

ADANI PORTS & SEZ LTD.

++ MUNDRA PORT ++ GENERAL INFORMATION

LOCATION

Mundra Port is all weather, independent, commercial port with geographical and hydrological advantages on the West Coast of India, in the Gulf of Kutch. The port has been developed using latest and state of the art technologies, facilities and offers unparalleled services benchmarked to international standards.

Position : Lat 22o 43.8'N., Long 069o 42.3' E
Time Zone : GMT + 5.5 hrs
Navigational Charts : Indian Hydrographic Office Charts: 203, 2106, 2107 and 2079
British Admiralty Charts : 670, 682
ALRS : Vol 6

MUNDRA PORT LIMITS

(A) - 220 49'24" N / 0690 47'12" E	(F) - 220 49'24" N / 0690 39'00" E
(M) - 220 48'23" N / 0690 38'58" E	(N) - 220 48'25" N / 0690 32'20" E
(O) - 220 38'57" N / 0690 32'18" E	(P) - 220 37'33" N / 0690 36'55" E
(Q) - 220 37'24" N / 0690 37'03" E	(K) - 220 37'24" N / 0690 38'48" E
(L) - 22037'24" N / 0690 42'00" E	(J) - 220 40'36" N / 0690 47'12" E

PILOTAGE

PILOTS ARE AVAILABLE 24hrs A DAY. Pilots board vessels using Tug Boats having White accommodation and Black Hull.

All Pilot Boats maintain a listening watch **on VHF Ch – 73** at all times.

PILOT TRANSFER ARRANGEMENTS

Pilot ladders and other pilot transfer arrangements of all vessels, entering or departing Mundra Port shall be rigged in

strict accordance with **SOLAS Regulations, IMO Resolution A. 889 (21)** and **International Maritime Pilots Association**

Recommendations. Pilots normally board vessels from the Lee Side using one of the Tug Boats. The deck on the Tug Boat, from where the Pilots board, is approximately 3 meters above the water level. Mundra Port Control will advise the

“height of pilot ladder above the water”, but in general should not exceed **3 meters**.

Vessels with freeboard more than or equal to 9 meters are required to rig Combination Ladder for Pilot Transfer.

UNDER KEEL CLEARANCE POLICY

A Minimum under keel clearance of “10 % of the ship’s draft” will be maintained at the time of berthing. Maximum acceptable draft is basis the Lowest Low Water for the month. Actual berthing draft may be higher basis tide.

Minimum

Entrance Channel Depth at Chart Datum for MICT Channel is declared monthly by the port.

TUG BOATS

Mundra port has fleet of new, state of the art Japanese tug boats.

TUG NAME	TYPE	BHP	BOLLARD PULL	ADDITIONAL EQUIPMENT
Dolphin – 2	ASD	2200 X 2	55 T	Half Fi-Fi and Tow Winch
Dolphin – 6	ASD	2200 X 2	55 T	Half Fi-Fi
Dolphin – 7	ASD	2200 X 2	55 T	Half Fi-Fi
Dolphin – 8	ASD	2200 X 2	55 T	Half Fi-Fi
Dolphin – 9	ASD	3000 X 2	70 T	Half Fi-Fi
Dolphin – 10	ASD	3000 X 2	70 T	Half Fi-Fi
Dolphin – 11	ASD (DSV)	2200 X 2	52 T	Half Fi-Fi , DIVING SUPPORT VESSEL.
Dolphin – 12	ASD	3000 X 2	70 T	Half Fi-Fi and Tow Winch
Dolphin – 14	ASD	3000 X 2	70 T	Half Fi-Fi and Tow Winch
Dolphin – 15	ASD	3000 X 2	70 T	Half Fi-Fi
Dolphin – 16	ASD	3000 X 2	70 T	Half Fi-Fi
Dolphin – 17	ASD	3000 X 2	70 T	Half Fi-Fi
Dolphin – 18	ASD	3000 X 2	70 T	Half Fi-Fi

WATER DENSITY

Water density varies from 1.020 to 1.023 during the South West Monsoon period and ranges between 1.024 to 1.025 during the remaining part of the year.

CARGO TERMINALS AND BERTHS

Mundra Port handles a variety of cargo ranging from Bulk Cargo like Coal, Wheat, Fertilizer, Minerals, Ores, Steel, Edible Oils, Chemicals, and Petroleum Products to Container Cargo, Automobiles and Crude Oil.

A. SINGLE POINT MOORINGS

1. ADANI PORT SPM - SPM is developed, maintained and operated by APSEZL.

SPM is installed in position : Lat.22° 40.65 N, Long.069° 39.28 E
 Characteristics of SPM & Light : CALM Type SPM, Shape – Cylindrical, Colour – Red.
 Light: - Colour– White, Characteristic– Morse Code ‘U’ (Two quick flashes and one long flash)
 Range – 5 NM, Fog Horn – Installed,
 RACON on SPM : Installed with Characteristic Morse code ‘M’.

2. HMEL SPM - SPM is developed, maintained and operated by HMEL.

SPM is installed in position : Lat. 22° 40’ 55” N, Long.069° 37’ 28” E
 Characteristics of SPM & Light : CALM Type SPM, Shape – Cylindrical, Colour – Red.
 Light: - Colour– White, Characteristic– Morse Code ‘U’ 15 s
 (Two quick flashes and one long flash) Range – 10 NM, Fog Horn – Not Installed,

DIRECTIONS

The general directions, rules and regulations pertaining to safety of navigation are in accordance with The International Regulations for Prevention of Collisions at Sea 1972 and The IALA Buoyage System – Region A.

PILOT BOARDING GROUNDS

PILOT BOARDING GROUND FOR SPM: Lat 220 38.90' N, Long 0690 38.26'E

MARINE COMMUNICATIONS

MUNDRA PORT CONTROL continuously monitors VHF Ch. 16. Port Working Channel is VHF Ch 73.

Call "**MUNDRA Port Control**" on VHF Ch: **73, 16**

Telephone: +91-2838-255333, +91-2838-255761 Fax: +91-2838-296142/ 289170

SPM ANCHORAGE AREA

(A) Lat. 220 38.55'N Long 0690 38.06'E (B) Lat. 220 37.60'N Long 0690 38.06'E

(C) Lat. 220 38.55'N Long 0690 36.07'E (D) Lat. 220 37.96'N Long 0690 36.07'E

TIDES AND TIDAL STREAMS

Tidal range is between +0.37 m during Neaps and + 6.40 m during springs.

Tidal streams flow 0700 – 2500 at an average rate of 3 kts, and 4 - 5 kts. during spring tides.

Wave height is about 0.14 - 1.30 m and Wave period is about 6.50 sec. - 17.0 sec.

B. MUNDRA MULTI PURPOSE TERMINAL

The Port Multipurpose terminal includes:

· Twelve operational Multipurpose berths with drafts of up to 15.5 meters suitable for berthing Post – Panamax, Camsarmax and Capesize vessels.

1. TERMINAL No. 1: The facility is located in position (approx): Lat. 22o 43.8'N, Long 069o 42.3' E, and comprises of 04 multipurpose berths and 1 barge berth.

Berth	LOA	Beam	Type	Heading on berth
No.1	275 m	38 m	Dry / Liquid	073 - 253
No.2	183 m	32 m	Liquid	073 - 253
No.3	225 m	38 m	Dry / Liquid	073 - 253
No.4	225 m	32 m	Dry / Liquid	073 - 253
Barge berth	80 m	15 m	Harbour Crafts	

2. TERMINAL No. 2: The facility includes 04 nos. multipurpose berths.

Berth	LOA	Beam	Type	Heading on berth
No.5	300 m *	38 m	Dry	127 - 307
No.6	300 m *	38 m	Dry	127 - 307
No.7	225 m *	35 m	Dry	127 - 307
No.8	200 m *	32 m	Dry	127 - 307

Total quay length of berth 5 & 6 is 575 meters and berth 7 & 8 is 441 meters. Since these berths are in a straight line, hence, more than 2 ships can be berthed in each quay depending on LOA subject to 35 meters clearance between each vessel.

3. TERMINAL No.3: The facility comprises of 04 nos. multipurpose berths.

Berth	LOA	Beam	Type	Heading on berth
No.9	230 m	35 m	Dry	073 - 253

No.10	230 m	35 m	Dry	073 - 253
No.11	230 m	35 m	Dry	073 - 253
No.12	215 m	35 m	Dry	040 - 220

DIRECTIONS

The general directions, rules and regulations pertaining to safety of navigation are in accordance with the International Regulations for Prevention of Collisions at Sea 1972 and The IALA Buoyage System – Region A. Mundra Port has a clear deep water approach with a minimum depth of 18 m at any state of tide.

PILOT BOARDING GROUNDS PILOT BOARDING GROUND **ALFA:** Lat 220 42.20' N, Long 0690 43.56' E
PILOT BOARDING GROUND **BRAVO:** Lat. 220 42.20' N, Long 0690 42.12' E

Marine control will guide the vessel on to which pilot station vessel has to approach.

MARINE COMMUNICATIONS

MUNDRA PORT CONTROL continuously monitors VHF Ch. 16. Port Working Channel is VHF Ch 73.

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MMPT CHANNEL BUOYS

Starboard hand No. 1 with top mark: Q Fl (G)

Port hand No. 2 with top mark: Fl (R)

Starboard hand No. 3 with top mark: Fl (G)

Cardinal Buoy No. 5 with top mark: Q 9 Fl (W)

Cardinal Buoy No. 7 with top mark: Q (6) + Lfl (W)

Starboard hand No. 9 with top mark: Fl G 5s

TURNING CIRCLE The turning circle has a radius of 700m, centered on channel joining point.

TRANSIT LIGHTS The transit lights mark 90 m distance from the quay side.
Front: Q Fl (G) 19m, 10 NM, Rear: OCC (G) 34m, 10 NM.

ANCHORAGES

Vessels waiting for berth at MMPT on instructions from " Mundra Port Control ".

GENERAL ANCHORAGE AREA 'A':-

(A) 220 41.26'N, 0690 44.06'E **(B)** 220 39.82'N, 0690 45.70'E

(C) 22° 39.48'N, 0690 42.06'E **(D)** 220 37.58'N, 0690 42.06'E

STS ANCHORAGE AREA:-

With 0.5 nm radius centered on **(A)** Lat. 220 41.75'N, Long 0690 46.50'E

TIDES AND TIDAL STREAMS

Tidal range is between +0.37 m during Neaps and + 6.40 m during springs.

Tidal streams flow 0700 – 2500 at an average rate of 3 kts, and 4 - 5 kts. during Spring Tides.

Wave height is about 0.14 - 1.30 m and Wave period is about 6.50 sec. - 17.0 sec.

FENDERS

All the berths are fitted with state of the art, Cell type modern fenders. Their outage from the berth face at T-1 is 1.65

mtr, and their outage from berth face at T-2, T-3 is 2.07 m.

C. CONTAINER TERMINALS : The facility includes the Container Terminal Quay

- Mundra International Container Terminal with 2 berths and a total quay length of 631 meters.
- Adani Mundra Container Terminal with 2 berths and a total quay length of 631 meters.
- South Basin Container Terminal with 2 berths and a total quay length of 810 meters.
- At MICT and AMCT more than 2 ships each can be berthed subject to a minimum of 35 meters clearance between each vessel.

1. MUNDRA INTERNATIONAL CONTAINER TERMINAL (MICT)

Berth	LOA	Beam	Type	Heading on berth
CB - 1	631m #	42 m	Container	127 - 307
CB - 2	(Total)	42 m	Container	127 – 307

2. ADANI MUNDRA CONTAINER TERMINAL (AMCT)

Berth	LOA	Beam	Type	Heading on berth
CB - 3	631m ^	42 m	Container	127 - 307
CB - 4	(Total)	42 m	Container	127 - 307

DIRECTIONS

The general directions, rules and regulations pertaining to safety of navigation are in accordance with the International Regulations for Prevention of Collisions at Sea 1972 and The IALA Buoyage System – Region A. Mundra Port has a clear deep water approach with a minimum depth of 18 m at any state of tide.

PILOT BOARDING GROUNDS PILOT BOARDING GROUND **ALFA:** Lat 220 42.20' N, Long 0690 43.56' E
PILOT BOARDING GROUND **BRAVO:** Lat. 220 42.20' N, Long 0690 42.12' E

Marine control will guide the vessel on to which pilot station vessel has to approach.

MARINE COMMUNICATIONS

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MMPT CHANNEL BUOYS

Starboard hand No. 1 with top mark: Q Fl (G)

Port hand No. 2 with top mark: Fl (R)

Starboard hand No. 3 with top mark: Fl (G)

Cardinal Buoy No. 5 with top mark: Q 9 Fl (W)

Cardinal Buoy No. 7 with top mark: Q (6) + Lfl (W)

Starboard hand No. 9 with top mark: Fl G 5s

TURNING CIRCLE The turning circle has a radius of 700m, centered on channel joining point.

TRANSIT LIGHTS The transit lights mark 90 m distance from the quay side.

Front: Q Fl (G) 19m, 10 NM, Rear: OCC (G) 34m, 10 NM.

ANCHORAGES

Vessels waiting to berth should anchor within position on instruction from Marine Control.

GENERAL ANCHORAGE AREA 'A':-

(A) 22° 41.26'N, 069° 44.06'E (B) 22° 39.82'N, 069° 45.70'E
(C) 22° 39.48'N, 069° 42.06'E (D) 22° 37.58'N, 069° 42.06'E

STS ANCHORAGE AREA:-

With 0.5 nm radius centered on (A) Lat. 22° 41.75'N, Long 069° 46.50'E

TIDES AND TIDAL STREAMS

Tidal range is between +0.37 m during Neaps and + 6.40 m during springs.

Tidal streams flow 0700 – 2500 at an average rate of 3 kts, and 4 - 5 kts. during Spring Tides.

Wave height is about 0.14 - 1.30 m and Wave period is about 6.50 sec. - 17.0 sec.

FENDERS

All the berths are fitted with state of the art, Cell type modern fenders. Their outage from the berth face MICT and AMCT is 2.07 m.

3. SOUTH BASIN - MUNDRA PORT

The facility is strategically located 1 miles west of Mundra Port in position Lat 22° 44'3.10"N, Long 069° 41'5.60" E.

South Basin is being developed as the India's largest capacity container terminal with International standard norms,

excellent storage infrastructure, eco-friendly and world class technology. The site has good rail links and natural &

dredged deep-water channels.

Berth	LOA	Beam	Type	Heading on berth
SB-6	405 m *	60 m	Container	090 - 270
SB-7	405 m *	60 m	Container	090 - 270

*Total quay length is 810 meters and hence more than 2 ships can be berthed depending on LOA subject to a minimum of 35 meters clearance between each vessel.

DIRECTIONS

Berth entrance consists of a buoyed channel of Length 1153 meters, Width 502 meters and a turning circle radius 750

meters just abreast of the berths. A heavy swell may be encountered outside the break water during the monsoon season from May to September.

PILOT BOARDING GROUND: PBG "B" (Lat 22° 42'20.0" N, Long 069° 42'12" E.)

Marine control will guide the vessel accordingly.

MARINE COMMUNICATIONS:

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SOUTH BASIN CHANNEL BUOYS

Stbd Hand (Green)	Buoy No. 1: Lat 22 43' 43.86"	N Long 069 41' 50.37" E
Port Hand (Red)	Buoy No. 2: Lat 22 43' 40.48"	N Long 069 41' 23.66" E
Stbd Hand (Green)	Buoy No. 3: Lat 22 43' 50.23"	N Long 069 41' 45.29" E
Port Hand (Red)	Buoy No. 4: Lat 22 43' 47.46"	N Long 069 41' 27.89" E
Stbd Hand (Green)	Buoy No. 5: Lat 22 44' 01.50"	N Long 069 41' 47.56" E
Port Hand (Red)	Buoy No. 6: Lat 22 44' 01.66"	N Long 069 41' 20.26" E

TURNING CIRCLE The turning circle has a radius of 750m, abreast of the berths.

SOUTH BASIN LEADING LIGHTS (HIGH MAST TOWER ARRANGEMENTS)

Leading Light - High Mast Tower Arrangement:

Night Visibility: The High Mast Light Towers are fitted with "Incandescent White Light" pointing towards the sea and Amber coloured lights pointing towards the back up yard. The remaining High Mast Light Towers are fitted with Amber coloured lights.

Day Visibility: The seaward Leading High Mast Towers are 30 metres high. The top 15 metres is painted 'Signal Yellow' in colour. The landward Leading High mast Towers are 40 metres high. The top 20 metres is painted 'Black' in colour. The remaining High Mast Towers are of their original metallic colour as manufactured.

ANCHORAGE:

Vessels waiting to berth at South Basin, should anchor within the position given.

(A) 22° 41.26'N, 069° 44.06'E **(B)** 22° 39.82'N, 069° 45.70'E

(C) 22° 39.48'N, 069° 42.06'E **(D)** 22° 37.58'N, 069° 42.06'E

Anchorage ground has a depth of 30 meters and is a good holding ground throughout the year.

TIDES AND TIDAL STREAMS

Tidal range is between +0.00 m and +6.40 m; tidal streams flow 1000 – 2800 at an average rate of 2.5 kts (Outer channel), 1 kts (Inner channel) and less than 0.5 kts at berth/ inside basin.

Wave height: 0.14 - 1.30 m. Wave period: 6.50 sec. - 17.0 sec. *

THE TIDAL CURRENT CLOSE TO THE SHORE (UPTO 400 MTR) REVERSES 30 MINS BEFORE PRINTED TIME.

FENDERS: Dual cone fenders- DCN 1200, outage from berth face 2.07 meters.