a. Shore base cranes:

Number	Capacity	Location
1	2 tons	Dejima Wharf
2	3 tons	Dejima Wharf

b. Floating cranes:

Number	Capacity	Owners
1	150 tons	Mitsubishi Shipyard
1	25 tons	Mitsubishi Shipyard
1	75 tons	Showa Juko K.K.
1	120 tons	Nishi Nippon Sanso K.K.

c. Handling equipment is in good condition. No conveyors are available.

16. SHIPYARDS AND DRYDOCKS

a. Mitsubishi Shipbuilding and Engineering Co., Ltd., Nagasaki Works has the below listed drydocks:

Name or Number	Length	Width	Depth	Tonnage of ship
No. 1	515'	99'3"	33'4"	12,000 GRT
No. 2	375'	72'2"	31'	4,000 GRT
No. 3	907'5	133'11"	40'6"	57,500 GRT

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 Officials	X	
f.	A.B.S. Officials	X	

*Occasional Rep from MSTSO Sasebo

18. LST BEACHING AREAS

a. None

19. GENERAL INFORMATION

a. The largest ship known to have been accommodated at this port was 756' in length with a draft of 26'.
b. Ships carrying ammunition are not allowed to enter port.
c. Ships may enter port day or night.
d. This is a "First Port of Entry".

NAGOYA, JAPAN

Lat. 35-00N Long. 136-50E

1. GENERAL DESCRIPTION

The port of Nagoya is centrally located on the south coast of the island of Honshu approximately 150 miles westsouthwest of Tokyo and 75 miles eastnortheast of Osaka. Nagoya is the fourth largest city in Japan according to population and it is the center of several rail lines. Being one of the large ports in central Japan, it is capable of accomodating large size ships of the 15,000 ton class and it is showing a rapid development as an international port, connecting with more than 100 shiplanes on which run liners of 20 foreign countries including America and Britain.

The city of Nagoya grew up around a number of castles built in the 16th century. After the restoration of the Emperor in 1868, the city underwent numerous changes and was established as a modern port for foreign trade about 60 years ago.

Principal activities are the manufacture of pottery and porcelain, both heavy and light machinery, toys and the weaving of cotton and woolen textiles.

2. REFERENCE CHART

a. H.O. 5542
b. J.H.O. 1055

3. PILOTS

a. Pilots are available, but not compulsory.
b. Pilot pick-up point - Lat. 34-58'-28"N; Long. 136-48'-02"E
c. Pilots are available from 0600 hrs. to 2000 hrs. daily.

4. TUGS AND LIGHTERS

a. Tugs: 2 - 1,500 H.P. 1 - 1,040 H.P. 1 - 1,000 H.P.
1 - 900 H.P. 1 - 700 H.P. 1 - 650 H.P.
b. Lighters: There are approximately 500 lighters with total capacity of about 80,000 tons.

5. COMMUNICATIONS

a. Radio call sign - "JULIETTEE HOTEL YANKEE". Call on 500 kcs, transmit on 486 kcs.
b. Voice call sign - none.
c. Times guarded - 24 hours.

6. NAVIGATION

a. Channel Depth: 30'
b. Channel Width: 726'

c. Harbor Depth: 30'
d. Tidal Range: Springs 7½' Neaps 5½'
e. Channel - Comments on:

(1) Hazards and obstructions: None
(2) Navigation aids: Lights

7. ANCHORAGE CAPACITY

a. Outer Harbor: 5 large type vessels; about 30 medium type vessels outside the 3½ fathom curve.
b. Inner Harbor: No anchorage except for small ships.

8. QUARANTINE ANCHORAGE

a. Lat. 34-58'-28"N Long. 136-48'-02"E

9. AMMUNITION ANCHORAGE

a. Lat. 35-02'-41"N Long. 136-52'-11"E

10. MOORING BUOYS

a. Capacity: 11 - 15,000 G/T 9-10,000 G/T 7-4,000 G/T
b. Type: Round and anchored
c. Depth: 24' to 29'

11. BUNKERING FACILITIES

a. By barge only (Commercial - no detailed information available)
b. Alongside - no facilities available.

12. POTABLE WATER

a. By barge: Yes
b. Alongside: Yes
c. Cost per ton: Barge - 28¢/ton
Alongside - 17¢/ton (Prices subject to change)
d. Pumping capacity: 30 ton/hour for both.

13. PIERS

a. Name	INAE PIER	EAST PIER	CENTER PIER	WEST PIER	DISTRICT X PIER
b. Number	25-30	1-5	6-9	10-15	18-24
c. Length alongside	754 yds	E525 yds W240 yds	E225 yds W240 yds	E300 yds W270 yds	591 yds
d. Width	220 yds	130 yds	120 yds	177 yds	766 yds
e. Depth alongside	29'	30'	29'	30'	20'-30'
f. Height of deck above MLW	19'	19'	19'	19'	19'
g. Lights on pier	yes	yes	yes	yes	yes
h. Rails on pier	yes	yes	yes	yes	yes
i. Potable water	yes	yes	yes	yes	yes
j. Bunkers	By barge all piers				

14. POL FACILITIES

a. Piers: Two, Commercial
   (1) Nippon Oil Co., Ltd: No. 2 pier
   (2) Esso Standard Sekiyu K.K.: Nagoya terminal pier

b.	Name	No. 2 pier	Nagoya terminal pier
c.	Depth alongside	33'	30'
d.	Storage capacity	465M BBLS.	438M BBLS.
e.	Type	Alongside	Alongside
f.	Products: Black	8" & 10"	8"
	Clean	None	8"
	Other	None	6"
g.	Bunkers	By barge	By barge
h.	Potable water	By barge	By barge
i.	Tugs available:	1- 1,500 H.P.	1-1,100 H.P. 1- 1,000 H.P.
		1- 650 H.P.	1- 170 H.P.
j.	Pilots:	yes	yes
k.	Limiting size	LOA DRAFT	DWT
	of vessels:	693' 33'	28,000 - No. 2 pier
		693' 30'	20,000 - Nagoya terminal

15. HANDLING EQUIPMENT

a. Shore crains: 1-3 Ton; 3-5 Ton; 1-20 Ton

b. Floating crains:

Type	Height of lift	Capacity
STEAM	88'	85 Tons
STEAM	88'	50 Tons
STEAM	55'	30 Tons
STEAM	32'	12 Tons

16. SHIPYARDS AND DRYDOCKS

a. 2- Commercial Shipyards
b. 1- Drydock
   (1) Length: 475'
   (2) Width: 65.6'
   (3) Depth over sill: 34.8'
   (4) Repair facilities: Available

17. OFFICIALS AVAILABLE

		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

18. LST BEACHING AREAS

a. None

19. GENERAL INFORMATION

a. Largest ship to enter port was: L-628', W-80', D-30'.
b. Ships carrying ammunition are not allowed to enter port.
c. Ships may enter day or night.
d. This is "A First Port of Entry".
e. Major highways and rail lines connect with this port.
f. Local plans and charts are available.

OSAKA, JAPAN

Lat. 34-39-17N Long. 135-26-07E

1. GENERAL DESCRIPTION

Osaka, which was called "Naniwazu" in ancient times, was then the only transportation center to China and Korea. However, silting caused by Yodo Gawa and Yamato Gawa, started the decline of the port. After Muko (old name of the western part of the present Kobe Ko) and Sakai were opened to foreign trade and communication, Osaka was practically ruined commercially as the result of the diversion.

Since Toyotomi Hideyoshi (feudal lord from 1536 to 1598) settled in this area and started construction of castles, canals and towns, and with the increase of immigrants, prosperity returned gradually. The name of the town "Naniwazu" was changed to "Osaka".

The Tokugawa Shogunate Government made an effort to properly maintain the harbor. Permission to reside in this area was issued in 1867. During the first year of Meiji Restoration, in 1868, Osaka was opened for foreign trade, but there were few foreigners, except Chinese, who had settled earlier.

The harbor construction work consisting of an 8 year plan was at length commenced in 1897, following the design of a Dutch engineer. The wharf (present Central Wharf) which was almost completed in 1904, served as an important military transportation center during the Russo/Japanese War.

At first the construction of the Osaka Harbor was viewed with anxiety by the Kobe Port Authorities as it threatened the foreign trade. Later the facts showed complete compatibility of both harbors, as there was a decided difference in their commissions; that is - Chinese, Korean and other oriental trading was handled at Osaka, whereas the American, European and other foreign trade was carried out at Kobe.

Improvement and construction work has been continued although bombing during the war caused serious damage to the harbor installations and facilities. Since the termination of World War II, this port has become reactivated as an important commercial port.

2. REFERENCE CHART

a. H.O. 6394; J.H.O. No. 123

3. PILOTS

a. Pilots are available but not compulsory.
b. Pilot pick up point: Lat. 34-37.7N Long. 135-23.7E
Harbor section No. 7&8.
c. Pilots are available during daylight only.
d. Office at 41-3 Chome, Sanso Dori, Minato Ku (Phone 57-0913).

4. TUGS AND LIGHTERS

a. Tugs: 211 vessels (including those used for lighters)
For vessels 5, 1480 HP (city hall)
10, 887 HP (dock yard)
b. Lighters: 1,758 lighters 234,083 G/T total

5. COMMUNICATIONS

a. Radio (CW) call sign: J.G.D.; 500 Kcs, 444 Kcs (A1A2) 500W
b. Voice call sign: Osaka Hoan 2,325 Kcs
c. Times guarded: 24 hours (CW) only.
d. Visual signals: Signal station at the head of North Breakwater (34-38.3N, 135-24.0E) engages in the service of visual signals for ships.
e. Telephone service is available alongside.
f. Radiotelephone: Vessels moored to buoys or underway, may have connections with land telephone in Kobe, Osaka and immediate vicinity through Kobe Radio Station (commercial).
g. Radiotelegram: Kobe Radio Station (commercial) call sign JCK, Kobe Radio Coastal Station (Maritime Safety Board) call sign JGD, frequency 500 and 444, listen on 500 and 480 Kc. continuously.

6. NAVIGATION

a. Channel depth: 33'
b. Channel width: 924'
c. Harbor depth: 16.5' (LLW)
d. Tidal range: Springs 4.5' Neaps 2'
e. Navigational aids: 2 light houses and 2 buoys.

7. MOORING BUOYS

Harbor Section	No. of buoys	Capacity	Each	Buoy Numbers
No. 1	9	10,000 ton	3	No. (7), 10, 11
		7,000 ton	2	No. 8, 9
		5,000 ton	3	No. 1-3
No. 2	9	20,000 ton	1	No. (6)
		10,000 ton	5	No. (5),(15),12,13,14
No. 4	13	10,000 ton	1	No. (17)
		7,000 ton	1	No. (27)
		5,000 ton	9	No. 18 to 26
No. 6	8	10,000 ton	2	No. 28,29,34,35
TOTAL	39	231,000 tons	31 vessels	

() Mark Fore and aft mooring.

8. QUARANTINE ANCHORAGE

a. Southwestward of South Breakwater at 34-37.8N; 135-23.7E.

9. AMMUNITION ANCHORAGE

a. None

10. ANCHORAGE CAPACITY

a. 5 or 6 medium size vessels inside breakwater; unlimited outside.

11. BUNKERING FACILITIES

a. Barge: Yes; commercial, rates unknown.
b. Alongside: Umemachi Wharf
c. Tanker and barge with engine under 500 tons gross.
d. Commercial rates unknown.

12. POTABLE WATER

a. By barge; 200 tons 1 barge; 3,000 tons per day, 120 tons per hour
b. Alongside: Most berths 20 tons per hour
c. Cost ¥100 per ton; 28¢

13. PIERS - see end of this chapter

14. POL FACILITIES

a. Umemachi Pier, Owner General Bussan Kaisha, Ltd.
b. Pipe lines 4,6,10 inch
c. Pumping rates 1,250; 2,500; 6,289 bbls/hr
d. Largest ship accommodated: L712' W99' D29'
e. Cost - ¥50 per ton
f. Storage - 195,667 tons
g. Channel dredged to 29' very narrow in spots
h. Pilot not required, but recommended.
i. Pilots refuse to handle ships over 20,000 Gross tons.

15. HANDLING EQUIPMENT

a. Shore Cranes: about 87

b. Floating Cranes:

	Safe Lift	Max. Vert. Lift
(1) Power Driven	90 tons	46 ft.
	120 tons	75.9 ft.
	160 tons	82.5 ft.

16. SHIPYARDS AND DRYDOCKS

a. Shipyards: Sakurajima and Chikko Shipyards, Hitachi Zosen Co., have full capacity for building and repairing large type vessels.
b. Drydocks: The following dry-docks can accommodate vessels of 3,000 G/T or over:

	NAME	LENGTH	BREATH	DEPTH	SIZE
1.	Hitachi Zosen, Sakurajima	684 ft.	77 ft.	24 ft.	12,000 GT
2.	Hitachi Zosen, Chikko No.1	587 ft.	79 ft.	29 ft.	20,000 GT
3.	Hitachi Zosen, Chikko No.2	397 ft.	54 ft.	25 ft.	7,000 GT
4.	Fujinagata, No. 1	420 ft.	54 ft.	17 ft.	6,000 GT
5.	Fujinagata, No. 2	459 ft.	66 ft.	26 ft.	8,000 GT
6.	Namura No. 2	459 ft.	69 ft.	19 ft.	7,000 GT
7.	Sanoyasu No. 1	426 ft.	57 ft.	18 ft.	5,000 GT
8.	Shinnaniwa No. 1	328 ft.	45 ft.	15 ft.	3,000 GT

17. OFFICIALS

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

18. LST BEACHING AREAS

a. Sakai (near Osaka) has pier facilities for ramp operation.

19. GENERAL INFORMATION

a. Osaka is a daylight port.
b. Osaka is not a first port of entry.
c. Osaka is the second largest city in Japan. It is highly industrialized. It is connected to all parts of Japan by Railroads.
d. Ammunition ships or ships carrying ammunition as part of their cargo are not allowed to enter port.

13. PIERS

Name of Wharf	Length	Depth	Width of shed to end	No. of Berth	Capacity Gross	Ves.	Shed and Warehouse (including pub. & priv.)	Main Owner (only priv.)	Main Cargo
Hokko Coal Wharf	250	7.5		51,53	5,000	2			coal
Sakurajima No. 1	275	9.0	14.5	15,17	10,000 1,000	1 1	16473 ㎡	Mitsubishi	Steel GC
" No. 2	252	6.4		19	2,000	1			" GC
Umemachi Pier	364	9.0		21,23 25	8,000 5,000 3,000	1 1 1	990	Sakurajima Futo	coal oil
" North	Dolphin (2)	2.3-5.0		37	2,000	1			
" West	518 Dolphin (5)	9.0 11.0	11.0	39,41, 43,45, 47,49	8,000 5,000 3,000 4,000	1 1 1 1	10474	Tokofuto	Steel GC oil
Ajikawa South	312	5.5- 6.5	10	13	3,000 2,000	1 2	6008		GC
" West	120	5.5	10	13B	2,000	1			
Silo	Dolphin (3)	9.0		9	10,000	1			bulk feed
Ajikawa No.1	230	9	13	7	10,000	1	9381	Osaka Futo	Steel GC
Ajikawa No. 2	360	10		11	10,000	2	15504	Sumitomo Tatsumi Komnoike Nippin Express	GC
Tempozan	177	6		5	2,000	2			Passenger
Ajikawa-guchi	160	7.5	6-8	3	5,000	1	6672	Mitsubishi	G.C
Central Pier	110	9	13	2,4	1,000	1			G.C.
No. 1 Wharf	436	9.1- 10.4	9-- 17	6,8,10, 12	3,000 10,000	1 2	49305	Sumitomo	cotton G.C.
No. 2	341	9.1- 10.4	10	14,16	10,000	2	16084	Sumitomo Mitsui	G.C.
No. 5	360	9	7-10	22,24, 26	3,000	3	10802	Government Monopoly	G.C.
No. 6	359	9	7-11	28,30	10,000	2	20794	Sugimura Shibusawa	G.C.
No. 7	359	9	7	32,34 36	10,000 4,000 2,000	1 1 1	8151		G.C.
No. 8	336	7.5	9	38,40,42	4,500	2	5946	Nippon Exp.	Cement
No. 9	Dolphin (2)	7		44	2,000	1			G.C.
TOTAL 21	319 217 Dolphin				257,000	41	176584		
PRIVATE WHARF									
(9) Owner	1577 m	5-9			33,600	16			cement coal steel

OTARU, JAPAN

Lat. 43-12N Long. 141-01E

1. GENERAL DESCRIPTION

Before World War II Otaru was an important trading port for the Import and Export of cargoes to and from Sakhalin Island and part of of Manchuria which was then Japanese territory. After the War, the port lost a good deal of its trade volume, but still today is the main port for the Westcoast of Hokkaido Island, in the north of Japan, the export of which consists mainly of plywood, timber and fertilizer while Import consists of grain and lumber.

2. REFERENCE CHART

a. H.O. 5311

3. PILOTS

a. Pilots are not compulsory but are available 24 hours and are considered advisable.
b. Pilot pick-up point is in the quarantine anchorage. It is suggested to anchor as close to the north breakwater light-house and yet within the anchorage to save time and enable the pilot to get on board safely especially during winter.

4. TUGS AND LIGHTERS

a. Tugs

Name	HP	Operator
SAKURA MARU	1,000	Otaru Harbor
MOURA MARU	380	Nat. Railway Corp.
TATEIWA MARU	180	Otaru Harbor

b. Lighters
General Cargo - 69 barges with 9.089 tons capacity
Bulk cargo - 14 barges with 2,143 tons capacity

5. COMMUNICATIONS

Government - CW - JULLIET NOVEMBER LIMA 472 KC
Commercial - CW - JULLIET JULLIET TANGO 416.5 KC
Government - Voice - JULLIET NOVEMBER LIMA 2182 KC
Times guarded - continuous

6. NAVIGATION

a. Channel depth: Outer harbor - over 60'
Inner harbor - from 58' - 30'
b. Channel width: 755'
c. Harbor depth: Inner - 20' - 45' Outer - 36' -
d. Tidal range: Springs 1.4 Neaps 0.98

7. ANCHORAGE CAPACITY

Inside breakwater - 3 large vessels
1 medium vessel
Outside breakwater - 5 large vessels

8. QUARANTINE ANCHORAGE

Lat. 43-12-25N Long. 141-01-54E

9. AMMUNITION ANCHORAGE

Lat. 43-11-30N Long. 141-01-43E

10. MOORING BUOYS

Four (4) buoys are available for cargo handling within sheltered harbor area. One is capable of handling a 12,000 G/T vessel and the remaining three buoys are for 10,000 G/T vessels.

11. BUNKERING FACILITIES

None available.

12. POTABLE WATER

a. Two barges at 150 ton capacity available to vessels moored at a buoy.

Charges - minimum quantity 20 tons
per cubic ton - summer (May - Oct) ¥100.-
Per cubic ton - winter (Nov - Apr) ¥150.-
Charges for water supplied outside office hours (from 1700 hrs to 0830 hrs) and in bad weather shall be increased by 50%

b. At piers - each pier has 2 hydrants- each with a capacity of 50 tons per hr.
Cost per cubic ton
Summer (May - Oct) ¥60.00
Winter (Nov - April) ¥90.00

13. PIERS

Name or Numbers	Pier 1	Pier 2	Pier 3	Sakai-Machi
Length usable	2,394'	2,338	2,145	1,154'
Width	29.5'	29.5'	29.5'	29.5'
Depth alongside	24'-32.8'	24'-31.3'	29.5'	22.3'
Ht. of deck above MLW	8.2'	8.2'	8.2'	8.2'
Lights on pier	Yes	Yes	Yes	No
Rails on pier	Yes	Yes	Yes	Yes
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

14. POL FACILITIES

None

15. HANDLING EQUIPMENT

a. 2-16 ton portable cranes and 3-6 ton portable cranes.
b. There are no floating cranes.

16. SHIPYARDS AND DRYDOCKS

a. Unavailable. The nearest is located at Hakodate. The Hakodate Dock Yards is capable of docking vessels up to 11,000 GRT.
b. Repairs - deck and engine repairs can be carried out by Matsuo Ship Repairing Co.
Electric repairs can be carried out by Mukai Bros. Electric Co.

17. OFFICIALS

		Yes	No
a.	U.S. Consul *	X	
b.	U.S. Army		X
c.	U.S. Navy		X
d.	U.S. Air Force		X
e.	Quarantine	X	
f.	Immigration	X	
g.	ABS		X

* At Sapporo

18. LST BEACHING AREAS

a. Dry ramp landing is located between piers 1 and 2 at berth #6. This area accommodates 2 LSTs.

19. GENERAL INFORMATION

a. This is a first port of entry.
b. The depth around the new portion of pier No. 3 is being dredged to about 33 ft.
c. There is no salvage tug stationed at Otaru, the nearest one is stationed at Hakodate.

SASEBO, JAPAN

Lat. 33-05N Long. 129-40E

1. GENERAL DESCRIPTION

Sasebo is located in the Nagasaki Prefecture on the northwest side of the Island of Kyushu. It is at the head of the northern arm of Sasebo Wan, an irregular, almost completely land-locked, four-armed body of water. Numerous ports on the Asian continent are easily reached from this strategically located port. Prior to and during World War II, Sasebo was an important naval repair base and considered to be the most important naval base in the western part of Japan. Since the war it has been converted into a commercial port, although U.S. Navy controls certain harbor operations through the local U.S. Fleet Activities Unit. Its port facilities and good shelter render it one of the leading ports in southern Japan for the trade with China and South Sea areas in the future. The port depends largely upon transhipping activities, together with POL and shipyard operations. Its imports consist largely of phosphates, salt, and foodstuffs.

2. REFERENCE CHART

a. H.O. 6365, H.O. Anch. JV, H.O. Anch. JU.

3. PILOTS

a. Pilots are available. Pilotage is compulsory except USN vessels.
b. Pilot pick-up point - Lat. 33-09-29N; Long. 129-43-16E.
c. Pilots are available day and night, but a four hour notice is required.

4. TUGS AND LIGHTERS

a. Tugs: ~~4~~ 2 YTBs (1 available each shift) 1100 HP. (average)
10 LCMs (4 available each shift) 350 HP
1 JAPANESE TUG, DIESEL 600 HP (MUNICIPAL TUG UNDER CONTRACT TO MSTS)
b. Lighters: For ammunition handling.

5. COMMUNICATIONS

a. COMFLEACTS SASEBO

(1) CW Call sign - "NOVEMBER ECHO GOLF," 2836 KCS. Guarded 24 hours per day 7 days per week.
(2) Voice radio call - "SASEBO CONTROL," 2716 KCS; Guarded 24 hours per day 7 days per week

b. CO MSTSO SASEBO

b5(2) Change to read - Voice radio call - "**MSTSO SASEBO** CONTROL," 2940 KCS; Guarded 0745-1700 daily (and one hour prior to and one hour after the ETA of any MSTS Controlled ship regardless of the time). For ships other than MSTS Controlled ships, the MSTSO Sasebo Duty Officer may be contacted through "Sasebo Control", 2716 KCS during the period 1700 through 0745.

6. NAVIGATION

a. Channel depth at main entrance over 60 ft.
b. Maximum depth of water at MLW at various berths and anchorages.
   (1) Seven ammunition anchorages 40 ft.
   (2) Eight dry cargo berths 32 ft.
   (3) Seven POL piers 45 ft., when camels are used.
c. Tidal range - springs 12' Neaps 10'
d. Navigational hazards - Benten Shima Shoals, vis, 33-08-40N 129-43-10E.

7. ANCHORAGE CAPACITY

Outside harbor entrance - unlimited.
In the harbor - over 30 anchorages.

8. QUARANTINE ANCHORAGE

a. 33-05-51N 129-42-20E.

9. AMMUNITION ANCHORAGE

a. 33-07-25N 129-44-45E.

10. MOORING BUOYS

Class A (9), Class B-25; and Class C-7.

11. BUNKERING FACILITIES

a. Barge - Yes.
b. Alongside - Yes. All public vessels and long term consecutive voyage charter and time charter vessels.

12. POTABLE WATER

a. By barge - Yes. Cost: Up to about 300 yen per ton, depending on delivery point, time of day, and weather.
b. Alongside about ¥95 per ton depending on time of day and weather.

13. PIERS

Name	India Basin
Length (Usable)	(8 large ship berths) Approx. 1800 yards
Width	Unlimited
Alongside depth MLW	35'-32'
Ht. of deck above MLW	10'
Lights on pier	Yes
Rails on pier	No (within 150 yards)
Potable water available	Yes
Bunkers	No

14. POL FACILITIES

Name	Depth at MLW	Pier Length	Lines	Size	Outlets & Size	Product	T/Tank Capacity
AKASAKI #1 Dock	26'	500'	2	20"	208",2-6" 2-5"	NSFO	Unknown
			1	6"	1-6"	100/130	
			1	6"	1-6"	115/145	
			1	6"	1-6"	Jet	
#2 Dock	28'	600'	2	20"	2-8",2-6" 4-5"	NSFO	
			1	6"	1-6"	Dsl	
			1	6"	1-6"	86A	
			1	6"	1-6"	Jet	
#3 Dock	31'	600'	1	8"	8-6"	NSFO	
			1	6"	1-6"	Dsl	
			1	8"	1-8"	Mogas	
			1	6"	1-6"	Mogas	
KAWANOTANI			1	8"	2-8"	NSFO	
			2	6"	5-6"	Dsl	
MOTOFUNE #1	30'	260'	1	20"	8-5"	NSFO	
			1	6"	1-6"	Jet	
			1	6"	1-6"	Kero-Dsl	
			1	8"	1-8"	Kero-Dsl	
MOTOFUNE #2	29'	260'	1	20"	3-8"	NSFO	
YOKOSE Main Dock	31'	260'	2	20"	6-6"	NSFO	2,754 MBBLS
			1	20"	3-6"	Dsl	
			2	6"	2-6"	Avgas	
Small Pier			2	6"	2-6"	Avgas	
IORIZAKI Main Dock	32'	260'	2	12"	4-5"	NSFO	1,310 MBBLS
			1	12"	4-5"	Multiple	
Jetty			4	6"	4-6"	Multiple	

* Camels 15' X 30' will be provided to breast ships out to maximum depth of 40' for AKASAKI, 35' for MOTOFUNE and 45' for YOKOSE. No more than three camels will be used.

15. HANDLING EQUIPMENT

a. General: There is sufficient cargo handling gear available for all types of general cargo. The general condition is execellent.

b. Heavy lift: Capacity of heaviest shore base crane is 250 tons (cap crane) located at India #5.

c. Floating Cranes:

TYPE	SAFE LIFT CAP. (T)	MAX HT OF LIFT ABOVE WATER LEVEL
(1) Japanese non-self propelled	150	183 Max)
(2) Japanese self-propelled	30 ea	73.4 (max) ea
(3) Japanese	24	46'

16. SHIPYARDS AND DRYDOCKS

At Sasebo (Senpaku Kogyo) Ship Heavy Industry Company (S.S.K.)

	#1	#2	#3	#4	#5	#6
a. Length	481'	699'	832'	1078'	393'	547'
b. Width at Entrance	79'04"	98'07"	104'05"	156'07"	82'05"	86'05"
c. Depth over Sill (at mean low water)	23'02"	28'01"	29'08"	39'06"	21'06"	26'06"

17. OFFICIALS

	YES	NO
a. U.S. Consul (nearest consul located in Fukuoka, Japan, 80 miles from Sasebo)		X
b. U.S. Army (Limited to a Sub-area Petroleum Detachment)	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 (Permanent station Nagasaki)	X	

18. LST BEACHING AREAS

There are three LST landing areas. At Akasaki there are two ramp accommodations for LSTs. At Hario Shima one LST may beach with a dry ramp. Additional LST beach landing areas may be used in emergencies.

19. GENERAL INFORMATION

a. Harbor accommodates largest ship afloat.
b. Ships may enter port day or night.
c. This is a "First Port of Entry."
d. Railroad service all points of Japan.
e. Highway to Moji or Nagasaki are in fair condition.
f. Ships carrying ammunition as cargo may enter this port, but must use ammunition areas.
g. Degaussing and deperming facilities are available in Sasebo. For specific information check MSTSFEINST 8950.1D.

SHIMONOSEKI, JAPAN

Lat. 33-57N Long. 130-57E

1. GENERAL DESCRIPTION

Shimonoseki Port, a part of the overall Kanmon Port Area, is situated at the extreme southwestern end of the main island of Honshu. From its strategic location, this port developed rapidly as an important center of trade with Korea. In 1903, it was designated as a general open port. Moji, the northernmost major port of Kyushu is located directly across the rapidly flowing Shimonoseki Strait. At times, and in certain sections of this Strait, the tidal current reaches a velocity of 7 to 8 knots.

Originally the Port of Shinomoseki handled the bulk of the domestic trade, whereas Moji, because of its greater alongside pier depths, accommodated the deep draft foreign ships. Shimonoseki is geographically well situated being protected on the northwestern side by high hills. This is particularly advantageous during the winter northwest monsoon season.

Today, this modern port offers major ship repairs, logistics and shelter to ocean going vessels. For passengers and crews there are many types of recreation to be found in the general Kanmon area.

2. REFERENCE CHART

H.O. 5319

3. PILOTS

a. Pilots are available day and night.
b. Pilots are not compulsory.
c. Pick up point:

Arriving from east, He Saki	33-56.5N	131-030E
Arriving from west, Mutsure	33-58.5N	130-530E

4. TUGS AND LIGHTERS

a. Tugs - 1 - 480 HP
1 - 1200 HP
b. Lighters - 20 (each 100M/T Cap.)

5. COMMUNICATIONS

a. Radio call sign - JNR (Harbormaster, Moji) 500 kc call.
472 kc send.
JCG (Shimonoseki) 500 kcs call.
521 kcs talk.
b. Voice call sign - none
c. Times guarded - (Zulu hours) 2230 - 0800 hrs except Sundays and holidays.

6. NAVIGATION

a. Channel depth: 30'
b. Channel width: 34'
c. Harbor depth: 30' (minimum)
d. Tidal range: Springs 8' Neaps 5'6"
e. There are no harbor hazards or obstructions.

7. ANCHORAGE CAPACITY

a. Limited to 1 or 2 ships.

8. QUARANTINE ANCHORAGE

a. Mutsure - Lat. 33-59N Long. 130-53E (West entrance)
b. He Saki - Lat. 33-56N Long. 131-03E (East entrance)

9. AMMUNITION ANCHORAGE

a. Lat. 33-59.6N Long. 130-54E (Nishiyama)

10. MOORING BUOYS

a. Shimonoseki Buoy #1 is the only one used for cargo operations.
b. Capacity - 10,000 tons
c. Depth of water - 30'

11. BUNKERING FACILITIES

a. By barge only
b. Capacity - 2710 K/L 9 barges
c. Commercial negotiable rate.
d. Pumping capacity per hour 100 K/L

12. POTABLE WATER

a. Water barge 330 ton
b. Alongside 41 hydrants pump 50 tons/hr 27 pump 35 ton/hr
c. Cost per ton ¥50 alongside, ¥110 from barge

13. PIERS

Name or Number	Berths	JNR Wharf	New Pier
	1-4	5-7	8-13
Length (Alongside)	824 M	550 M	990 M
Width	VARIABLE		
Alongside Depth	5-7 M	7 M	9 M
Ht. of deck above MLW	2.5 M	2.5 M	2.5 M
Lights on Pier	Yes	Yes	Yes
Rails on Pier	Yes	Yes	Yes
Potable water available	Yes	Yes	Yes
Bunkers	Yes	Yes	Yes

14. POL FACILITIES

a. Shell

"A" jetty - 4 pipe lines
6 inch - Marine Fuel Oil & Bunker "C"
6 inch - Bunker "A"
6 inch - Bunker "B"
4 inch - Kerosene
Depth of water at face - 11.5 ft., for barges up to 250 DWT

"B" Jetty - 5 pipe lines
6 inch - Bunker "B"
6 inch - Bunker "C"
6 inch - Gasoline
4 inch - Auto oil
4 inch - Machine oil
Depth of water at face - 20 ft., for tankers up to 4,000 DWT

One 10-inch submarine pipe line 63 meters long ending in a 61'8" flexible hose. Depth of water at end of line 35 ft. Used for black oil from tankers up to 12,000 DWT. Tanker is moored to bollards ashore and anchored mooring buoys.

Tanks

Product	Capacity
Bunker "B"	4869 KL
Bunker "A"	3053 KL
Bunker "C"	4025 KL
Marine Fuel	10117 KL
Gasoline	2440 KL

Small tanks of other products are available.

b. Caltex

No. 1 Jetty - 3 pipe lines
6 inch x 2 - Gasoline
6 inch - Kerosene
Depth of water at face - 17 ft., for barges up to 500 DWT

No. 3 Jetty - 6 pipe lines
8 inch - Bunker "C"
6 inch - Bunker "A"
6 inch - Bunker "B"
4 inch x 2 - Diesel
4 inch - Lub oil
Depth of water at face 20 ft., for tankers up to 2200 DWT

Tanks

Product	Capacity
Bunker "A"	1500 KL
Bunker "B"	7250 KL
Bunker "C"	5500 KL
Diesel	1500 KL
Kerosene	450 KL
Gasoline	1050 KL

No submarine line.

15. HANDLING EQUIPMENT

Movable Jib Crane	- 12	25T X 1 10T X 2 3T X 2 2T X 4 1.5T X 3
Fixed Jib Crane	- 6	10T X 1 5T X 2 3T X 1 2T X 1 1.5T X 1
Tower Crane	- 3	5T X 1 2T X 1 4T X 1
Mobile Crane	- 1	8T X 1
Derrick Crane	- 2	3T X 2
Gantry Crane	- 1	2T X 1
Belt Conveyors	- 5	5HP X 5

Heaviest shorebased crane is a 25 ton Movable Jib Crane located at #2 slipway, MITSUBISHI SHIPYARD.
Heaviest shorebased crane for general cargo is a 10 ton fixed Jib Crane located at JNR Wharf.

Floating Crane	Capacity	Max. Lift	Max. Vert. Lift	Not self propelled
	130 T	23 M	31 M	

16. SHIPYARDS AND DRYDOCKS

a. Mitsubishi Shipyard
b. Complete hull and machinery repairs for ships up to 11,000 G/T.
c. 4 drydocks - largest 538 ft.(L), 82 ft. entrance, 15 ft. over sill.

17. OFFICIALS

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

*MSTS REP AT MOJI

18. LST BEACHING AREAS

None reported.

19. GENERAL INFORMATION

a. This is a "First Port Entry".
b. Ships normally enter port daylight only, although this may be changed at option of pilot.
c. Largest ship accommodated - 10000 G/T - draft 29 ft.
d. Ships carrying ammunition are not allowed to enter port.
e. This port is on the main railroad lines (JNR) leading to all parts of Japan.
f. The highways leading north and south are in fair to good condition. In addition to the railroad tunnel there is one vehicular tunnel connecting Honshu and Kyushu with Moji and Shimonoseki as terminals.

TOKYO, JAPAN

Lat. 35-38N Long. 139-46E

1. GENERAL DESCRIPTION

During the Tokugawa and the early Meiji eras (1868) small sailing vessels up to 300 tons, came from every part of Japan, and anchored on the west side of the Sumida Gawa near the entrance. The anchorage, which was about 2 fathoms deep, extended about 1 mile in length between the then existing Central Market and down stream to Eitai Bashi. It was the only anchorage for commercial and military vessels in the Yedo area (old Tokyo). It was not until 1922 that the harbor construction works were commenced by the authorities of Tokyo city.

During the time the present site of Shibaura Wharf was being filled, the great earthquake took place in the Kanto area on 1 September 1923. This reclaimed land was fully utilized as open storage for the relief materials brought in by ships to the disaster area.

Due to the shortage of lighters and tugs, and for time saving purposes in handling cargo, the Naval Vessel "Kasuga" departed Kure loaded with rice for the citizens of Tokyo. The Captain was compelled to run the risk of entering the anchorage off the newly reclaimed land through the shallow fairway which at the time was poorly charted. The "Kasuga's" successful entry was the first visit of a large vessel to the Port of Tokyo.

Following completion of the Hinode Wharf which included a railroad spur from Shimbashi cargo station, a large scale harbor construction was commenced in 1930. To accommodate vessels of about 6,000 ton class, the Shibaura and Takeshiba wharves were constructed on the south and north of the Hinode Wharf. The entrance channel was dredged to a controlling depth of about 26 feet.

The forts located in the middle of the harbor were man made. Construction was completed in about 3 years.

Present plans envision an extensive development of the port of Tokyo with alongside berthing for many deep draft ships.

2. REFERENCE CHART

a. H.O. 5468 (Entrance) H.O. 5469 (Harbor)

3. PILOTS

a. Pilotage not compulsory but recommended.
b. Pilot station - Eastward of entrance to fairway in vicinity of Tokyo Light Vessel, Ref. H.O. Chart 5468.
c. Pilot Office: Located in Life Saving Association Building, south end of Shibaura wharf.

4. TUGS AND LIGHTERS

a. Harbor Office Tugs 1-900 HP and 1-280 HP.
b. Many privately owned tugs.
c. There are 5 oil barges.

d. There are 6 water barges.

(1) 1 owned by Tokyo Metropolitan Office.
(2) 5 owned by private firms.

5. COMMUNICATIONS

a. Radio call sign - JGC - 500 KC, 444 KC (Yokohama Harbor Master)
b. Voice call sign - none
c. Times guarded - 24 hrs.

6. NAVIGATION

a. Channel depth - controlling depth 27'
b. Harbor depth - 15-30'
c. Tidal range - Springs 6' Neaps 3'
d. Navigational hazards
(1) Numerous small vessels operating in fairway.
(2) Narrow channel and limited turnaround area.
(3) Dense fog (vis. less than ½ mile) 40 days in June and July.

7. ANCHORAGE CAPACITY

One or two medium type vessels in the inner harbor. As a rule anchorage is not permitted in the inner harbor.

8. QUARANTINE ANCHORAGE

a. Eastward of the entrance to the fairway. Ref. H.O. Chart 5468
Lat. 35-34.7N Long. 139-49.5E

9. AMMUNITION ANCHORAGE

a. As assigned by the Harbor Master.

10. MOORING BUOYS

Total 21: 7 for medium type vessels, 8 for coastal size vessels, 6 for small type vessels.
(1) No. 1 mooring buoy - 29 feet depth.
(2) Other mooring buoys - 15 ft. to 25 ft.
(3) Fore and Aft type mooring used in Tokyo Harbor.

11. BUNKERING FACILITIES

a. None alongside.
b. Kerosene - 5 oil barges
c. Fuel barges can be arranged from Yokohama.

12. POTABLE WATER

a. All deep water tanks for loading water barges have 3-inch water lines, capacity 15 to 50 tons per hour.
b. There are 6 water barges available.

13. PIERS

Name or Number	SHIBAURA	HINODE	TAKESHIBA	CENTRAL MARKET
Length (Usable)	2,986'	1,850'	987'	357'
Width	NA	43'	33'	49'
Alongside depth	20' 16'	20'	15-18'	13'
Ht. of deck above MLW	12.4'	12.4'	12.4'	12.5'
Lights on pier	Yes	Yes	Yes	Yes
Rails on pier	Yes	Yes	Yes	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

Name or Number	CENTRAL MARKET PONTOON	HARUMI	ONODA CEMENT TOKYO SERV. STN.
Length (Usable)	98'	1150'	525'
Width	46'	43'	21'
Alongside depth	12'	25-34'	
Ht. of deck above MLW	12.4'	12.4'	12.4'
Lights on pier	Yes	No	No
Rails on pier	No	Yes	No
Potable water available	No	Yes	Yes
Bunkers	No	No	No

14. POL FACILITIES

Name of Oil Company	Name or No. of Berth	Tank Capacity	Berthing Method	Depth Berth (MLWS)
Tokyo Gas Co. Ltd.	Toyosu Wharf	69,000 KL	Alongside	9.30 m

15. HANDLING EQUIPMENT

a. Shibaura Wharf - one fixed crane capacity 15 ton.
b. Hinode Wharf - eight locomotive cranes.
c. Harumi Wharf - four movable cranes capacity 5 tons. Four cement conveyors capacity 200 to 400 tons per hour.
d. Toyosu Coal Wharf - seven locomotive cranes capacity 2.5 to 5 tons
e. Tokyo Tekko Wharf - two movable cranes.
f. Floating cranes - one 50 ton (cap.)

16. SHIPYARDS AND DRYDOCKS

Ishikawajima Heavy Industry Co., Shipyards — any kind of repairs of hull and engine.
Drydocks — Ishikawajima shipyards

	Length	Breadth	Depth over sill	Vessel Accommodated
No. 1	428'	57.3'	23.8'	7,000 ton class
No. 2	566'	70.5'	23.8'	14,000 ton class

17. OFFICIALS

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

18. LST BEACHING AREAS

a. None

19. GENERAL INFORMATION

a. This is a "First Port of Entry".
b. Normally entered during daylight hours.
c. Special permission required for transit other than daylight hours.
d. There are several dumping areas on both sides of Tokyo Fairway. Ref. H.O. Chart 5468.
e. There are numerous port development projects in process.

WAKKANAI, JAPAN

Lat. 45-27N; Long. 141-39E

1. GENERAL DESCRIPTION

Wakkanai harbor is located on the east side of Noshappu peninsula, north point of Hokkaido. Prior to World War II Wakkanai prospered as a junction for ferry routes to Sakhalin. Wakkanai is now a base for ferries to the islands on the west coast of Hokkaido and is a center of marine industries operating in the fishing grounds of Okhotsk Sea and near Sakhalin.

2. REFERENCE CHART

a. J.H.O. 1041

3. PILOTS

Unavailable.

4. TUGS AND LIGHTERS

a. Tugs: None
b. Lighters: Unknown

5. COMMUNICATIONS

a. Radio Call Sign "JULIET NOVEMBER WHISKY" KCS 436 and 512
b. Times Guarded: 24 hours

6. NAVIGATION

a. Harbor depth - Outer harbor - 14 meters
Inner harbor - 3 to 9 meters
b. Channel width - 1 mile
c. Tidal Range - Springs 0.7 ft.
d. Navigational Comments:
The strong northly winds which prevail during the winter months are extremely unfavorable in this port. The periods from late September to early January and from late March to late April bring erratic weather with sudden changes. Prevalent during these periods is an easterly wind which veers to north-northwest and is usually accompanied by heavy swells. Fog is the only unfavorable condition which prevails during the summer months, and this usually disperses in the forenoon.

7. ANCHORAGE CAPACITY

None

8. QUARANTINE ANCHORAGE

a. Lat. 45-25-30N; Long. 141-42E

9. AMMUNITION ANCHORAGE

None

10. MOORING BUOYS

None

11. BUNKERING FACILITIES

a. By barge - rate 35 to 5 T/hr
b. Alongside Rirei Wharf 600 T/hr

12. POTABLE WATER

a. None by barge
b. Alongside Rirei Wharf rate 40 T/hr

13. PIERS

a. General cargo

Name or number	Rirei Wharf	Central Wharf	
		N. Side	E. End
Length Alongside	327 M	150 M	180 M
Width	25'	-	-
Alongside depth	27'	13'	18'
Ht of deck above MLW (ft)	12.4'	7'	7'
Lights on pier	Yes	-	-
Rails on pier	Yes	No	No
Potable water available	Yes	No	No
Bunkers	Yes	No	No

* Comments:
Central Wharf is not completed.

14. POL FACILITIES

None

15. HANDLING EQUIPMENT

None

16. SHIPYARDS AND DRYDOCKS

None

17. OFFICIALS

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

*Representative is sent from Misawa AFB

18. LST BEACHING AREAS

None

19. GENERAL INFORMATION

a. Wakkanai harbor is a very unprotected harbor especially for winds from the northeast.

YOKOHAMA, JAPAN

Lat. 35-27N; Long. 139-35E

1. GENERAL DESCRIPTION

Yokohama, one of the leading commercial ports of Japan, is located in the center of the southeastern side of Honshu. It is about 18 miles south of the center of Tokyo and is part of what is known as the Heihin industrial district formed by the industrial components of Tokyo, Kawasaki and Yokohama.

Economic activity in Yokohama centers around shipbuilding, manufacturing of iron and steel goods, processing of chemicals and the refining of petroleum. The port was officially opened in 1859 as the result of negotiations between the United States and Japan. In 1923 it was almost completely destroyed by an earthquake. At the outbreak of World War II, it was one of the most prominent commercial shipping ports of the world. During the war the port was the target of many bombing raids, which resulted in almost complete incineration of the city, but only minor damage to port facilities.

Today Yokohama is considered as the primary port in Japan in the export of certain commodities such as raw silk, textiles, foodstuffs and oil.

2. REFERENCE CHART

a. H.O. 5330 (Harbor) H.O. 5467 (Entrance)

3. PILOTS

a. Pilotage is compulsory.
b. Pilot pick-up point, Lat. 35-26-07N; Long. 139-42-00E.
c. Pilots are available day and night.

4. TUGS AND LIGHTERS

a. U.S. Army controls 2 small tugs available during the daytime. Available during night time with prior notice.
b. U.S. Army controls 4-BC (250 s/t) and 1-BCL (450 s/t) Available day or night for cargo only.
c. Contracted Commercial Tugs.
   (1) 30 tugs - 350 HP to 1760 HP.
d. Contracted Commercial Barges.
   (1) 40 barges - 160 m/t to 190 m/t (95 l/t to 115 l/t).

5. COMMUNICATIONS

a. Radio call sign - "ALFA DELTA BRAVO 34" (NP-Port Radio) ~~(Also MSTS voice call sign).~~
b. Voice call sign - "~~ALFA DELTA BRAVO 34~~" (NP-Port Radio) KCS ~~2940.28~~ 25 PORT CONTROL YOKOHAMA
c. Times guarded - 24 hours.

6. NAVIGATION

a. Channel depth - 40' - 45'
b. Harbor depth - 25' - 35'
c. Tidal range - Springs 6'3" Neaps 2'4"

7. ANCHORAGE CAPACITY

a. Outer harbor - more than 15 large type vessels.
b. Inner harbor - two large type vessels.

8. QUARANTINE ANCHORAGE

Lat. 35-27-08N; Long. 139-41-45E

9. AMMUNITION ANCHORAGE

Lat. 35-27-15N; Long. 139-44-30E

10. MOORING BUOYS

Under the present situation many vessels are forced to be moored at buoys. In the port there are 43 mooring buoys of which 42 are owned by the port authorities and 1 by private company. Their mooring capacities are as follows:

(City operated only)

District	Mooring Capacity G/T	No. of Buoys	Remarks
1st District	1,000 G/T	7	H1,H2,H3,A,B,C&D
	5,000 "	1	No. 11
	7,000 "	1	No. 10
	9,000 "	1	No. 3
	10,000 "	1	No. 1
	12,000 "	1	No. 2
	15,000 "	6	No.4,5,6,7,8&9
2nd District	1,000 "	1	H4
	6,000 "	1	No. 29
	10,000 "	9	No. 20, 21, 22, 23, 24, 25, 26, 27, 28
3rd District	1,000 "	1	No. 30
	3,000 "	1	No. 31
	6,000 "	1	No. 43
	10,000 "	10	No. 32, 33, 34, 35, 36, 37, 38, 40, 41, 42
	20,000 "	1	No. 39
Total		43	

11. BUNKERING FACILITIES

a. Barge - 70 commercial barges. MSTS controlled barges under commercial contract - are ordered as required.
b. Capacity of MSTS controlled barges - NSFO 4,000 bbls per barge
Diesel 2,000 bbls per barge
c. Pumping rate of MSTS controlled barges -
NSFO 1500 bbls/hr
Diesel 1500 bbls/hr

NOTE: Rate will vary with conditions of height of lift, temperature, etc.

d. From pier - none

12. POTABLE WATER

a. Pier	Hydrants	Capacity - Tons/hr	
		DAY	NIGHT
North Pier	23	45	50
South Pier	26	60	80
Center Pier	30	60	90
Takashima Pier	16	30	40
Yamanouchi Pier	5	30	40
Detamachi Pier	6	60	80
Yamashita Pier	5	40	50

b. Water Barges
Owner: Municipal Water Supply Bureau
1 Self-propelled Barge: 140 tons
6 Non-self-propelled barges: 120 - 170 tons
Capacity, tons per hour: 30 - 130 tons

13. PIERS

a. General cargo and passengers under U.S. Army control.

(1) North Pier

Name or Number	Berth(A)	Berth(B)	Berth(C)	Berth(D)	Berth(E)	Berth(F)
Length (Alongside)	546'	467'	600'	500'	600'	500'
Width						
Alongside depth	31'	29'	27'	27'	30'	33'
Ht of deck above MLW						
Lights on pier	Yes	Yes	Yes	Yes	Yes	Yes
Potable wtr available	Yes	Yes	Yes	Yes	Yes	Yes
Rails on pier	Yes	Yes	Yes	Yes	Yes	Yes
Bunkers	None	None	None	None	None	None

13. PIERS (Cont'd)

Name or Number	Berth(G)	Berth(H)	Berth(I)	Berth(J)	Berth(K)	Berth(N)
Length(Alongside)	500'	450'	500'	FOR LST	FOR LST	FOR LST
Width						FOR-AFT
Alongside depth	35'	32'	10'	11'	8'	9'-12'
Ht of deck above MLW						
Lights on pier	Yes	Yes	Yes	Yes	Yes	Yes
Potable wtr available	Yes	Yes	Yes	Yes	Yes	Yes
Rails on pier	Yes	Yes	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No	No	No

(2) Center (Shinko) pier berth #7 is a U.S. Army operated. Refer cargo pier. It is 520' alongside, 28' depth with lights, rails and potable water available. Bunkers are by barge only.

b. Major piers used by commercial companies

	Pier Capacity			
Piers	Docking line	Depth	No. of Berths	Mooring Capacity
Osambashi Pier (South)	900 meters	10.6-11.6m	4	1-45,000 T G/T 2-25,000 " "
Shinko Pier	1,752 meters	6.0-10.8 m	12	1-10,000 " " 1-20,000 " " 1-10,000 " " 5- 8,000 " " 1- 4,000 " " 3- 3,000 " " 1- 2,000 " "
Takashima Pier	930 meters	7.3-10.0 m	6	2-15,000 " " 2- 6,000 " " 2- 3,000 " "
Yamanouchi Pier	401 meters	8.0 m	3	3- 6,000 " "
Detamachi Pier	270 meters	7.5 m	2	2- 5,000 " "
Yamashita Pier	920 meters	10.0-11.0 m	5	1-20,000 " " 4-15,000 " "
Total	6,432 meters		39	

Further, the Port of Yokohama has 33 private piers (mooring capacity: 500-40,000 tons)

14. POL FACILITIES

a. U.S. Army controlled

Caltex - Tsurumi Depot - berthing - alongside with bollards, maximum length and draft 650', 25'; total tank capacity 780,000 bbl, Products - JP4, JP5, AVGAS, Mogas and diesel.

14. POL FACILITIES (Cont'd)

Approximate discharge rate on one 8" hose with 80 lbs press. (80 lbs press. is max allowable press. at the facility) 3,000 bbl/hr approx. back load rate - same.

b. Commercial

Name of oil company	Name or No. of berth	Tank Capacity	Berthing Method	Depth Berth (MLWS)
Nippon Petroleum Refining Co., Ltd.	Berth A	309,500 KL	Alongside	12.00 m
" "	Berth C	"	"	8.10 m
Asia Oil Co., Ltd.	No.2 Jetty	65,000 KL	"	9.00 m
" " " "	No.5 Jetty	395,000 KL	"	12.00 m

15. HANDLING EQUIPMENT

U.S. Army controlled.

Type	Number	Capacity	Boom Length
Wheeled crane	18	5 to 20 tons	30' to 70'
Mobile	3	4 ton	2-50' 1-60'
Crawler	1	7 to 10 ton	45'
Forklifts	99	2,000 - 1,500 lbs	
Floating crane	2	100 and 60 tons	

16. SHIPYARDS AND DRYDOCKS

	Yokohama S.Y.	Asano S.Y.
Length	640 ft.	680 ft.
Width at entrance	78 ft.	93 ft.
Depth over sill	23 ft.	24 ft.

(Kawasaki) Hitachi S.Y.
Dock #1 - length 541 ft. width 69 ft. cap. 7000 tons.
Dock #2 - length 725 ft. width 98 ft. cap. 20,000 tons.

17. OFFICIALS

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

18. LST BEACHING AREAS

a. North Pier "N"
b. North Pier "I" (2 beaching berths)
c. North Pier Landing #10 and #11 (Alongside only)

19. GENERAL INFORMATION

a. Largest ship to accommodate at this port:
Length: 630'
Width: 114'
Depth: 33'
b. Ships carrying ammunition are not allowed to enter port. Ammunition discharge area is east of quarantine area.
c. Ships may enter or leave day or night.
d. This is a "First Port of Entry".
e. Major rail lines and highways pass through Yokohama.
f. New harbor area - The coast of Negishi Wan, from Honmoku Hana to Ko-no-su Hana, is being reclaimed (1964). The area being reclaimed has a length of about 4 miles along the former shoreline,and a width of about 0.4 to 1.2 miles. The area is reserved for heavy industry and oil refinery facilities. The Nippon Petroleum Oil Refinery Negishi Farm area has been reclaimed, and has on its front a large tanker berth (for berthing alongside) with a depth of water greater than 7 fathoms and usable length of about 1,500 feet. The southerly part of the reclaimed area will be used mainly by the Ishikawajima-Harima Dockyard Company.

YOKOSUKA, JAPAN

Lat. 35-19N Long. 139-41E

1. GENERAL DESCRIPTION

Japan opened her doors to foreign countries and western civilization after Commodore Perry's landing at Kurihama 14 July 1853. The Yokosuka Iron Foundry was established in 1856 and promised the prosperity of Yokosuka today. Yokosuka, until then, was a mere fishing village. As it grew in appearance of a naval port, Yokosuka inaugurated its city system on 15 February 1907. During some 70 years, the destiny of Yokosuka as Japan's largest naval port has rose or declined following the increase or decrease in the size of the Japanese Navy.

After the end of the World War II, Yokosuka stepped up its building of city industry, trade port and sightseeing. Former Japanese military installations have been transformed to such industries as automobile, cotton-spinning, reeling, canned foods, or electricity. Thus, Yokosuka has now become a peaceful city of industry and a port with a population of 280,000.

Yokosuka is located at the entrance of the Tokyo Bay facing the Boso Peninsula. The harbor is divided into two sections by Azuma Island. The northern part is called Nagaura, which is open to civilian shipping; the southern part, which includes a major portion of the former Japanese Naval Base, is now administered by Commander U.S. Naval Forces, Japan. Large quantities of petroleum products are handled at the Hakozaki Terminal on Azuma Island.

2. REFERENCE CHART

H.O. Chart JN (Harbor); H.O. Chart 6068 (Approaches)

3. PILOTS

a. Pilots are available day and night.
b. Pilots are required when proceeding to a U.S. Navy pier.
c. Pilot pick-up point: Lat. 390-19N; Long. 139-41E, off the breakwater.

4. TUGS AND LIGHTERS

a. USN Tugs: 5 YTB of 1000 HP each
b. Commercial tugs: Sagami-Unyu Co. Ltd. Yokosuka
Tel Yokosuka (6) 4885
They have 2 - 2080 HP and one 675 HP
Note: Commercial types can be arranged from Yokohama.
c. Lighters USN: 2 YC 500 T
2 YCU 750 T
3 HM 80 T
1 HM 150 T
d. Lighters Commercial: Arranged from Yokohama.

5. COMMUNICATIONS

a. Radio call sign NDT 1 KCS 2836 (~~A2D~~)
b. Voice call sign *CONTROL KCS 2716 (~~A2C~~) *YOKOSUKA
c. Times guarded (Zulu hours) 24 hrs.

6. NAVIGATION

a. Channel depth - outer harbor 65 ft. inner harbor 40 ft.
b. Channel width - 325 yards narrow point.
c. Harbor depth - Inner 40 ft., Outer 60 ft.
d. Tidal Range - Springs 5½ ft, Neaps 4½ ft., mean 3½ ft.
e. Navigational Comments: Caution should be taken in navigating in the approaches to Yokosuka, ships have stranded by mistaking Futtsu Harbor works for Fort No. 1.

7. ANCHORAGE CAPACITY

a. Sufficient anchorage area (reference: H.O. Chart JN)

8. QUARANTINE ANCHORAGE

a. Vicinity of Lat. 35-19.2N and Long. 139-40.5E.

9. AMMUNITION ANCHORAGE

a. Lat. 35-19.2N; Long. 139-41.5E Designated B-136.
b. Buoy #1 is used for off loading or loading when available.
c. The U.S. Army will not work ammo on a ship with explosive content of more than 500,000 lbs except at buoys E1, E3 and 11.

10. MOORING BUOYS

a. Total number of mooring buoys available 55.
b. Type - Radical and Fore and Aft.
c. Class AA - 300,000 ton, amount 2.
Class BB - 250,000 ton, amount 5.
Class CC - 200,000 ton, amount 6.
Class DD - 175,000 ton, amount 4.
Class A - 150,000 ton, amount 12.
Class D - 75,000 ton, amount 26.

11. BUNKERING FACILITIES

a. By barge (NSFO and Diesel)
b. Location - North dock Azuma Island.
c. Class - Navy special and delivered by YO's
d. Government cost per BBL $2.40 of NSFO, 8.7¢ per gal. diesel.
e. Commercial - Arranged through MSTSFE Yokohama.

12. POTABLE WATER

a. By barge or alongside pier.
b. Buoy D-4 by pre-notice.
c. Cost $0.36 for 1000 gal.

13. PIERS

Name or Number	Berth 1	Berth 2	Berth 3	Berth 4S
Length (Alongside)	320'	492'	492'	170'
Width		68'	68'	
Alongside depth	19'0	33'0	30'0	30'0
Ht. of deck above MLW				
Lights on Pier?	No	No	No	No
Rails on Pier?	No	No	No	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

Name or Number	Berth 4N	Berth 5	Berth 6	Berth 7
Length (Alongside)	160'	425'	387'	387'
Width			62'	62'
Alongside depth	30'	35'	30'	30'
Ht. of deck above MLW				
Lights on Pier?	No	No	Yes	Yes
Rails on Pier?	No	No	No	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

Name or Number	Berth 8S	Berth 8	Berth 9	Berth 10
Length (Alongside)	200'	837'	500'	492'
Width				68'
Alongside depth	30'	30'	30'	38'
Ht. of deck above MLW				
Lights on Pier?	No	No	No	Yes
Rails on Pier?	No	No	No	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

Name or Number	Berth 11	Berth 12	Berth 13	Berth 14
Length (Alongside)	482'	920'	200'	550'
Width	68'			
Alongside depth	38'	36'	35'	42'
Ht. of deck above MLW				
Lights on Pier?	Yes	No	No	No
Rails on Pier?	No	No	No	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

Name or Number	Berth 15	Berth 16	Berth 17	Berth 18
Length (Alongside)	550'	550'	550'	240'
Width				
Alongside depth	42'	42'	42'	30'

PIERS (Continued)

	Berth 15	Berth 16	Berth 17	Berth 18
Ht. of deck above MLW				
Lights on Pier?	No	No	No	No
Rails on Pier?	No	Yes	No	No
Potable water available	Yes	Yes	Yes	Yes
Bunkers	No	No	No	No

14. POL FACILITIES

a. AZUMA - Number, size of lines and products

North Dock	South Dock
1-12 inch NSFO	1-12 inch NSFO
6-8 " NSFO	1-8 " NSFO
1-12 inch Diesel	1-8 " Diesel
1-8 " Diesel	
2-8 " JP-5	1-8 " JP-5
3-8 " Multiproduct	2-8 " Multiproduct
	2-6 " Multiproduct

Note: The maximum draft to be brought alongside the North Dock (at high water) is 37 ft. This figure must be reduced during neap tides.

The South Dock is for small tankers.

CAPACITY OF TANKS BY PRODUCT/BBLS

Product	
NSFO	1,219,600
Diesel	352,400
JP-5	177,200
JP-4	1,517,300
Gas TY-1	282,700
AVGAS 115/145	128,300
AVGAS 100/130	5,500

Capacity of each product may be varied by changing tanks.

b. KOSHIBA ZAKI

Location: Tokyo Bay 1 mile North Yokosuka breakwater.
Pilot: Yokohama Pilot Association jurisdiction.
No barges permitted alongside.
Moorings: Open moorings 4 mooring buoys

b. SOUTH BUOYS

Size of vessel: Unlimited
Depth: 12 fathoms
Two flexible 10" submarine hoses vessel using two at a time, designated No. 1 and No. 2
Distance: (off shore pump house to vessel) 4,900 feet
Pressure: 110 PSI
Rate of discharge: (Approx.) 9,000 BPH
Product: MOGAS 86A, C.
AVGAS 115/145, 100/130, JP-4, Diesel
Rate of loading: (Approx.) 3,800 BPH
Restricted by terminal pumps
Remarks: Vessel moors to 4 buoys.
Hose connected to cargo transfer platform.
Phone on board at all times.

c. KOSHIBA NORTH BUOYS

Depth: 3 fathoms plus 3 feet per soundings
Size of vessel: AOGs, Y Tanker ships
Designated: Three submarine hoses (8" flexible) each to 6" reducer.
Lines: 3, 4 and 5
Distance (Off shore, pump house to vessel) 4280 feet.
Products: MOGAS 86A, C.
AVGAS 115/145, 100/130, JP-4
Rate of Loading: 2,000 BPH
Remarks: Generally used for backloading only.
One T-2 on South Buoy
One AOG on North Buoy
Simultaneously. Common procedures

15. HANDLING EQUIPMENT

a. Many pier cranes, stationary and rail type. Maximum capacity 350 tons, crane located at berth 12.
b. Floating cranes
(1) 1- 150 ton crane maximum verticle lift 192 ft.
(2) 2- 30 ton cranes maximum verticle lift 73 ft.

16. SHIPYARDS AND DRYDOCKS

a. The shipyard which is well equipped has general stateside capabilities.
b. Drydocks

	1	2	3	4	5	6
Length	455'	500'	310'	814'	1072'	1115'
Width at Entrance	82'	94'	45'3"	93'1"	123'10½"	168'
Depth over Sill	13'	19'6"	9'	26'9"	22'	42'

17. OFFICIALS

		YES	NO	
a.	U.S. Consul		X	(Yokohama)
b.	U.S. Army		X	(Yokohama)
c.	U.S. Navy	X		
d.	U.S. Air Force		X	(Tokyo area)
e.	Quarantine Officials	X		
f.	Immigration Officials	X		
g.	A.B.S. Officials	X		
h.	USCG. Merchant Marine Detail		X	(Yokohama)

18. LST BEACHING AREAS

a. Lat. 35-17.6N; Long. 139-40E, Quay type landing accommodating one LST. Tugs are available to assist, no bollards or deadmen available, dry ramp landing not possible, hazards - shoals to South of ramp makes approach difficult.
b. Lat. 35-18-55N; Long. 139-38-55E Bollards are available, tugs available to assist, enter and leave at high water.
c. Lat. 35-18-52N; Long. 139-38-55E, Bollards and deadmen available, tugs available to assist, enter and leave at high water.

19. GENERAL INFORMATION

a. Yokosuka is a first port of entry.
b. Yokosuka is noted to be a typhoon harborage port.
c. Degausing Range centered in vicinity of Lat. 17-35-50N Long. 139-39-45E. Ref. H.O. Chart JN.
d. Ships carrying ammunition are generally assigned a buoy in the outer harbor.
e. Ships carrying ammunition for the next Port of Call may discharge general cargo alongside providing prior permission is obtained from Commander Fleet Activities, Yokosuka.
f. The largest ship to be accommodated at this port was the USS CONSTELLATION (1047 ft. long, 252 ft. wide, 35 ft. draft).
g. Ships may enter day or night.

GAZAN, KOREA

Lat. 37-58N Long. 126-58E

1. GENERAL DESCRIPTION

Gazan (Asan Moyoji) is about 38 miles southwest of the capital city of Seoul. The village is principally a fishing port. Use of the mooring is limited due to the extreme tide range. The mooring is well sheltered and ice free in winter. There are no port facilities available. This is principally a POL discharge point.

2. REFERENCE CHART

a. H.O. 3237

3. PILOTS

a. Pilots are available on a forty-eight hour notice to the MSTSO Inchon.

b. Pilots are not compulsory, but it is recommended due to the numerous islands and tidal currents of $2\frac{1}{2}$ to 4 knots.

c. Pilots are available day and night but arrival is recommended during daylight only. Approach to Gazan is best 3 hours before high slack tide.

4. TUGS AND LIGHTERS

a. Tugs and line handling boats are furnished by the 2nd Transportation Terminal Command (B), Inchon.

b. No lighters available.

5. COMMUNICATIONS

a. No communications facilities available at Gazan.

b. Voice call sign - "INCHON CONTROL," 2716 KCS

6. NAVIGATION

a. Controlled Channel Depth - (LLW) approximately 3 fathoms, but charted depth cannot be considered reliable due to constant silting. Recommend approach to Gazan on or just before high water.

b. Channel Width - Approximately 200' (safe)

c. Harbor Depth - Charted depths cannot be considered reliable. Minimum depth is approximately 14' because of the silting.

d. Tidal Range - Springs 29.2' Neaps 22.2'

e. Harbor hazards/obstructions and navigational aids:

(1) At the northwestern end of the entrance to Asan Myoji (Gazan) is Pang Do, a group of above water rocks on a patch of foul ground. The most dangerous of these rocks are visible at low tides, but the entire area should be avoided because of the many underwater rocks in the vicinity.

(2) The approach to Asan Myoji (Gazan Anchorage) is best made on or just before high water slack. The narrow channel between Pang Do and the middle ground westward is marked by buoys. A vessel can safely clear this channel by steering 146.5° true on the Nai to Range Beacons. On gaining the range, the front beacon should be kept slightly to the left (East) of the rear beacon.

(3) The petroleum pipe lines are located about 1.75 miles south southwestward of Nomi San. A yellow can buoy marks the seaward end of each of the two pipe lines. Mooring buoys are located at the T-1 mooring and a light buoy is moored about ½ mile southeastward. Two miles southwestward of the light buoy a lighted beacon stands 1/3 mile off the northwestern side of an islet.

7. ANCHORAGE CAPACITY

a. None available

8. QUARANTINE ANCHORAGE - none available

9. AMMUNITION ANCHORAGE - none available

10. MOORING BUOYS

a. Four (4) radial type buoys available with a capacity of approximately 10,000 tons.
b. Water Depth - 5.5 fathoms.
c. Location - Lat. 36-58.1N Long. 126-49.1E

11. BUNKERING FACILITIES

a. None, supplied at Inchon.

12. POTABLE WATER

a. None, supplied at Inchon.

13. PIERS

a. General Cargo - none, strictly POL discharge.

14. POL FACILITIES

a. Two (2) 8" lines running from T-1 mooring to storage tanks, a distance of 3,144'.
b. The discharge rate for JP-4 is approximately 1200 bbls per hour at 90 PSI.
c. POL storage at Gazan is as follows:

U.S. Army QM Depot	8 tanks	10,000 bbls each

15. HANDLING EQUIPMENT

a. None. All mechanical facilities are available upon advance notice to 2nd TTCB, Inchon.

16. SHIPYARDS AND DRYDOCKS

a. None.

17. OFFICIALS AVAILABLE

No authorities available at Gazan, but can come from Inchon.

18. LST BEACHING AREAS

None

19. GENERAL INFORMATION

a. Only known types of vessels that have entered this port are the T-1 type Tankers.
b. This is not a "First Port of Entry"
c. Recommend daylight hour arrivals only at this port.
d. There are no rails or highways leading from this port.

INCHON, KOREA

Lat. 37-28-00N Long. 126-36E

1. GENERAL DESCRIPTION

Inchon is located approximately 20 miles southwest of the capitol city of Seoul. Inchon serves as commercial outlet and port of entry for Seoul, and is one of the largest cities in Korea. The city is on the estuary of the Yom-Ha (En-Ka) River, a distributary of the Han-Gang River. Inchon harbor, which is one of Korea's principal deep water ports, is considered the second best in South Korea. The port consist of an outer harbor, an inner harbor protected by two islands and a tidal basin within the inner harbor. The outer harbor, comprising the river area, provides anchorage berths for deep draft vessels. Most of the cargo operations are handled by barges in this outer harbor.

Considerable industrial expansion has taken place in the north section of the city. Among the principal industries is the production of railroad rolling stock and equipment, aluminum products, machinery, and steel products. Other industries include ordnance and munitions manufactor, the production of electric motors and airplane engines, and the production of chemicals including glycerine and guncotton.

2. REFERENCE CHART

a. H.O. 1383, and H.O. 3246

3. PILOTS

a. Pilots are available day and night - 24 hour notice is desired.
b. Pilots are compulsory from P'Almi Do to the inner harbor (tidal basin) and T-2 mooring.
c. Pilot pick-up point - Lat. 37-21N Long. 126-30E

4. TUGS AND LIGHTERS

a. Tugs: 1 - 143' Sea Tow Tug
1 - 100' 1200 HP Tug
4 - 65' 600 HP
3 - 45' 300 HP
b. Lighters: 54 pontoon 200 ton
11 Cargo barge 500 ton

5. COMMUNICATIONS

a. No radio call sign.
b. Voice call sign MSTSO "INCHON CONTROL", 2716 KCS
~~c. Army Harbormaster "RANGER", 2940 KCS~~
d. Times guarded 24 hours on 2716 ~~and 2940~~

6. NAVIGATION

a. Channel Depth (LLW) - 3.5' - cannot be considered reliable because of constant silting.
b. Channel Width - 216.5'.
c. Harbor Depth (LLW) - 14.0' - cannot be considered reliable because of constant silting.
d. Tidal Range - Springs 28.5' Neaps 16'
e. Navigational Comments:
(1) Inner harbor hazards or obstructions:
(a) A 1½ fathom shoal is reported to lie about 780 yards southwestward of So-Wolmi Do Light.
(b) A 1 fathom shoal is reported to lie 1150 yards northeast of So-Wolmi Do Light (052 degrees).
(c) Partially destroyed piers are located from Inchon Range Rear Light (37-28N; 126-37E):
1. about 547 yards, bearing 212 degrees.
2. about 383 yards, bearing 264 degrees.
3. about 2200 yards, bearing 252 degrees.
(2) Navigation Aids:
Inchon light buoy No. 1 painted black is moored about 235 yards southwest of the head of the pier which extends from the southwestern side of So-Wolmi Do. An unlighted buoy is moored about ¼ mile southeast of So-Wolmi Do light on the southeastern edge of the channel. Two light buoys are moored in the inner harbor, but are constantly moved due to continuous dredging.

7. ANCHORAGE CAPACITY

a. Anchorage areas are available in the Tidal Basin, the Inner Harbor, and the Outer Harbor. Over-all anchorage capacity practically unlimited.

8. QUARANTINE ANCHORAGE

a. Lat. 37-24.6N Long. 126-38.8E

9. AMMUNITION ANCHORAGE

a. Lat. 37-28-57N; Long. 126-35-24E
Lat. 37-24.5N; Long. 126-23.2E

10. MOORING BUOYS (T-2 Tanker mooring buoys)

a. Capacity - T-5 type tankers (approx. 10,000 tons/buoy)
b. Standard Radial Type Buoys
c. Water Depth 8 fathoms.
d. Location - Lat. 37-26-32N; Long. 126-35-21E

11. BUNKERING FACILITIES - None

12. POTABLE WATER - Not available.

13. PIERS

a. General Cargo

Name or Number	*Tidal Basin
Length Alongside	Approx. 3,700'
Width	682'
Depth Alongside	23' to 28'
Ht. of Deck above MLW	9'
Lights on pier	Yes
Rails on pier	Yes
Potable Water	Negative
Bunkers	Negative

*No large ships due to limitations. Arrival and Departure governed by tides.

14. POL FACILITIES

a. T-B 7 has berthing capacity of two T-1 tankers.
b. Limiting size of vessel - LST, T-1 Tanker, C1-MAV-1.
c. No. pipe lines & size - Two 8" lines to POL tank farm.
d. Approximate loading and discharge rates for each product:
JP-4 1050 bbls/hour AVGAS 750 bbls/hour
e. Capacity of storage by product (bbls)
Diesel - 220,000 bbls JP-4 - 50,000 bbls
MoGas - 170,000 bbls AVGAS - 50,000 bbls
f. Can berthing be accomplished on a 24 hour basis? No, daylight only; high tide only.
g. T-2 Tanker Mooring and Discharge Lines

(1) The Army has three 12" lines from the T-2 mooring to the POL storage tanks, a distance of 24,233 feet. The discharge rate of Diesel is Approx. 2600 bbls/hour. The JP-4 and MoGas discharge rate is approx. 1300 bbls/hour.

(2) Tankers can go into and out of T-2 mooring only during daylight hours. Tankers proceed to mooring at either low slack or high slack, preferably at low slack tide. Once ship is in mooring it takes approx. 3 hours to hook up hoses and to commence discharging. Upon completion of discharging it takes approx. 2 hours to un-hook hoses. Tankers proceed out of the T-2 mooring anytime during flooding tide.

15. HANDLING EQUIPMENT

a. 2 crawler cranes - 40 tons
3 crawler cranes - 10 tons
5 crawler cranes - 8 tons
8 mobile cranes - 15 tons
b. Floating Cranes

2-60 ton, BD type floating cranes with maximum lift above water of 84' and maximum vertical lift of 140'.

16. SHIPYARDS AND DRYDOCKS

a. None

17. OFFICIALS AVAILABLE

		YES	NO
a.	U.S. Consul		X (at U.S. Embassy - Seoul)
b.	U.S. Army	X	
c.	U.S. Navy	X	
d.	Quarantine Officials	X	
e.	Immigration Officials	X	
f.	A.B.S. Officials		X

18. LST BEACHING AREAS

a. Geographical Location - 37-28.1N; 126-37.2E
b. Beach or Quarry? Bravo and Charlie Beaches.
c. Deadmen and Bollards are available but condition poor.
d. One LST accomodated simultaneously at each beach.
e. Dry ramp available when tide permits.
f. M-boats are available to assist in beaching.

19. GENERAL INFORMATION

a. The (L)(W)(D) of the largest ship to be accomodated in the tidal basin corresponds with C1-MAV-1, LST, and T-1 type vessel. Entrance to tidal basin is 59'6" wide. Outer harbor is unlimited.

b. Ships carrying ammunition are allowed to enter outer harbor of port. Anchorage area B-10 and B-12 are available for discharging ammunition on barges.

c. Ships may enter outer harbor day or night. Tidal basin during daylight hours only.

d. Inchon is a "First Port of Entry".

e. Railways and highways connect Inchon and Seoul.

KUNSAN/CHANGHANG, KOREA

Lat. 35-59-00N; Long. 126-43-00E

1. GENERAL DESCRIPTION

Kunsan is a secondary port located on the South bank of the Kum River Estuary, on the West coast of South Korea, about 106 miles south of Inchon. Port facilities exist at Kunsan and across the Kum River at Changhang. The port was used extensively during the Korean War and sustained considerable damage to its quays, piers and warehouses. After the War, Kunsan was used to receive aid cargo. Within 3 years after the War, the port was rebuilt with the aid of UNKRA and the United Nations Command. Beyond dredging to maintain depths, no further plans for port expansion are known.

This port complex is important economically as an outlet for agriculture and manufacture goods of the immediate area. Agriculture, the mining of nonferrous metals, manufacture of ordnance supplies, and textiles are the principal products of the hinterland.

2. REFERENCE CHARTS

a. KOR, 305 and H.O. 6720

3. PILOTS

a. Pilots are available and are compulsory.
b. Pilots will board four hours before arrival upon 24 hour notice.
c. Pilot pick-up point - Lat. 36-56.3N; Long. 126-28.6E

4. TUGS AND LIGHTERS

a. Kunsan

5	Tugs	30-100 tons	1-300 HP, 4-70 to 150 HP
70	Barges	30-170 tons	
3	Patrol Boats	240 tons	
160	Small Craft	5-100 tons	

b. Changhang

7	Tugs	16-132 tons	HP unknown
1	Patrol Boats	66 tons	
29	Small Craft	under 5 tons	
286	Small Craft	5-100 tons	

5. COMMUNICATIONS

a. Radio call sign "HOTEL LIMA NOVEMBER", 500 kcs
b. Voice call sign "BAR HANDLE 88" (Army POL, 5.555 MCS
c. Times guarded - 24 hours

6. NAVIGATION

a. Channel Depth: 8' (MLW) to 23.4' (MHW)
b. Channel Width: Approximately 450 yards
c. Harbor Depth: 1 fathom
d. Tidal Range: Springs 23' Neaps 10'
e. Navigational comments:

(1) Channels Hazards - because of frequent changes in depths, local knowledge should be used in navigating these channels. Small islands are numerous and mud banks are constantly changing. Strong currents (3-7 knots).

(2) Navigational Aids:

The harbor of Kunsan is accessible at depths of 8' to 23'. The harbor is provided with artificial protection by a dog leg breakwater which runs 2310 feet along Quay #1. Tidal and river currents often reach 8 knots in this portion of the harbor.

ENTRANCE and APPROACH CHANNELS - Kunsan Hang is approached from the Yellow Sea through the silt closed, island studded estuary of the Kum River. Currents and silting cause frequent shifting of the channel so pilots are compulsory from Piung Do into the ports. Victory and Liberty type vessels may enter on all high tides using the South Channel, except when drawing over 23 feet. MHW Spring will permit draft up to 27 feet, but 23 feet is considered the safe limit. Pilots are available on 24 hour notice.

7. ANCHORAGE CAPACITY

a. There is an anchorage area directly off Kunsan that can accomodate one large and two small ships. Normal draft limitation is 21 feet. Holding ground, mud.

8. QUARANTINE ANCHORAGE

a. None

9. AMMUNITION ANCHORAGE

a. None

10. MOORING BUOYS (For T-1 Mooring)

a. Capacity - One T-1 type tanker
b. Standard radial fore and aft buoys
c. Water Depth - 5 fathoms (ILW)
d. Location - Lat. 35-59-16N; Long. 126-42-03E

11. BUNKERING FACILITIES

a. None

12. POTABLE WATER

a. Limited, potable water may be obtained at Kunsan ice plants.