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Special Study of The Enemy Situation

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5th MarDiv,
In the Field,
16 Nov 1944.

D-2 SPECIAL STUDY OF THE ENEMY SITUATION

CONTENTS

- A. Table of Distances
- B. History and Population
- C. Terrain Analysis
- D. Weather Summary
- E. Enemy Strength, Equipment and Organization
- F. Enemy Installations
- G. Capabilities of Enemy Aircraft

MAPS APPENDED

- Terrain Analysis Map
- Military Obstacles Map
- Enemy Visibility Map
- Beach Analysis Map
- Enemy Installations Map

A. TABLE OF DISTANCES

(1) All distances from the objective shown below are in nautical miles:

<u>ENEMY BASES</u>	<u>ALLIED BASES</u>
HAKA JIMA.....120	SAIPAN.....625
CHICHI JIMA.....140	GUAM.....700
PAGAN.....470	ULITHI.....888
HACHIJO JIMA.....500	ENIWETOK.....1,440
MINAMI DAITO JIMA...525	KWAJALEIN.....1,760
NII JIMA.....580	MIDWAY.....2,253
KUSHIMOTO.....600	PEARL HARBOR.....3,330
TATEYAMA N.A.S.....615	
NAGOYA.....645	
YOKOHAMA.....645	
MARCUS.....650	
TOKYO.....660	
AMAMI O SHIMA.....675	
OKINAWA JIMA.....740	
FUSAN.....900	
YAP.....936	
SHANGHAI.....1,070	
PALAU.....1,110	
TAKAO, FORMOSA....1,160	
TRUK.....1,209	
MANILA.....1,290	
WAKE.....1,441	

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 Custodian

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B. HISTORY AND POPULATION

(1) NANPO SHOTO, or "Southern Islands," is a chain of small volcanic islands running in a long line from almost the outskirts of TOKYO southward toward the MARIANAS. O SHIMA at the north is 65 miles from TOKYO. WORKMAN at the south is about 300 miles north of the MARIANAS and 660 miles from TOKYO. These islands guard the immediate approach to TOKYO and their

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

value is more military than economic. They are under the jurisdiction of the TOKYO Prefectural Government and are administered as an integral part of JAPAN. All of NANPO SHOTO is peopled by Japanese, early Caucasian and Hawaiian settlers having lost their racial identity by intermarriage. The religion is that of the Japanese mainland with Buddhism and Shintoism predominating. Few of the natives are Christians. The VOLCANO ISLANDS (KAZAN RETTO) were discovered in 1543 by the Spaniard, Bernard de Torres. The Japanese commenced colonization in 1887 and by 1891 had such a firm grip on the islands that they were incorporated into the Ogasawara Branch Administration.

Of the KAZAN RETTO, the only island of importance is WORKMAN. Its importance is almost entirely military and lies in the fact that the island has enough flat ground to accommodate airfields. WORKMAN has approximately 1091 civilian inhabitants living largely at MOTO YAMA in the northern part of the island, who make their living by growing sugar cane and vegetables, by fishing and working at the sugar refinery. Sulphur, in considerable quantities, is present, but it has not been definitely ascertained how much use is made of it. Banana and coconut trees grow abundantly in the low places. There are no perennial streams on the island, and the Japanese have been forced to produce water from sulphur springs in addition to using catchments.

C. TERRAIN ANALYSIS

(1) Terrain: General

WORKMAN is essentially a volcanic island. The dome-shaped northern half of the island is formed by several rocky hills, ranging from 340' to 387' in height. This is connected by a narrowing neck of land to SURIBACHI YAMA (MOUNTAIN), a volcanic cone rising precipitously from the sea to a height of about 556', and forming the southern point of the island. The island is about 9,000 yards long in a NE-SW direction, and about 4,700 yards across, NW-SE, at the widest point in the northern half. The neck of land connecting SURIBACHI YAMA to the northern part of the island narrows to a width of about 700 yards, just north of that volcano. The northern end of the island is generally round in shape.

A plateau about one mile in diameter comprises the central area of the northern half of the island. The surface is irregular but maximum difference in elevation amounts only to about 50 feet. Slopes from the north central plateau to the coast have an average grade of about one in ten, but they are rough and irregularly broken by rocky cliffs in many places. The slope southwestward from this plateau, along the ridge of the narrow neck of land to SURIBACHI YAMA, is gentle, about one in fifty. The slopes from the axis of this ridge to the beaches have an average gradient of about one in fifteen. The ridge reaches a low of about 100 feet just north of SURIBACHI YAMA. (See Terrain Analysis Map for general contour of island.)

(2) Coastline

The coastline of the northern half of WORKMAN may be described as generally high, rocky, and steep. The northeast coast, from KITANO, two miles southeast to the easternmost point of the island, is composed of dark volcanic sand. Although relatively smooth, the beach here is narrow and steep, and in places is broken by rough rock outcrops. This beach is backed by very rough terrain and is irregularly obstructed

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D-2 SPECIAL STUDY OF THE ISLAND SITUATION (CONT'D)

by rocky shoals. The remainder of the northern coast is very rough, immediately backed by serrated rock cliffs, and obstructed by boulders with no real beaches.

The southern half of the island affords good beaches of dark volcanic sand on both the east and west sides, beginning just north of SURIBACHI YAMA.

(3) Streams

There are no perennial streams on the island.

(4) Conditions of Soil

In general, the dome-shaped northern part of WORKMAN has a thin soil cover, bed rock being exposed over more than half of its surface. Over the remainder of the northern part, the soil probably has an average depth of only a few feet at most, and as a result, digging-in can be expected to be difficult in this area. SURIBACHI YAMA is a rocky cone with no soil at all over most of its area. The soil on the ridge connecting SURIBACHI YAMA with the north-central plateau has an estimated depth of from five to ten feet and there are no extensive rock outcrops on this ridge. The soil of the upland areas is a stony clay which is dusty when dry and very slippery when wet. It drains and dries rapidly in its natural state.

The beaches and low slopes of the ridge are composed of dark, coarse, volcanic sand.

(5) Vegetation in Division Zone of Action

There is no vegetation in the eastern landing beach area to provide concealment or hinder movement of troops.

The west slopes of the central portion of WORKMAN are checkered with what appear to be fields under cultivation, separated by hedgerows 10 to 15 feet high.

Grass and low scrub trees, sufficiently heavy to offer good concealment, cover much of the slopes of the northern half of the island.

Around the base of SURIBACHI YAMA, going from the west to the northeast, there is a fringe of woods and scrub growth which grows up the side of the mountain for about 150 feet on the northwest and parts of the north side. The trees and scrub growth in this area vary in height from 10 feet to 25 feet. On the northwestern rim of the crater is a patch of trees and scrub, with one small clump on the northern rim. The fields on the northern edge of the woods at the base of SURIBACHI YAMA are separated by five finger-like wooded projections and contained sugar cane from 3 to 4 feet high on 25Sep44. Wooded areas and cane fields at the base of SURIBACHI YAMA are crisscrossed with track activity.

See Military Obstacles Map for sugar cane cultivation in Div ZofA.

(6) Critical Terrain Features

a. SURIBACHI YAMA. This mountain, at the southern end of the island, rises to a maximum height of 556 feet, commands the approaches to

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

the eastern and western landing beaches and provides observation over the southern 2/3 of the island. (See Terrain Analysis Map.) The crater is approximately 700 feet across at the top and is about 240 feet deep near the northern rim. The lowest point on the lip of the crater is on the western side where it is about 350 feet high. The sides of SURIBACHI YAMA are rocky and precipitous, making ascent extremely difficult on all but the north side, where the Japs use two trails, one through the wooded growth on the northwest with a gradient of 17/13, and one which winds around the rocky crevices on the north and has gradients as steep as 17/35. The observation provided by SURIBACHI YAMA will allow observed fire to be delivered effectively on all parts of the landing beaches from installations on this mountain and will enable the fire by all other weapons within range of the landing beach to be controlled as long as a means of communication remains for fire control purposes.

- b. Ridge line inland from eastern landing beaches, the seizure of which will prevent aimed, flat trajectory fire on the beach from the front.

Opposite the southern end of Beach Green, this ridge line has an elevation of 120 feet and is 450 yards inland from the water's edge. The elevation of the ridge and the distance inland of the ridge line increases as the width of the island increases to the north. Opposite the northern end of Beach Red 2, the ridge line has been flattened off to form the NE-SW runway of airfield No. 1. At this point the runway is 220 feet high and the distance inland from the water's edge to the west side of the airfield embankment is 910 yards.

- c. Rocky bluff north of EAST BOAT BASIN which commands all of eastern landing beaches.

Defensive installations on this promontory are in position to enfilade the entire eastern beach. It is in the 4th MarDiv ZofA and must be seized by them.

(7) Observation in Div Z of A

See Terrain Analysis Map and Enemy Visibility Map for areas exposed to enemy observation. In general, vegetation does not seriously interfere with observation and will not provide adequate concealment for either friendly or enemy forces except in the northwest corner of the island where the trees are dense and cover the area in the eroded valleys and on the ridges bordering the valleys.

(8) Fields of Fire in Div Z of A

Fields of fire in the landing areas are excellent and permit converging fires from either end of the entire beach area. Concentrations of defensive installations on either end of the beach guarantee that the Japs are prepared to enfilade the beaches from SURIBACHI YAMA and the rocky bluffs north of the EAST BOAT BASIN. On each beach, the interior fields of fire to the front for flat trajectory weapons of the defenders are somewhat broken by the terraces and by the gulches cut by water washing down from the airfield. Vegetation does not interfere with the fields of fire on the landing beaches. The size of the island makes it possible for medium anti-aircraft guns to fire onto the landing beaches using air burst regardless of the position of the gun on the island.

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

Once an assault starts on the slopes of SURIBACHI YAMA, the broken nature of these precipitous slopes will prevent the enemy's effectively coordinating his defensive fields of fire.

The generally sparse vegetation on the western side of the south half of the island and the gentle slopes will provide effective fields of fire in this area. Based on past policy of the Japs, weapons in emplacements with overhead cover will be sighted to cover the western landing beaches and may be taken in the rear or on the flanks by an attack launched from the east coast.

In the northwestern sections of the island, the terrain is very broken and will deny the enemy long fields of fire but will give him ideal country for a last ditch, cave type defense.

(9) Concealment

See Terrain Analysis Map and Enemy Visibility Map for areas exposed to enemy observation. Concealment for large forces is not present in the Div Z of A except in the northwestern portion of the island where the extremely broken nature of the ground and the vegetation will enable forces to remain concealed.

(10) Obstacles

See Military Obstacles Map and Beach Analysis Map. SURIBACHI YAMA will not permit any transportation other than hand-drawn transportation to move over its slopes. The areas inland from the terraces overlooking the beach on the east and west coast are quite suitable for overland transportation by all types of vehicles. The embankments leading to the runway levels of airfield No. 1 will prove effective obstacles for all types of transportation. The northwestern end of the island with its eroded gulches will provide serious obstacles to all types of transportation.

(11) Communications

The island has a relatively adequate road net, with an all-weather surfaced road encircling the island and connecting the major installations. This road, together with satellite secondary roads and extensive airfield taxiways, adequately serves the island garrison from a defensive standpoint.

The only exit from the division beaches is a 16-18 foot wide, unsurfaced road leading inland from the boundary between Beach Red 1 and 2. Roads on the west side of the island are limited to one road and the airfield runways until the division breaks out into the area north of airfield No. 1, where the road net becomes much more adequate.

The short railroad spurs on the east and west coasts are of no particular value due to the absence of rolling stock.

(12) East Coast Landing Beaches: See East Coast Beach Analysis Map.

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

D. WEATHER SUMMARY (Months of January and February)

1. Wind

(a) % of wind from each direction.

<u>Dir.</u>	<u>%</u>	<u>Av. Vel. (Knots)</u>
N	26	11
NE	14	9
E	5	8
SE	6	9
S	9	13
SW	4	9
W	9	10
NW	25	11
CALM	2	

(b) Velocities

% of days with wind 10 knots or less	40
% of days with wind 10 to 15 knots	40
% of days with wind 15 to 20 knots	15
% of days with wind 20 to 30 knots	4
% of days with gales (over 30 knots)	1

(c) Average mean velocity 10 knots. Maximum velocity 45 knots.

(d) The strongest winds normally occur from 1000 to 1600 and the lightest 1800-0600 local time.

2. State of Weather

% of days with rain	9
% of days cloudy	45
% of days partly cloudy	26
% of days clear	20
% of days with fog	none

3. Swell

(a) % from each direction.

N-----37	S-----0
NE-----16	SW-----2
E-----12	W-----0
SE-----5	NW-----28

(b) Height of swell.

% of swell 0-1 feet	7
% of swell 1-6 feet	30
% of swell 6-12 feet	30
% of swell over 12 feet	33

4. Precipitation

(a) The average for January and February is 3-1/2 inches per month. There is practically no snow.

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

5. Cloud Coverage

- (a) The average cloud cover varies from 60-65% during May-June and September-October periods to 50% during remainder of year. The principal cloud types are cumulus and stratocumulus with bases averaging 2,000 feet.

6. Conditions Affecting Naval Operations

- (a) Anchorages.
The only anchorage available is the area in the lee of the island. The SE protected area will be used almost exclusively because of the prevailing northerly winds.
- (b) Open sea outside anchorages.
Moderately rough seas with a constant swell from the north may be expected. The best days of moderate NE or E wind and light north swell will be found 15% of the time.
- (c) Aircraft.
Flying should prove good except when lows or storms pass through this area. During such storm periods the rain is continuous and flying virtually impossible for two or three days at a time.

7. Conditions Affecting Amphibious Operations

- (a) Landing Beaches.
An almost continuous northerly swell with predominating N or NW winds would indicate an 80% certainty of having to use the SE beaches. Maximum protection should be found at the NE corner of this beach. There is a 10% chance of fair weather with light NE or E wind and swell, in which case the SW beaches or both beaches could be used. There is also a 10% chance of fresh NNE winds and swell when neither beach will be satisfactory.
- (b) Surf and swell.
A well developed northerly swell of between 6 and 12 feet is expected most of the time in the open sea. This means a heavy surf on exposed beaches and a light surf on protected beaches over 120 degrees from the swell direction. No southerly swell should occur at this time of the year. Waves average 4 feet in height.
- (c) Boating Conditions
Boating conditions may be difficult but not dangerous. No small boats should be lost due to gales. Strong southerly or northeasterly blows will make it very difficult to protect boats. However, a blow of over 30 knots from these directions is not expected. Fortunately, the heaviest blows are from the NW and N and the lee side of the island may be used.

8. Military Operations

- (a) Road construction and repair.
Rain is not heavy and does not last more than 3 or 4 days at a maximum.

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

Weather should be favorable for construction.

- (c) Landing of equipment and supplies during post invasion period. With the choice of two beaches, the landing of supplies should not be difficult except during occasional storms when a fresh south wind is blowing.
- (d) Housing and comfort of personnel. Some very chilly nights with a cold north wind will require warm clothing and several blankets. The minimum temperature is 48 degrees and the maximum 62 degrees. There is practically no frost.

9. Fronts and Storms

- (a) The main lows form close to OKINAWA and move to the NE remaining east of all the Japanese islands. These storms practically always pass first to the NW and then N of WORKMAN. Any well developed storm north of WORKMAN tends to force the winds into W or NW. If the storm passes close by, the winds will go into south and then west. Fronts associated with the lows farther north cross WORKMAN about every 5 or 6 days. Frequent storms, some of which are very intense, pass between WORKMAN and TOKYO and will interfere with land based bombing missions, searches and carrier strikes.

10. Typhoons

- (a) There are few typhoons in this area during winter.

E. ESTIMATE OF ENEMY STRENGTH

The enemy since January 1944 has been engaged in strengthening the important military areas in the OGASAWARAS GUNTO. Orders were issued in April 1944 that the Army and Naval Forces stationed there were to join forces immediately to form a single working unit, troops were to be disposed in preparation for emergency operations as soon as possible and the garrison was subsequently to be strengthened. The following forces entered the Order of Battle of the 31st Army and were sent to WORKMAN with the mission of securing and strengthening the defenses of the Island.

41st Fortress Infantry Unit
61st " " "
66th " " "
64th " " "
65th " " "
67th " " "
68th " " "
57th " " " (less 1 company)
Field Artillery Battalion (2 companies of Field Arty, and the
7th Fortress Mtn Arty Unit)
15th Fortress Engineer Unit (less 1 platoon)

When our forces invaded the Carolines, the forces on this island were alerted, placed on a strict guard, given battle positions, and began constructing defenses and air raid shelters as quickly as possible. ("Forces have first priority on cement and the wherewithal to construct obstacles," effective April 1944.) At the same time extensive instruction for all branches of the Service was ordered carried out in the following:

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D-2 SPECIAL STUDY OF THE ENEMY SITUATION (CONT'D)

- a. Beach annihilation operations with special emphasis on offensive tactics.
- b. Operations which involve the use of terrain and natural objects advantageously, and surprise attacks on the enemy.
- c. Night action, with particular emphasis on night raids.
- d. An extensive medical program to safeguard the health of all present.
- e. Strict conservation of existing military supplies.

In May 1944 by order of Imperial Headquarters a temporary organization (reorganization) of forces in the Central Pacific Area took place. This order affected the Forces under the Command of the 31st Army and as a result a new division, the 109th, was formed in the OGASAWARA GUNTO (BONIN and VOLCANO ISLANDS) from units already in existence there.

On WORKMAN the 2nd Mixed Brigade was formed with the Fortress Infantry Units located there as a nucleus. Other attached units have subsequently been sent there along with the 109th Division Headquarters. Captured documents and aerial photographs indicate defense sectors which appear to be the responsibility of battalions. Six such sectors are shown, which would leave the balance of infantry in reserve, probably in the center of the island. These reserves are under Division control and can be employed as the defense of the island may require. The following table is a list of enemy strength now estimated to be on the island.

ORGANIZATION	COMMANDING OFFICER	CODE		PERSONNEL
		NAME	NUMBER	
109th Div Hq	LtGen KURIBAYASHI, Tadamichi	SONAE	17501-02	150 - 170
2nd Mixed Brigade	MajGen OSUKA Kotoo	"	17512	(4,500 - 4,900)
Headquarters				160 - 277
309 Ind Inf Bn		"	17513	579 - 600
310 Ind Inf Bn		"	17514	579 - 600
311 Ind Inf Bn		"	17515	579 - 600
312 Ind Inf Bn		"	17516	579 - 600
313 Ind Inf Bn		"	17517	579 - 600
314 Ind Inf Bn		"	17518	579 - 600
2d M. B. Arty Unit	Maj MAEDA (?)	"	17519	415 - 415
2d M. B. Engr Unit		"	17520	221 - 221
2d M. B. Fld Hosp		"	17521	121 - 121
Signal Unit		"	---	128 - 128
145th Inf Regt	Col IKEDA Masua (?)	---	---	3,200 - 3,400
Guard Force		---	---	1,000 - 1,500
Medium Mortar Bn		---	---	600 - 700
Two Ind Inf AT Bns		---	---	600 - 800
26th Tank Regt (elements of)		---	---	350 - 350
Air Base Personnel		---	---	1,000 - 1,000
Construction Personnel (204th C.B.)		---	---	1,500 - 2,000
59th Anchorage Branch		AKATSUKI	16722	25 - 25
3rd Temp Anchorage Branch		---	---	
		Total		12,944 14,707

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COMPILATION OF WEAPONS

WEAPONS	2d Mixed Brigade							Engineer Unit	145th Inf Regt.	Guard Force	B		26th Tank Regt	TOTAL
	309 Inf Bn	310 "	311 "	312 "	313 "	314 "	Arty Unit A				Med Mortar Bn	Two Ind. AT Bns.		
Rifles	400	400	400	400	400	400	(?)	205	1691	(?)	234	284	(?)	4,814
LMG	36	36	36	36	36	36			108					414
G.D.	36	36	36	36	36	36			108					414
HMG	6	6	6	6	6	6			18					54
37mm AT	2	2	2	2	2	2			6			24		42
70mm Inf Gun	2	2	2	2	2	2			6					18
75mm Field Gun							4		4					8
75mm Mtn Gun							4							4
10cm Howitzer							4							4
81mm Mortar											24			24
Type 93 Flame Thrower								4						4
Type 93 Land Mine AT								1762						1762
Type 99 Land Mine AP								2650						2650
AP Mine								890						890
Bangalore Torpedo								118						118
Stick Land Mine										30				30
Molotov Cocktail								1100						1100
Light Tanks													11	11
Medium Tanks													16	16
8cm AA Guns										4				4
12cm AA Guns										8				8
12cm flat trajectory										4				4
14cm Coast. Defense										4				4
25mm AA MG										30				30
15cm Arty Mortars											(12)			(12)
Type 94 L Inf Mortars												(36)		(36)

NOTES:

A.--Companies are either Field Artillery, Mountain Artillery, or 10cm Howitzer Companies. Document #774, 15Sep44, gives 1 Btry of 75mm Mtn Guns and 2 Btrys of 105mm Howitzers. CINCPAC-CINCPOA #9733 gives 2 Co's of Field Arty, and the 7th Fortress Mtn Arty Unit.

B.--From existing information available, this Mortar Bn can have either 24x81mm mortars, 12x15cm Arty mortars, or 36 Type 94 L Inf mortars.

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BIBLIOGRAPHY

<u>SOURCE</u>	<u>NUMBER</u>	<u>SUBJECT</u>
JICPOA	8963	Org. Cent. Pac. Area Forces
CINCPAC-CINCPQA	8964	Org. of 31st Army
"	9495	3rd Sec. Staff Hq: Outline of disposition and Reorganization of Forces.
"	9498	Cent. Pac. Area Force Secret Order #2 (21 March 44) Const. of Air Bases in the MARIANAS and CAROLINES.
"	9499-C	Order of Battle for the OGASAWARAS Sector. Handwritten table, much revised, with units listed only in abbreviated form; owner unidentified; another document attached to this one is dated March 1944.
"	9512	Report of Present Conditions by IWO JIMA Guard Unit CO.
"	9616	Extract from handwritten report concerning the defense of the MARIANAS and OGASAWARAS. Undated; issuing authority unidentified.
"	9669	OGASAWARAS Sector Group Hq. OGASAWARAS Sector Group Defense Plan.
"	9691	CHICHI JIMA FORTRESS HQ. Table of Military Equipment on land, as of April 1944.
"	9692	Cent Pac Area Fleet, Secret, #30-8 (20 April 44): new nomenclature for air bases.
"	9693	List of ammunition on hand on CHICHI JIMA, HABA JIMA, IO JIMA, and MUKO JIMA in April 1944.
"	9696	Handwritten tables showing approx. number of personnel receiving supplies in sectors under the 31st Army, dated 8 June 1944.
"	9698	31st Army: Table showing immediate Supply of Ammunition necessary for AA Guns and AA Machine Cannon.
"	9723-B	Information on food supplies, fuel, population, etc., of the OGASAWARAS.
"	9733	"I" Detachment (On IO JIMA) Op Order A #1 through A #6 and OGASAWARAS Sector Group Op Ord. A #7, March and April 1944.
"	9793	CHICHI JIMA Area Defense Force Secret Op Ord #2. Captured on SAIPAN.
"	9738	31st Army Operations Section (1 April 44): Table of Harbor facilities in 31st Army Area.
"	9882	List of officers assigned to units under the command of the 31st Army.
"	9882-B	Name list of officers in the CHICHI JIMA Fortress (15 April 44).
"	9883	File of Shipping Hq Orders.
"	9893	OGASAWARA Sector Group Monthly Report for March and April 44.
"	9955	Table showing general condition of principal ammunition, ordnance, and equipment of all forces under this command; issued by SONAE (31st Army) Staff: undated; handwritten copy.
"	9983-85	Dispatches sent and received by SONAE (31st Army) Hq. on SAIPAN from 13 to 29 June 44, dealing primarily with events occurring during the American attack on SAIPAN.
"	10021	31st Army Unit Totals, as given in an Intendance Force, 31st Army file entitled "Requisitions to "Central" /Hqs/" dated 13 April 1944.
"	10119	Cent. Pac. Area Forces: Detailed Summary of Temp (Reorganization) of the 278th Return (Demobilization).
"	10812	Two Tables of forces under the command of the 31st Army giving their locations, code names and numbers; dated by and 1 June 1944; handwritten and mimeographed copies.

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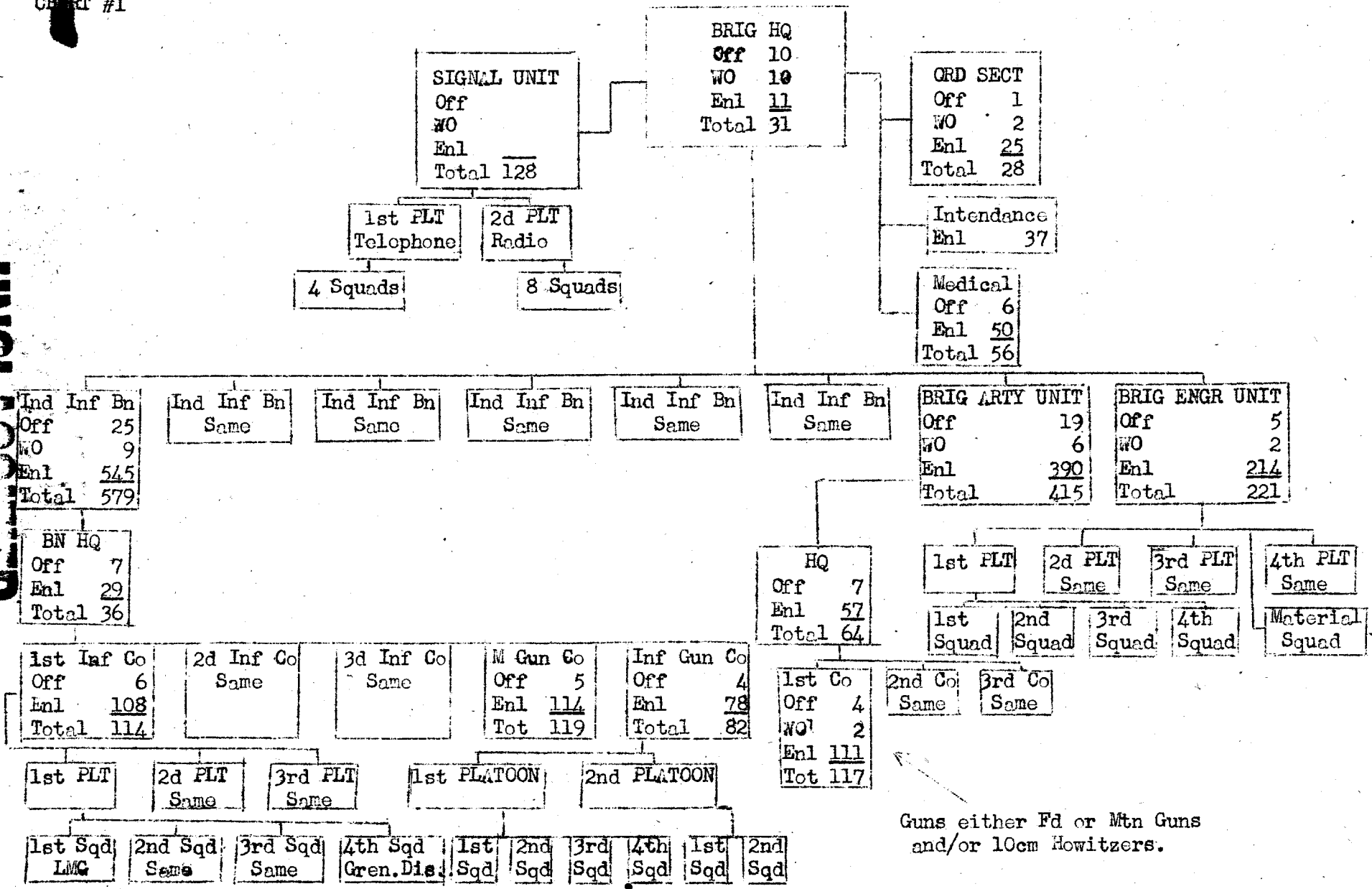
BIBLIOGRAPHY (CONT'D)

<u>SOURCE</u>	<u>NUMBER</u>	<u>SUBJECT</u>
CINCPAC-CINGPOA	10978	Tables of ordnance on hand at SAIPAN, TINIAN, PAGAN, ROTA, GUAM, MOLEAI, PONAPE, NOMOI, PULUWAT, TRUK, CHICHI JIMA, IO JIMA, HANA JIMA, and MARCUS, as of April 1944. Extracts taken from a binder of Monthly Reports of Equipment on hand (Gun Fittings) Ordnance Dept, SONAE 7920 BUTAI (31st Army Hq).

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CHART #1

2ND MIXED BRIGADE



Guns either Fd or Mtn Guns and/or 10cm Howitzers.

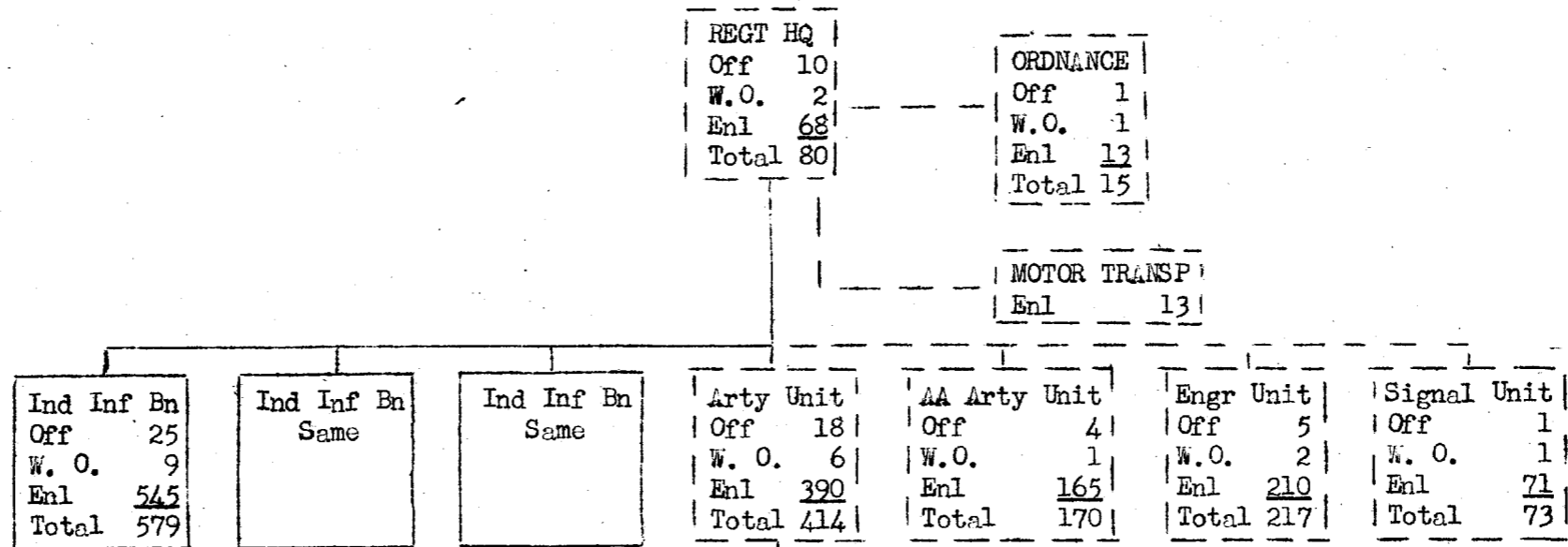
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CHART NO. 2

From the following Dispatches sent and received by the 31st Army Headquarters (REF: CINCPAC-CINCPOA #9983-85 it is known that the 145th Infantry Regiment has entered the Order of Battle of forces located on WORKMAN. "The 145th Infantry Regiment will be excluded from the organization of the 46th Division of the 19th Army and be included in the order of battle of the 31st Army." "The 145th Infantry Regiment will board ships at YOKOHAMA between 22/23 June." "Recently a force with 3 Infantry Battalions as a nucleus has been dispatched to the Island of WORKMAN."

The following table is prepared to show the usual organization and strength of an Independent Infantry Regiment.



Breakdown of Ind Inf Bn the same as Bns of 2d M. B. shown on Chart #1

Same Break-down as Arty Unit of 2d M. B.

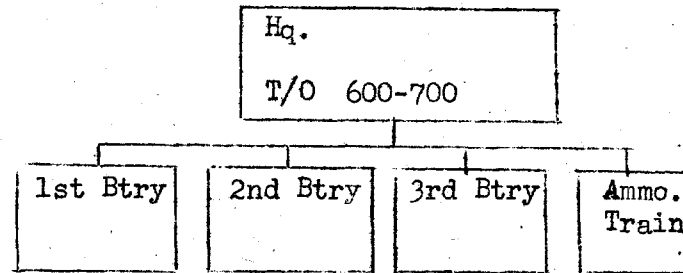
NOTE: Broken line shows units not known to be attached at present time, but which are normally included in the organization of an Independent Infantry Regiment.

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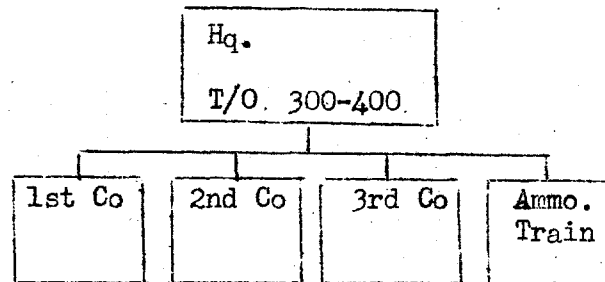
CHART #3

MEDIUM MORTAR BN



4 15cm Arty Mortars per Btry

Ind AT Gun Bn



4 37mm/47mm Guns per Btry

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F. ENEMY INSTALLATIONS

- (1) See D-2 Enemy Situation Maps as issued.
- (2) The heaviest concentration of defenses is in the southern half of the island in the vicinity of Airfields No. 1 and 2 and in the vicinity of the accessible beaches on the east and west coast. The northern half of the island, with its rough coast and unfavorable landing beaches is less heavily fortified. The east and west coast beaches are backed by an intricate system of disconnected anti-tank trench, fire trench, rifle pits, machine gun and artillery emplacements and pillboxes. No underwater obstacles are visible but two rows of mines, just above the high water mark, are plainly visible in photographs up to 25 September 1944.

Captured documents dated March and April 1944 indicate that the enemy plan of defenses calls for six infantry battalions to be disposed for perimeter defense from prepared positions. It is believed that these six battalions come from the 2nd Mixed Brigade with the remainder of purely infantry type troops, the 145th Infantry Regiment, being held mobile for counterattacks or to reinforce the defense of any threatened area. It is assumed that the personnel of the other major units on the island have been parcelled out to man the larger caliber weapons disposed throughout the island, and to reinforce the battalions disposed for defense in fixed positions.

Captured documents dated March and April 1944 dispose one infantry battalion to defend the area southwest of airfield No. 1. Analysis of the trench and pillbox system indicates that one company of this battalion is disposed for defense in the area of Beach Green 1 and Beach Red 1. 13 pillboxes, 11 machine guns and 1 artillery emplacement together with numerous rifle pits and connecting trenches are located in the first 300 yards straight inland from these beaches.

One other company of this battalion appears to be deployed for defense of that part of the west coast beach south of the southern limit of Beach Purple 1 while the third company of this battalion is disposed for the defense of the base and flanks of SURIBACHI YAMA. Part of this company occupies positions in pillboxes in the rocky cliffs on each side of the mountain where they are in position to enfilade the beaches.

Aerial photographs show one definite and two probable caves 50-75 yards apart near the base of the eastern slopes of SURIBACHI YAMA overlooking the eastern approaches to the beach. These caves are capable of being used by either infantry or artillery. No fire can be delivered on the beach from within the one cave visible, its northern limit of fire being about 60° magnetic, and its southern limit about 205° magnetic. Fire can be delivered at boats approaching the beach until they approach within 130 yards of the southern limit of Beach Green 1. On the southern side of this cave, there is an overhang in the rock of about 6 feet capable of concealing personnel.

The northern of the two probable caves has a field of fire from approximately 30° magnetic to 180° magnetic and observed fire can be delivered on all parts of the division beaches. The southern of the two probable caves has a field of fire from approximately 35° magnetic to 134° magnetic and observed fires can be placed on all parts of the division beaches. Between the two concrete-covered emplacements in 132K there is an underground entrance, but the slope of

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this entrance is such that it is not believed to have been designed as a firing emplacement. Track activity in the vicinity of the two open gun positions in 132L indicates the presence of entrances into the base of SURIBACHI YAMA. Track activity 200 feet east of the easternmost gun in 132L indicates another underground entrance, and an artillery piece in this entrance would have a field of fire from about 4° magnetic to 161° magnetic and could place observed fire on all parts of the division beaches.

The defense of Beach Red 2 appears to be the responsibility of 1 company of another battalion disposed to defend the remainder of the east coast beaches up to EAST BOAT BASIN. This entire battalion is committed in a linear defense so that the company defending Beach Red 2 does not have sufficient strength organically to defend adequately the 800 yards frontage and 500 yards depth given to it. However, the presence of personnel manning artillery emplacements and antiaircraft guns undoubtedly will compensate somewhat for this overextension of lines and weakening of defense in depth.

Based on enemy dispositions as indicated on captured documents dated March and April 1944, the Japs will have only two battalions actually engaged by our forces landing on the southeast beaches. This leaves him with a total of 4 infantry battalions in their already prepared defensive positions and the 145th Infantry for counterattack purposes. It must be assumed that the communications of the defenders will have been disrupted by our preliminary bombardment, but the length of time these units have occupied this island should have permitted their plans for counterattack to have been well laid and with the knowledge that the plans would have to be executed even though communications have been disrupted. Therefore, it is assumed that the Japs can begin reinforcing their threatened areas as soon as our intention to force a landing on the east coast is apparent. Since landings are feasible in force only on the southeast or southwest coast, the first appearance of transports off the east coast may well be the signal for the Japs to move forces into the east coast beach areas to replace casualties and reinforce the existing defenses. Similar steps may be taken if intensity of preliminary operations is not equal on both east and west coast installations. The first company so moved could arrive within 20 minutes of the time dispatched with a complete battalion arriving within 40 minutes. Forces from the general reserve, believed to be held in the area north of Airfield No. 2 could begin to arrive within 40 minutes from the time dispatched.

G. CAPABILITIES OF ENEMY AIRCRAFT

(1) NANPO SHOTO:

There are two bomber fields on WORKMAN, and one fighter strip and one auxiliary seaplane base at CHICHI JIMA. All are operational at the present time, although the seaplane facilities at CHICHI JIMA have been partially abandoned. Constant bombings by our aircraft have reduced the number of aircraft present at these bases to less than fifty at the present time, but all types of aircraft can be flown in to reinforce the NANPO SHOTO prior to D-Day, and thereafter as long as airfields remain operational.

Aerial and naval bombardment can be expected to neutralize the bases on WORKMAN and CHICHI JIMA prior to D-Day.

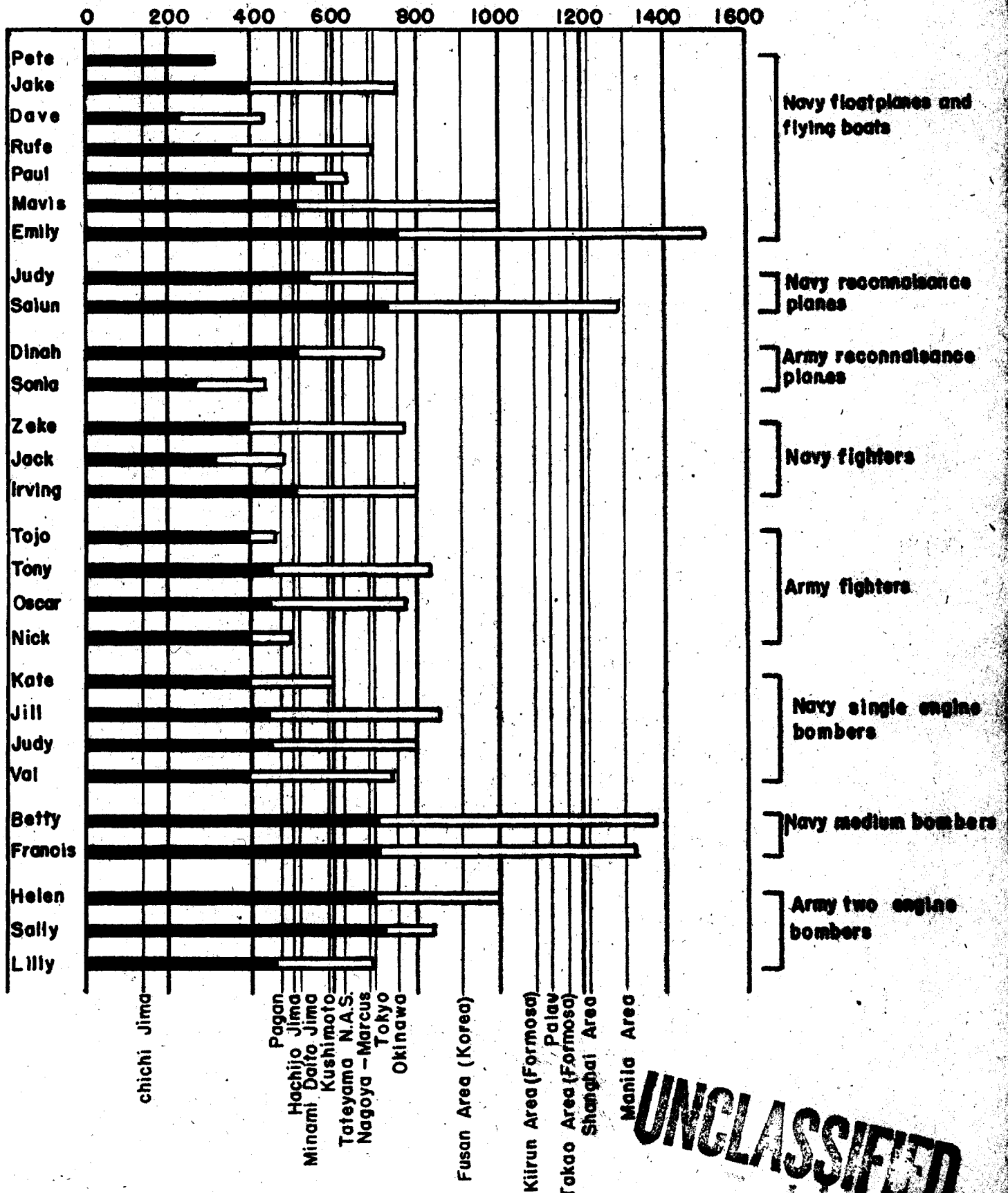
(MARCUS ISLAND, 650 nautical miles away, has an operational bomber field, but no aircraft are based there at the present time.)

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RADII OF PRINCIPAL JAPANESE AIRCRAFT

■ Maximum Effective Combat Radius (nautical miles) □ Hypothetical Radius



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(2) EMPIRE (HONSHU, KYUSHU, N. NANSEI SHOTO)

In view of the great threat to the Empire by the attack on the target, it must be assumed that every available plane will be used to oppose our landing and succeeding operations.

Operations since 10 October 1944 have seriously depleted air strength which the enemy had been hoarding in the Empire since June. This is particularly true of naval air strength.

It is believed that there are about 500 planes with sufficient operating range to reach the target directly from the homeland. These probably will operate from the concentration of airfields in the TOKYO-YOKOHAMA-OSUBI BAI areas. By the use of HAKIYO SHIMA, in the northern NANPO SHOTO, as a refueling point, many additional planes, including single engine bombers and fighters may be brought within effective supporting distance of WORKMAN.

(3) SOUTHERN NANSEI SHOTO

Our attack may also bring enemy air reaction from planes based on the five fields in the OKINAWA area, 740 miles away. These planes may use MINAMI DAITO SHIMA (25°50'N:131°14'E), 525 miles west of WORKMAN as a refueling point.

(4) CARRIER-BASED AIRCRAFT

Since the beginning of the MARIANAS operations, there have been heavy losses inflicted on the enemy, both in carriers sunk and damaged, and in carrier aircraft and pilots eliminated. The losses suffered in the two fleet engagements in the PHILIPPINE area have probably left them with few well-trained carrier pilots.

Although it is not definitely known what enemy units were sunk and to what extent others were damaged, it is estimated that the enemy cannot have carrier capacity, now operational, for more than about 400 planes.

BY COMMAND OF MAJOR GENERAL ROCKEY:

RAY A. ROBINSON,
Chief of Staff.

DISTRIBUTION: Annex XRAY

OFFICIAL:

George A. Roll
GEORGE A. ROLL,
LtCol, USMC
D-2.

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APPROX VARIATION
 1° 25' W (1944)

MOTOYAMA AIRFIELD NO. 1

TERRAIN ANALYSIS

Elevation 100 to 120 ft.	Elevation 300 to 320 ft.
Elevation 200 to 220 ft.	Area in sight defilade (75.05-70.40)
Location of O.P. (75.05-70.40)	Tree mask taken as 25 ft.
Observer's eye 5 feet above the ground	Defiladed areas behind hedge rows not shown
No perennial streams on the island	

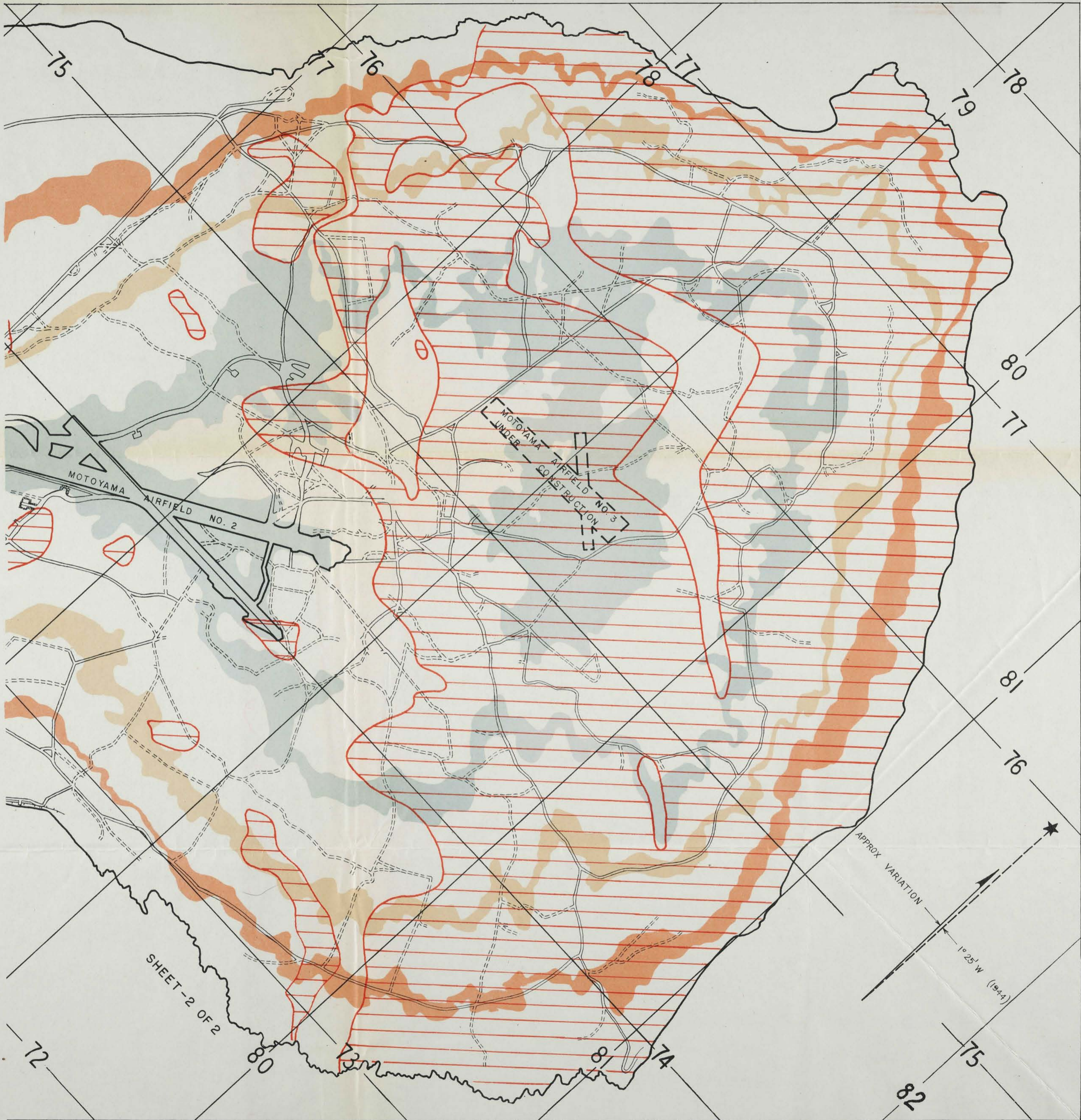
Scale 1:10,000

1000 yds.

Reproduced by 5th EngBn
 November 5, 1944

Compiled by D-2 Sect.
 5th Marine Division

SHEET. - 1 OF 2



75

76

78

77

79

78

80

77

81

76

75

82

MOTOYAMA AIRFIELD NO. 2

MOTOYAMA AIRFIELD NO. 3
UNDER CONSTRUCTION

SHEET - 2 OF 2

APPROX VARIATION

1° 25' W (1944)

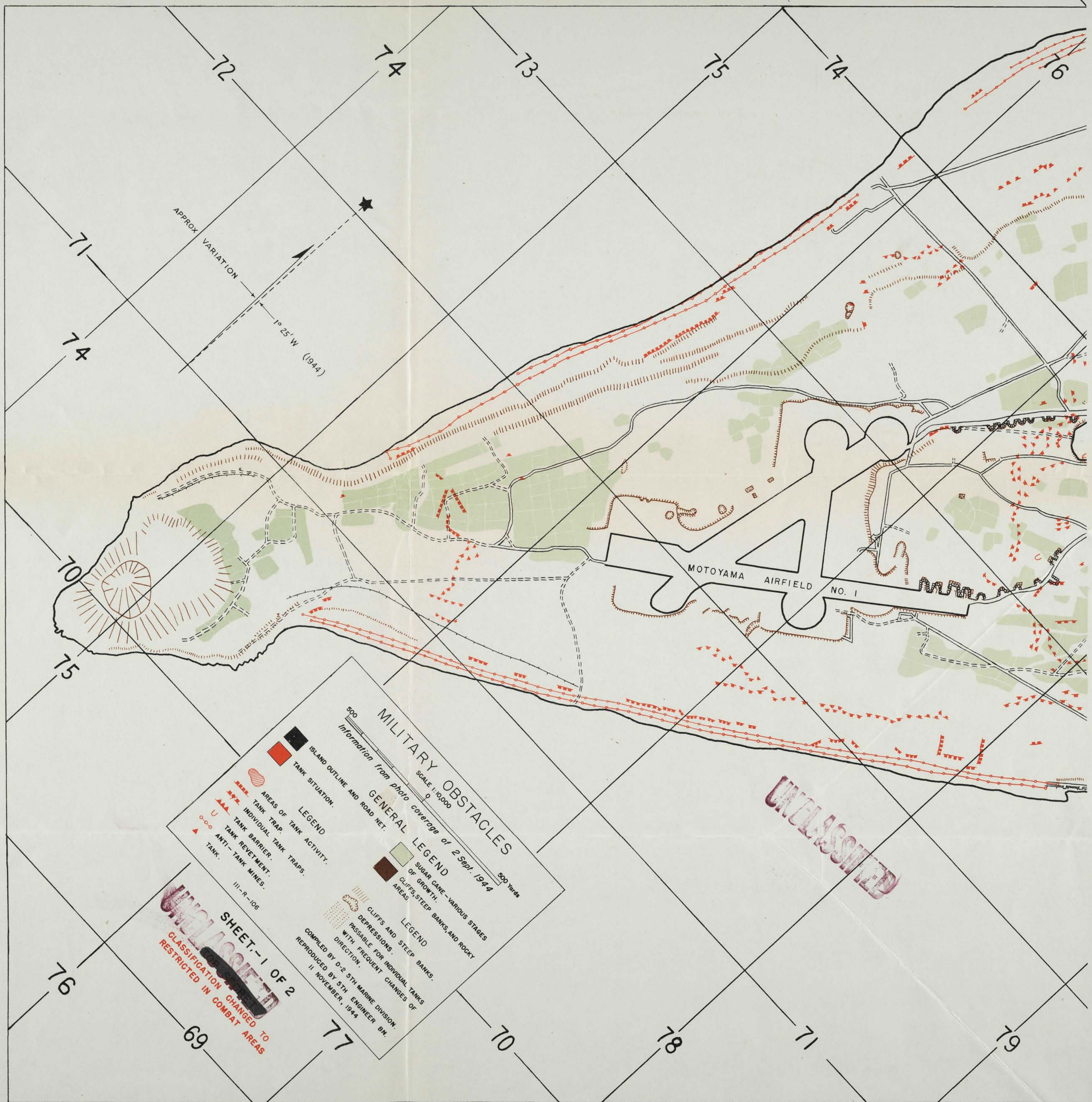
72

80

73

81

74



MILITARY OBSTACLES
 Scale 1:10,000
 Information from photo coverage of 2 Sept. 1944
 500 Yards

GENERAL LEGEND

- ISLAND OUTLINE AND ROAD NET.
- SUGAR CANE - VARIOUS STAGES OF GROWTH.
- CLIFFS, STEEP BANKS, AND ROCKY AREAS.
- CLIFFS AND STEEP BANKS.
- DEPRESSIONS, PASSABLE FOR INDIVIDUAL TANKS WITH FREQUENT CHANGES OF DIRECTION.

LEGEND

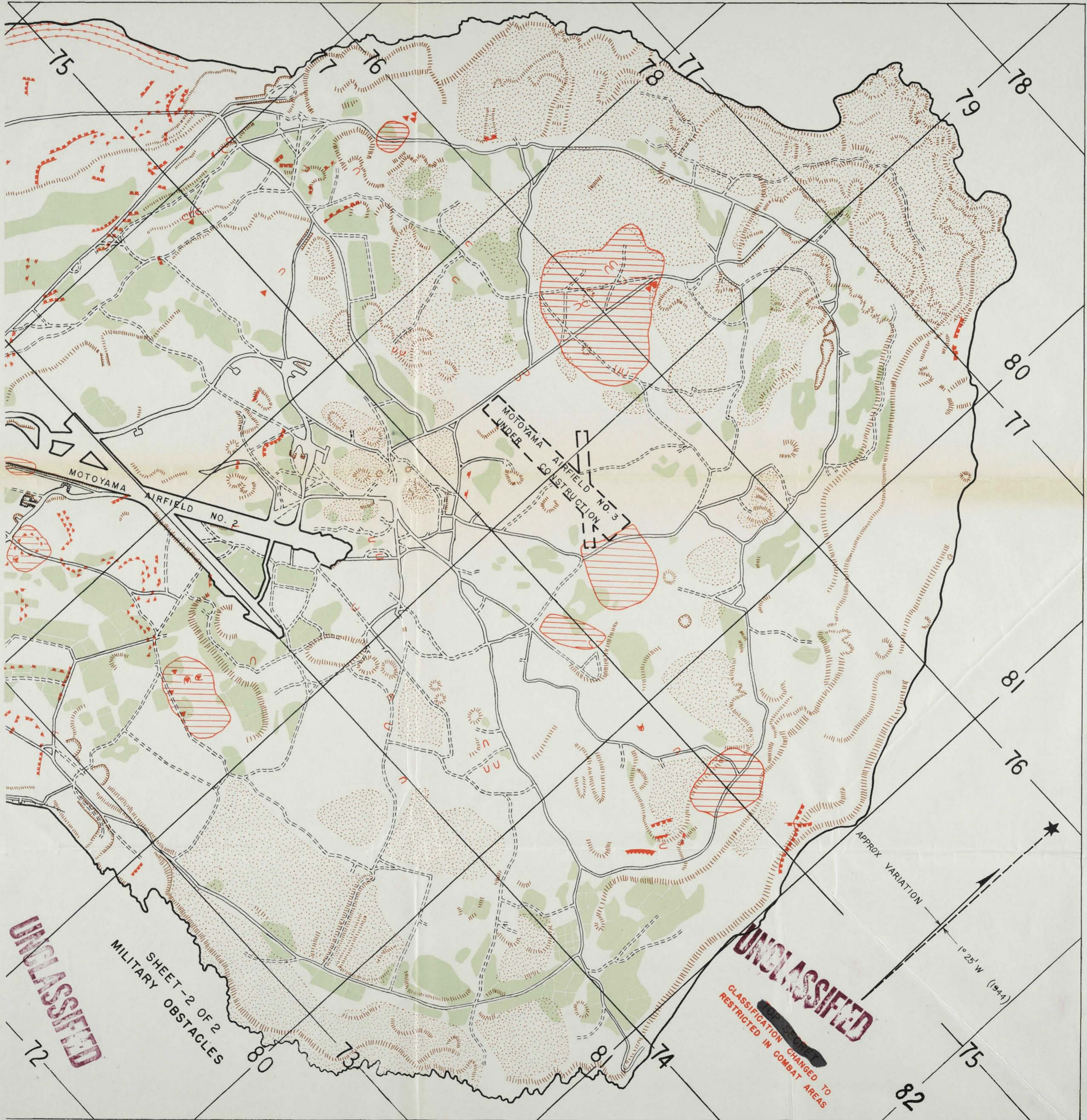
- TANK SITUATION.
- AREAS OF TANK ACTIVITY.
- TANK TRAP.
- INDIVIDUAL TANK TRAPS.
- TANK BARRIER.
- TANK REVETMENT.
- ANTI-TANK MINES.
- TANK.

III-R-106

COMPILED BY D-2 5TH MARINE DIVISION
 REPRODUCED BY 5TH ENGINEER BN.
 11 NOVEMBER, 1944

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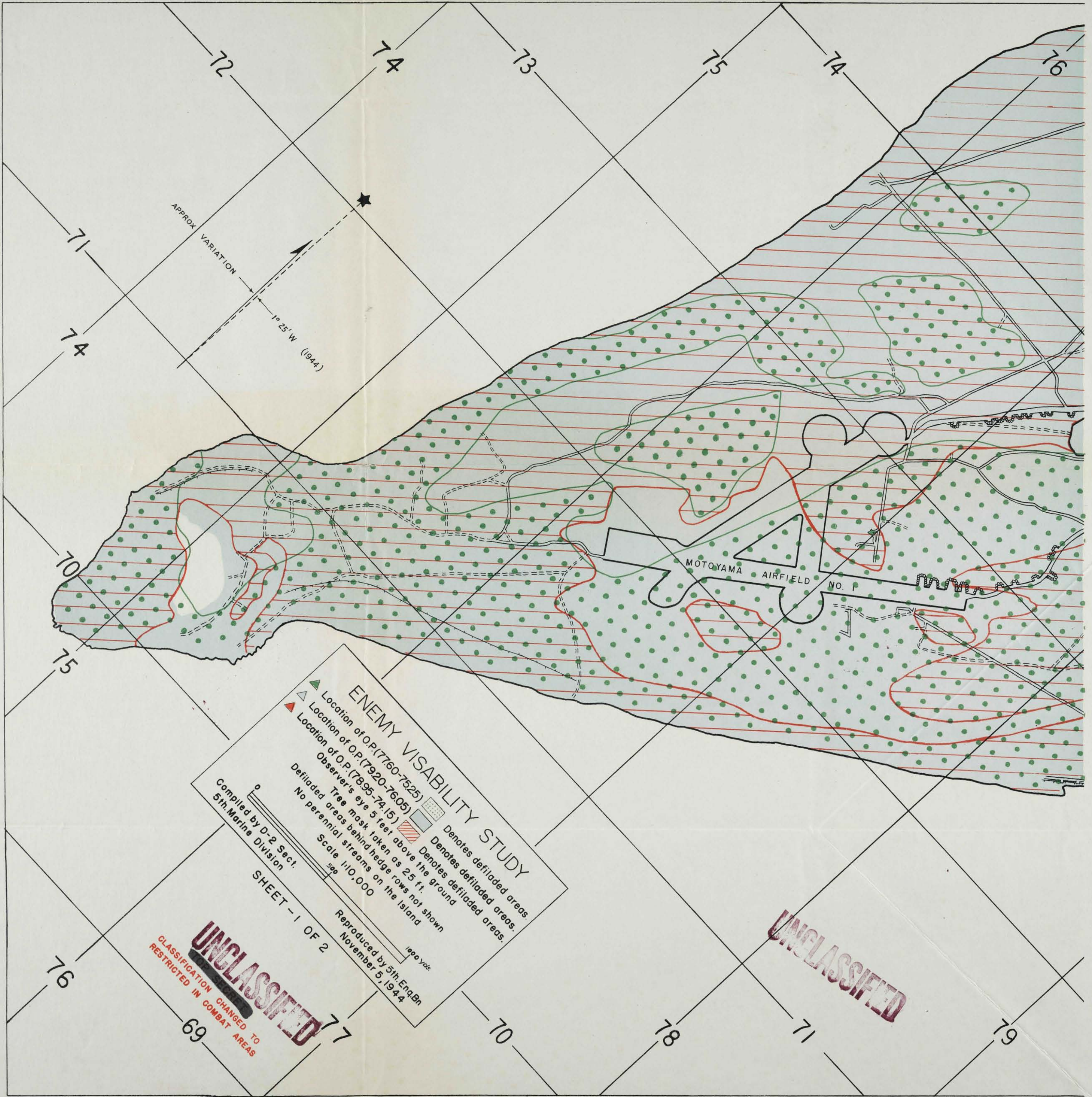
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SHEET - 2 OF 2
MILITARY OBSTACLES

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ENEMY VISIBILITY STUDY

- ▲ Location of O.P. (7760-7525)
- △ Location of O.P. (7920-7605)
- ▲ Location of O.P. (7895-7415)

Observer's eye 5 feet above the ground
 Tree mask taken as 25 ft.
 Defiladed areas behind hedge rows not shown
 No perennial streams on the Island

Scale 1:10,000

1944 Yes

Reproduced by 5th. Engr Bn
 November 5, 1944

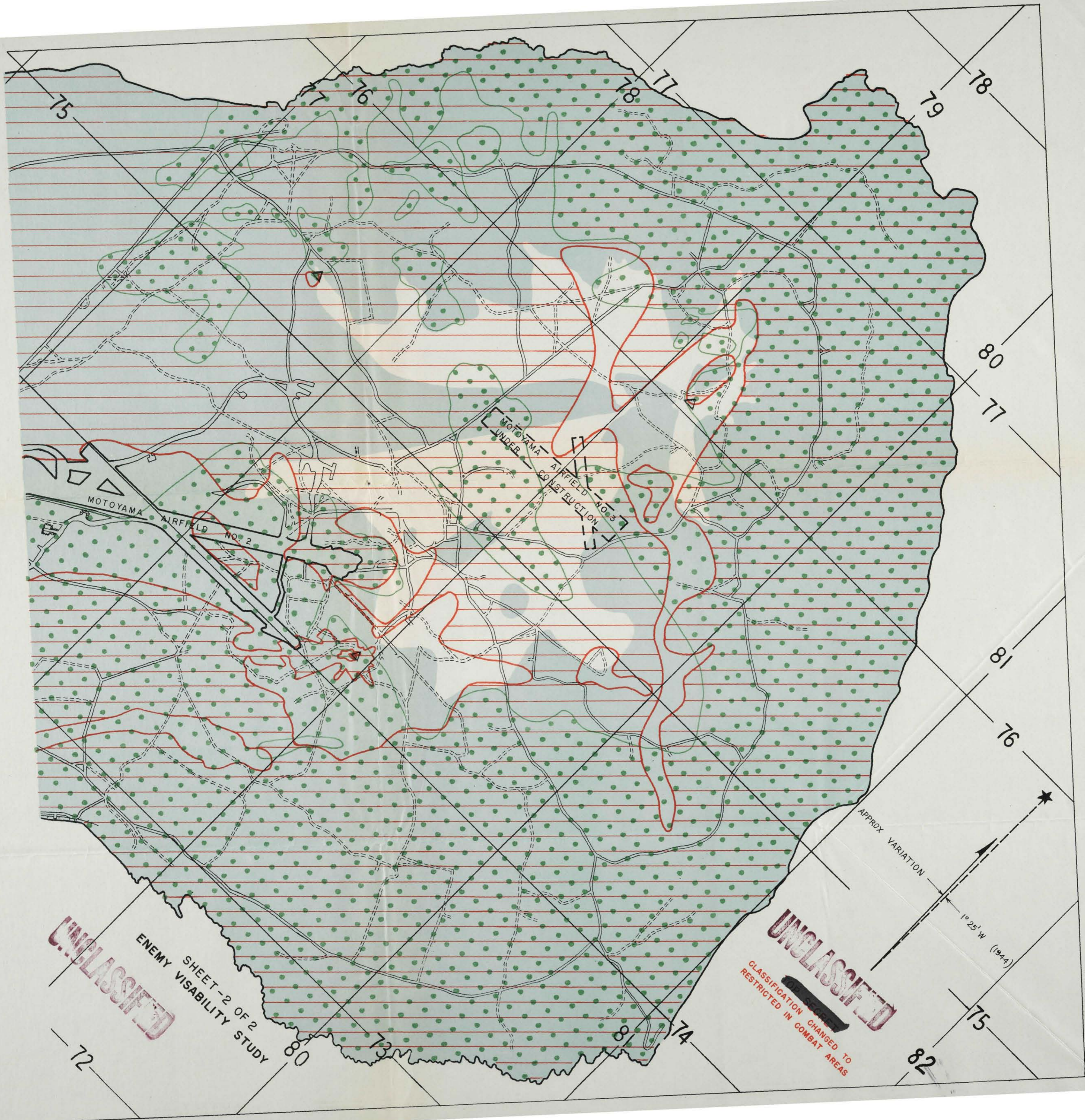
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 5th. Marine Division

SHEET - 1 OF 2

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ENEMY SHEET - 2 OF 2
VISIBILITY STUDY

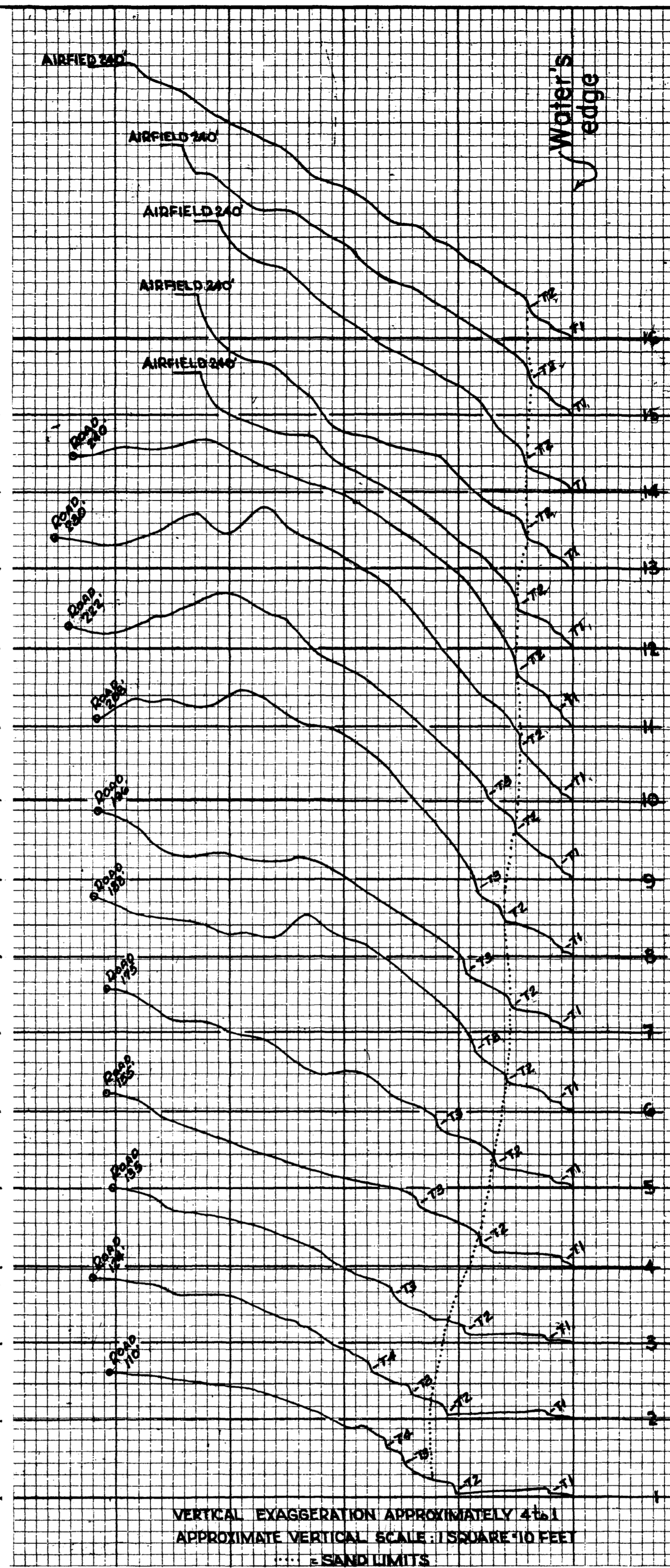
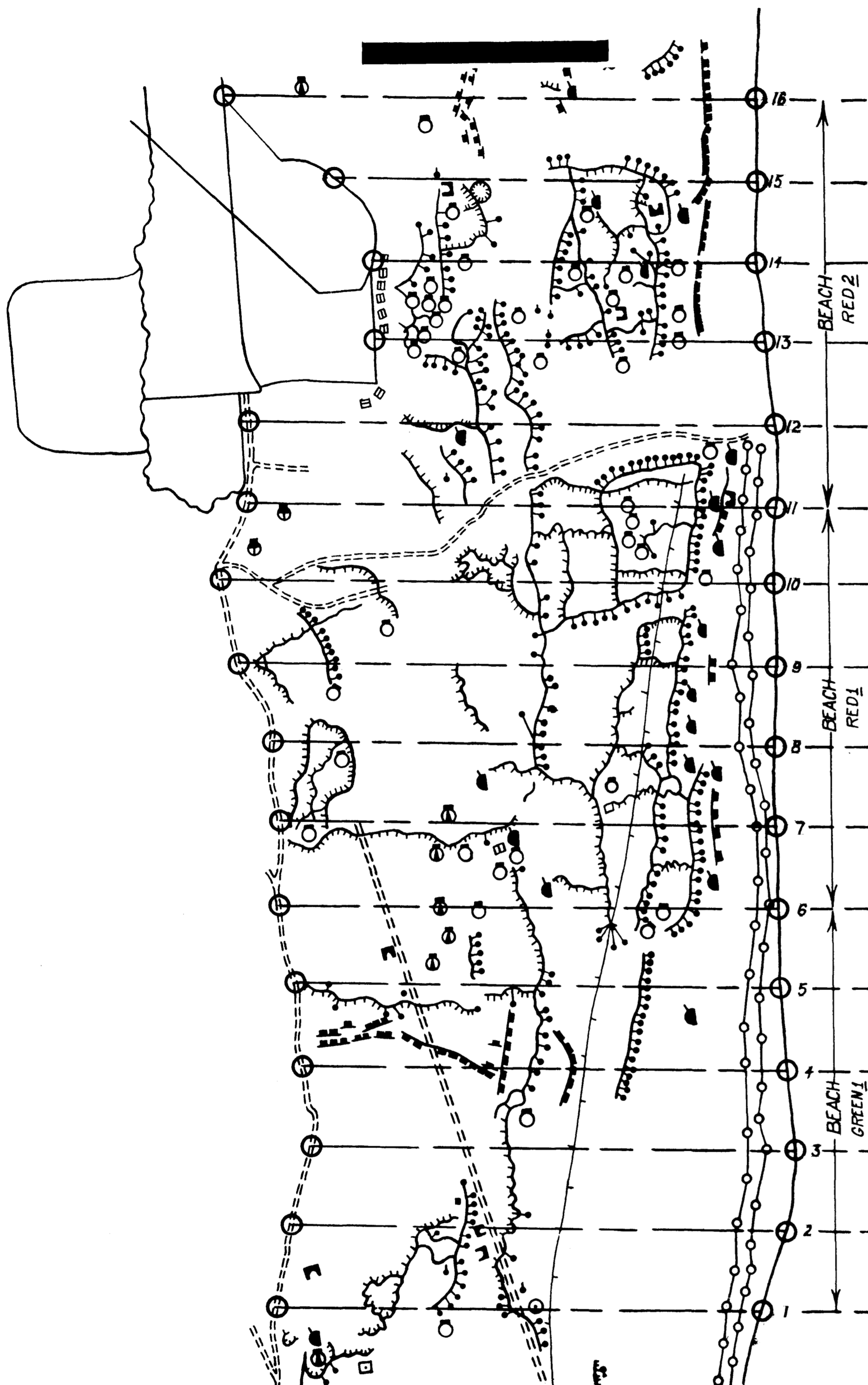
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BEACH STUDY - EAST BEACHES
 COMPILED AND REPRODUCED BY THE
 5TH. ENGR. BN. ALL DATA COMPILED BY
 D-2 SECTION, 5TH. MARINE DIV. FROM
 AERIAL PHOTOS OF 15 JUNE, 4 JULY,
 AND 2 SEPTEMBER.

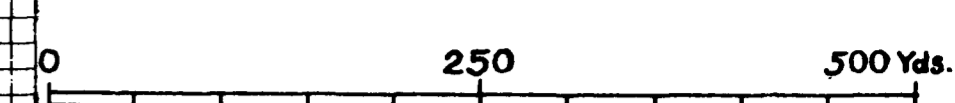
IIIR III

9 NOVEMBER 1944

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HORIZONTAL SCALE
 1:5300



#16 Width: 70 yards
 Terraces: Two, #1 in shifting sand (might consist of two or more small steps). #2 at rear of beach is cut by drainage lines from airfield runoff and improved by AT ditch at bottom.
 Terrain Inland: Brush on edge of airfield. Most gradual approach to airfield. Very few knolls. Devoid of trenches, because of location in airfield drainage area. Highest ground 240' (airfield).
 Exits: None. Gullies can be made into exits.
 Gradient: 1 to 7.3

#15 Width: 80 yards
 Terraces: Two, #1 in shifting sand (might consist of two or more small steps). #2 at rear of beach is cut by drainage lines from airfield runoff and improved by AT ditch at bottom.
 Terrain Inland: Brush growing on airfield fill. After clearing last terrace the slope is generally uniform except for small knolls (5'-15') and the airfield embankment. Extensive trench systems in area, some foxholes built up so as to prove an obstacle to motorized equipment. Highest ground 240' (airfield).
 Exits: Possibilities exist in gullies in #2 terrace.
 Gradient: 1 to 6.5

#14 Width: 80 yards
 Terraces: Two, #1 in shifting sand (might consist of two or more small steps). #2 at rear of beach is improved by AT ditch at bottom.
 Terrain Inland: Brush growing on airfield fill. Slope broken by rocky knolls (5'-15') and built up foxholes that may prove to be an obstacle to motorized equipment. Highest ground 240' (airfield).
 Gradient: 1 to 6.7

#13 Width: 80 yards
 Terraces: Two, #1 in shifting sand (might consist of two or more small steps). #2 at rear of beach, improved AT ditch at bottom.
 Terrain Inland: Brush growing on airfield fill. Slope broken by small woods. Earthworks behind #2 terrace reach obstacle proportions. Highest ground 240' (airfield).
 Gradient: 1 to 6.2

#12 Width: 75 yards
 Terraces: Two, #1 in shifting sand (at times consisting of several small steps). #2 just behind beach.
 Terrain Inland: Only vegetation is brush growing on airfield fill. Rocky knolls. Drainage area from airfield, consequently few trenches. Highest ground 240' (airfield).
 Exits: One possible in deep gully thru #2 terrace.
 Gradient: 1 to 6.1

#11 Width: 75 yards
 Terraces: Two, #1 in shifting sand (at times consisting of several small steps). #2 just behind beach.
 Terrain Inland: Several brush covered hills. Cultivated fields south of airfield. Houses. Trench systems in depth. Highest ground 255'.
 Exits: One unsurfaced 16'-18' road.
 Gradient: 1 to 5.9

#10 Width: 80 yards
 Terraces: Two, #1 in shifting sand (at times consisting of several small steps). #2 just behind beach being improved with AT ditch.
 Terrain Inland: Small brush covered hills. Cultivated fields south of #1 airfield. Houses. Trench systems in depth. Highest ground 250'.
 Gradient: 1 to 4.4

#9 Width: 80 yards
 Terraces: Three, #1 in shifting sand (at times consisting of several small steps). #2 just behind beach being improved with AT ditch. #3 behind #2.
 Terrain Inland: Several brush covered small hills. Rocky knolls. Cultivated fields south of #1 airfield. Highest ground 250'. Trench systems in depth. Houses.
 Gradient: 1 to 5.7

#8 Width: 80 yards
 Terraces: Three, #1 in shifting sand (at times consisting of several small steps). #2 just behind beach being improved with AT ditch. #3 between #2 and railroad.
 Terrain Inland: Several brush covered small hills. Rocky knolls. Highest ground 245'. Trench systems in depth. Houses.
 Gradient: 1 to 5.2

#7 Width: 90 yards
 Terraces: Three, #1 and #2 in shifting sand (#1 at times consists of several small steps). #2 being improved with AT ditch. #3 between beach and narrow gauge railroad.
 Terrain Inland: Several small brush patches. Rocky knolls - several 10 to 15 foot hills. Highest ground 189'. Trench systems in depth.
 Gradient: 1 to 5.5

#6 Width: 90 yards
 Terraces: Three, #1 and #2 in shifting sand (#1 at times consists of several small steps). #2 being improved with AT ditch. #3 between beach and narrow gauge railroad.
 Terrain Inland: No vegetation. Rocky knolls. Highest ground 175'. Trench systems in depth.
 Gradient: 1 to 10.7

#4 Width: 115 yards
 Terraces: Three, #1 and #2 in shifting sand. (#1 at times consists of several steps) #3 between beach and narrow gauge railroad.
 Terrain Inland: No vegetation. Rocky knolls. Highest ground 155'. Trench systems in depth.
 Gradient: 1 to 10.6

#3 Width: 140 yards
 Terraces: Three, #1 and #2 in shifting sand. #3 lies between beach and narrow gauge railroad.
 Terrain Inland: No vegetation. Rocky knolls. Highest ground 135'. Trench systems in depth.
 Gradient: 1 to 11.1

#2 Width: 150 yards
 Terraces: Four, #1 and #2 in shifting sand. #3 and #4 between rear of beach and narrow gauge railroad.
 Terrain Inland: No vegetation. Small rocky knoll. Highest ground approximately 124'. Trench systems in depth.
 Gradient: 1 to 9.8

#1 Width: 150 yards
 Terraces: Four, #1 and #2 in shifting sand. #3 behind beach. #4 just to seaward of narrow gauge railroad.
 Terrain Inland: No vegetation. Small rocky knoll. Highest ground approximately 110'. Trench systems in depth.
 Gradient: 1 to 12.9

VERTICAL EXAGGERATION APPROXIMATELY 4x
 APPROXIMATE VERTICAL SCALE: 1 SQUARE = 10 FEET
 SAND LIMITS

BEACH STUDY - EAST BEACHES

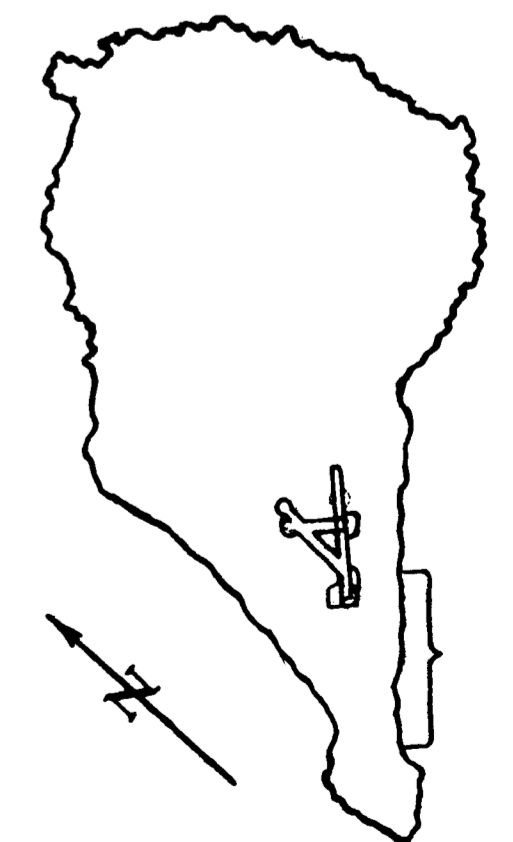
GREEN 1:
 Beach Extent: 500 yards long. Width varies from 150 yards at left flank to 80 yards at right flank.
 Exits: None for wheeled vehicles. Tracked vehicles can probably make the grade in center of the beach.

RED 1:
 Beach Extent: 500 yards long. Width varies from 80 yards on left flank to 75 yards on right flank.
 Exits: None for wheeled vehicles. Tracked vehicles can probably leave beach at any point.
 Obstacle: FUTATSU on right flank 315 yards off shore.

RED 2:
 Beach Extent: 500 yards long. Width varies from 75 yards on left flank to 60 yards on right flank.
 Exits: One unsurfaced 16'-18' road on left flank. Possible exits through drainage gullies.
 Obstacles: FUTATSU on left flank.

GENERAL OBSERVATIONS:
 Beaches composed of shifting volcanic sand.
 Steep slope to seaward from water line.
 Bottom not visible.
 Beach sand terraces vary from day to day - parts of terraces will be leveled by bombardment.
 Terraces behind the beach are more formidable. They are higher than the sand terraces and appear to be composed of crumbling volcanic rock.
 The sand should not prove an obstacle to tracked vehicles.
 Wheeled vehicles will probably need mats.
 There are few wheeled vehicle exits.
 No boat obstacles observed (exception: FUTATSU, natural obstacle of 3 rocks 315 yards offshore between RED 1 and RED 2.)
 There is a double row of possible mines just above the high water mark on all three beaches.
 Current sets to north.
 Average gradient for each cross section is figured from water line to highest point - or if there are two somewhat similar high points, to the one nearest water's edge.

NOTE: Study based on interpretation of aerial photos of 15 June, 4 July and 2 September.



TOP SECRET
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ENEMY GUN AND TRENCH SYSTEM
 Information from photo coverage of 2 Sept 1944
 SCALE 1:10,000
 500 yds

- LEGEND**
- MACHINE GUN
 - COASTAL DEFENSE GUN
 - AUTOMATIC
 - BLOCKHOUSE A A
 - COVERED ARTILLERY EMPLACEMENTS
 - DUAL PURPOSE GUN
 - UNIDENTIFIED INSTALLATIONS
 - EMPTY REVETMENT
 - EXCAVATION
 - COMMAND POST
 - SEARCHLIGHT
 - AIR RAID SHELTER
 - RIFLE PIT OR FOX HOLE
 - EARTH COVERED DUGOUT
 - TRENCH
 - PILLBOX
 - TANK OBSTACLES
 - TANK REVETMENT
 - ARTILLERY EMPLACEMENT
 - UNDERGROUND ENTRANCE OR DUGOUT
 - OBSERVATION TOWER
 - GUN EMPLACEMENTS
 - TANK OBSTACLES
 - TANK REVETMENT
 - ARTILLERY EMPLACEMENT
 - UNDERGROUND ENTRANCE OR DUGOUT
 - OBSERVATION TOWER

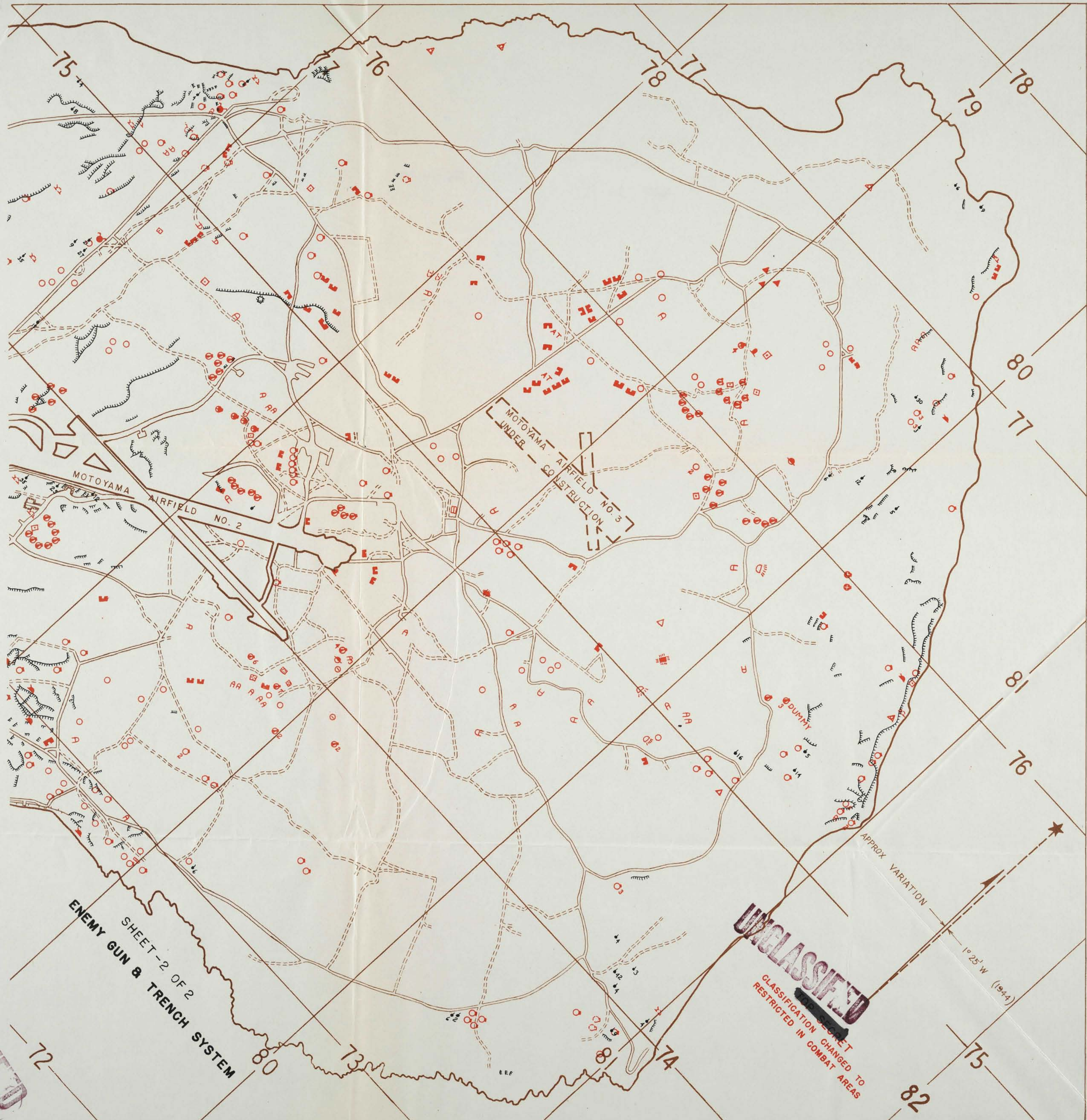
NOTE: ANY INSTALLATIONS SHOWN BY MEANS OF BROKEN LINES ARE PROBABLE ONES.
 A NUMBER BESIDE ANY SYMBOL INDICATES THE NUMBER OF THAT TYPE OF INSTALLATION IN THAT AREA.

III R 115
 SHEET: - 1 OF 2
 14 NOVEMBER 1944

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SHEET - 2 OF 2
ENEMY GUN & TRENCH SYSTEM

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