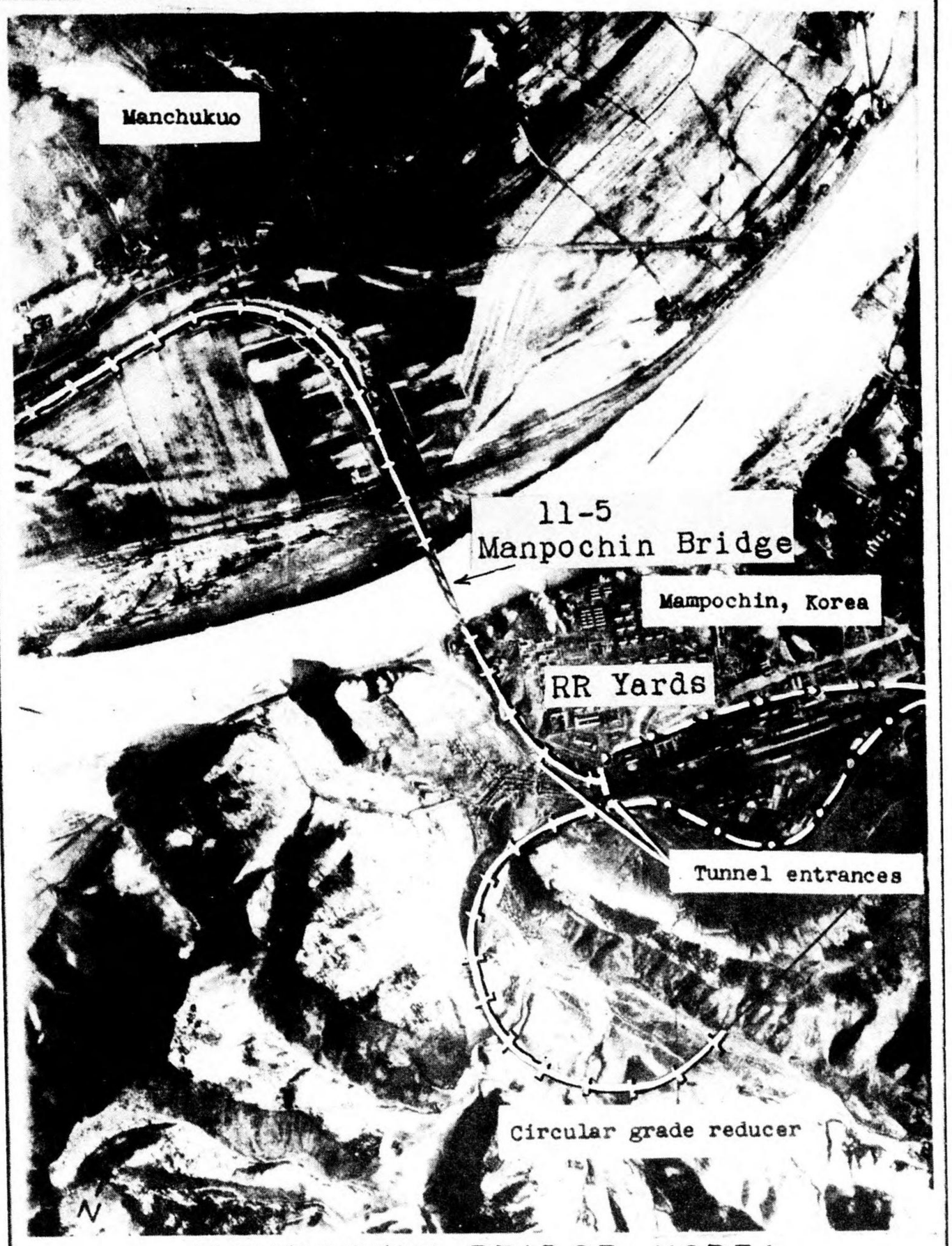


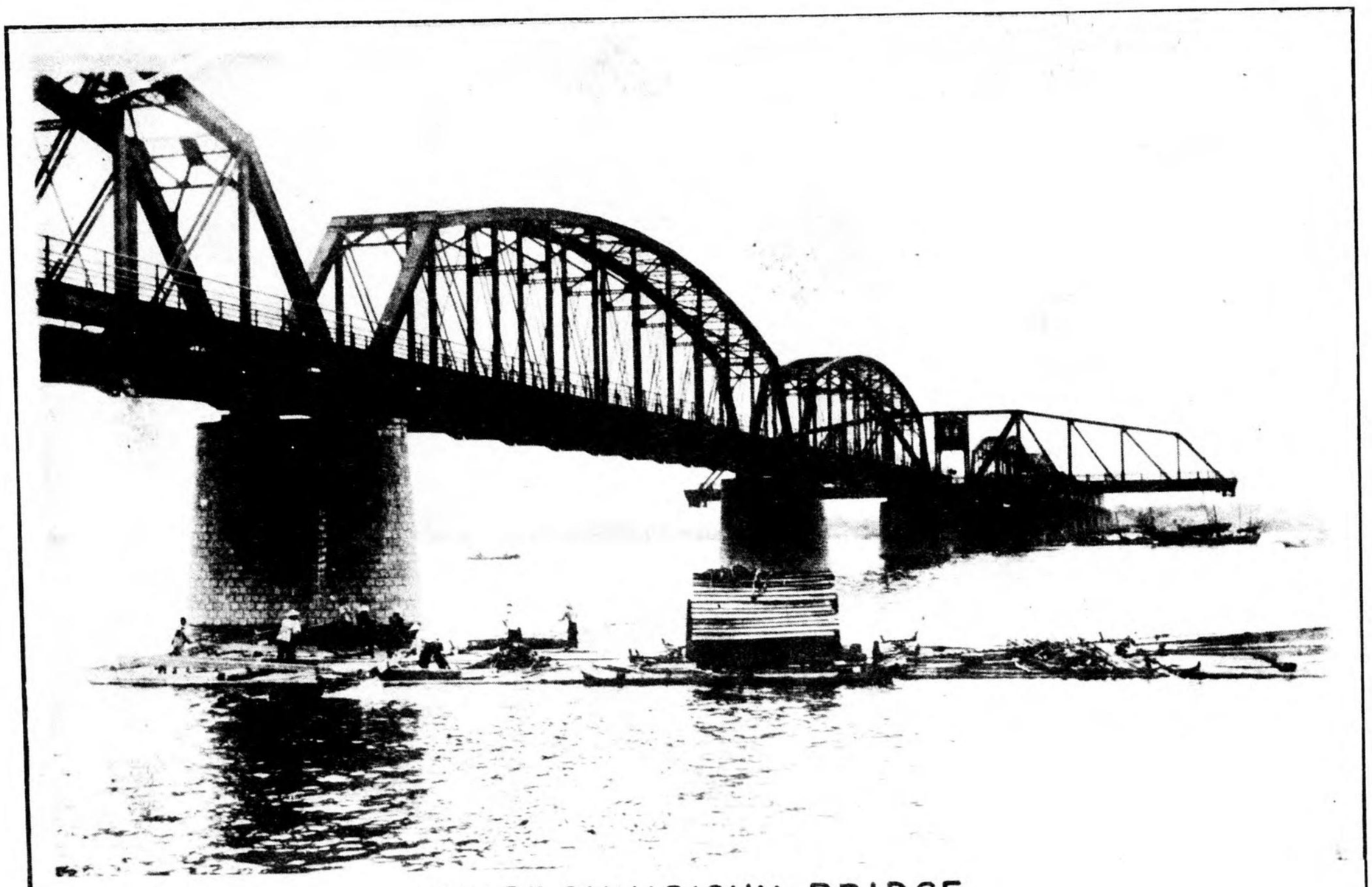
PLATE 28

REPRODUCED BY 955TH ENGR. TOPO. CO. AVN

PLATE 29



MAMPOCHIN BRIDGE, KOREA
NO. 11 - 5
LAT. 41° 10' N LONG. 126° 17' E
PHOTO REF: V12/5MF 31 (18 FEB. '45) A



"OLD" SHINGISHU BRIDGE
NO. 1-23 AOF NO. 93.2 - 77
LAT. 40° 07' N LONG. 124° 23' E
LOOKING SOUTH
PRE-WAR PHOTO B

Reproduced By 955th Engr. Topo. Co Avn

PLATE 30

TARGET NO. 93.2-77
UNCONTROLLED MOSAIC

YALU RIVER RAILROAD BRIDGES

40° 07' N, 124° 23' E

AN-TUNG (ANTUNG), MANCHURIA
SHINGISHU (SINUIJU), KOREA

AS OF 5 FEBRUARY 1945

EXPOSURE V-5-17 OF SORTIE 444 BG/5MF 23/14TH AAF

APPROXIMATE SCALE IN FEET

0 1000 2000 3000 4000

USPOA 50609-150

TARGET NO. 93.2-77
UNCONTROLLED MOSAIC

YALU RIVER RAILROAD BRIDGES

40° 07' N., 124° 23' E.

AN-TUNG (ANTUNG), MANCHURIA
SHINGISHU (SINUIJU), KOREA

AS OF 5 FEBRUARY 1945

EXPOSURE V15-17 OF SORTIE 444 BG/5MF 23/14TH AAF

APPROXIMATE SCALE IN FEET

1000 0 1000 2000 3000 4000

JICPOA 50609-150
CONFIDENTIAL
CINCPAC-CINCPOA

MANCHURIA
KOREA
I-23 SHINGISHU BRIDGES 93.2-77
POWER PLANT
WHSES. & QUAY
NEW BRIDGE
OLD BRIDGE
U/I INDUSTRY
BOAT YARDS
WHSES. & QUAY
EIRINSHO LUMBER MILL
CHOSEN PAPER CO.
U/I INDUSTRY
R.R. YDS.
U/I INDUSTRY
REPORTED ALCOHOL PLANT
SHINGISHU A/D
TO HEIJO

PLATE 31

REPRODUCED BY 955TH ENGR TOPO. CO AVN

RYUZAN,

KOREA

LAT. 37°32' N. LONG. 126°58' E.

0' 2000' 4000'

SCALE

HEIJO, KOREA

LAT 39°01' N. LONG 125° 45' E.

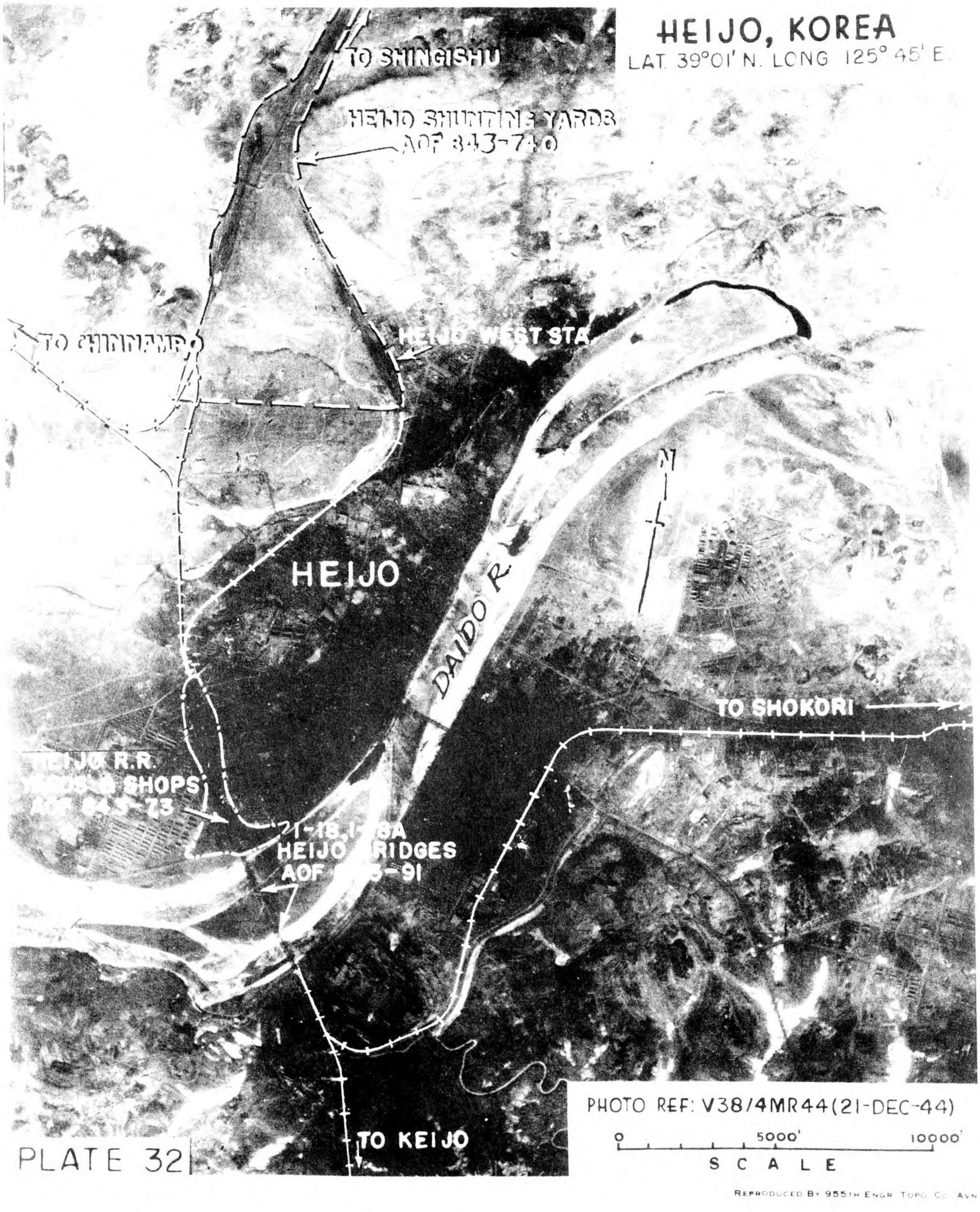


PHOTO REF: V38/4MR44(21-DEC-44)

0 5000' 10000'

SCALE

PLATE 32

REPRODUCED BY 955TH ENGR TOPO CO AVN

HEIJO RR BRIDGES
LAT. 38° 59′ N. — LONG. 125° 44′ E.

HEIJO RR SHOPS AND YARDS
LAT. 38° 60′ N. — LONG. 125° 44′ E.

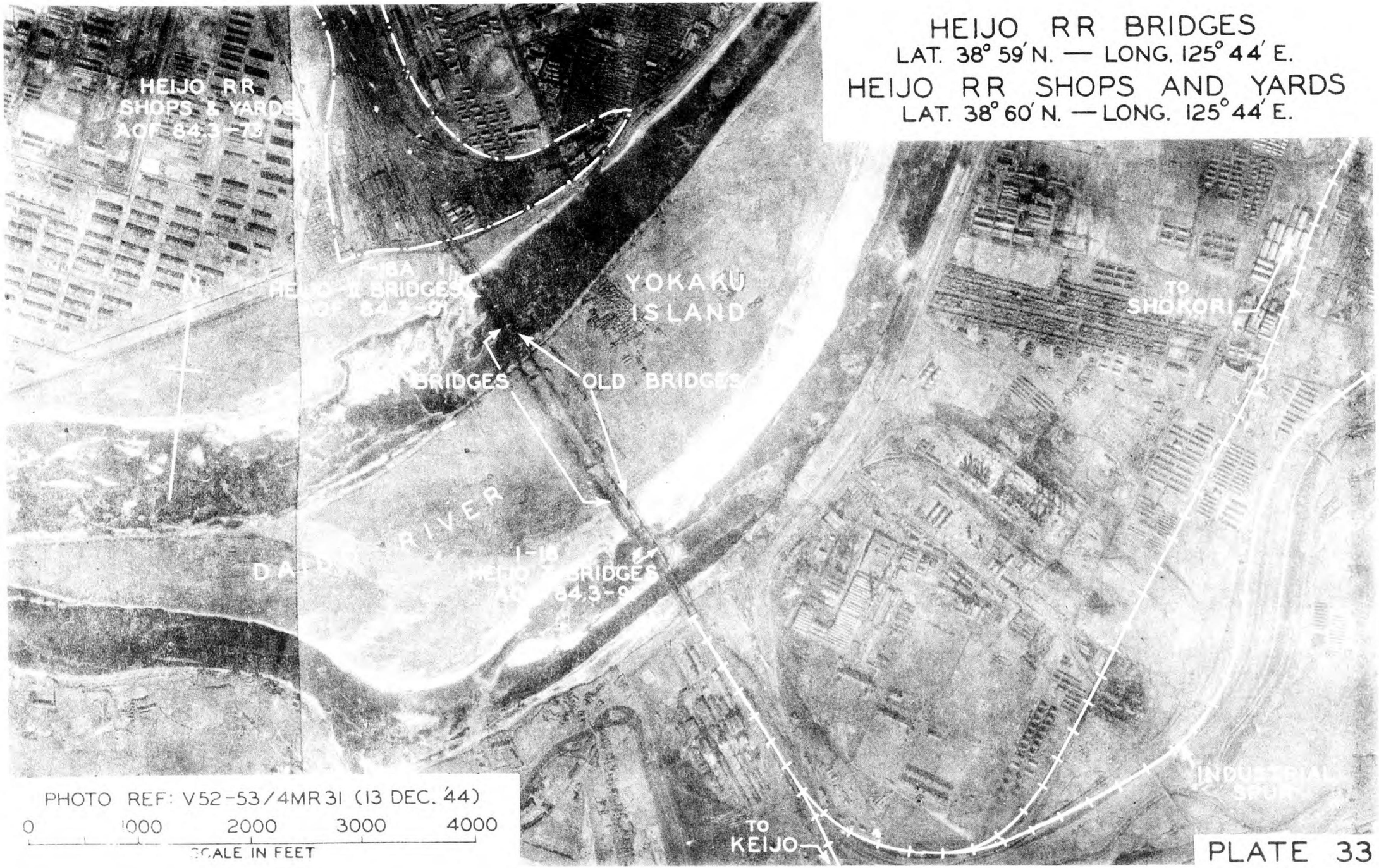


PHOTO REF: V52-53/4MR31 (13 DEC. 44)

0 1000 2000 3000 4000

SCALE IN FEET

PLATE 33

REPRODUCED BY 955TH ENGR TOPO CO AVN

FUSAN WORKSHOPS & YARDS, KOREA

LAT. 35° 07′ N. — LONG. 129° 03′ E.

PHOTO REF: V95/4MR 22 (17 NOV. '44)

0 1000 2000 3000 4000

SCALE IN EEET

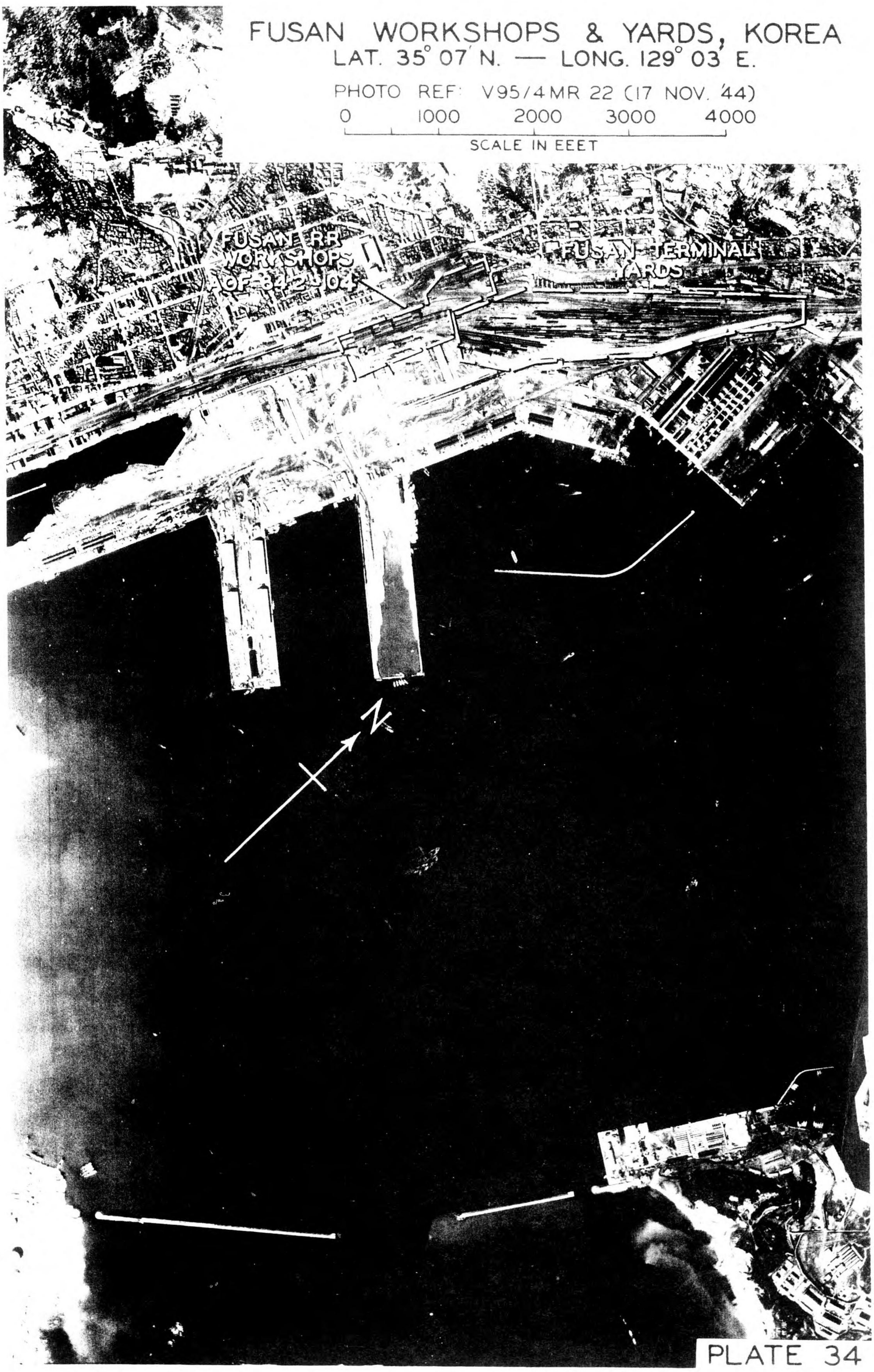


PLATE 34

REPRODUCED BY 955TH ENGR TOPO CO AVN