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AIR OBJECTIVE FOLDER

Horth Sumatra Area

PHILIPPINES, EAST INDIES, AND SOUTHEASTERN ASIA

INTELLIGENCE SERVICE U. S. ARMY AIR FORCES WASHINGTON, D. C.

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NOT TO BE TAKEN INTO THE AIR ON OFFENSIVE MISSIONS

Air Objective Folder No. 94.1 Philippines, East Indies, and Southeastern Asia

NORTH SUMATRA AREA

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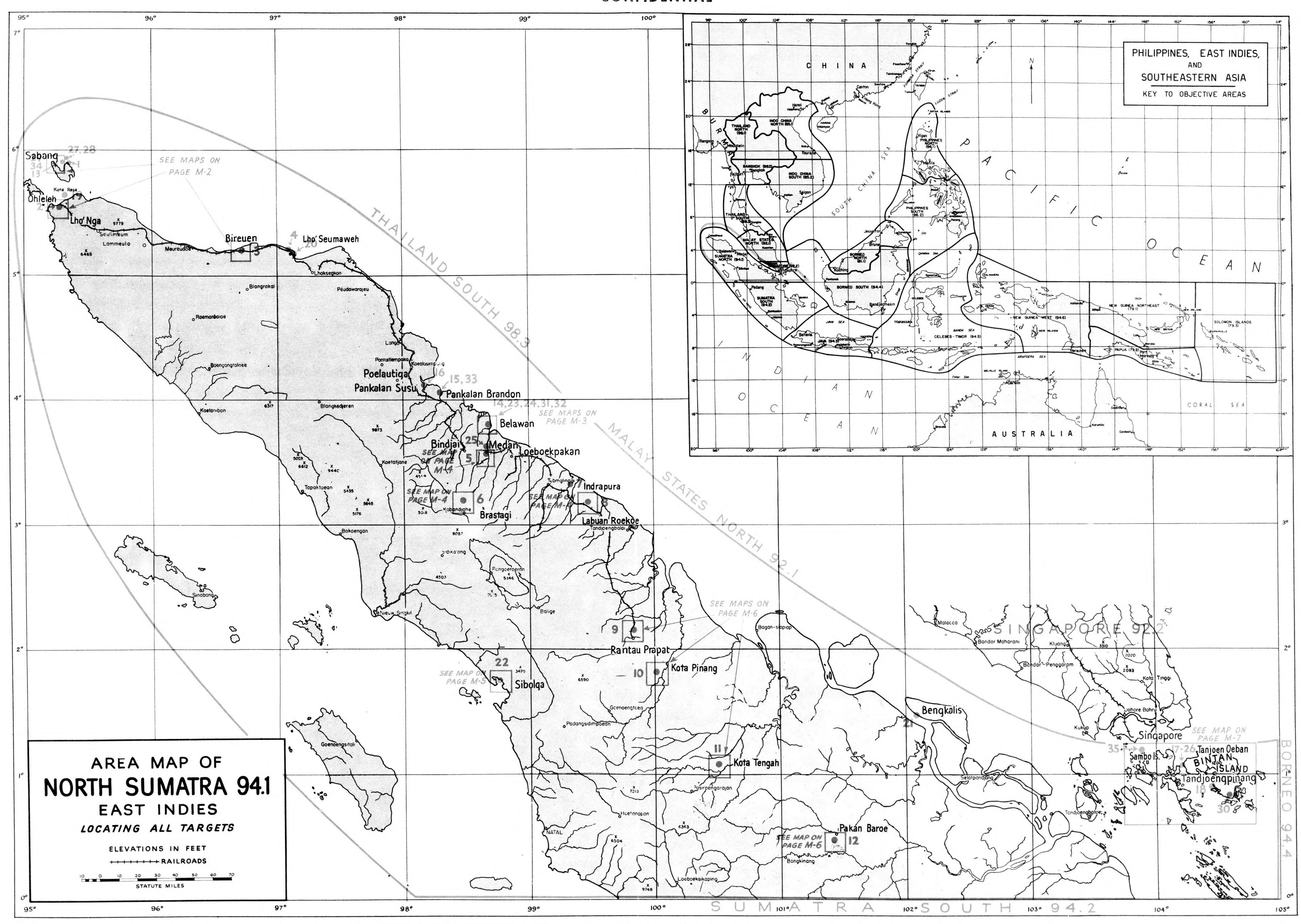
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EXPLANATION OF FOLDER

This folder is primarily for the use of group and squadron commanders and intelligence officers in the planning of operations and the briefing of crews. NEITHER THE FOLDER NOR ANY PART OF IT MAY BE TAKEN INTO THE AIR ON OFFENSIVE MISSIONS.

Targets and objective areas are numbered from one to infinity within each country. These numbers are combined into a code showing the country, objective area, and target. For example, 94.1-25 indicates Netherlands East Indies (94), North Sumatra objective area (1), and TARGET 25, Philippines, East Indies and Southeastern Asia series.

Supplementing the objective folder, target charts are provided separately for the use of air crews. Each chart is centered on a target; it spots other targets lying within a four-mile radius; and it identifies landmarks within a twelve-mile radius. The charts are numbered after their central targets.



PHOTOGRAPHS OF NORTH SUMATRA AREA 94.1

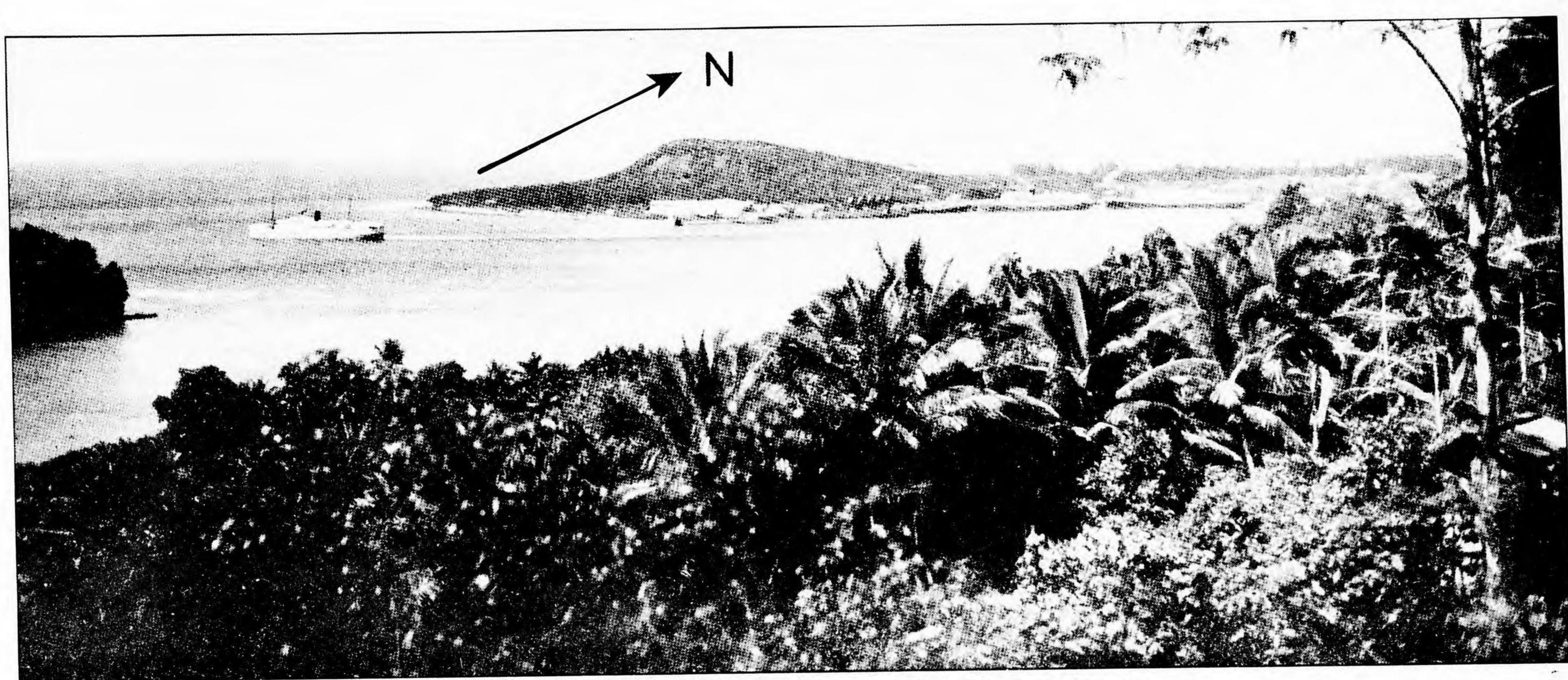


PHOTO A ... TARGET 13 - Sabang Harbor, Sumatra's most northerly point.

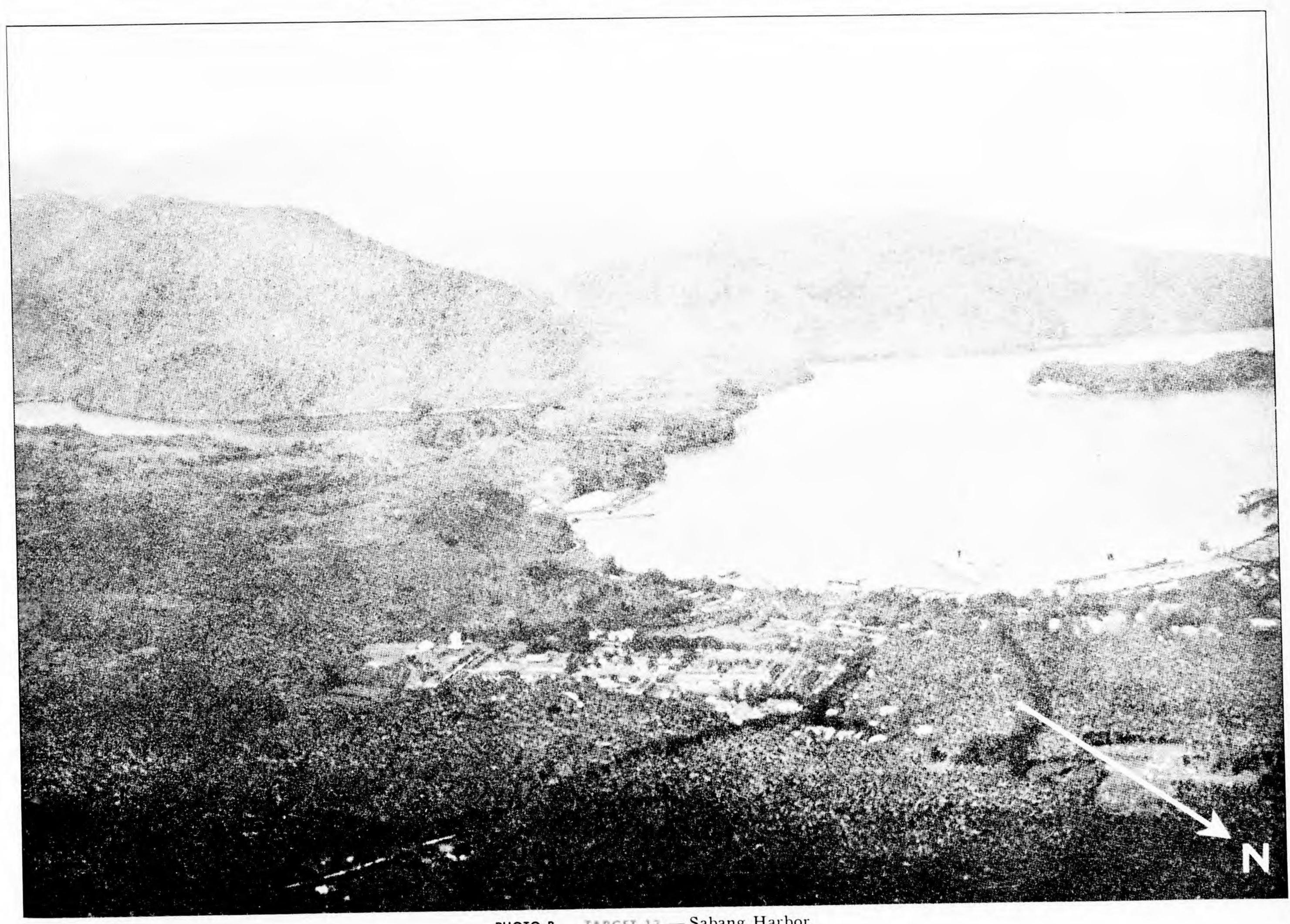


PHOTO B . . . TARGET 13 — Sabang Harbor.

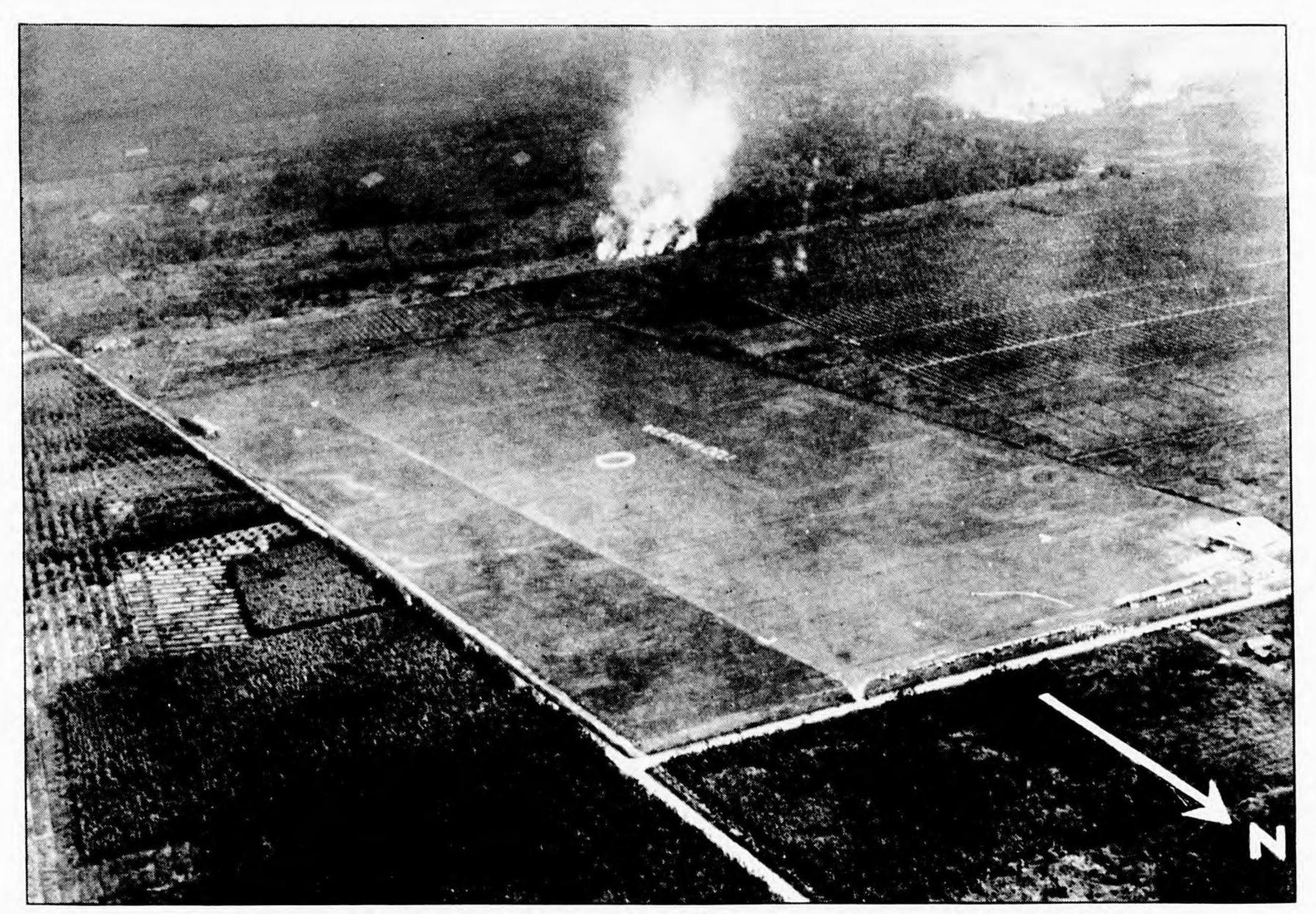


PHOTO C... TARGET 5 — Medan Airfield, 1930. (see map on page M-4.)

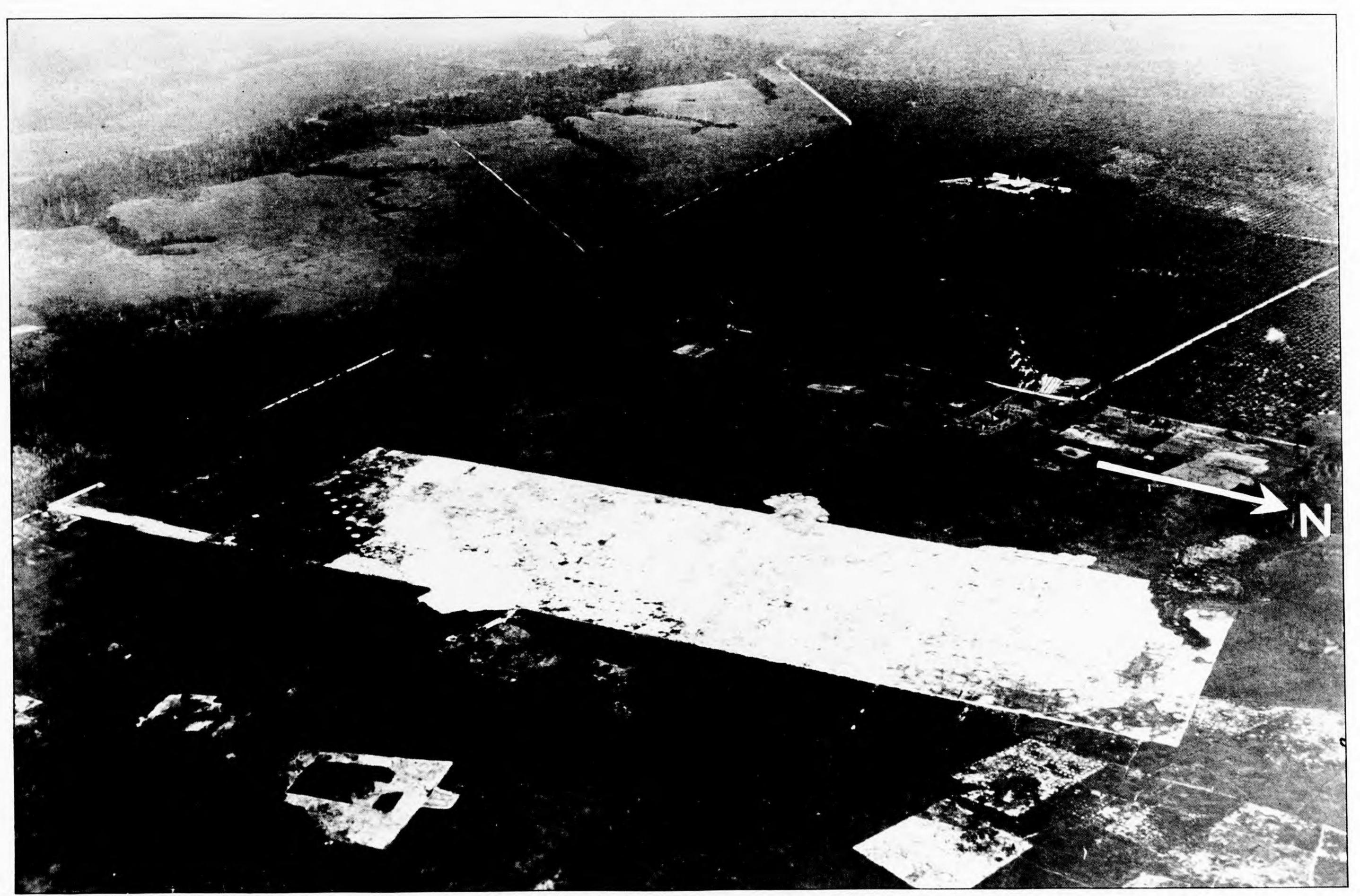


PHOTO D . . . TARGET 8 — Labuan Roekoe Airfield.

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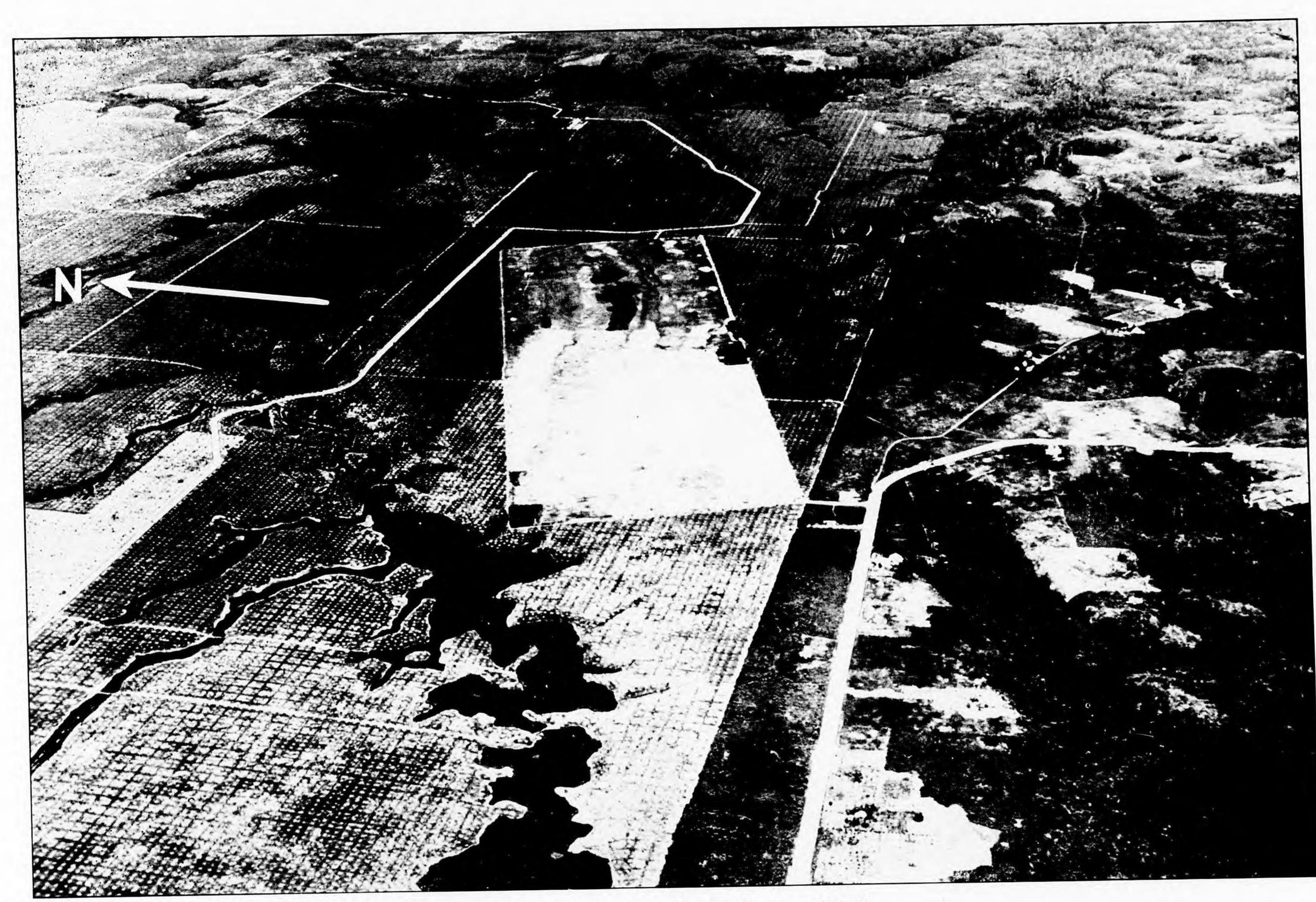


PHOTO E ... TARGET 9 — Rantau Prapat Airfield.



PHOTO F...TARGET 10 - Kota Pinang Airfield.

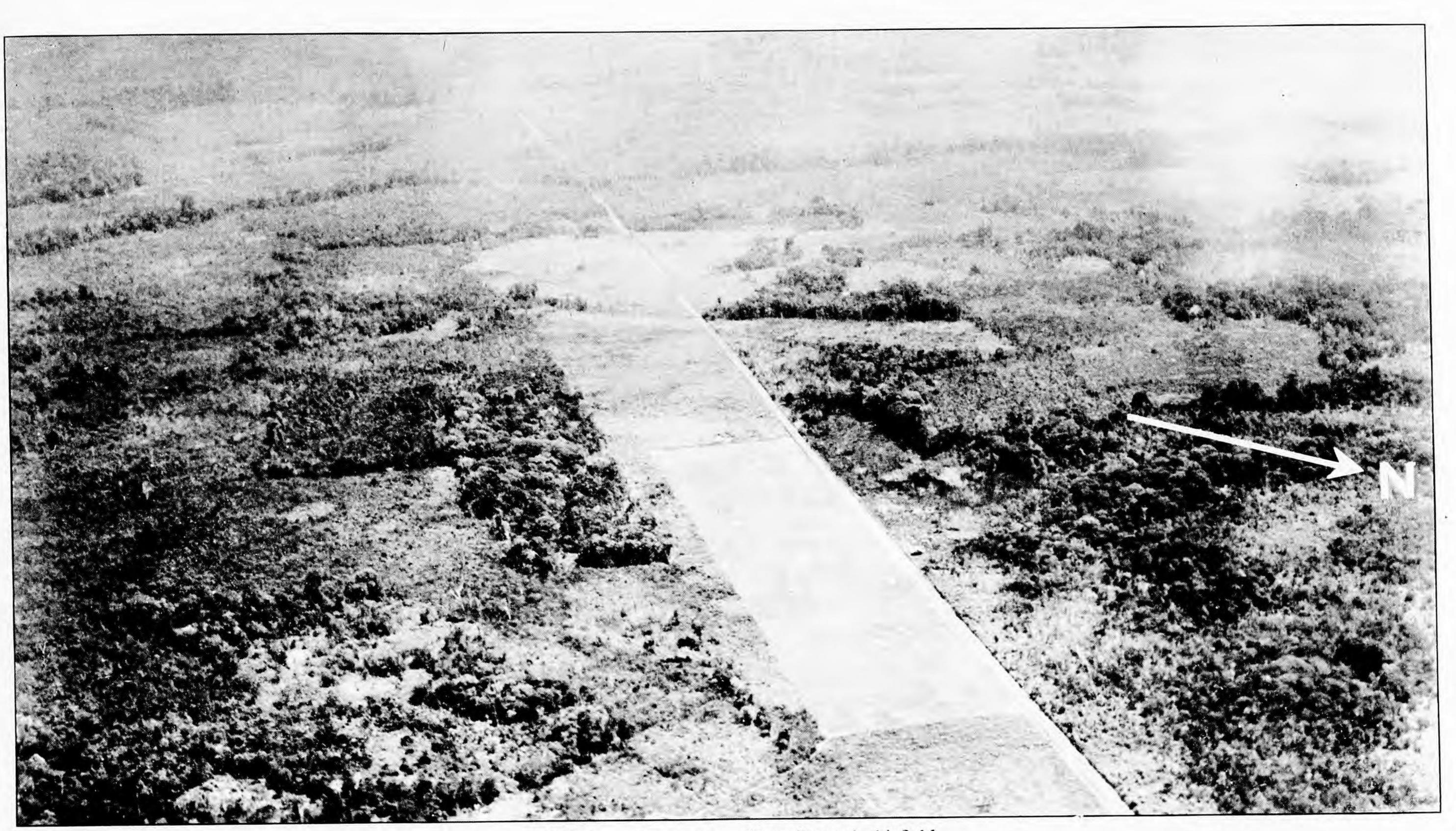


PHOTO G... TARGET 11 — Kota Tengah Airfield.

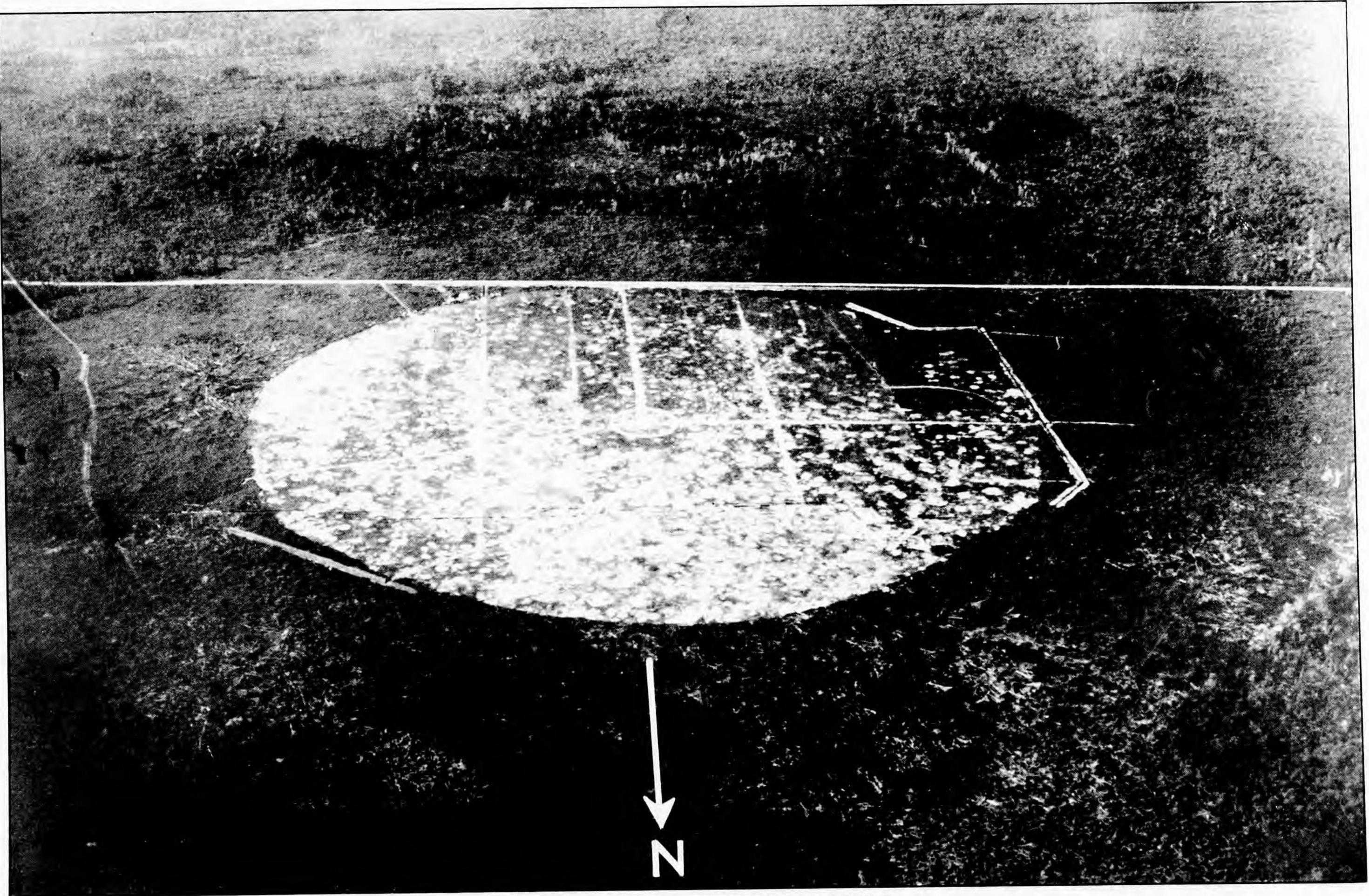


PHOTO H . . . TARGET 12 - Pakan Baroe Airfield.

SUMMARY AND EVALUATION OF AREA 94.1

NOTE: This folder is the result of an effort to obtain the best information thus far available in the U. S. A. The check of such information by photo reconnaissance has not been possible. Every effort should, therefore, be made in the field to correct by photo reconnaissance the data given herein.

OBJECTIVE AREA: The objective area consists of all the part of Sumatra lying north of the equator, and including the off-lying islands.

IMPORTANCE: This area is important chiefly for its oil fields, harbors, and agricultural products. It furthermore contains airfields useful to the Japanese. There are extensive bauxite deposits on Bintan Island.

DESCRIPTION: North Sumatra resembles the outer half of a long finger which tapers off somewhat

at its northern end. This end of the island as well as the entire western coast is distinguished by a lofty range of mountains rising as high as 12,600 feet. The western slopes of the mountains descend rapidly to the sea while the eastern slopes look over a vast alluvial plain of unusual uniformity which stretches to the eastern coast. This great plain lies only a few feet above sea level, is drained by a number of rivers, and is covered by a stupendous, primeval forest. By far the greater part of the area is a thinly populated and trackless wilderness.

DEFENSES AND VULNERABILITY: Nothing is known of the defenses and vulnerability of targets in this objective area, with the exception of the data on airfields at the time of the Dutch capitulation. These airfields will, of course, be used by the enemy who doubtless will have improved some of them and will perhaps have constructed new fields near strategic targets.

WEATHER CHART FOR MEDAN, NORTH SUMATRA AREA 3° 35' N 98° 40' E

UPPER AIR: Prevailing winds with percentage frequencies, and average velocities in miles per hour.

	1,640 ft.			9,842 ft.			16,404 ft.		
	Direc- tions	Fre- quencies	Veloc- ities	Direc- tions	Fre- quencies	Veloc- ities	Direc- tions	Fre- quencies	Veloc- ities
December January February	NW WNW	29% 20	8.5	W ENE N	11% 10 10	11.0	E S NNE	22 % 12 12	12.5
March April May	NW WNW	14% 10	6.9	W E	15% 13	10.7	E NE ESE	14% 10 10	11.4
June July August	ESE E W SE	13% 12 11 10	6.5	WNW	28% 21	14.8	W N WNW	22% 12 11	13.2
September October November	NW WNW	14% 13	6.9	WNW	21% 13	12.5	WNW N SW	18% 12 10	12.5

Number of days with:	Winter	Spring	Summer	Autumn
Precipitation	33	30	31	48
Thunderstorms	30	58	50	48
Average Precipi- tation in Inches	18.0	16.2	17.5	28.2
Average Tem- perature (°F.)	77	80	79	78
Abs. maximum	94	96	96	96
Abs. minimum	65	65	63	60
Average Cloud Cover	50%	40%	30%	50%
Average Relative Humidity	85%	82%	82%	85%

CLOUDS: During the calms which accompany the change of monsoons in spring and autumn, there is a regular diurnal migration of the belt of clouds. In early morning it lies in the low valleys where temperature inversions are found, but the mists quickly vanish before the early sun, and the morning is fine and clear. About midforenoon clouds begin to form at higher levels, and cloudiness increases until about mid-afternoon, when it begins to clear after the thunderstorms.

Cloud cover is apt to be dense, extensive, and rather continuous near and around mountain areas.

LOCAL WINDS: General winds are light and fairly steady; but there

are almost endless local peculiarities, almost every strait having its own squalls or other weather features. Malacca Strait has "Sumatras"—strong squalls with violent thunder, lightning, and rain, which blow at night from the SW during the summer SW monsoon.

Direction and force of wind depends largely upon direction and strength of relief. Velocity is greatly increased in passes through mountains lying at right angles to the prevailing winds.

PRECIPITATION AND CLOUDINESS: On the south coast precipitation may be as high as 250 inches. It falls in form of heavy downpours and the number of rainy days is not unduly high. Skies are much clearer than in western Washington and Oregon. The two preceding statements probably apply also to the northern coast.

3525 T-6 North Sumatra 11-12-42 Final Proof

TABULATION OF TARGET INFORMATION

TARGET NO.		APPROXIMATE	DESCRIPTION AND SIGNIFICANCE	TARGET CHART NO.
		AI	RFIELDS	
Perent	Sabang Airfield	5° 53′ N 95° 20′ E	Altitude: 125'. Location: 2 miles SE of Sabang. Dimensions: NE/SW 2210' x 660', NW/SE 2400' x 495'. Surface: Grass, excellent. Facilities: radio and fuel.	
2	Lho' Nga Airfield (Koetaradja)	5° 30′ N 95° 17′ E	Altitude: 17'. Location: 1½ miles NW of Lho' Nga. Dimensions: NNE/SSW 3135' x 1059', NW/SE 2805' x 825'. Surface: Excellent sandy soil. Facilities: Telephone. See map on page M-2.	2
3	Bireuen Airfield	5° 12′ N	Altitude: 17'. Location: 1½ miles E of Bireuen. Dimensions: E-W 2624' x 656' to 492'. Surface: Grass. Facilities: Concrete circle. See map on page M-2.	3
4	Lho' Seumaweh Airfield	5° 12′ N 97° 07′ E	Altitude: 7'. Location: 6 miles NW of Lho' Seumaweh. Dimensions: 2624' x 656' (No direction given.) Surface: Excellent sandy soil.	4
5	Medan Airfield	3° 34′ N 98° 40′ E	Altitude: 30'. Location: West side of Deli River, 1½ mile S of Medan. Dimensions: Three runways, 3609', 3281', 3117'. Surface: Grass, always usable. Has been bombed. Facilities: Fuel, hangars, repairs, radio. See photo C on page P-2 and map on page M-4.	5
6	Brastagi Airfield	3° 11′ N 98° 30′ E	Altitude: 4620'. Location: 114 miles SW of Brastagi. Dimensions: NNE SSW 2788' x 820', E-W 2500' x 470'. Surface: Grass, all weather. See map on page M-4.	6
7	Indrapura Airfield	3° $20'$ N. 99° $22'$ E	No information.	7
8	Labuan Roekoe Airfield	3° 11' N 99° 28' E	Altitude: 50'. Location: 7 miles W of Labuan Roekoe. Dimensions: N/S 2624'x820'. Surface: Grass, sandy soil. See photo D on page P-2 and map on page M-4.	8
9	Rantau Prapat Airfield	2° 09′ N 99° 50′ E	Altitude: 100'. Location: 1½ miles N of Rantau Prapat. Dimensions: 1980' x 660' ENE-SSW. Surface: Slopes to center. See photo E on page P-3 and map on page M-6.	9
10	Kota Pinang Airfie	ld 1° 48′ N 100° 02′ E	Altitude: 364'. Location: 834 miles SW of Kota Pinang. Dimensions: 1968'x 525'NNE-SSW. Surface: Grass, sandy soil. See photo F on page P-3 and map on page M-6.	10
Special Section 1997	Kota Tengah Airfield	1° 04′ N 100° 32′ E	Altitude: 93'. Location: 1 mile from Kota Tengah on NE bank of Batang Loeboek river. Dimensions: 2296' x 488' NE-SW. Surface: Grass, unreliable after rain. See photo G on page P-4 and map on page M-6.	
12	Pakan Baroe Airfield	0° 28' N	Altitude: 102'. Location: 6 miles S of Pakan Baroe. Dimensions: 3 runways, 3900' each, direction not given. Surface: Sandy soil. Facilities: Telephone, radio, telegraph, fuel. See photo H on page P-4 and map on page M-6.	12
			MUNICATIONS	
25	Medan Radio Stat	ion 3° 36′ N	No information available.	
26	Tanjoeng Oeban Radio Station	1° 04′ N	No information available. See map on page M-7.	17

TABULATION OF TARGET INFORMATION

TARGET NO.		PPROXIMATE OORDINATES	DESCRIPTION AND SIGNIFICANCE	TARGET CHART NO.
		Commu	inications—continued	
27	Sabang Cable Land- ing & Station	5° 54′ N	Cables lead to Kotaradja, Sumatra.	1
28	Sabang Wireless Telegraph Station	5° 54′ N	No information available.	1
		ELECTE	RIC POWER	
29	Sabang Electric Power Station	5° 53′ N	Supplies the town with light and the harbor facilities with light and power. See map on page M-2.	1
		H	ARBORS	
14	Belawan-Deli Harbor (Port Belawan)	3° 47′ N	Chief port of Sumatra. Facilities on N and W sides of Belawan Is. Wharves (2625 ft.), RR sidings. Across Belawan R, storage facilities of Standard and Shell companies. See map on page M-3.	23
13	Sabang Harbor	5° 53′ N	On We Is, 10 mi N of Sumatra. Installations, expt petroleum wharf, on N shore of bay. Floating dock, 5000 tons cap., 391 x 63 ft. 2 coaling quays, 1700 ft, ½ mi SSE of quays. Oil storage tanks, 20,000 bbls. See photos A & B on page P-1 and map on page M-2.	
15	Pankalan Brandon Harbor	4° 02′ N 98° 17′ E	On Babalan R. Former oil port. No other information available.	15
16	Pankalan Susu Harbor	4° 07′ N	On Oroe Bay, E coast of Sumatra. 3 piers for tankers. Oil storage facilities.	16
17	Tanjoeng Oeban Harbor	1° 04′ N 104° 12′ E	On W coast of Bintan Is. 2 jetties, 900 and 1225 ft. See map on page M-7.	17
18	Tanjoeng Pinang Harbor	0° 55′ N	Chief port of Bintan Is on W coast. 2 piers 900 and 3,000 ft. Shipping point for Bintan Is bauxite plant. See map on page M-7.	18
19	Olehleh Harbor	5° 34′ N	2 mi N of Kota Raja, capital of Acheh Dis- trict. 2 iron piers; 7 steam cranes; RR.	19
20	Lho' Seumaweh Harbor	5° 11' N 97° 08' E	Minor harbor on N coast of Sumatra.	4
2 1	Bengkalis Harbor	1° 28' N 102° 06' E	Minor harbor on Bengkalis Is in Malacca Strait. 2 wooden piers.	21
22	Sibolga Harbor (Tapanuli Bay)	1° 44′ N	Major harbor on W coast of N Sumatra. Formerly exported rubber, coffee, etc. No other information available. See map on page M-5.	22
		NON-FE	RROUS METALS	
30	Bintan Island Bauxite Plant	0° 50′ N	On SE corner of Bintan Is. Capacity: 230,- 000 metric tons bauxite per year (1938). Bldgs of light metal and wood. See map on page M-7.	30
		P	ETROLEUM	
3 3	Pankalan Brandon Oil Center	4° 02′ N	Center for N Sumatra crude. Facilities destroyed. Japanese may have set up simple refining equipment and storage facilities.	1 5
3 5	Sambo Is Oil tank Farm	1° 09′ N	Large petroleum storage tank farm. See map on page M-7.	35

TABULATION OF TARGET INFORMATION

TARGET NO.		PPROXIMATE COORDINATES	DESCRIPTION AND SIGNIFICANCE	TARGET CHART NO.
		Petroleum	continued	
32	Shell Oil Storage Tanks	3° 47′ N 98° 40′ E	At Belawan Harbor. Limited storage facilities; located on west bank of Belawan River, due west of railroad yards and station. See map on page M-3.	23
3 1	Standard Oil Storage Tanks	3° 47′ N 98° 40′ E	At Belawan Harbor. Storage facilities small; on north bank of Belawan River directly across from the small boat harbor. See map on page M-3.	23
34	Sabang Harbor Oil Storage	5° 23' N 95° 19' E	On the E side of the harbor directly E of the petroleum wharf. Capacity 20,000 bbls. See map on page M-2.	1
		RAILRO	ADS	
23	Belawan Station and Yards	3° 47′ N	RR terminus of the port of Belawan, in the middle of the W side of Belawan Is. See map on page M-3.	23
24a	Belawan RR Bridges	3° 46′ N 98° 41′ E	These three bridges carry the RR across the Deli R to Belawan Is. See map on page	23
24b		3° 45′ N 98° 41′ E	M-3.	
24c		3° 46′ N 98° 41′ E		

. . . concluded

LIST OF TARGET CHARTS AVAILABLE FOR NORTH SUMATRA AREA

Charts are numbered according to the target on which they are centered.

Chart Number	Targets Appearing on Chart						
1	, 13, 27, 28, 29, 34.	7 7		15 1	5,33.	22 2	22.
2 2	2.	8 8		16	6.	23	14, 23, 24a, 24b,
3	3.	9 9		17 1	7, 26.	2	24c, 31, 32.
4	1, 20.	10	0.	181	8.	30	30.
5 5	5, 25.	11	1.	19	9.	35	35.
6	5	12	2.	21 2	21.		

REVIEW OF TARGETS

The targets in this objective area are listed here in the order of their importance, together with the reasons for the priority established by this listing.

1. TARGET 33 — The Pankalan Brandon oil center is the most important target in this objective area because Japan needs petroleum far more than anything else Sumatra has to offer. The North Sumatran crude will yield, after a simple topping process, both aviation gasoline and fuel oil. The two towns, Pankalan Brandon and Pankalan Susu, were the focal points of the North Sumatran oil fields, which yielded 15,000 to 16,000 barrels a day (about 10% of all the NEI and North Borneo) and could be made to yield much more. The Shell Oil Co. had a refinery at Pankalan Brandon with a daily refining capacity of 23,000 barrels. The refined products were generally sent to Pankalan Susu for storage and subsequent loading into tankers.

Although the oil wells and the refinery were destroyed, the Japanese are undoubtedly now working the fields, and have probably constructed a simple topping plant somewhere in the vicinity of Pankalan Brandon or Pankalan Susu. As the latter town is the most convenient harbor in the vicinity, the Japanese probably ship oil from this point and have probably constructed storage tanks here as well. While it is impossible to say with certainty what the Japanese have done, objectives which are very likely to be found in this vicinity are:

- a. One or more topping plants at the town of Pankalan Brandon.
- b. Storage tanks at Pankalan Brandon and Pankalan Susu.
 - c. Small tanker vessels at Pankalan Susu.
- 2. TARGETS 5, 6, 7, 8, 4 and 3 The airfields at Medan, Brastagi, Indrapura, Labuan Roekoe, Lho' Seumaweh and Bireuen. These airfields are important because on them will be based fighter plane defense of the Pankalan Brandon oil center.
- 3. TARGET 30 Bintan Island Bauxite Plant. This plant washes, screens and dries bauxite ore and supplies about 230,000 metric tons of bauxite yearly, an amount sufficient to yield from 38,000 to 46,000 tons of aluminum depending upon the quality of the ore. Japan's normal peace-time requirements for aluminum are estimated at 38,000 tons. A number of large Japanese aluminum companies obtained their bauxite from this plant. Its

destruction would force the Japanese to ship the ore unprocessed, containing impurities and much extraneous matter, thus utilizing more cargo space than the clean ore requires. In any event, Japan's need for bauxite is far less pressing than her need for oil and this target is thus less important than Pankalan Brandon and the airfields defending it.

Harbors in this objective area are given a lower priority than the oil and bauxite, because these harbors are small and judged by those of the United States, England and Japan are rather undeveloped. In fact, ships often anchor in the roadstead outside the harbor itself, and cargo is transferred by means of lighters.

- 4. TARGET 14 Belawan-Deli Harbor. This was Sumatra's chief port. While its facilities were probably destroyed by the Dutch, the harbor possesses natural advantages which will probably cause the Japanese to reconstruct it. Exports consist of rubber, tobacco, coffee, palm oil, fibers, tea, petroleum, pepper, and rice. Destruction of the harbor facilities would impede, though not prevent, Japanese export of these commodities. Japanese shipping is likely to be found in this harbor.
- 5. TARGET 13 Sabang Harbor. This harbor was in pre-war days principally a fueling station for vessels running between Malay, the Indies and The Philippines and India, Africa and Europe. It is a good base for Japanese operations against India, being only 1,000 miles from Ceylon and 1,200 miles from Madras. In peace-time, Sabang was the second most important harbor of this objective area.
- 6. TARGET 16 Pankalan Susu Harbor. From this harbor the Japanese will probably ship North Sumatran crude oil and petroleum, for which purpose they will likely use small tankers.
- 7. TARGET 22 Sibolga Harbor. In this objective area the best harbor on the west coast, and one from which large quantities of rubber, camphor, coffee, rattan and copra were exported.
- 8. TARGETS 1, 2, 9, 10, 11 and 12 Airfields: Sabang, Lho' Nga, Rantau Prapat, Kota Pinang, Kota Tengah, Pakan Baroe.

No priority can be assigned to the remaining targets.

