

b. Floating crane:

One (1) - 60 ton

c. Forklift: Four

Four (4) - 3,500 LB.

16. SHIPYARDS - DRYDOCKS

a. None

17. OFFICIALS AVAILABLE

YES NO

a. US Consul

X

b. US Army

X

c. US Navy

X

d. Quarantine Officials

X

e. Immigration Officials

X

f. ABS Officials

X

18. 1ST BEACHING AREAS

a. Lat. $13^{\circ}46'08''$ N Long. $109^{\circ}14'13''$ E

b. Beach

c. Bits available

d. Accommodate 3 in good weather - 2 otherwise

e. No dry ramp landing available

f. (1) small tug is available

g. No special hazards or limitations

19. GENERAL INFORMATION

- a. This is a first port of entry.
- b. Ships carrying ammunition may enter port.
- c. Ammunition discharge berth: LST berth and POL berth.
- d. Ships may enter this port either day or night.
- e. Largest ship accommodated: TI-M-BT2.

9 APR 1965

HONG KONG

Lat. 22-18N Long. 114-11E

1. GENERAL DESCRIPTION

Hong Kong is a British Crown Colony on the South China Coast at the east side of the Canton River (Chu Kong) Estuary. To the north the island after which it is named is separated from the mainland by a strait which comprises the harbor. Hong Kong Harbor has a length of about 6 miles in an east-west direction and a width of about 1 mile.

Hong Kong Island and the Kowloon peninsula were ceded to Great Britain by China in 1842. Victoria, the capital of the Colony, lies on the north coast of the island and on the mainland to the north lies the twin city of Kowloon. Neighboring islands and an area of mainland beyond Kowloon known as the New Territories (365.7 sq. miles) comprise the rest of the colony and a population of over 3,000,000.

Hong Kong is in a competitive situation with Macau, a Portuguese settlement about 40 miles to the northwest.

2. REFERENCE CHART

- a. H.O. 1254, 2220, 2221
- b. Admiralty Chart 1466

3. PILOTS

- a. Pilots are available day and night but are not compulsory.
- b. Pilot pick-up points:
Eastern entrance: About 3/4 mile seaward of Lei Wue Mun,
22-16.8N; 114-14.9E
Western entrance: About 3/4 mile seaward of Sulphur Channel,
22-16.5N; 114-06.0E

4. TUGS AND LIGHTERS

- a. Tugs: 7 diesel tugs ranging from 320 BHP to 133 BHP. One 1,500 IHP ocean going tug. 7 steam tugs ranging from 1,300 IHP to 200 IHP. One 1,500 IHP ocean going salvage ship. Several auxiliary towing launches.
- b. Lighters: General Cargo - sixty-three 50 to 280 ton capacity steel barges, fifty-five 50 to 280 ton capacity wooden barges.
Dangerous cargo - nineteen 100 ton capacity steel barges, twenty-nine 50 to 280 ton capacity steel barges.

5. COMMUNICATIONS

- a. Radio call sign "VICTOR PAPA SIERRA" 500 KCS
- b. Voice call sign - none
- c. Time guarded - 24 hours

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d. Wanglan lighthouse and signal station is fitted with a radio telephone which enables information on all vessels sighted in the eastern approaches to be passed to the marine department and to ship's agents. There are three other signal stations within the harbor also manned on a 24-hour basis.

6. NAVIGATION

- a. Channel depth (LLW): Eastern channel (Lei Yue Mun) 36'
Western channel (Sulphur Channel) 28'
- b. Channel width: Eastern channel, 1200'
Western channel, 1200'
- c. Harbor depth: 36' (minimum)
- d. Tidal range: Springs 8' (maximum); Neaps 2'6" (max.)
- e. Comments:
 - (1) There are no unmarked harbor hazards.
 - (2) Navigational aids are good.

7. ANCHORAGE CAPACITY

- a. The anchorage areas and their limits are indicated on the reference charts.

8. QUARANTINE ANCHORAGE

- a. Anchorages are available close to both entrances.
East entrance: Lat. 22-18N; Long. 114-12E
West entrance: Lat. 22-19N; Long. 114-08E
- b. The port health officer will board vessels at these anchorages between the hours of 0600 and 2400. Radio free pratique may be obtained by vessels arriving from non-infected ports.
- c. The immigration officer will board vessels between the hours of 0600 and 2400.

9. AMMUNITION ANCHORAGE

- a. An ammunition anchorage is located at each entrance.
Eastern entrance: East side of Kowloon Bay, 22-18N; 114-13.5E
Western entrance: Just south of quarantine anchorage.

10. MOORING BUOYS

- a. The Government Marine Department maintains 52 mooring buoys for hire, 29 being suitable for vessels up to 600 feet in length and 23 for vessels up to 450 feet in length. 25 of the former and 8 of the latter are approved for use during typhoons.
- b. Type: Cement - clump anchored.
- c. Water depth: 22 feet to 36 feet.
- d. Location: Arranged in line in the inner harbor.
- e. 48 hour advance booking is required for hire of mooring buoy.

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11. BUNKERING FACILITIES

- a. Fuel oil for commercial bunkering is supplied by three major oil companies who also provide berthing facilities. Delivery can be made by port oiler to any berth in the harbor.
- b. Delivery rate is 600 tons/hr at wharf and 350 tons/hr by lighter.
- c. Alongside bunkers from the pier may be obtained at the berths listed under 14 (POL FACILITIES).

12. POTABLE WATER

- a. Potable water drawn from Government reservoirs is available from two water boat companies at \$2.55 per ton.

13. PIERS

<u>Company</u>	<u>Site</u>	<u>Berths</u>	<u>Berth</u>	
Hongkong & Kowloon Wharf & Godown Co. Ltd.	Kowloon	(10)	750'	32'
	West Point	(2)	350'	Vessel's gear must be used for loading & discharging. Rail trolleys are used from ship's side to godown. Appliance for wharf use only include: 9x15 ton portal cranes 5x15 ton track cranes 4x10 ton mobile cranes 9x1½ ton wall cranes 6x2 ton cargo lifts Numerous small mobile cranes & forklifts of 1 to 3 tons, pallet carriers etc.
Holts Wharf	Kowloon	(2)	600'	30' Vessel's gear must be used for loading & discharging. Appliances for use on wharf & in godowns include: 1x5, 1x3 & 2x2 ton traveling cranes (steam) Numerous fork-lift trucks mobile cranes, pallet carriers, etc.
North Point	North Point	(2)	750'	32' 1x20 ton mobile crane for working ships.
			500'	32' Equipment for wharf use only include: 4x5 ton mobile cranes 6x2 ton fork lifts 6x1 ton fork-lifts
China Merchants	West Point	(2)	320'	18' Vessels' gear must be used for loading & discharging.

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14. POL FACILITIES

Company	Site	Berth			Connector
		Length	Depth	Tons/hr	
Shell Co.	Kun Tong	575'	33'	170-350	8"
Shell Co.	Tai Kok Tsui	360'	21'	20-30	6"
Caltex(Asia)	Tsun Wan	550'	31'	1500-5000 bbls/hr	6-8"
Standard Vacuum	Lai Chi Kok	520'(2)	26'	300	8"
		207'(2)	27'	300	8"

15. HANDLING EQUIPMENT

Hongkong & Whampoa Dock Co. Ltd.	Type	No.	Clearance		
			Work	Load	Radius
	Elec. Cantilever	One	100	tons @ 70'	35'
	Elec. Cantry	four	40	" 30'	
	Elec. Jib	two	10	" 57'	56'
	Elec. Cantilever	one	10	" 28'	47'
	Elec. Jib	three	7	" 68'	100'
	Steam mobile	nine	5	" 16'	
	Diesel	four	2	" "	
Taikoo Dock & Eng. Co. Ltd.	Elec. Titan	one	150	tons @ 85'	149'
	Elec. Cantry	one	30	tons @ 60'	77'
	"	one	25	" 77'	77'
	"	one	10	" 60'	95'
	"	one	15	" 54'	63'
	Monotower	five	20	" 60'	At building berth

16. SHIPYARDS AND DRYDOCKS

- a. The major marine engineering establishments provide comprehensive and modern facilities for shipbuilding, ship repairing and drydocking.
- b. Drydocks.

Company	Taikoo Dockyard			HongKong & Whampoa	
Site	Quarry Bay	Hung Hom #1	#2	#3	Cosmopolitan Dk.
Length	787'		682'5"	427'	265'
Width	93'4"		93'10"	73'	48'9"
Depth on sil	34'6"		30'6"	18'6	14'
					20'0"

c. Slipways.

Company	Taikoo Dockyard		Hongkong & Whampoa	
Site	Quarry Bay	Same	Same	Cosmopolitan Dock
Capacity (L)	340'	430'	310'	240' 75'
"(displ. ton)	3000	4000	2000	1200 60
Draft (fore)	14'9"	14'8"	15'6	4'6 -
(aft)	25'9"	28'3"	25'4	11'6 -

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17. OFFICIALS

	YES	NO
a. U.S. Consul	X	
b. U.S. Army	X	
c. U.S. Navy(station ship)	X	
d. U.S. Air Force		X
e. Quarantine Officials	X	
f. Immigration Officials	X	
g. A.B.S. Officials	X	

18. LST BEACHING AREA

None

19. GENERAL INFORMATION

- a. Ships carrying ammunition are not allowed to enter port, but a dangerous goods anchorage is provided for them at each entrance.
- b. This is a "First Port of Entry". Ships may enter day or night.
- c. There are rails and highways leading from the port to mainland China.
- d. One of the world's largest fireboats, the Alexander Grantham, is posted at Hong Kong. This vessel is comprehensively equipped and is capable of operating at considerable distances from port.
- e. The only holiday during which work in the port may cease is during the three days of Chinese New Year, a movable date in January or February.
- f. Cable & Wireless Ltd. is available to install V.H.F. Radio-telephone on ships at buoys in the harbor at a charge of approximately \$35/day.

9 APR 1960

SINGAPORE

Lat. 1-16N Long. 103-51E

1. GENERAL DESCRIPTION

Formerly a British Colony, Singapore is now a part of the Federation of Malaya. It is located on an island at the southern tip of the Malay peninsula. The island is 26 miles in length and 14 miles wide and is typical undulating tropical country. A causeway consisting of a road and railway connects the island of Singapore with the Malay peninsula across the strait of Johore.

The climate is hot and humid with average maximum and minimum temp. of 78° and 74° respectively. The days are generally oppressive, but breezes during the nights are pleasant. The average rainfall is 95 inches with no marked seasonal changes.

Singapore was formerly prosperous as a bunker port for the steamers plying Europe and Far East and a relay port for Dutch East Indies and she still at present occupies the position of bunker port as there are several petroleum field in the vicinity.

2. REFERENCE CHARTS

- a. Approaches - H.O. 1205, 3749, 3750
- b. Harbor - 1428, 2670

3. PILOTS

- a. Pilots are available but not compulsory.
- b. Pilot pick-up point: off Peak Island for vessels from main channel and westward, off Cyrene Reef for those vessels approaching from Selat Sinki.

4. TUGS AND LIGHTERS

- a. Eight tugs are available from the port authority of Singapore HP unknown
- b. Shell Oil Co. Ltd. of Singapore has two - 1350 HP used to berth oil tankers at Pulau Bukom.
- c. Salvage tug - S.T. Griper operated by the port authority range 5,000 mi. and HP 1750.
- d. Lighters - number and capacity are unknown.

5. COMMUNICATIONS

- a. USNS Ships may contact the Royal Navy Radio Station: CW call sign "GOLF YANKEE LIMA" on 3545 KC
- b. Times guarded - continuously

6. NAVIGATION

- a. See H.O. Pub. 70 and reference charts.
- b. Tidal range 8.2 ft Springs 9.2 ft.

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7. ANCHORAGE CAPACITY - Unknown8. QUARANTINE ANCHORAGE

Reference chart 2670
Lat. 1-14-45N; Long. 103-52E

9. AMMUNITION ANCHORAGE

Reference chart 2670
Quarantine anchorage Lat. 1-14-45N; Long. 103-52-20E
Harbor Lat. 1-17N; Long. 103-53-30E

10. MOORING BUOYS - Unknown11. BUNKERING FACILITIES

Available at pier and by barge.

12. POTABLE WATER

Available at pier and by barge.

13. PIERS

Name or Number	1-5	6A-16	18
Length	1,225 ft	3,125 ft.	600 ft.
Width	-	-	-
Depth	33 ft.	33 ft.	28 ft.
Ht. of deck above MLW	-	-	-
Lights on pier	Yes	Yes	Yes
Potable water	Yes	Yes	Yes
Rails	Yes	Yes	Yes
Bunkers	Yes	Yes	Yes
Name or Number	19	21-22	23-30
Length	500 ft	350 ft	2,050 ft.
Width	-	-	-
Depth	27 ft.	27 ft.	27 ft.
Ht. of deck above MLW	-	-	-
Lights on pier	Yes	Yes	Yes
Rails	Yes	Yes	Yes
Potable water	Yes	Yes	Yes
Bunkers	Yes	Yes	Yes
Name or Number	31-39	40-43	44-46
Length	2,075 ft	1,100 ft	870 ft
Width	-	-	-
Depth	33 ft	33 ft	34 ft
Ht. of deck above MLW	-	-	-
Lights	Yes	Yes	Yes
Rails	Yes	Yes	Yes
Potable water	Yes	Yes	Yes
Bunkers	Yes	Yes	Yes

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14. POL FACILITIES

a. Commercial

Name of Company	Name or No.	Berthing method	Depth
Shell Co. Ltd. of Singapore	Pulau Bukom No. 1-3	Alongside	33 ft
Caltex Ltd.	Tanjong Penuru No. 1 and 2	Alongside resting beam with dolphins	45 ft.
Maruzen Toyo Ltd.	Pulan Sebarok Pasir Panjang	" Mooring buoys	33 ft. 35 ft.

b. A sludge and tank cleaning vessels are available.

15. HANDLING EQUIPMENT

- a. Mobile cranes, 33 from 2-8 K Ton
- b. Electric lifting platforms - 56
- c. Forklifts - 196
- d. Floating cranes - 80 ton radius 78 ft.

16. SHIPIARDS AND DRYDOCKS

- a. Drydocks - all run by port authority

Name and location		Max. dimensions of vessel
Kings Dock	Keppel Harbor	885x92.5x33 draft
Queen's Dock	"	620x84x25 "
No. 1 Dock	"	400x44x14.5 "
No. 2 Dock	"	450x49x16.5 "
Victoria Dock	Tanjong Pagal	480x55x19 "
Albert Dock	"	490x54.5x20 "

All drydock are served with travelling portal cranes up to 30 ton capacity.

- b. There are 3,000 ft of repair berths.
- c. Also available are repair facilities at her Majesties Dockyard where a drydock 1047 feet long 130 feet wide and 44 feet deep is located. In addition 4 floating drydocks are available, capable of taking ships up to the size of a heavy cruiser.

17. OFFICIALS

	YES	NO
a. U.S. Consul	X	
b. U.S. Army	X	
c. U.S. Navy	X	

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17. OFFICIALS (Cont'd)

	YES	NO
d. Quarantine	X	
e. Immigration	X	
f. A.B.S. Officials	X	

18. LST BEACHING AREAS

Unknown

19. GENERAL INFORMATION

a. This is a 24 hour port.

9 APR 1965

BANGKOK, THAILAND

Lat. 13-42N; Long. 100-35E

1. GENERAL DESCRIPTION

Bangkok, the capital of Thailand, is a modern city. Don Muang Airfield, Bangkok, is one of the largest and most modern in South-east Asia, served by leading international airlines. The Port of Bangkok, about 25 miles inland from the sea on the Menam Chao Phraya, was opened to ocean-going vessels in 1954 after modernization.

Bangkok is a city of temples, of which there are more than 300. Buddhism is the state religion. Some of the best known sights are the Wat Pra Keo or Temple of the Emerald Buddha and the Tower of Nine Planets, Pantheon of Kings and the Golden Chedi. This temple was built during the 18th century by the first king of the present dynasty who also founded Bangkok. The Wat Po is the city's largest, featuring a Sleeping or Reclining Buddha, 150 feet long.

2. REFERENCE CHART

- a. RTN Hydrographic Department Charts No. 12 and No. 38; or
H.S.N. H.O. Charts No. 3782 and No. 3783

3. PILOTS

Pilots are obtainable day and night, and are compulsory. Bangkok Bar Pilot Vessel is located at present in Lat. 13-23-32N, Long. 100-35-12E, about 1 mile south of the Bar Channel Entrance. Ships should approach to within $\frac{1}{4}$ to $\frac{1}{2}$ mile. Pilot vessel shows flashing white light every 2 seconds, visible 10 miles. Pilot vessel is 90' long, concrete hull, painted black with the super-structure painted white.

4. TUGS AND LIGHTERS

- a. Four tugs are available at Port of Bangkok with horse power of 250, 550, 1060, 1100. Although there is ample room to maneuver in the channel, tugs are normally used by ocean going vessels to assist in berthing, leaving the wharf and turning in mid-stream.

- b. There are 22 lighters of 130-600 ton capacity and 45 lighters of 140-150 ton capacity.

- c. Port authority Klong Toey controls the use of the tugs and lighters.

5. COMMUNICATIONS

- a. Port authority of Thailand
 - (1) Radio call sign - "HOTEL SIERRA CHARLIE 6 INDIA" 500 KC 8332 KC (AR) ^{101.65} will transmit on 8730 KCS
 - (2) Voice call sign - none.

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5. COMMUNICATIONS (Cont'd)

(3) Times guarded - 0700-0730, 1000-1030, 1300-1330,
1600-1630, 2000-2030 local time

b. JUSMAG, Thailand

(1) Radio (CW) call sign: "HOTEL ALFA", KCS 7700

(2) Voice call sign: "HOTEL ALFA", KCS 7700

(3) Times guarded: Radio (CW) and voice is guarded 24 hours daily. Voice is guarded 0030Z and 0930Z Monday through Friday only.

The COMMUNICATIONS referred to above is the JUSMAG, Thailand Signal Net, and the building housing this installation is located at JUSMAG, Thailand Headquarters on Sathorn Road, Bangkok.

6. NAVIGATION

a. Channel depth - Bangkok Bar - 20.7' LLW
Chao Phraya River - 19' LLW

b. Channel width - 328' minimum

c. Harbor depth - 28' LLW

d. Tidal range at Bar - Springs 6.48' Neaps 4.38'
at Port - Springs 9.0' Neaps 5.0'

e. Navigational Comments:

(1) The Bangkok Bar and Mae Nam Chao Phraya River is subject to constant silting and therefore, charted depth and aids to navigation are changed as silting and dredging occur.

(2) The following references are required to compute the limiting draft of a vessel to cross the bar and enter the Bangkok Harbor.

(a) Tide tables, Volume Two, MAE NAN CHAO PHRAYA, Hydrographic Dept, Royal Thai Navy for depth of water over the bar and in the harbor by the hour for each day of the year.

(b) Tables of BAR ADDERS for ships of various lengths between perpendiculars, Bangkok Pilot Association. (June 64 latest publication is shown in part below)

<u>LBP</u>	<u>BAR ADDER IN DECIMETERS</u>
0-420'	50
420' - 445'	48
445' - 470'	46
470' - 500'	44
500' - 520'	42

(3) The limiting draft for a vessel is computed as follows:
All drafts must be fresh water drafts.

(a) Ship LBP = Bar Adder in decimeters

(b) Plus height of water above LLW for hour and date of crossing (Tide Tables)

(c) Equals limiting draft for vessel at that hour on the date used.

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Example: SHIP LBP = 440'
LBP = 48 decimeters (table of bar adders)
271500JUL64 = 5 decimeters
53 decimeters = 17'5"

17'5" is the maximum this ship may draw to cross the Bangkok bar at 1500 on 27 July 1964 (This is not high tide for this date)

(4) The above computation is used by the Pilot Association in determining whether or not they permit a ship to cross the bar. Note that the longer a ship is the more water is required over the bar to permit entrance. This is due to the turn required during passage.

NOTE: The use of Bar Adders has been subject to criticism as not accurately reflecting the limiting draft of a vessel to cross the bar and enter the Bangkok harbor. The contention being the Bar Adders should be based only on draft of a vessel and not on length. Thus allowing larger ships into the harbor.

(5) The limiting length of vessels allowed over the bar is 565'.
(6) The normal speed of transiting the channel is 10 knots taking $2\frac{1}{2}$ hours from pilot vessel to port.

7. ANCHORAGE CAPACITY

8 large ships in new port area. Ship use two (2) anchors when in the stream.

8. QUARANTINE ANCHORAGE

Lat. 13-35-35N Long. 100-35-50E

9. AMMUNITION ANCHORAGE

Lat. 13-42N Long. 100-34E

10. MOORING BUOYS

8 buoys affording 4 berths opposite the Bangkok Harbor Pier.

11. BUNKERING FACILITIES

a. Bunkers: Delivered alongside by railway on wharf or by lighters. Ships taking bunkers in Thailand must obtain an export license and pay about 10% duty. This, coupled with the 10-15% higher prices due to the necessity for uneconomical operation of small tankers, makes bunkering cost prohibitive. Ships only bunker here in case of emergency and none of the oil companies are organized for extensive bunkering. Considerable advance notice must be given to arrange for bunkering unless it is possible to come alongside the oil company wharves.

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12. POTABLE WATER

None. Water is available by water barge (100 tons max.) and pipelines at wharves provide 15-20 tons max. per hour (approximately 75 cents per ton). However, water should be boiled or otherwise treated prior to use.

13. PIERS

Name	Klong Toey Wharf
Length	5,248 or (9) 500' berths
Apron width	53' (no restrictions)
Alongside depth	37' (silting in some areas)
Height of deck above MLW	22.1'
Lights	Yes
Rails	Yes
Water	Yes (not potable)
Bunkers	Yes (10 days notice)

14. POL FACILITIES

a. The three major oil companies in Thailand each have POL Piers.

<u>COMPANY</u>	<u>BERTH LENGTH</u>	<u>WATER DEPTH</u>	<u>SHIP LENGTH RESTRICTION</u>	<u>TYPE PRODUCT RECEIVED</u>	<u>NO. OF TANKS & TOTAL CAP.</u>
SHELL	328'	16' LLW	485'	AvGas; MoGas; Diesel and Fuel Oil	21 Tanks 57,896 bbls.
STANVAC	328'	16' LLW	450'	AvGas; MoGas; Diesel and Fuel Oil	20 Tanks 295,184 bbls
CALTEX	79'	10' LLW	450'	MoGas; Diesel Oil	5 Tanks 172,000 bbls.

b. The Companies have lighters as follows:

SHELL: Dumb lighters of 192 EWT; max. discharge 25-30 tons per hour; Dumb lighter of 97 EWT; max. discharge 15 tons per hour.

STANVAC: Dumb barge of 500 tons, max. discharge 50 tons per hour. This barge usually utilized for industrial contract deliveries but in emergency could be used for bunkering.

CALTEX: One self-propelled barge of 650 tons, max. discharge 200 tons per hour; One Dumb lighter of 400 tons, max. discharge 100 tons per hour. CALTEX has one slow-speed diesel ocean going tug of 285 H.P. and 16 knots.

15. HANDLING EQUIPMENT

a. Klong Toey Pier

- (1) Semi portable elect. traveling cranes: 8 - 3 ton
- (2) Elect. dock cranes: 4 - 5 ton

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15. HANDLING EQUIPMENT (Cont'd)

b. Floating cranes
Itallhai Industrial Co. Ltd. *
Archimede I 125 ton

* Cost of operation (\$250.00/day) makes the use of crane prohibitive.

16. SHIPYARDS AND DRYDOCKS

a. As concerns Repair Yards, the Bangkok Dock Co. makes hull repairs, running repairs and limited turbine repairs; the RTN Dockyard makes IC and electrical repairs; and private contractors make running or emergency repairs. Extensive repairs are usually made at Singapore or Hongkong.

Length: Bangkok Dock - 367' on floor; 377' on top with gate.
RTN Dockyard 448' with gate.

Width at entrance: Bangkok Dock: 52' RTN Dockyard: 32'8".

Depth over sill: Bangkok Dock - none shown. RTN Dockyard: 12.1'.

b. A new marine railway is located on the right hand bank of the river on entering and about 4 miles south of new port area.

17. OFFICIALS

a. U.S. Consul - Yes
b. U.S. Army - Yes. Army Attache and Army Section, JUSMAG.
c. U.S. Navy - Yes. Navy Attache and Navy Section, JUSMAG.
d. U.S. Air Force - Yes. Air Force Attache and Air Force Section, JUSMAG.
e. Quarantine Officials - Yes.
f. Immigration Officials - Yes.
g. A.B.S. Officials - Yes. Mr. Donald Knott, Tel: Bangkok 31717 or 31704.

18. LST BEACHING AREAS

a. LSTs have beached (dry ramp) at HUAHIN approximately 100 miles from Bangkok in the Gulf of Siam (145 miles by road).
b. LSTs can be beached in the event of combat operations at the Caltex and Shell tank farm area.
c. LSTs have beached at Pataya, approximately 60 miles southward of Bangkok on the east shore, Gulf of Thailand.

19. GENERAL INFORMATION

a. The largest ship to be accommodated in this port was the 563' length PRESIDENT COOLIDGE; Width: 76'. The vessel with the deepest draft was the PERN, Draft 28'09".

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19. GENERAL INFORMATION (Cont'd)

- b. Ships carrying ammunition are allowed to enter the port if the ammunition is destined for this port. It may be unloaded at any point at the Port of Bangkok (Klong Toey).
- c. Except for USNS ship ammunition bound for another port of call must be unloaded at the breakwater. It is off-loaded onto lighters at the Bangkok Bar, and after vessel has discharged and loaded cargo, and returns to the Bangkok Bar, ammunition is reloaded from the lighters.
- d. Although there are facilities and Customs officials located at Koh Sichang, the Port of Bangkok is considered a "First Port of Entry."
- e. The port railway connects with the Bangkok rail terminus, and makes connections with rail lines to interior of Thailand, Malaya and Cambodia. A highway leading from the port connects with the main highway net in Bangkok that serves the country.
- f. There are several self-powered dredges working in the port and at the bar on a more or less continuous basis.
- g. A declaration is usually made by the ship for the harbor master's office on a form presented to the ship. This is a standard form requesting Actual Time of Arrival - Length - Beam - Draft - Type Cargo - Passengers - Estimated Time of Completion.
- h. USNS and USS ships under diplomatic clearance are usually exempted from quarantine and immigration services.
- i. This port is used day or night as tide permits crossing the bar.

9 APR 1965

RANGOON, BURMA

Lat. 16-46N Long. 96-10E

1. GENERAL DESCRIPTION

Rangoon has a history dating back over 2,500 years, when it was first known as Okkala. Later, in the 11th Century, it became known as Dagon, derived from the famous Shwedagon Pagoda. When King Alaumgpayya conquered Lower Burma in 1755, the small settlement was renamed Yangon. Subsequent British influence after 1824 transformed Yangon into Rangoon.

Situated about 21 miles from the sea on the Rangoon River, Rangoon became a seaport as early as 1756 following the destruction of the great seaport town of Syriam by Alaumgpayya. The town grew rapidly as trade flourished and by 1852 became the capital of British held Burma; and following British annexation of the whole of Burma in 1885, Rangoon became the capital of Burma. The city continues to serve as the capital of the Union of Burma following Independence on January 4, 1948.

Flourishing rapidly as a seaport, Rangoon soon had a harbor rivaling that of Bombay and Calcutta in volume of traffic. Today, the port of Rangoon handles more than $1\frac{1}{2}$ million tons of cargo out of Burma's total of 2 million.

The port and harbor suffered greatly during World War II. Today the port handles more than 85 percent of total export and import tonnage, with an average number of 1,617 ships annually.

The Port of Rangoon is the only port in Burma capable of receiving and distributing goods effectively to the other parts of Burma, by rail, highway, water and air.

For a proper perspective of the growth of the city of Rangoon, the increase in population of the city is as follows:

1856	46,000
1901	248,000
1941	500,000
1962	1,000,000

2. REFERENCE CHART

- British Admiralty #833 or H.O. Chart #3713.

3. PILOTS

- Pilotage is compulsory. Radio ETA and draft 48 hours prior to arrival.
- Pilot pick-up point, Lat. 16-11N; Long. 96-17E.

4. TUGS AND LIGHTERS

- There are several harbor tugs, one salvage tug and one seagoing tug (Horse Power not known). The port is also equipped with two fire fighting tugs.
- There are numerous lighters.

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5. COMMUNICATIONS

- a. Radio call sign - "XRAY YANKEE CHARLIE ZULU" on 500 KCS.
- b. Voice call sign - "THAMADA" on 500 KCS.
- c. Times guarded - 24 hours.

6. NAVIGATION

- a. Channel depth: 11 ft MLW on inner bar (max. depth Aug to Nov, min. depth Feb - May)
- b. Harbor depth: 25-45 feet
- c. Tidal range: 21' Springs 16½' Neaps
- d. Navigational hazards - Sand bars are numerous, fog heavy in February and March.

7. ANCHORAGE CAPACITY

- a. Mooring buoys are used.
- b. River at Rangoon is 800 yards wide.

8. QUARANTINE ANCHORAGE

- a. Lat. 16-44N; Long. 96-14E.

9. AMMUNITION ANCHORAGE

- a. Hastings area. (Check Admiralty Chart and Port Rules Book).

10. MOORING BUOYS

- a. 38 buoys - capacity up to 600 ft. ships. The majority are free swinging berths although several are the fixed (bow-stern) type. All ships should be able to break anchor chain for securing to buoy. Buoys in 30 to 38 ft. MLW.

11. BUNKERING FACILITIES

- a. Barge - 100 ton barge (4 hours to discharge).
- b. Alongside - at SYRAIM OIL moorings (Burma Oil Company Terminal). depth 35 ft L.W.S.T. alongside

12. POTABLE WATER

- a. Barge only. Potable water is carried from up-stream artisian wells. There are no potable water connections alongside piers. \$0.48 per ton (inner harbor): Minimum charge for 25 tons. Forty-eight hours notice is required.

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13. PIERS

Name	Sule Pagoda Wharves	Brooking St. Wharf	Hteeden Jetty	Ahlon Wharf
Length (Alongside)	500'	500'	1,000'	1,000'
Width	50'	50'	25'	25'
Alongside Depth	25'-30'	25'	28'	28'
Ht. of Deck above MLW				
Lights on Pier?	Yes	Yes	Yes	Yes
Rails on Pier?	No	No	Yes	Yes
Potable water available	No	No	No	No
Bunkers	No	No	No	No

14. POL FACILITIES

No information

15. HANDLING EQUIPMENT

1 - 40 ton (At Brooking Street Jetty #2).
3 - 10 ton.
4 - 5 ton.
No floating cranes.

16. SHIPYARDS AND DRYDOCKS

a. There are several small shipyards with marine railways capable of handling about 200 tons. Large ships should not count on receiving heavy repairs at Rangoon. Minor repairs such as boiler cleaning, welding, wood working and deck caulking can be accomplished.

17. OFFICIALS

	Yes	No
a. U.S. Consul	X	
b. U.S. Army	X	
c. U.S. Navy	X	
d. U.S. Air Forces	X	
e. Quarantine Officials	X	
f. Immigration Officials	X	
g. A.B.S. Officials *		X

*Llyods Rep.

18. LST BEACHING AREAS

a. Many areas from Rangoon 10 miles up river have gentle sloping beaches. No reported berths.

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19. GENERAL INFORMATION

- a. The largest ship to be accommodated was the "KUNGSHOLM" - Length 620 ft. (on 1 March 1960).
- b. Ships may enter carrying ammunition.
- c. This is a "First Port of Entry."
- d. Pilotage for river transit - all hours. Pilotage for berthing in harbor area limited to daylight hours.
- e. Rails and highways available.
- f. Southwest monsoons commence about May continuing through October.
- g. Vessels are not permitted to move in the harbor during the hours between sunset and $\frac{1}{2}$ hour before sunrise. Night pilotage is permitted from below, and up to, Liffey Anchorage, but vessels departing must leave Liffey Anchorage before midnight.

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IWO JIMA

Lat. 24-47N Long. 141-17E

1. GENERAL DESCRIPTION

Iwo Jima lies about 4 miles westward of Ombo Zaki, the western point of Take Shima. Iwo Take, near the eastern end of the island, is an active volcano, 2,316 feet high, from which smoke rises continuously. Yahazu Take, at about the middle of the northwestern side of the island, is 1,145 feet high, has a pointed summit, and is conspicuous.

Miteari is a small bay located in the western part of the south coast of Iwo Jima. The depths in the bay are very shallow, at its head is a beach of black sand, on which stands a village.

Harima Saki, the western entrance point of Miteari, lies about 1 mile southwestward of Kuroshima Saki, the western extremity of Iwo Jima. Harima Saki is steep and cliffy, and from it a reef extends southeastward for about 400 yards.

Kuroshima Saki has numerous rocks in its vicinity. One of these, pointed and 102 feet high, lies about 200 yards offshore, and about 200 yards southwestward of this first rock is another, which is usually marked by breakers.

From a position about $\frac{1}{2}$ mile east-northeastward of Makura Hana, the northern extremity of the island, foul ground extends for about 1,800 yards farther in the same direction. Takashimanou Se, 72 feet high, is a black pointed rock that lies near the outer extremity of this foul ground; close southwestward of it is a low rock.

As a result of an eruption in 1934, an islet lies about 1,800 yards eastward of Takashimanou Se, and another, of lava and 85 feet high, lies about $1\frac{1}{2}$ miles southeastward of the same rock. A shoal, with a depth of 9 feet, is reported to lie about $2\frac{1}{4}$ miles south-southeastward of Takashimanou Se. As undiscovered dangers may exist in the waters around Iwo Jima, the vicinity should be avoided.

2. REFERENCE CHART

a. H.O. No. 6101

3. PILOTS

a. Not available.

4. TUGS AND LIGHTERS

a. Tugs: Available from Okinawa with 10 days prior arrangement.
b. Lighters: Not available.

5. COMMUNICATIONS

a. IWO AFB (voice comm) on 155.4 MEG

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6. NAVIGATION

a. Tanker mooring

(1) Approach to tanker mooring from the north is considered unsafe; it is recommended that the approach be from south.

(2) Iwo Jima western shoreline opposite Kama rocks extends seaward to within 100 yards of NE buoy (buoys concerned are all in the tanker mooring area).

(3) Soundings taken from a point 100 yards. North of NE buoy on BN 295° at 50 yds interval in feet are ten, twelve, fifteen, forty five, sixty, shoal.

(4) Soundings taken from a point 100 yds east of Kama rocks on BN 090 at 25 yd intervals in feet are forty two, forty eight, twenty seven, eighteen, fifteen, twelve, surfline.

(5) A steep gradient to shoals exists eastward of a line joining NE and SE buoys.

(6) Strong variable northerly currents have been noted through the tanker buoy area; maximum velocity has been noted to be in the area north of NW buoy.

(7) Maximum currents occur when seas and winds are from the south to southwest.

(8) It is recommended that a boat be sent to investigate currents prior to making moor to buoys.

(9) Recommend never passing north of line between NW and NE buoys, or east of line between NE and SE buoys.

7. ANCHORAGE CAPACITY

a. None

8. QUARANTINE ANCHORAGE

a. None

9. AMMUNITION ANCHORAGE

a. None

10. MOORING BUOYS

a. POL mooring buoys only.

11. BUNKERING FACILITIES

a. None available.

12. POTABLE WATER

a. None available.

13. PIERS

a. None

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14. POL FACILITIES

a. Location: Lat. 24-47N Long. 141-17W

b. A sealine is available for POL offloading with sufficient notification.

c. Cargo lines, valves, etc. are not in very good condition. There is no contact with the island other than voice phone.

d. Both the s'ly mooring buoys were found out of line too far to the north. S'ly buoys are practically breast buoys.

e. Operations are relatively slow due to the small tanks and the small lines provided. The following is an average discharge rate:

Discharge rate 1 pump, 80 psi, 550 bbls/hour, diesel fuel.

Discharge rate 2 pumps, 80 psi, 750 bbls/hour, Av-gasoline.

15. HANDLING EQUIPMENT

a. None available.

16. SHIPYARDS AND DRYDOCKS

a. None

17. OFFICIALS

a. The only officials available are U.S. Air Force.

18. LST BEACHING AREAS

a. Two beaches are used:

(1) Lat 24-46.1N Long 141-17.5W Purple Beach

(2) Lat 24-0N Long. 141-19W Blue Beach

b. No deadmen or bollards are available.

c. One LST can be accommodated at each beach.

d. No special hazards are known.

19. GENERAL INFORMATION

a. A U.S. Coast Guard Loran Station and a U.S. Air Force Base are located on Iwo Jima.

b. Normally only LSTs and Tankers are routed to Iwo Jima.

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- d. Maximum draft for vessels alongside 42 ft.
- e. Pipelines and size: MOGAS 14", JP4/JP5 14", Diesel 16", Ballast 12", Black 24", AVGAS 19".
- f. Loading/discharging rates: Black 14000 BPH, JP4/JP5 5000 BPH, AVGAS/MOGAS 5000 BPH, Diesel 5000 BPH.
- g. Navy installation (NSD Guam)
- h. Military tugs available.
- i. Berthing 24 hour basis.
- j. Ballast may be discharged on berth, no sludge.
- k. General: Discharge facilities consist of two berths (Delta/Echo). Each berth can receive all products. Tankers can discharge at both berths simultaneously. Normally berth Delta is used. Berth Echo has no hose handling equipment. A mobile crane must be brought in. Berth Delta has some weight handling equipment. Ships booms must be used for handling hoses and brows, at both berths.

15. HANDLING EQUIPMENT

- a. One crawler crane Max capacity 90 ton; 80 ft boom
- b. One truck crane Max capacity 20 ton; 50 ft boom
- c. One dockside crane Max capacity 45 ton; 100 ft boom
- d. Capacity of heaviest shore crane; Berth 2, SRF Max. lift 45 ton at 40 ft.; 7 ton at 100 ft.
- e. Floating crane; one YD; 125 ton max. lift, 110 ft. Max. radius, Max. vertical lift 110 ft. at 90 ft. radius.

16. SHIPYARDS AND DRYDOCKS

a. Name	ARD- 29	AFDM- 8
b. Length	390'	552'
c. Width at Entrance	58'	92'
d. Depth over sill	21'	40'
	Max. draft 17'	Max. draft 30'
e. Repair facility operated by SRF Guam, complete repair facility.		

17. OFFICIALS

	YES	NO
a. U.S. Consul		X
b. U.S. Army		X
c. U.S. Navy	X	
d. Quarantine Officials	X	
e. Immigration	X	
f. A.B.S. Officials		X *

* Can be called at Saipan when required.

18. LST BEACHING AREAS

- a. Location: Lat. 13-25-05N Long. 144-40E
- b. Beach
- c. Deadmen and Bollards available
- d. Accommodates one LST

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- e. Dry ramp landing.
- f. Tugs are available.
- g. No special hazards or limitations.

19. GENERAL INFORMATION

- a. Inner Harbor Max. draft 30 feet; Outer harbor, no limit.
- b. Ships carrying ammunition are allowed to enter port.
- c. Ammunition discharge berth "H"; Lat. 13-27-45N Long. 144-39E.
- d. Ships are allowed to enter port to discharge general cargo with ammunition destined for the next port aboard; they may discharge at the normal berth with no special difficulty.
- e. Ships may enter day or night.
- f. This is a first port of entry.
- g. Special port regulations: Apra Harbor Guam, SOPA Admin. Inst. 3170.1C.
- h. No Rail Facilities, cargo is discharged direct to the receiving activity.

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GUAM

Lat. 13-26N Long. 144-40E

1. GENERAL DESCRIPTION

Guam is the southernmost, largest, and most populous island of the Marianas. It is 26 miles long in a north-northeast and south-southwest direction, 4 to 8 miles wide, and had a population estimated at 70,000 in 1955.

At a distance this island appears flat and even. Its eastern side is bordered with steep cliffs and exposed to the ocean swell. The northern end of the island is comparatively low, Santa Rosa, about 870 feet above high water, being the highest elevation. To the southward it is more mountainous, Mount Tenjo forming several peaks of about 1,000 feet, and others near the southern end about 1,100 to 1,300 feet above high water. A conspicuous tower marked by obstruction lights, is located on Mount Alutom. The western side has small sandy bays, divided by rocky points. A large part of the coast is fringed by reefs which dry in places.

2. REFERENCE CHART

a. C.&G.S. Chart 4197, 4196

3. PILOTS

a. Pilots are available.
b. Pilots are only compulsory when tugs are used.
c. Pilot pick-up point: Lat. 13-27N Long. 137-38-30E
d. Pilots are available day and night.

4. TUGS AND LIGHTERS

a. Tugs: 5 YTB's, 1000HP each
b. Lighters: 1 covered YFN

5. COMMUNICATIONS

a. Radio (CW) call sign is "NOVEMBER PAPA NOVEMBER" on ~~500~~ KCS
b. Voice call sign "GUAM CONTROL" on 2716 KCS
c. Times guarded - 24 hours.

2836 KCS

6. NAVIGATION

a. Channel depth (LLW): 33'
b. Channel Width: 200 yds
c. Harbor Depth: (LLW) 31'
d. Tidal Range: 2-3'

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7. ANCHORAGE CAPACITY

a. Apra Outer Harbor affords a number of deep water moorings with a controlling depth of 42'.

8. QUARANTINE ANCHORAGE

a. Lat. 13-27-30N Long. 144-38-20E

9. AMMUNITION ANCHORAGE

a. Lat. 13-27-30N Long. 144-38-40E

10. MOORING BUOYS

a. There are five in the outer harbor, but are not normally used.

11. BUNKERING FACILITIES

a. By barge: Diesel, Avgas, Mogas, Jet: 1 YOG 6500 BBLS, 1 YOGN 7500 BBLS, NSFO 1 YOG 6500 BBLS, 1 YOGN 8000 BBLS
 b. Alongside: Berths D, J, E & G.
 c. Class or Type: NSFO, Diesel
 d. Cost per BBL \$2.40
 e. Pumping Rate: Black 2500 BPH

12. POTABLE WATER

a. By barge(non propelled) 8500 BBLS
 b. Alongside all piers.
 c. Cost per 1000 gal. \$.173
 d. Pumping capacity: 2 $\frac{1}{2}$ " Hose, 80# pres. dockside; Barge 2000 BPH

13. PIERS

Name	Romeo	Sierra	Tango	Uniform
Length (Alongside)	1 & 2 516'	1,2,3,4 497'	1,2,3 503'	1,2 608'
Width	100'	100'	100'	100'
Depth	31'	31'	31'	31'
Ht. of deck above MLW	10'	10'	10'	10'
Lights on pier	yes	yes	yes	yes
Rails on pier	no	no	no	no
Potable water available	yes	yes	yes	yes
Bunkers	By barge all berths			

14. POL FACILITIES

a. Name Berths Delta and Echo
 b. Length alongside Delta 663 ft; Echo 744 ft
 c. Depth alongside 43 ft.

SATTAHIP, THAILAND

Lat. 12-42N; Long. 100-50-30E

1. GENERAL DESCRIPTION

Sattahip is a modest sized village of some 8,000 population located 175 kilometers SSE of Bangkok on the Eastern shore of the Gulf of Thailand. It is the headquarters of the Sattahip Naval District and the home of the Royal Thai Marine Corps. The local economy is dependent on the military, which controls the electrical power concession, school system, market, cold storage and ice plant, and is supported by the farming and fishing industries. At the present rate of growth, it is predicted that the population of Sattahip will reach 30,000 by 1970.

The area surrounding Sattahip is characteristic of a secondary tropical rain forest combined with a monsoon forested area. Tidal flats, marsh and swamplands are also in evidence.

2. REFERENCE CHARTS

- A. H.O. Charts 3784 and 3751 (C).
- B. RTN Hydrographic Department Chart L10.

3. PILOTS

- A. Pilots are available on a 24 hour basis.
- B. Pilots are not required, but strongly recommended due to strong tide conditions.
- C. Pilot pick-up point is $12^{\circ} 30' 20''$ N $100^{\circ} 50' E$.

4. TUGS AND LIGHTERS

- A. Two 1700 HP tugs operated under contract to the local army authorities are available.
- B. Barges and lighters of virtually all sizes and types are available from Bangkok.

5. COMMUNICATIONS

- A. Radio (cw) call sign is MSTSREPSATTAHIP on 2738 KCS.

B. Voice call sign is MSTS SATTAHIP on 2716 KCS.

C. Times guarded 0730 - 1730 hours daily.

D. Tug Control is on 136.4 MCS.

6. NAVIGATION

A. Approach - Through Chong Kram Channel. This approach is excellent for radar navigation and has a lowest depth of 6 fathoms. Approaches at night are discouraged because of poor pier lighting and only limited lighted navigational aids.

B. Tidal range 4.26 FT mean.

C. Most significant navigational hazard is the powerful (6-8 KTS) currents which run alongside and under the piers. Approaching the piers, at any time other than slack water, can be dangerous. Winds and swells in this area are strong only during the Southwest Monsoon Season (April through September).

7. ANCHORAGE CAPACITY

A. Capacity - can accommodate ten deep draft vessels.

B. Location - NE of Ko Kram Island between $12^{\circ}43'N$ and $12^{\circ}44'N$.

C. Lowest point $7\frac{1}{2}$ fathoms. Good holding ground.

8. QUARANTINE ANCHORAGE

Not established

9. AMMUNITION ANCHORAGE

Not established

10. MOORING BUOYS

None

11. BUNKERS

A. None available

B. In emergency situations, bunkers can be barged from Bangkok.

12. POTABLE WATER

- A. By pre-arrangement with ship's local agent, water can be barged from Bangkok.
- B. Barge limitation - 100 tons.
- C. In emergency situations, a limited supply of water can be obtained locally.
- D. Water should be boiled or otherwise treated prior to use.

13. PIERS

NAME	MAP	DELONG
Location	12-41-47N 100-50-31E	12-41-58N 100-50-21E
Length (alongside)	443 FT	600 FT
Width	36 FT	80 FT
Depth (draft) alongside (MLW)	33.8 FT	42 FT
Height of deck above MLW	26 FT	28 FT
Lights on pier	YES	NO
Rails on pier	NO	NO
Capacity (Ocean Going Vessels)	1	2

Brows are not available. Neither pier has fresh water, telephone, fuel, or shore power facilities.

14. POL FACILITIES

- A. Map Pier (described above)
- B. Pipeline and size: 1 - 8"
- C. Type of product received: AV - GAS; JP - 4
- D. Capacity of tanks (BBLs): 50,000
- E. Loading and discharge rate: 1500 BPH

15. HANDLING EQUIPMENT

- A. 2 - 5 ton mobile cranes
- B. 4 gas powered forklifts (6000 lbs)

16. SHIYARD AND DRY DOCKS

None

17. OFFICIALS

A. U.S. Consul	No
B. U.S. Army	Yes
C. U.S. Navy	Yes
D. U.S. Air Force	Yes
E. Quarantine Officials	No (From Bangkok)
F. Immigration Officials	No (From Bangkok)
G. ABS Officials	No (From Bangkok)

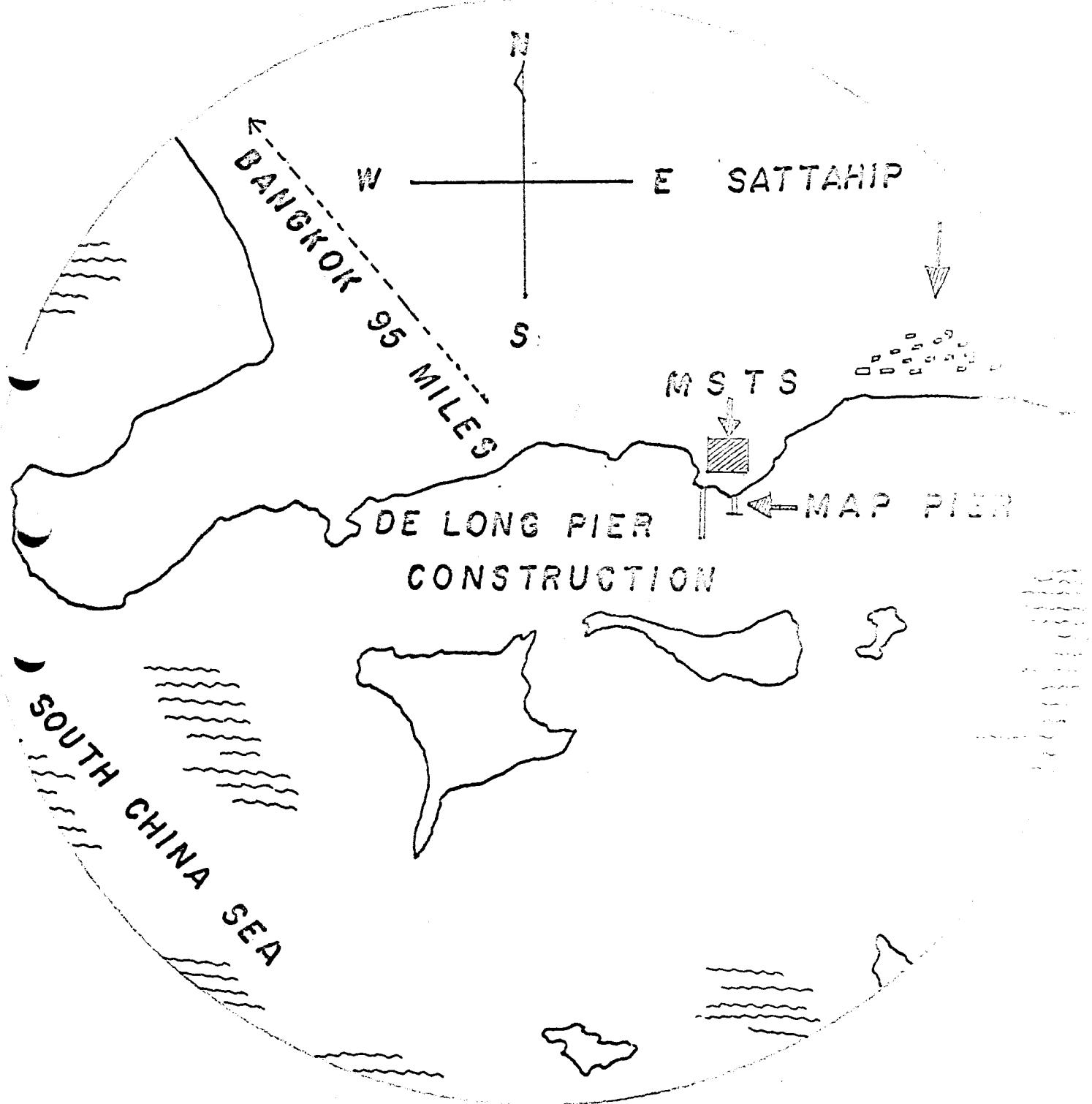
18. LST BEACHING AREAS

Two LST ramps are located in the sea wall just east of the RTN base pier. These ramps are designed to handle loads up to 50 tons per square foot and will accommodate LSTs of all sizes, as well as LSMs and smaller landing craft.

19. GENERAL INFORMATION

- A. This is a "First Port of Entry".
- B. Ships carrying ammunition are allowed to enter port and discharge alongside the pier.
- C. There are no rail lines to Sattahip. Sukhumvit Highway connects Sattahip to Bangkok and points north.
- D. Daytime port of entry and exit.
- E. Customs inspection is very strict.
- F. Due to the exposed location of the piers to wind and currents, it is essential that ship's mooring lines be in good condition.

SATTAHIP



NOT TO BE USED FOR
NAVIGATION