Figure 18 – Leading line forward light (2007). Figure 19 – Leading line rear light (2007).

The navigable channel is also marked by two pairs of elastic light beacons: those to starboard on entry are green; those to port are red. Between the latter, sheltered by the dyke, there is a red concrete light beacon.

The **lighthouse** (figure 20) on the head of the N dyke consists of a metal structure on a pagoda shaped building with two rows of terraces all painted in black and white chequers facing the sea. A fog signal (**foghorn**) is also in operation on the head of the N dyke. The light on the head of the S dyke is arranged on an octagonal red tower (figure 21).

A **Racon** operates in band X and in band S on the lighthouse and responds with the letter V (. . . _) of the Norse Code (see "Radio Services for Navigation" – Part I).

Figure 20 - Porto di Lido, lighthouse (2007) Figure 21 - Porto di Lido, red light on S dyke

(2007)

A **yellow buoy** with X topmark is positioned at the split between the Treporti and S. Nicolò channels. It marks the sand bank at the entrance to the Canale di Treporti.

After the pairs of light buoys the channel is marked on the S side by two **light beacons** in red and white stripes and by a **light beacon** on the N side.

The entrance to the Canale delle Navi is marked by two small conical **buoys**: one black with a conical black topmark, the other red. A **day buoy** on a framework marks the bank that extends to the E from the Naval College.**Page** 113

A cylindrical **light buoy** is anchored at the entrance to the Canale delle Navi, painted black, topped by a framework covered with boards painted with oblique black and white stripes; the buoy marks the shoal that extends to the S from the Isola La Certosa.

The internal channels of the lagoon are marked by **light buoys**, **light beacons and lit dolphins**, all equipped with fog signals, according to the lateral system.

Winds – The winds can be split into periodic winds (breezes) and non-periodic winds.

In the summer quarter (June, July and August) the breezes alternate regularly and blow: in the morning, up to about 10 - 11 am, from NNE to NE; then up to about 8 pm, from SSE veering to quadrant III. In the other months of the year the SSE breeze seldom appears.

The most important non-periodic winds in the summer months are the N and SE which are never very violent; in the other months there is a predominance of N winds.

The **fogs** (mist) are frequent in the months of December, January and February (for 8-9 days on average) and in the months of November and March (5 days on average).

Lagoon currents — In the channel ports of Lido, Malamocco and Chioggia incoming and outgoings currents are encountered according to the tide that can reach 3 knots and sometimes more. These currents then split up in the respective network of lagoon channels supplied by the channel port with speeds that are as strong as the depth of the channel. The speed of the current generally decreases from the Channel Port towards the interior of the lagoon, according to the height of the tide that gradually diminishes towards the interior until it reaches about 7/10 of the height of the tide at sea.

Tides – At the entrance to the channel ports of Lido and Malamocco the establishment of the port has practically the same value of 10 hours and 30 minutes. The average height of the tide is about 50 cm: 70 cm at springs and 30 cm for neaps. There are frequent excursions from a high tide to the next low of 1.2 m; in this case the excursion relative to the next high tide is then less than the average.

The tides are sometimes affected, even considerably, by weather conditions.

With areas of low pressure to the S of the Alps, and consequently strong SE winds, the waters of the Northern Adriatic can pile up, a phenomenon that causes exceptionally high tides (called **Colme** by the locals) even more that 1 m above the expected tide.

Laguna di Venezia

Daily Tide Table (BGM) – Is drawn up and distributed daily by the Venice Lagoon Service (SLV) that is part of APAT (Environmental Protection and Technical Services Agency) of the Department for the Protection of Internal and Marine Waters. The Table is issued at 10 am and describes, as well as the calculated tidal levels, the progress of the tidal graph recorded up to 10 am and the prediction for the next 24 hours, referring the measurements from the tidal datum of the tide gauge at the Punta della Salute. The Table is distributed by means of the information channels, by means of the web site of the Venice Lagoon Service and by means of the SLV posters situated in Venice at the busiest locations (San Marco, Rialto, Piazzale Roma).

The fastest currents occur in the winter season; the outgoing currents are called **Dosane** by the locals and the incoming ones **Crescenti**.

Magistrato delle Acque – Is a National Body forming part of the Ministry of Infrastructures (previously LL.PP., which for the provinces of the three Venices (including Mantua) provides for the regulation of the waters, both regarding hydraulic works, and in terms of the regulation of the lagoon, the ports, the lidos, the sea and the rivers. For the hydraulic works regarding the Fiume Po and the branches of its delta, the Interregional Authority for the Fiume Po (AIPO) based in Parma is in charge.

The Magistrato delle Acque publishes a volume every year containing information on the heights of the tide and the speeds of the tidal currents.

Weather warning signs – In winter light winds from the W and the NW generally herald thick fog (mist). Meteorological Observatory of S. Nicolò di Lido – Is managed by the Magistrato delle Acque.

PORT RULES

A) Regulations for the Maritime Service in the Port of Venice

(Decree no. 132 of 15-12-1939 of the Maritime Management of Venice with subsequent additions and alterations). The Regulations are divided into 5 chapters; a selection of the articles is set out below, in some cases suitably summarised.

Chapter I – General regulations

- Art. 2 Grand navigation channels Already described in the previous pages.
- Art. 3 -Access to the port See page 100.
- Art. 5 Pilotage Obligatory for vessels of more than 500 t gross weight.

The Maritime Management of Venice reserves the right to exempt ships with a gross weight of more that the above limit equipped for particular services (local use, works in the port, etc) examining the relative requests case by case.

- Art. 6 **Obligations of the pilot** The pilot is obliged to take over the ship at least 2 M from the heads of the dykes of the Porto di Lido and the Porto di Malamocco on entry and to leave them 2 M from the heads of those dykes or even before when this is required by the Master of the ship, but not until after completing the S. Nicolò di Lido turn and provided that it is clear that there are no obstacles to free manoeuvre, except for special cases in terms of sea conditions (art. 9, paragraph 1, of the local pilotage Regulations, approved with the Ministerial Decree of 2-7-1974). The pilot must embark the departing ship while still moored; for arriving ships the pilot must not disembark until the final mooring operations have been completed.
- Art. 8 **Port dredgers** Dredgers equipped to excavate the channels will indicate which side vessels need to pass, by showing on that side:
- two superimposed balls by day;
- a light with a white lamp by night.

The above balls and lights are raised on the yardarm of the gaff; the lights will have to be visible on all sectors of the horizon.

- Art. 9 **Speed of ships** Ships must in the port at the minimum speed required to manoeuvre, possibly no more than 6 knots. At crossing points, near moored ships of ships of considerable size navigating in the opposite direction, the speed must be reduced further, as far as possible.
- Art. 12 -Navigation by sail and mixed Vessels over 50 t net weight are forbidden to navigate by sail and vessels with auxiliary motors are forbidden to navigate by sail or mixed in port.
- Art. 13 Sailing boats must not impede the course and manoeuvre of ships, vaporettos or motorboats used for public services and the associated tugs. If because of the wind or otherwise they cannot proceed, they must moor provisionally along the sides of the grand navigation channel, or leave it.

In fog navigation by sail is prohibited even for vessels up to 50 t net weight.

Art. 14 – **Movements of boats** – Local boats must always give way to ships, however the latter are required to reduce their speed further where technically possible and to observe the necessary care at the points of major traffic and those

where scheduled services pass as follows:

1) between the shooting range and the buoy off, for boats heading to and from Lido;

2) between S. Elena and S. Maria Elisabetta, on the line joining the fog warning bells in these places;

3) between the S. Zaccaria pier and S. Giorgio Maggiore;

4) the Canale della Giudecca: a) on the line joining the piers of the Zattere-Giudecca ferry where the fog warnings are operating; b) on the S. Basilio-Mulino Stuky line;

5) the Malamocco-Marghera coastal channel, at the level of the Canale Nuovo di Fusina.

Motor, sailing or rowing boats and lagoon craft must give way to vaporettos and motor boats in public service with fixed routes and time-tables. Those under sail must always be ready to anchor so as not to obstruct navigation, and those being rowed must have the men aboard needed to manoeuvre.

Art. 18 – Way lights – In the port local ships and boats must carry the lights required in the "Regulations for the prevention of collisions at sea".

Ships are also required to keep the low lights lit on the poop deck and the quarter deck, compatible with visibility from the bridge and the needs of safe navigation of the ship and other vessels passing through the grand navigation channel.

Art. 19 – Use of the whistle – It is **prohibited** in the port to use the whistle or the siren of local ships and boats, when they are not necessary to indicate a manoeuvre.

The bots of the pilots, the tugs and the mooring service must give signals in fog to be identified by the masters of ships.

Art. 20 – **Signals** – Ships about to leave an internal basin or to enter the Canale Vittorio Emanuele or to enter the grand navigation channel from a side channel must indicate the manoeuvres that they are about to make promptly and repeatedly with the whistle.

Local boats equipped with acoustic signals must take a similar precaution.

Art. 23 – **Priority** – Local ships and boats of any sort passing through the grand navigation channel or entering it from side channels must give way to those navigating in the grand navigation channel. Local boats heading to or from the Canale Industriale Ovest must pass through the Canale delle Tresse.

Arts. 24-27 – **Regulations** – Ships passing through the grand navigation channel must keep a distance of at least 1,000 m from one another and must not overtake (art. 24). In any case if a collision seems inevitable the masters of the ships in danger must manoeuvre as far as possible to avoid going aground in the middle of the grand navigation channel (art. 25).

When two ships are about to cross in the grand navigation channels with likely interference, normally the one heading into the current must navigate so as to give way to the one with the current behind it (art. 26).

Ships that for any reason have to anchor provisionally in the channels must leave the way clear for those entering and leaving (art. 27).

Art. 29 – **Prohibited anchorages** – It is prohibited to anchor in the areas crossed by underwater electrical cables, such as between S. Nicolò di Lido and S. Andrea, between the point of S. Elena and S. Maria Elisabetta, S. Pietro di Castello and La Certosa, in the Canale della Giudecca at the level of the Chiesa dei Gesuiti and wherever underwater cables are marked by baskets painted in black and white spots, raised onto posts.

Art. 31 – Warp cables – Must always be extended so as not to obstruct navigation and must be slackened or released promptly if necessary.

Art. 32 – **Mooring cables** – Must only be connected to dolphins, buoys or bollards and must not constitute danger for boats, nor obstruct passage between the tiers.

If they constitute a danger they must be marked (red light by night, red cloth or board by day).

Chapter II - Precautions and signals for fog.

Art. 41 - VHF radio service – In fog all ships and boats in scheduled public services over 50 t gross weight passing through the grand navigation channels must be provided with VHF equipment tuned to channel 13.

Art. 42 – **Acoustic signals** – Ships with engines running navigating in the port with the aid of one or more tugs are not considered to be towed according to rule 35 letter d of the "Standards for prevention of collisions at sea".

When navigating in fog they must emit, at intervals of at least 1 minute, a long whistle followed by a short one with the acoustic signal only for local use.

Throughout the towing operations, the tugs must not use any acoustic fog signal.

Art. 41 – **Crossings** – In fog ships and boats of any sort are prohibited to cross the grand navigation channel of S. Nicolò di Lido directly or diagonally up to the entrance to the Canale Vittorio Emanuele.

Local boats equipped with acoustic signals and fog-lamp projectors and vessels in scheduled public service provided with VHF equipment may cross the channels at the sections indicated in art. 14 above.

Art. 44 – **Movements and manoeuvres of boats** – In fog local boats moving in the grand navigation channels, except for vessels in scheduled public service provided with efficient radar equipment, must keep as close as possible to the banks or the dolphins and away from the land part of the light buoys or moorings situated in the Porto Canale di Lido up to the Giardini.

If through absolute necessity they are forced to cross the channels they must do so at the points established for crossing emitting the acoustic signal referred to in the following article.

They must not cross the grand navigation channels if they hear the whistle in the vicinity of any ship in motion and must moor provisionally at the nearest banks or dolphins.

Art. 44bis – Speeds of ships and boats in fog — Without prejudice to the restrictions referred to in art. 44 above local boats that are passing through the grand navigation channels in fog or crossing it must maintain a speed as low as possible for manoeuvrability and in any case this speed must not be more than 6 knots.

Art. 47 – Signals of the ships and boats anchored or moored – In fog ships at anchor or moored to buoys in places of transit will sound the bell rapidly for about 5 seconds at intervals of no more than 1 minute.

Art. 49 – Rowing boats and local motor boats that do not have acoustic signals and fog-lamp projectors are **prohibited** to navigate in fog.

Vessels without the equipment referred to above, if taken by surprise in fog while under way, must moor at the nearest dolphins or bank.

Art. 50 – Ships and boats surprised by fog – Ships surprised by fog while under way must put themselves in to the conditions established for fog as quickly as possible.

If it is impossible for them to have a tug, those with the current on the bow must anchor if possible in a wide point of the channel away from the axis, so as not to obstruct the navigation of whose with the current to stern.

The latter must moor as soon as possible and only proceed when conditions laid down in these Regulations are in place.

All local vessels must immediately approach the banks stopping or navigating as laid down in these Regulations in the case of fog.

Chapter III - Mooring posts.

Art. 52 – The mooring posts of the ships are assigned by the Harbourmaster with the agreement of the Port Inspectorate.

Chapter IV – Precautions for dangerous cargoes and for fires

- Art. 61 -Navigation rules Ships with significant quantities of dangerous cargoes, in the opinion of the Harbourmaster, must not move within the port at night-time (from sunset to sunrise) or in fog.
- Art. 63 **Dangerous cargoes** Masters may not carry out any embarkation or disembarkation operation of dangerous cargoes without the authorisation of the Harbourmaster.

Stopping in port by vessels with dangerous cargoes on board in transit is also subject to authorisation by the Harbourmaster.

The Harbourmaster assigns mooring posts to ships according to the degree of danger of the cargoes to be embarked or disembarked or in transit.

Operations to embark or disembark explosives are not allowed, except for limited quantities, in the opinion of the Harbourmaster, as well as explosives belonging to class 9 (as referred to in article 3 of Presidential Decree no. 134 of 6-6-2005).

The introduction and deposit into the port of dangerous cargoes is subject to authorisation by the Harbourmaster, who according to his judgement, will be able to arrange for an adequate supervisory service. The authorisation is issued on application of the carriers or the receivers concerned.

Dangerous cargoes being disembarked must be, at the responsibility of the receiver, removed from the port promptly unless authorisation has been requested and obtained for their deposit.

As far as the load-unloading and transhipment operations of dangerous cargoes in the liquid or gaseous state are concerned, the relative regulations are laid down by suitable regulations approved with Ordinance no. 82/2007 integrated with Ordinance no. 96/2007.

Art. 64 – Local ships and boats that have dangerous cargoes on board must keep a red flag flying that is clearly visible.

Before starting embarkation or disembarkation operations, the chimneys must be covered with anti-spark nets. The Harbourmaster may according to his judgement send one or more fire officers on board.

- Art. 77 Particular regulations for boats in local use Local boats with mechanical propulsion passing through the channels and maritime navigation basins must observe the following maximum speed limits:
- 1) 11 k.p.h: in the internal Maritime channels and basins and of Marghera;
- 2) 11 k.p.h: in the Canale della Giudecca, in the Bacino and in the Canale di S. Marco and precisely from the "Mulino Stuky Rio S. Sebastiano" line to the "Rio delle Galeazze eastern tower of the Isola di S. Giorgio" line in the Canale di S. Marco and in the Canale dei Marani, in the section between the junction with the Canale Ondello and the junction with the channel for the Fondamenta Nuove facing the W side of the Isola di S. Michele;
- 3) 20 k.p.h: in the channels of Malamocco, Marghera, Vittorio Emanuele, Giudecca, up to the "Mulino Stuky Rio S. Sebastiano" line, Orfano, Orfanello, delle Navi and dei Marani, up to the junction with the Canale Ondello, as well as in the section of channel that goes from the mouth of the Porto di Lido up to the "Rio delle Galeazze oriental tower of the Isola di S. Giorgio" line.

In the sections referred to in point 2) above the A.C.T.V. vessels on scheduled service must observe the maximum speed limit of 15 k.p.h.

- Art. 78 In the other channels under maritime jurisdiction, not included in the previous article, local boats with mechanical propulsion must not exceed the speed limit of 20 k.p.h; however when passing near inhabited areas they must navigate at a speed of no more than 11 k.p.h., except for the A.C.T.V. vessels that must not exceed a speed of 15 k.p.h.
- Art. 79 Motor boats including those of the A.C.T.V. entering the Canale delle Grazie must immediately reduce their speed so as not to pass through the channel with a speed of more than 6 k.p.h.
- Art. 80 Local boats of any type must not pass between the dolphins in the stretch of water of the Canale della Giudecca near the Punta della Salute, unless they have to moor there, but must keep to the S of said dolphins. Moreover A.C.T.V. vessels setting out from the S. Zaccaria piers heading for the S. Marco piers and vice versa must follow a course that brings them close to buoy B2 off the mole of S. Marco.
- Art 81 In fog local boats must observe the precautions and emit the fog signals laid down by these Regulations.
- Art. 82 As an exception to what is laid down by the regulations for the prevention of collisions at sea, motor boats must navigate as far as possible in the centres of the channels keeping a suitable distance from the banks. When passing or overtaking other boats under way, moored or anchored they must reduce their speed immediately to what is necessary to avoid the wave motion produced compromising the safety of the above-mentioned boats and of the persons on board.
- Art. 83 Motor boats of the Police Forces, the Fire Brigade and the first aid services are not bound by the speed limits indicated above when used in services of an urgent nature.
- B) Rules for port safety, maritime works and equipment, as well as the safety of ships and shipping. See Ordinance no. 454/67.
- C) Safety regulations for loading and unloading and transhipping operations as well as for the stopping and movement of ships equipped to transport dangerous cargoes in bulk in the liquid or gaseous state in the Port of Venice.

See Ordinance no. 87/88 integrated with Ordinance nos. 12/91, 22/93, 40/93, 09/94, 16/97, 120/99 and 22/00.

D) Regulations for the tug boat service for ships in the Port of Venice.

See Ordinance no. 28/79.

- E) Regulation of the lightering operations of oil products in the waters of the Maritime Department of Venice. See Ordinance no. 40/84.
- F) Regulations for tankers.

With Ordinance no. 82/2007 integrated with Ordinance no. 96/2007, the Harbourmaster of Venice, has established the minimum conditions that must be observed by tankers equipped to transport oils, gasses and chemical products, with a gross weight of 1,600 t or more, fully or partly loaded, including those that are empty but not yet degassed, that are entering or leaving the port of Venice.

G) Regulations governing navigation and mooring in the industrial area of Marghera – Particular conditions for navigation in the Canale Malamocco-Marghera and for navigation by night.

See Ordinance no. 38/85 with subsequent alterations.

H) Rules to prevent pollution in the Darsena S. Leonardo — With Ordinance no. 38/81, the Harbourmaster has established among other things the following:

- 1) In the Darsena di S. Leonardo boats of any type are prohibited to moor, fish, anchor or stop at the infrastructures of the IROM pier and within a 50 m strip inside the fixed and mobile floating wooden obstructions positioned to delimit the NW and SE sides respectively of the basin itself.
- 2) With oil tankers moored at the IROM pier, it is prohibited to access the stretches of water at the sides of the pier itself.
- 3) The previous restrictions do not apply to boats authorised by the Harbourmaster of Venice, for reasons connected with the traffic of the IROM ships and boats employed in the service of moving the floating wooden obstructions, in works and in transport of personnel carried out on behalf of the Refinery.
- 4) Vessels can generally circulate in the Darsena di S. Leonardo (apart from the restrictions referred to in the previous paragraphs), provided that they are equipped with anti-spark nets to the chimneys and the exhaust pipes and naked flames are not used on board.
- I) Regulations for using the dry docks of the Port of Venice (Decree no. 14 of 10-5-1983) The standards govern the relationships between Owners, Masters, Shipping Agents, Representatives or others duly authorised to act on behalf of the ship and the C.N.O.M.V. Company operating the dry docks.
- L) Standards that govern the other activities in the port of Venice See the relative ordinances issued by the Harbourmaster of Venice.

Port authority – Is an Autonomous Body, reporting to the Ministry of Infrastructures, administered in part by the authorities and representatives of Venice and in part by government officials. It carries out all the work of handing goods directly at fixed rates approved by the Government, also taking care of custody in warehouses. It arranges directly for stowage work, the weighing of the goods, the use of the mechanisms and the unloaders. All those who need to carry out operations in the port must therefore refer to the port Authority.

INTERNAL CHANNELS OF VENICE (Chart nos. 225 and 226) - Are the following four:

Canale delle Navi – Leads to the dry docks and to the large dock of the Arsenale, to the W of it. The incoming and outgoing currents are strong and can leave the ship grounded. The entrance to the channel is marked by two small buoys: black to starboard on entry, red to port.

Ships entering the dry docks or leaving them must be assisted by at least two tugs, of more than 2,500 t gross weight, and by at least one if 500 - 2,500 t gross weight.

About 10 m bearing 118° from the entrance to the **Grande Darsena dell'Arsenale** (SW side of the Canale delle Navi), a small buoy with a cylindrical topmark, painted red, is moored.

In front of the Isola La Certosa level with dolphin no. 58, a dock carrier is moored without any markers. Boats of every sort are **prohibited** to pass between the dolphin and the carrier.

Buoys **B7** and **B8**, off the dry docks, are intended for mooring ships that have to carry out works or that are waiting to enter the dock.

Outside the boundary walls of the Arsenale, on the side of the large basin of the "C.N.O.M.V." dockyards, a reinforced cement pier is built, 50 m long, bearing S-N and connected to land by means of an access gangway the root of which is about 50 m to the N of the SE corner of the dockyards. Ships that have to carry out works at the above-mentioned dockyards can moor at the pier (sideways), provided that their length is no more than 250 m (overall), their gross weight on more than 73,000 t and their draught (stern) no more than 6.5 m. The pier is marked by two continuous red lights: one on the head and the other on the corner. The mooring system consists of a bollard on land on the SE corner of the dockyards, a 4 m buoy and six dolphins aligned in the same direction as the pier.

Canale dei Marani – Is situated to the N of the Canale delle Navi and constitutes its extension. Buoys Ma 1 and Ma 2 are intended for ships that need to carry out works or are waiting to enter the careening docks to moor.

Canale di S. Marco and Canale della Giudecca – Ships moor at the quays or suitable dolphins. The Riva dei Sette Martiri is normally intended for mooring passenger ships (draught 9.14 m). Ships of the Italian Navy moor at the Banchina S. Biagio and the Riva dei Sette Martiri, when available, otherwise at the buoys **B2**, **B3**, **B4**, **B5**, **B6**, **BS1** and **BS2**.

Boats of the public service in the lagoon moor at the Riva degli Schiavoni.

Ships equipped for passenger transport berth at the concrete pier at the Riva delle Zattere, on the N side of the Canale della Giudecca.

Passenger ships berth at the Banchina di S. Basilio (formerly S. Basilio and Punto Franco), where the Maritime Station is located.

Ships transporting various cargoes and passengers berth at the Banchina di S. Maria (formerly Banchina Cotonficio Magazzini Generali and S. Marta). Ships out of commission or under repair moor at the shores of the Isola La Giudecca, alongside the dolphins.

COMMERCIAL PORT (Chart no. 225) – Also known as **Marittima**, it is at the W end of the Canale della Giudecca and has more than 5 km of quays overall; 30 ships of small and medium tonnage can carry out loading and unloading operations at the same time. It has three main areas, parallel to one another and open at the SW: Canale Scomenzera, Bacino di Marittima and Bacino del Tronchetto.

The **Canale Scomenzera** is bounded to the E by the city and to the W by the Molo di Levante; it is quayed on both sides (quays Ghiaia, Tragetto and Scomenzera).

The Bacino di Marittima consists of the Molo di Levante (banchina Isonzo), the Banchina Palazzo and the Molo di Ponente (Banchina Tagliamento).

The **Bacino del Tronchetto** is enclosed by the Molo di Ponente (Banchina Piave) and the Isola Nuova del Tronchetto. Vessels can berth at the head of the Molo di Ponente (Testata Marmi).

There is a **turning basin** in front of the entrance to the port, at the junction of the Canale della Giudecca and the Canale Vittorio Emanuele.

The current whether incoming or outgoing severely impedes the manoeuvres of the ships, that have to make use of tugs. Venice is connected to the hinterland by a close-knit network of navigable channels. The main waterways are the "Venice – Fiume Po – Milan" and the "Venice – Grado".

PORTO MARGHERA (Chart no. 225) — Consists of the Commercial Zone and the three Industrial Zones. Vessels can access: from the E by the Canale Vittorio Emanuele; from the S by the Canale Malamocco-Marghera (see page 107).

The Commercial Zone includes the basins of Molo A, of Molo B and the first section of the Banchina Emilia.

The **Industrial Zones** include berths at quays or created with dolphins (all private), for oil tankers or ships with chemical products and dry cargoes. The Third Industrial Zone consists of the dock of Porto S. Leonardo used by tankers up to about 50,000 t gross weight.

The Canale Vittorio Emanuele and the Canale Litoraneo are connected to the Canale delle Tresse and are used by small boats and lagoon craft. There are the following **turning basins** in the Canale Litoraneo:

- Bacino No. 1, giving access to the Canale Brentella, the Canale Industriale Nord and the Bacino Molo A;
- Bacino No. 2, giving access to the Bacino Molo B;
- Bacino No. 3, giving access to the Canale Industriale Ovest;
- Bacino No. 4, giving access to the Canale Industriale Sud.

The last channel is crossed at its entrance by an arched metal **bridge** with a maximum height of 50 m, that supports the pipelines crossing the channel itself.

The Canale Ovest turning basin is formed by the junction of the Canale Industriale Ovest with the Darsena della Rana.

Wrecks – Some wrecks that are half-awash are to be found in the terminal docks of the Canale Industriale Sud and the Canale Industriale Brentella (Chart no. 225) respectively. Pay attention.

Aerial electrical cables – Cross the Canale Industriale Nord and Canale Industriale Ovest of Marghera; the minimum height of the two is 50 m above average sea level (Chart no. 225). In order to guarantee the safe passage of ships, a minimum distance of 5 m must be left between the highest part of the structure of the ship and the relative conductor; this distance must be calculated with the ship unloaded (ballast only) with respect to ordinary high tides.

Names of the Quays and depths – See Chart no. 225.

TOURIST BERTHS IN VENICE (Chart nos. 223, 225 and 226) – In the port of Venice there are some tourist marinas and berths. The most important are: Ven Mar in the Canale delle Scoasse (Malamocco); Darsena Fusina and Darsena Nautica Venezia in the Canale Litoraneo (Marghera); Diporto Velico Veneziano (Isola S. Elena); Tronchetto (Stazione S. Lucia); Darsena S. Giorgio (island of the same name); Lio Grande in the Canale di Treporti.

Information on the berths – The essential port services are available at the quays.

Marina Ven Mar – Is on the W bank at Torre Perse (Malamocco): it has a limited number of berths (about 70), almost all reserved for residents; the depths are about 3 m in the access channel and 1.5-2 m at the quays. It is well sheltered and provided with the main services. Repairs to the hulls and engines are possible.

Having entered the Porto di Malamocco to reach Ven Mar turn to starboard and pass through the Roccetta and Malamocco channels that are marked with dolphins. Then enter the Canale delle Scoasse and continue for about 1,600 m; the entrance to the marina is to starboard.

Darsena Fusina – Is inside the Lagoon, at Fusina; it has about 430 m of quays with 8 piers. There are 185 berths, 10 of which are reserved for visitors, for boats with a maximum length of 14 m. The bottom is slimy and sandy; at the quays the depths are 1.9 to 3 m. The dock is provided with the main services.

To reach the dock, which is private, vessels can pass through the Porto di Lido or the Porto di Malamocco. In the first instance, if the boats draw less than 2 m they must pass through, turning to port, the Canale S. Nicolò, the Bacino S. Marco, the Canale della Giudecca and the Canale di Fusina until entering the Canale Litoraneo, heading for Marghera; if however the boats draw more than 2 m they must, after the Canale della Giudecca, pass through the Canale Vittorio Emanuele, then turn to port into the Canale Litoraneo, heading for Malamocco, up to the dock. Coming from Malamocco, boats must take the Malamocco-Marghera grand navigation channel for about 12 km.

Darsena Nautica Venezia – At Fusina, is of a limited size (with three piers). Depths of about 3 m; bottom of mud. It has about 70 berths, 5 of which are for visitors. Main services and equipment.

To reach the dock, which is private, follow the same instructions for the Darsena Fusina (see above), being aware that if coming from the Porto di Lido, the dock is reached before

the former, to starboard; coming from Malamocco it is immediately after the Darsena Fusina, to port. Marina of S. Elena – Also known as the **Diporto Velico Veneziano**, it is on the island of the same name and can accommodate up to 255 pleasure craft with a maximum length of 15 m. Although private, the marina can accommodate visitors for a short period. It is equipped with wooden piers (over a extent of 380 m), arranged on posts fixed in the bottom, which is sand and mud; the depths at the quay edge vary between 1.5 and 4.5 m; to the N of the piers the depths are less than 1.8 m.

To access the marina pass through the Porto di Lido; having passed the breakwaters, keep to port and take the first section of the Canale S. Nicolò until entering the Canale delle Navi (to the NW), then head for the entrance to the marina which is to port. Whether entering or leaving pay attention to the transverse current.

Quay services - Water supply, electrical supply, fire extinguisher, haulage slip up to 20 t, crane.

Port services - Repair workshop, public toilets, public telephone, refuse disposal.

Darsena del Tronchetto – Is on the island of the same name, near the Stazione di S. Lucia; it can accommodate about 340 boats up to 20 m long; good availability of berths for visitors. It is equipped with the main services; possibility of repairs to hulls and engines.

The dock is reached by means of the Bacino S. Marco and the Canale della Giudecca, then to starboard into the Bacino del Tronchetto: the dock is to port.

Darsena S. Giorgio (figure 22) – Is on the Isola di S. Giorgio Maggiore and is private. It has 70 berths for boats up to 15 m long. The depths at the quay vary from 2.2 to 2.4 m. The dock is only entered from the W, through the Canale della Guidecca up to the Bacino S. Marco.

Pay attention to the shallow depth about two thirds of the way from the entrance heading E, near the S quay, and the outgoing current.

Figure 22 – Darsena S. Giorgio (2007).

Marina di Lio Grande – Is located near Punta Sabbioni, on the Canale di Treporti. It consists of two quayed docks, a large one protected by two moles and a small one adjacent to the former. Provided with piers, haulage slip, equipment and services, it has 200 berths available 10 of which are for visitors, for vessels up to 30 m long. The bottom is sandy and the depths at the quay vary from 1.5 to 4 m.

At Lio Grande vessels arrive by means of the access channel to the Porto di Lido, keeping to starboard and close to Punta Sabbioni, then enter the Canale di Treporti and follow it for just under 1 M. The marina is found to starboard. Pay attention to the current generated at the entrance because of the tidal variations.

Quay services – Water supply, electrical supply, fire extinguisher, haulage slip up to 20 t, crane, fuel station (8 am - 12 midday and 2 pm - 8 pm).

Port services - Repair workshop, public toilets/showers, public telephone, refuse disposal.

Accessory services – First aid at the Italian Red Cross (S. Marco), United Civil Hospitals at Campo S.S. Giovanni e Paolo, post office.

Authority - Harbourmaster (S. Marco).

CHAPTER 4

FROM THE CAVALLINO COASTLINE TO GRADO

(CHART Nos. 38 - 39 - 924)

INFORMATION OF A GENERAL NATURE – The **Cavallino Coastline** extends to the E of Porto di Lido. It is low and sandy with clumps of trees.

Up to the mouth of the Fiume Timavo the coast remains low, sandy and flat; the hinterland is characterised by vast lagoons that are numerous and connect with the sea, but are not as important as the Venetian Lagoon.

Points of note are: **Porto Falconera**, in the Caorle lagoon; **Porto Pignano** (Lignano Sabbiadoro) and **Porto Buso**, in the Marano lagoon; **Grado** and **Primero** in the Grado lagoon. A number of rivers and channels intersect this marshy plain; their mouths constitute ports that are more or less important according to the depth of the bar. In this region artificial rivers and channels connect Venice with the lower section of the Fiume Isonzo, as well as other important centres in the area.

"Adriatic Traffic" obligatory naval reporting scheme – See page 17.

Traffic separation scheme – See page 17.

Submerged obstacle - A 1.8 m high statue representing the Madonna is positioned at $45^{\circ}23'.96 \text{ N} - 012^{\circ}34'.03 \text{ E (WGS 84)}$ near the "Secca Umberto d'Ancona" in depths of about 18.5 m.

Submarine pipeline – A pipeline discharging purified water sets out to sea from the Cavallino coastline. Its terminal is marked on the surface by a spindle light buoy, coloured yellow, with yellow X topmark anchored at $45^{\circ}24'09''$ N – $012^{\circ}30'06''$ E. The pipeline and the buoy are marked on Chart no. 222.

marine farms – two plants marked on the charts are positioned in the area of sea off the Cavallino Coastline to the S of the Piave Vecchia lighthouse:

- k) a mussel farm with a rectangular shape marked at the centre by a yellow **light buoy** with X topmark located at $45^{\circ}27'$ N $012^{\circ}35'$ E; navigation, anchoring and fishing are **prohibited** within a 500 m radius of the buoy;
- l) a marine farm, positioned to the S of the one above, is marked by 4 yellow **buoys** with X topmarks located at the corners; two of these on the outer corners are light buoys. Navigation, anchoring and fishing are **prohibited** within 800 m of the buoys.

Conspicous Points – The following can be seen after the Cavallino coastline along the coast: the Cavallino bell tower, an isolated white house on the shore at the centre of a green area; a long three storey building with terraces on the beach just to the SW, and another two storey house of a clear colour; a 54 m high water tank; a complex of modern buildings; the Piave Vecchia lighthouse.

Prohibitions – Swimming is **prohibited** within 200 m measured from the outermost points of the banks and flood plains in the national waters of the mouths of the rivers and channels communicating with the sea in the sea areas of Jesolo and Caorle (mouth of the Sile, mouth of the Piave, mouth of the Livenza, mouth of the Nicesolo – Porto Falconera channel, mouth of the channel of Lovi, Porto Basèleghe, Lugugnana channel, mouth of the Tagliamento). Stopping, anchoring and any activities not involving direct movement from or through the mouth are **prohibited** within the channels, unless authorised by the Maritime Authority.

The maximum speed permitted in the channels is 3 knots.

Requirements – Vessels of any type passing through the national waters must always navigate making use of the engine, apart from vessels equipped with sails only, keeping close to the starboard side of the channel with respect to their course. Small sailing boats with less that 4 sq.m. of sail are **prohibited**.

For more details and for the use of the lift nets see Ordinance no. 2/95.

PORT OF PIAVE VECCHIA — Is a Channel Port located at the mouth of the Fiume Sile; the entrance is bounded by two stone groynes about 50 m long extended by two metal cofferdams of about 27 m on the port side (on entry) and about 90 m on the starboard side (on entry). These cofferdams stick out about 70 m above the surface; the head of the one to starboard is marked by a **green light**, that of the groyne to port by a **red light**. The entrance to the mouth of the Sile, between the heads of the cofferdams, is 40 m wide. Navigation near the mouth of the river is very difficult due to the continuous movement of sand: especially in the period between October and February the NE wind raises high waves, creating a sandbank that obstructs the entire E side of the of the entrance.

At low tide the draught permitted for safe passage is 1 m.

Coming from the sea, it is advisable to navigate near the port bank (on entering the river) on which the **lighthouse** stands (see below); on this side the depths are greater and therefore more reliable. The port is dredged every year to maintain the depth of 3.5 m.

Do not approach too close to the coast until the channel entrance opens up clearly, since from this direction the depths are greater and safer. It is dangerous to enter port during a SE wind and high waves. Two tower blocks located 1,500 m and 4,800 m to the W of Torre Marzotto respectively and a third about 2,000 m bearing 067° from the tower stand out.

Lighthouses – The lighthouse stands on the W bank of the Sile river, on a cylindrical tower painted in black and white bands.

Information for leisure craft – leisure craft using the port complex of Porto di Piave Vecchia can make use of certain public services at the Lido di Jesolo (see below) including: first aid (Piazza Faro); post office (Piazza S. Maria Elisabetta), Civil Hospital (Via Levantino), pharmacies (Piazza Nember and Piazza del Granatiere).

Wrecks – A partially destroyed wreck lies on the bottom at $45^{\circ}25'38"$ N – $012^{\circ}38'58"$ E, covered by 18 m of water.

The wreck of a small boat can be found about 1.9 M to the E of the lighthouse of Porto di Piave Vecchia.

Tourist port complex of Piave Vecchia (see plan) — Lies inside the Sile and includes 5 areas, with modern equipment and services for complete nautical support. They are all private and vessels up to 25 m long can gain access. The Marina del Faro and the Marina del Cavallino lie on the port bank of the river; the Darsena del Faro (Lido di Jesolo), the Marina di Jesolo and the Tourist port of Jesolo lie on the starboard bank.

PORT OF PIAVE VECCHIA TOURIST PORT COMPLEX

2007

45°29'.0 N – 012°35'.0 E

- A Marina del Faro
- $B-Marina\ del\ Cavallino$
- C Darsena del Faro
- D Marina del Jesolo
- E Tourist port of Jesolo

The **Marina del Faro** is the first encountered to port sailing up the river, about 650 m from the entrance. It consists of three quays with an overall length of 450 m. The maximum length of the boats that can gain access is 18 m. Depths at the quay are 2.5 - 3.5 m.

135 berths are available, 5 of which are for visitors. Generally the dock is reserved for sailing boats.

The **Marina del Cavallino** is the second to port on entry, about 700 m from the entrance, which is between three concrete quays. Floating piers are found inside. The maximum length of vessels that can gain access is 25 m. The average depths are 3 m.

Quay services -342 berths 30 of which are for visitors, water supply, electrical supply, 1 slipway, 1 haulage slip, 1 crane of 15 t, 1 travel lift of 50 t, 1 mobile crane, fuel station (8.00 am -12 midday; 2.00 pm -6.00 pm), fire extinguisher.

Port services – Public toilets and showers, public telephone, repair workshop, weather service, refuse disposal.

The **Darsena del Faro** is the first quay encountered to starboard sailing up the river Sile, and is the smallest: it is used by boats up to 8 m long (about 100 berths). Depths at the quay vary between 1.2 and 2 m.

The **Marina di Jesolo** is the second to starboard entering Piave Vecchia, about 1 km from the entrance. The quays extend for about 500 m. The dock has a series of piers. There are 350 berths, 20 of which are for visitors. The maximum length of boats that can gain access is 17 m.

Winds – The SE is the prevailing wind and blows up to 35-40 knots. Occasionally SE winds can get up to 45-50 knots.

Currents – Because of the limited width of the entrance strong currents form at the entrance that can enter and exit the port at up to 10-15 knots, making it difficult for boats to manoeuvre.

Tides – The average excursion is about 50 cm.

Weather warning signs – The formation of dark cumulo-nimbus clouds along the coast, coming from the SW or NW warns of approaching storms with strong and unexpected gusts of wind.

Entry instructions – On entering port it is advisable to keep slightly to port of the axis of the channel, while departing vessels must navigate to starboard. The maximum speed is 3 knots.

The **Tourist port of Jesolo** is the most internal quay in the Fiume Sile; it is to starboard sailling upstream about 1.5 km from the access channel of the river. The port consists of a wide, completely quayed dock equipped with 6 piers. The maximum length of boats that can gain access is 24 m.

At the entrance the depths are 3 m and the bottom is sandy.

Immediately to the NW of the entrance to the tourist port there are some piers about 25-45 m in length.

Quay services – 487 berths, 1 crane of 25 t, 1 travel lift of 70 t, 1 slipway, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, telephone point,

fire extinguisher, fuel station, quay lighting.

Port services – Sailing club, refuse disposal, public toilets/showers, public telephone.

Accessory services – Car parking, camping, sports equipment, bar, chandlery, information office, pharmacy, hospital, first aid.

Communications – buses, taxis.

Authorities - Circomare, Carabinieri, Police, Fire Brigade.

JESOLO – The village lies behind the Lido of the same name and only its bell tower can be made out.

The location of Lido de Jesolo consists of a long uninterrupted line of modern houses dominated by 4 **tower blocks**, visible from a considerable distance: the one furthest E has a steep roof; there is a red light on the top of each one.

Dangers – 3 pillars in reinforced concrete are found about 500 m to the S of the mouth of the Fiume Piave, spaced 50 m apart and covered by 60 m of water: they constitute a danger to shipping and are unmarked.

CORTELLAZZO – Lies near the mouth of the Fiume Piave; the village, visible only when approaching from the E, is recognisable by the above-mentioned **tower block** built 1,000 m to the W of the mouth.

Winds – In the autumn and winter period the SE and NE winds are particularly strong.

Tides – The average excursion is 50 cm, but does not cause particular problems for navigation.

Entry instructions – The entrance is marked by 5 dolphins, that on entry should be left to port. To enter/exit the port it is necessary to keep to the centre of the mouth, leaving the dolphins at a distance of 10 m, proceeding at a moderate speed. Outside the course are shoals and sandbanks that can severely restrict the depth and create dangers for shipping.

Port of Cortellazzo – Is protected by two outer moles, both marked by lights (see the List of Lights). The port of Cortellazzo consists of 2 well-equipped private docks for leisure craft. The first is known by the name of Nautica Boat Service and is found on the port bank sailing upstream: inside there are 5 piers and a small quay. The depths vary between 2 and 4 m. The other dock is larger and is found about 1,200 m from the mouth of the river, again on the port bank. Called Marina di Cortellazzo, it is provided with 4 piers and a quay with depths of 3-5 m. At the entrance the depth is 2.5 m; the bottom is sandy.

Quay services — About 150 berths 70 of which are in the Nautica Boat Service dock, 1 haulage slip, 1 crane of 20 t, storage, drinking water, water supply, electrical supply, fuel station, public telephone, fire extinguisher.

Port services – Repair workshop, dockyard, security, public toilets/showers, refuse disposal.

Accessory services – Car parking, restaurant, bar, shops of every kind, hospital and first aid at Jesolo.

Authorities - Locamare, Carabinieri, Police, Fire Brigade.

ERACLEA MARE – Recognisable by a tank on a framework, it is a village immediately NE of Cortellazzo, situated in front of a small basin, called "il Morto", where there is a private **tourist marina**. To enter it is necessary to make two approaches, the first to starboard and the second to port.

The marina is well equipped and has quays and 3 piers for mooring.

The depths are 3 m in the channel and 0.5-2 m at the quays. The depth of the channel and that of the port are maintained constant during the outfitting period by the managing club; the depths refer to low tide

The access channel to the marina is marked by posts, green to starboard and red to port. The entrance is correctly marked on both sides (see List of Lights).

Quay services – 187 berths, 1 crane of 7 t, 1 slipway, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, fire extinguisher.

Port services – Security, sailing club, public toilets/showers.

Accessory services - Car parking, camping, bar.

Authority - Circomare.

Warnings – The coast from Cortellazzo to Caorle should be approached with caution and using the depth sounder, and only in favourable weather conditions; it looks low with sandy shores, uniform and without landmarks; there are groups of buildings and an ordered succession of breakwaters can be seen, in defence of the beach. The waters of the Piave emerge very white and milky (from the sea there seems to be stretch of very clear beach at Cortellazzo).

Between Cortellazzo and Caorle the **bell tower of Rumiati** can be seen from about 2.2 M out to sea.

Fish farms – A special marker spar buoy at $45^{\circ}31'.85 \text{ N} - 012^{\circ}51'.28 \text{ E}$ marks a marine farm about 4.5 M from the coast.

Tourist port complex of S. Margherita di Caorle (see plan) – At the mouth of the Fiume Livenza, it consists of 3 quays: the port of S. Margherita, Marina 4 and Darsena dell'Orologio.

Conspicous Points – Modern buildings are found near the sea, among which a very long block of flats stands out, on 6 floors, with a characteristic arched roof. At the W dyke a tall white building is clearly recognisable in the shape of the inverted trunk of a cone. If coming from the S a water tank standing inland is also visible.

The Fiume Livenza connects to Venice, Treviso and other cities.

Port of S. Margherita di Caorle – Consists of the mouth of the Livenza, bounded by two **outer dykes**, both marked with lights on posts: the E dyke is about 560 m long, bearing SSE, while the W one is about 550 m bearing approximately SE.

Safe passage in or out of the port is only possible for vessels with draught of 2 m or greater under favourable weather conditions at high tide. The maximum height permitted for boats at the moorings is 20 m.

Pay attention in the April to September period at Porto Marina 4 to the passage of the ferry making the connection between the two banks of the Fiume Livenza.

To improve the access conditions during the summer some small buoys are arranged outside the dykes bounding the entry channel.

Because of the lighting along the coast, the two **lights** on the heads of the breakwaters are not clearly visible.

S. MARGHERITA DI CAÓRLE TOURIST PORT COMPLEX

2007

45°35'.4 N – 012°51'.4 E

Numerous groynes are arranged at right angles to the coastline to defend it, to the E and to the W of the entrance to the port.

The average depths at the entrance are 2 m and in the basin centre 4 m, with a minimum of 1.5 m. The bottom is sandy.

Quay services – 870 berths, drinking water, water supply, electrical supply, quay lighting, fire extinguisher, 1 slipway, 11 mobile cranes of 6 t, 4 fixed cranes of 5-10-12-40 t, fuel station (9.00 am – 12.30 pm/3.00 pm – 7.00 pm), boat storage.

Port services – Mooring, security, dockyards, repair workshop, skin diver, FAX, weather service, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone, sailing club, Shipping Agent.

Accessory services – Ice sales, gas/LPG cylinders, boat and dinghy hire, car and cycle hire, car parking, chandlery, shops of every kind, food stores, laundry, camping, sports equipment, bar, restaurant, hotel, internet point, information office, letter box, post office, bank, cash point, pharmacy, emergency medical service (Caorle), hospital (Portogruaro).

Communications – Seasonal ferry for S. Margherita di Caorle - Caorle, buses, railway, taxis, motorway (exit of S. Stino di Livenza-Ve), airport (Tessera-Ve).

Authorities – Circomare, Customs, Carabinieri, Tax Police.

Entry instructions – Access is gained via a lock with 2 Da Vinci gates 7.4 m wide with a threshold depth of about 3.5 m below average sea level. The gate to starboard on entry is for sailing boats in both directions; the gangway passing above it is opened with a simple request by acoustic signal, by night it is always open. Under the gangway (4 m above average sea level), there is a one way system for motor boats. Passage is then through a Channel Port devoid of moorings, 28 m wide.

Marina 4 (see plan) – Is a modern tourist port situated on the W bank of the Fiume Livenza, about 400 m from the mouth. The moorings and the small docks excavated along the channel are owned by the houses along the front (land-sea houses with own moorings). It is sheltered from all the winds.

The average depths are 2.5 m.

Information for leisure craft – The channel port consists of two basins bounded by a wooden pier: the first basin on entry is reserved for motor boats, the second for sailing boats or motor sailing boats.

Quay services – 420 berths 20 of which are for visitors, 1 crane of 40 t, 1 travel lift of 25 t, slipway, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, fire extinguisher, fuel station, quay lighting.

Port services – Dockyard, repair workshop, security, sailing club, public toilets/ showers.

Accessory services – Car parking, hotel, restaurant, bar, shops of every kind, information office, post office, bank, pharmacy, hospital in Portogruaro, first aid at Caorle.

Communications – Ferry, buses, taxis.

Authorities - Circomare, Carabinieri, Tax Police, Customs.

Entry instructions – To access the Darsena dell'Orologio it is necessary to sail 600 m up the Fiume Livenza, then enter the Canale dell'Orologio to starboard and continue for 1,500 m: the access to the dock is to starboard.

S. MARGHERITA DI CAÓRLE

MARINA 4

TOURIST PORT

2007

45°35'.4 N – 012°51'.4 E

Darsena dell'Orologio (see plan) – Located in the channel of the same name, it is a fully equipped privately run marina for leisure craft.

The depths are 3.5 m on average.

Quay services -450 berths 40 of which are for visitors, water supply, electrical supply, fuel station, 1 fixed crane of 10 t, fire extinguisher.

Port services – Public toilets/showers, refuse disposal, security.

CAORLE – Lies on the sea shore: the houses form the most notable group on this section of coast and its cylindrical **bell tower**, of a light brown colour, with cone-shaped summit constitutes a good reference point. Another smaller bell tower, square with a pyramid-shaped dome, stands alongside the **Chiesa della Madonna degli Angeli**, to the E of the small village; a **light** is arranged on a ledge (figure 23) on the sea-facing façade of this bell tower.

Figure 23 - Caorle, light.

The building of a **Holiday Camp** of a light colour with long balconies on the façade facing the sea can be seen to the NE of the village.

Warning – Distant points inland, marked on the chart, including the bell towers of Marano, Aquileia and Barbana are only visible with clear visibility.

Dangers – A submerged mole about 600 m long is found at right angles to the coast about 500 m to the N of the light of Caorle. Its end is marked by a barrel-shaped light painted red.

Wrecks – Due to the presence of a wreck of historic interest in the area of sea centred at $45^{\circ}35'36"$ N – $012^{\circ}52'54"$ E with a radius of 200 m, anchoring, stopping, fishing and any maritime activities are **prohibited**.

The wreck of the motorboat "Nivia" is found at $45^{\circ}19'.57 \text{ N} - 012^{\circ}59'.97 \text{ E}$ in depths of about 30 m.

Prohibitions – Stopping, mooring, fishing and all subaqua activities are prohibited in the 0.5 M radius area centred at $45^{\circ}35'.14 \text{ N} - 012^{\circ}53'.36 \text{ E}$.

Stopping, mooring, fishing and all subaqua activities are prohibited in the 0.25 M radius area centred at $45^{\circ}33'.37 \text{ N} - 012^{\circ}57'.62 \text{ E}$.

S. MARGHERITA DI CAÓRLE DARSENA DELL'OROLOGIO MARINA

2007

45°35'.9 N – 012°52'.3 E

Biological protection area – An area of biological protection is instituted called "Tegnue di Porto Falconera", as an experiment until the end of 2007. The area about 1.7 M to the SSE of Porto Falconera lies between the following points:

- h) 45°35'.445 N 012°55'.554 E;
- i) $45^{\circ}35'.687 \text{ N} 012^{\circ}56'.655 \text{ E}$;
- j) 45°34'.917 N 012°56'.997 E;
- k) 45°34'.676 N 012°55'.897 E.

Yellow **light buoys** are located at points a) and c), special marker day buoys at points b) and d).

Stopping, anchoring, swimming, fishing, diving and any activities that might constitute danger or disturbance to the animal or vegetable species, including the alteration of the marine environment are **prohibited** in the area.

After Caorle the coast remains low and sandy. About 3.5 M to the NE of Caorle 4 cylindrical green tanks with a yellow band at the top can be seen just inland, visible only from the sea. Alongside there are some large warehouses, low with light-coloured roofs.

Winds – The winds that affect the area are the N, NE and the SE. In particular the SE winds, also because of the shallow depths and the orientation of the entrance, make entry/exit to/from the port particularly difficult and therefore not recommended.

Tides – The average excursion is 50 cm and can cause difficulty during entry/exit to/from the port with more than 0.5 m draught.

Entry instructions – There is an unmarked access channel which only small boats can access. Entry and exit are not recommended in adverse weather conditions; it is advisable to proceed taking depth soundings, even under favourable conditions.

Porto Falconera – The last section of the **Fiume Lemene**, it is a bay obstructed almost completely by sandbanks that accommodates leisure craft.

The depths are 1.5 m at the entrance, 1.5 m in the basin centre with a minimum of 0.5 m. The bottom is sandy/muddy.

Vessels that can access the port must have a maximum length of $5\,\mathrm{m}$, a maximum length of $20\,\mathrm{m}$ and draught of $2\,\mathrm{m}$.

Quay services – 20 berths, 2 slipways.

Port services – Dockyard, repair workshop, refuse disposal, collection of used oil/spent batteries, public telephone, sailing club, Shipping Agent.

Accessory services – Restaurant, bar, gas/LPG cylinders, boat/dinghy hire, car/cycle hire, car parking, chandlery, shops of every kind, food stores, laundry, camping, sports equipment, hotel, internet point, information office, letter box, post office, bank, cash point, pharmacy, hospital in Portogruaro, first aid in Caorle.

Communications – Taxis, buses, railway (Portogruaro-Caorle), motorway (S. Stinto di Livenza), airport (Tessera).

Authorities – Circomare (Caorle), Carabinieri, Tax Police, Customs.

Winds – In the autumn and winter period SE winds and occasionally NE winds dominate.

Entry instructions – Access is by a channel marked by red and green dolphins and 2 lights. Keep to the centre of the channel. It is always necessary to pass with care, in

good weather conditions, taking depth soundings because of the silting up to which the channel is subject.

Porto Basèleghe – Formed where the Canale dei Lovi meets the sea, it is found on the E bank; the marina consists of a quayed dock about 800 m long equipped with piers; it can accommodate small leisure craft.

Depths of 1.5 m are maintained at the entrance, and of 3.5 m at the basin centre with a minimum of 1.5 m. The bottom is sandy and muddy.

Vessels can moor that are no longer that 27 m.

Quay services – 400 berths 20 of which are for visitors, 1 mobile crane of 20 t and 1 fixed crane of 20 t, 1 slipway, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, cable TV point, fire extinguisher, quay lighting, fuel station (open all day).

Port services – Repair workshop, dockyard, security, sailing club, Shipping Agent refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone, pilotage, mooring, FAX, VHF (channel 09), weather service.

Accessory services – Car parking, sports equipment, hotel, restaurant, bar, ice sales, shops of every kind, food stores, laundry, caravan parking, camping, chandlery, gas/LPG cylinders, boat/dinghy hire, car/cycle hire, internet point, information office, letter box, post office (Bibione), bank, cash point, pharmacy (Bibione), first aid at Bibione, hospital in Portogruaro and in Latisana.

Communications – buses, taxis, ferry, railway (Latisana), motorway (Latisana), airport (Tessera).

Authorities – Circomare (Caorle), Delemare (Bibione), Carabinieri, Tax Police, Tourist Port Management.

Lights – One red and one green on the first dolphins of the access channel, switched on from 1 May – 30 September (see List of Lights).

The extensive town of **Bibione** stands to the E of Porto Basèleghe with large modern buildings that are mainly light coloured and stretch almost as far as Punta Tagliamento. To the W of the houses of Bibione, that is to the E of the entrance to Porto Basèleghe, a red and white hotel can be recognised; another large building can be seen about 500 m further S.

The Colonia Marina camp that stands in front of the Pineta di Revellino wood and the Colonia Solarium camp, about 0.5 M to the E, are no longer recognisable from the sea, as they are covered by a group of white tower blocks.

Wrecks – A sunken hull lies about 2.5 M to the SW of Bibione.

Archaeological area – Stopping, anchoring, fishing and all underwater activities are **prohibited** in the circular area of sea centred at $45^{\circ}26'30"$ N – $013^{\circ}05'00"$ E of 0.75 M radius, as well as positioning buoys and floating or submerged markers.

After Punta Tagliamento the coast is very low up to Lignano; then, towards the NE there is a wide indentation that constitutes the lagoons of Marano and Grado in which there are numerous islands and islets that make up the border between the open sea and the

lagoons themselves. Some channels allow access to the lagoons and the internal waterways.

The area is crossed by various water courses the most important of which are the Fiume Corno and the Fiume Aussa. Where the rivers meet the sea they often cause the movement of sandbanks; dredging is conducted regularly in the main access channels. Fog is frequent in this area, so great care should be exercised when navigating through it.

The ports mainly consist of the mouths of the rivers and streams or entrances to the lagoons; some of these ports make up the bases of the fishing fleet. Mariners should therefore look out for fishing boats up to 15 M out to sea.

Oceanographic buoys – The oceanographic buoy "Sea Watch IMO – IMA" is positioned to the SE of Punta Tagliamento. It is lit with an X topmark, all coloured yellow.

Dangers – There are wrecks that are dangerous to shipping in the stretch of water off the mouth of the Tagliamento river.

There is also a group of concrete **blocks** (depth shown of the chart: 10.5 m) about 8 M to the ESE of the Punta Tagliamento lighthouse.

PUNTA TAGLIAMENTO – Is low, sandy and covered with shrub. The **lighthouse** stands on its end (figure 24), made up of a tower with a conical trunk, painted white next to a two-storey house.

Figure 24 – Punta Tagliamento, lighthouse.

The **Fiume Tagliamento** is often obstructed by an emerging bar at low tide; within it the berths of Marine Uno, Marine Punta Verde and Marina Azzurra can be found.

The access channel to the river is marked by dolphins and is influenced by the currents, sometimes very intense, that vary with the tides. Sandy bars form within because of the winter sea storms. It is necessary to proceed with care, taking depth soundings.

The NE wind raises the sea significantly and makes landing at the mouth problematical.

Inside the access channel to the Fiume Tagliamento the minimum depths vary between 0.7 and $1.2\ m.$

Dangers – There are some groynes and breakwaters to protect the coastline at the mouth of the Fiume Tagliamento.

Wrecks – A sunken hull is found about 6 M bearing 058° from the Punta Tagliamento lighthouse. It has no mast and is unmarked. It does not constitute a danger to shipping.

The remains of a motor vehicle lie about 5.5 M to the S of the Punta Tagliamento lighthouse at $45^{\circ}32'.785 \text{ N} - 013^{\circ}07'.379 \text{ E}$.

Oceanographic buoys – An oceanographic buoy equipped with a radar-reflecting topmark is positioned about 3 M to the SE of Punta Tagliamento at 45°36'.16 N – 013°09'.04 E.

A wave measurement buoy is positioned about 6.3 M to the SE of Punta Tagliamento at $45^{\circ}33'58''.2 \text{ N} - 013^{\circ}12'32''.4 \text{ E}$. Two other oceanographic buoys are positioned at $45^{\circ}33'.93 \text{ N} - 013^{\circ}14'.88 \text{ E}$ and $45^{\circ}35'40''.44 \text{ N} - 013^{\circ}20'38''.22 \text{ E}$ respectively.

Prohibitions – Stopping, anchoring, fishing and all underwater activities are prohibited with the area of 250 m radius centred at $45^{\circ}33'.197 \text{ N} - 013^{\circ}11'.111 \text{ E}$.

Lignano Riviera and the conspicuous group of houses at Lignano Pineta, where there are a number of tower blocks, extend along the stretch of coast between the mouth of the Tagliamento river and Lignano Sabbiadoro. In the short section between the tower blocks of Lignano Pineta and those of Lignano Sabbiadoro that extend up to the entrance to the port, the long, low and white building of a holiday camp can be seen with a raised section in the centre.

At Lignano Sabbiadoro, about 650 m to the S of the red entrance light to Porto Lignano, there is a pier with sea terrace, that extends about 100 m from the shore. A red light is positioned on the end.

Marina Uno tourist port – Is a dock that opens on the E bank of the Fiume Tagliamento, about 400 m from the mouth. It is fully quayed inside and provided with numerous floating piers.

The access channel that starts about 600 m from the mouth of the river, has depths of about 3.5 m but is subject to silting up.

The depths are 4 m at the entrance and 3 m at the quay with a minimum of 2 m. The bottom is sandy.

Use of the quays, depths and draughts – Are as follows:

n (6)	MOLES AND	QUAYS	*	Maximum size of vessels that can moor		
Name	Main use	Length (m)	Depth (m)	Length (m)	Width (m)	
Pier A	leisure	68.5	1.5	15.2	6	
Pier B-C	leisure	73.5	1.5	12	4.13	
Pier D-E	leisure	74.4	1.5	9.5	4.4	
Pier F-G	leisure	74.3	1.5	12.5	4.7	
Pier H-I	leisure	73.5	1.5	10	3.5	
Pier L-M	leisure	90	1.5	9	3.5	
Pier N	leisure	70	1.5	9	3.5	
Pier O-P	leisure	45	1.5	7	2.5	
Pier Q-R	leisure	45	1.5	7	2.5	
Pier S-T	leisure	45	1.5	8	3	
Pier U-V	leisure	45	1.5	8	3	
Pier Z	leisure	109	1.5	17	6	
Pier Y	leisure	11	1.5	20	6	
Pier X	leisure	90	1.5	14	5	

Lights – A red light and a green light, each on posts, are positioned at the entrance to the dock.

Quay services -419 berths some of which are for visitors, 2 fixed cranes of 20 and 75 t, boat storage, drinking water, water supply, electrical supply, TV point, fire extinguisher, fuel station (9.30 am -12.30 pm; 2.30 pm -6.30 pm), quay lighting.

Port services – Repair workshop, dockyard, mooring, security, skin divers, FAX, VHF, weather service, sailing club, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone.

Accessory services — Car parking, hotel, restaurant, bar, shops of every kind, food stores, laundry, sports equipment, internet point, gas/LPG cylinders, chandlery, information office, letter box, post office in Lignano Pineta, bank at Lignano Sabbiadoro, cash point at Lignano Sabbiadoro, pharmacy at Lignano Sabbiadoro, first aid/emergency medical service at Lignano Sabbiadoro, decompression chamber at Trieste.

Communications – Motorway and railway at Latisana, buses, taxis, airport at Ronchi dei Legionari.

Authorities – Circomare at Grado, Locamare at Lignano Sabbiadoro, Carabinieri at Lignano Sabbiadoro, Police, Tax Police, Fire Brigade, Tourist port Management at Lignano Pineta.

Winds – Especially in the autumn/winter period the prevailing and dominant winds are the NE with gusts up to 50 knots and the SE with gusts up to 35 knots.

Tides – The tidal excursion varies between 1.2 and 1.3 m.

Entry instructions – Access from the mouth of the Fiume Tagliamento is by means of a channel bounded by red and green lights, marked by the Punta Tagliamento lighthouse. The access to the marina is marked by lights (see the List of Lights).

It is necessary to pay attention on entering the channel, above all in the presence of a high/agitated sea, because of the variation to which the depths are subject.

Marina Punta Verde (figure 25) – Is a private tourist port on the E bank of the Fiume Tagliamento, about 1.5 Km from the mouth. It is protected by a sand bar reinforced by rocks. It is fully quayed inside and equipped with 10 floating piers.

The depths are 3 m at the entrance, 3 m in the basin centre with a minimum of 2.5 m. The bottom is sandy/muddy.

Figure 25 – Marina Punta Verde, port (2007).

Requirements – Inside the port the maximum speed permitted is 5 k.p.h.

Use of the quays, depths and draughts – Are as follows:

	Maximum size of vessels that can moor					
Name	Main use	Length (m)	Depth (m)	draught (m)	Length (m)	Width (m)
Quay A	leisure	80	3	2.5	20	6
Floating pier B-C	leisure	40	3	2.5	16	5
Floating pier D-E	leisure	40	3	2.5	8	3
Floating pier F-G	leisure	40	3	2.5	6	2.5
Floating pier H-I	leisure	40	3	2.5	9	3.5
Floating pier L-M	leisure	40	3	2.5	11	4
Floating pier N-O	leisure	40	3	2.5	9	3.5
Floating pier P-Q	leisure	40	3	2.5	8	3
Floating pier R-S	leisure	40	3	2.5	6	2.5
Floating pier L-M	leisure	40	3	2.5	9	3.5
Floating pier V-Z	leisure	40	3	2.5	11	4

Quay services – 270 berths 15 of which are for visitors, 1 fixed crane of 20 t, 1 travel lift of 15 t, drinking water, water supply, electrical supply, quay lighting, fire extinguisher, fuel station, boat storage.

Port services – Local pilot, mooring, security, repair workshop, skin diver, FAX, VHF (channels 9-16), weather service, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone.

Accessory services – Ice sales, gas/LPG cylinders, diving centre, boat/dinghy hire, car parking, chandlery, shops of every kind, food stores, laundry, caravan parking, camping, sports equipment, bar, restaurant, hotel, internet point, information office, letter box, post office, bank, cash point, pharmacy, emergency medical service (Lignano), hospital (Latisana), decompression chamber (at the Trieste-Cattinara hospital).

Communications – Ferry (for Trieste, Croatia, Marano, Venice), buses, railway (Latisana, Lignano, Bibione), taxis, motorway (Latisana), airport (Ronchi dei Legionari).

Authorities – Locamare, Tourist Port Management, Customs, Carabinieri, National Police, Tax Police, Fire Brigade.

Lights – A red light and a green light on metal structures, also coloured, are positioned at the entrance to the dock.

Marina Azzurra – Is a marina located about 4 km from the mouth of the Fiume Tagliamento; it is inaccessible as it is abandoned, silted up and devoid of any services.

Pier – There is a pier with depths of 2.5 m at the head, marked by a light, about 2 M to the N of the Punta Tagliamento lighthouse.

A tank is visible nearby with a characteristic V-shaped truss.

Submarine pipelines – A submarine discharge pipeline sets out about 2.7 M to the N of the Punta Tagliamento lighthouse and extends about 4 M heading 135°. Anchoring and trawler fishing are prohibited in the surrounding area.

Winds - The most dangerous are those from the Northern quadrants, that raise high waves

and generate swell in the port. In the summer there are sometimes unexpected gusts of wind from the NE that are dangerous but of a short duration. The NE wind is preceded by formations of cumulus clouds to the NNW. However good visibility of the Istrian coast warns of a NE wind on the following day.

LAGOONS OF MARANO AND GRADO – Quite similar to that of Venice, they include a length of coast of 30 M; most of the islands that make them up, except for Grado which is the most important, are sparsely inhabited.

Thirty eight wooden posts, to be left to port on entry, signal the access to the channels of Lignano and Marano.

Requirements – With Ordinance no. 5/93, the Local Maritime Office of Grado established that:

1) In the port areas, in the dredged access channels of the ports, at the mouths of the rivers and in the maritime channels all vessels **must** proceed at a safe speed and **must not** displace water and/or cause waves that are dangerous for vessels at moorings or in transit.

A safe speed means one that enables the master to maintain control in an appropriate and effective manner to avoid collisions and to stop the vessel within a distance suited to the circumstances and conditions of the moment.

- 2) It is **prohibited** to make unnecessary turns and/or obstruct the free and safe passage of vessels in and out of the ports, dredged access channels, mouths of the rivers and maritime channels; entry and exit manoeuvres must be by means of the shortest route.
- 3) It is **prohibited** to windsurf in the port waters, dredged access channels to the ports and the mouths of rivers.

LIGNANO SABBIADORO – Constitutes the best port of refuge along the Venice-Grado coastal section; it is however only accessible for small boats, because of the shallow depths at the bar.

The construction of the dykes of Porto Buso has caused severe erosion of the Lignano Sabbiadoro beach: the sand transported to the entrance to the port of Lignano obstructs it and the currents make the depths at the bar variable.

Conspicous Points – As well as the modern residential houses, two tower blocks located about 1.3 M to the SW of the light are good reference points. The larger one is 50 m high. A third tower block stands just to the SW of the others and is 60 m high; it is marked by a red light.

A square tower, a tank and a bell tower mark Marano Lagunare, located inside the lagoon.

Markers – A **light beacon** painted with red and white bands with a spherical red topmark is anchored at $45^{\circ}39^{\circ}.7 \text{ N} - 013^{\circ}09^{\circ}.7 \text{ E}$ to help vessels to land at the port. It is liable to be moved according to the changes in the sandy bar. It can be left to port or starboard when entering or leaving, but is should be passed within 100 m. On the head of a pier, to port on entry, there is a light (square stone cabin painted red). A **light beacon** is found about 0.3 M to the E of the above-mentioned light, on the E side of the access channel, on green piles. After the light beacon the sides of the access channel are marked by white beacons to starboard and red dolphins to port.

Shoals – There is a 0.6 m shoal very near the red access channel entry light, extending about 170 m and 40 m wide. It is not marked on the surface.

Warnings – It is unwise to try to enter the lagoon with bad weather from the SE, because of the violence of the breakers on the bar.

Winds – The NE wind is the prevailing and dominant wind.

Port of Lignano Sabbiadoro (see plan) — Consists of two docks and a communal marina called Porto Casoni. The two docks do not interconnect: the inner one is called Vecchia Darsena (or Darsena Sabbiadoro); the outer one is known as Marina Punta Faro or Porto di Terramare.

Entry instructions – To reach the Darsena Sabbiadoro it is necessary to bypass the stretch of water of Terramare, proceed for about 0.5 M along the channel marked to starboard by dolphins with conical green topmarks, then turn to port and between two groups of dolphins enter a short channel partly bounded to the E by a breakwater.

Darsena Sabbiadoro – Entered to the SE, it is rectangular, about 750 m long and 80 m wide. Numerous piers intended for leisure craft project from the NW, E and SE quays. To port on entry there is a section of quay 124 m long, called Banchina Commerciale, suitable for passenger vessels to moor.

The dock is crossed by a bridge, under which only naval vessels with height of no more than 4.5 m above the average sea level can pass.

The depths are 1.5 - 2 m at the entrance and 1.5 - 4 m at the basin centre. The bottom is sandy.

Use of the quays, depths and draughts – Are as follows:

	Maximum size of vessels that can moor					
Name	Main use	Length (m)	Depth (m)	Length (m)	Width (m)	Height (m)
Floating pier A	Commerce/tourism	32	1.5	12	4	
Floating pier B	Commerce/tourism	25	1.5	8	3	5
Floating pier C- D-E	Commerce/tourism	25	1.5	5	2	5
Floating pier F- G-H	Commerce/tourism	25	1.5	8	3	5
Floating pier K-I-L	Commerce/tourism	32	1.5	8	3	5
Floating pier M-N-O	Commerce/tourism	32	1.5	5	2	5
Floating pier P	Commerce/tourism	32	1.5	8	3	5
Floating pier G	Commerce/tourism	25	1.5	5	2	
Floating pier R	Commerce/tourism	25	1.5	9	3.3	
Floating pier S	Commerce/tourism	25	1.5	10	3.5	
Floating pier T	Commerce/tourism	25	1.5	9	3.3	
Floating pier U	Commerce/tourism	60	1.5	14	4.5	

Lights – Two lights, green to starboard and red to port, are positioned at the entrance.

Quay services – 400 berths 40 of which are for visitors, 1 fixed crane of 20 t, 1 slipway, boat storage, water supply, electric supply, fire extinguisher, fuel station, quay lighting.

Port services – Security, FAX, VHF, public toilets/showers, public telephone, refuse disposal, collection of used oil/spent batteries.

Accessory services – Car parking, hotel, restaurant, bar, shops of every kind, food stores, laundry, gas/LPG cylinders, chandlery, boat/dinghy hire, information office, post office, internet point, bank, pharmacy, hospital in Latisana, first aid/emergency medical service.

Authority – Locamare.

LIGNANO SABBIADORO TOURIST PORT COMPLEX

2007

45°42'.0 N - 013°09'.0 E

Porto Casoni – Lies immediately WSW of the entry to the Vecchia Darsena (Darsena Sabbiadoro). It is a communal marina for leisure craft made up of 5 floating piers protected by an isolated L-shaped mole positioned along the Canale Videra. Boats up to 7.5 m long and 2.7 m wide can gain access.

The depths are 1.5 m at the entrance and 1.5 m in the basin centre with a minimum of 1 m. The bottom is sandy.

Use of the quays, depths and draughts – Are as follows:

	Maximum size of vessels that can moor				
Name	Main use	Length (m)	Depth (m)	Length (m)	Width (m)
Service floating pier	Visitors	72	1.5		
Floating pier A	leisure	48	1.5	6	2.2
Floating pier B	leisure	75	1.5	6	2.2
Floating pier C	leisure	86	1.5	6	2.2
Floating pier D	leisure	96	1.5	7.5	2.7

Quay services – 2050 berths, water supply, electrical supply, fire extinguisher.

Port services – Refuse disposal, public toilets/showers.

Accessory services - Car parking, bar, restaurant, hospital/first aid.

Communications – Taxis.

Authorities - Locamare, Carabinieri, National Police, Tax Police, Fire Brigade.

Entry instructions – To enter the port of Lignano Sabbiadoro head for the elastic beacon with red and white vertical stripes located about 2 M from the entry to the port, then with a course of about 356° approach the entrance, which is bounded to starboard by a green beacon and to port by a red light. Follow the channel that is clearly marked with dolphins.

Marina Punta Faro (or Porto di Terramare) (figure 26) – Is a tourist port; it lies at the NE end of the Lignano peninsula, protected by two dykes, the E one being straight bearing approximately NNW and the other having two arms bearing N and NE respectively.

Figure 26 – Lignano Sabbiadoro, Marina Punta Faro (2007).

The port is divided into two basins; a number of piers for boats to berth are arranged in the outer one.

The depths are 3.8 m at the entrance and 3.1 m in the basin centre with a minimum of 2.8 m. The bottom is sandy.

The depths are dredged annually.

Requirements – Observe the fishing limits and fishing and anchoring prohibitions established by the port Office, which must be contacted as soon as possible on arrival.

Use of the quays, depths and draughts – Are as follows:

MOLES AND QUAYS						Maximum size of vessels that can moor	
Name	Main use	Length (m)	Depth (m)	draught (m)	Length (m)	Width (m)	
Quay B1	leisure	120	3.5	2.9	25	6.5	
Quay B2	leisure	80	3.1	2.6	18	5.5	
Quay B3	leisure	55	2.9	2.4	18	5.5	
Quay B4	leisure	25	2.9	2.4	20	5.5	
Quay B5	leisure	77	2.9	2.4	12	3.7	
Quay B6	leisure	100	2.9	2.4	16	4.5	
Quay B7	leisure	100	3.1	2.6	16	4.5	
Quay B8	leisure	60	3.3	2.8	16	4.5	
Quay A1	leisure	100	3.3	2.8	12	3.7	
Quay A2	leisure	120	3.1	2.6	15	4.5	
Quay A3	leisure	80	3.1	2.6	15	4.5	
Quay A4	leisure	90	3:3	2.8	20	5.7	
Quay A5	leisure	68	3.1	2.6	20	5.7	
Quay A6	leisure	51	3.1	2.6	12	3.7	
Quay A7	leisure	30	3.1	2.6	12	3.7	
Quay Darsena Est	leisure	212	3.1	2.6	12	3.7	
Quay Darsena Est Scogliera	leisure	255	3.1	2.6	10	3.5	
Internal Channel E	leisure	153	3.2	2.7	10	3.5	
Internal Channel E	leisure	130	3.2	2.7	10	3.5	
Internal Channel E	leisure	187	3.2	2.7	10	3.5	
Internal Channel E	leisure	170	3.3	2.8	10	3.5	
Internal Channel E	leisure	85	3.3	2.8	10	3.5	
Internal Channel E	leisure	170	3.3	2.8	10	3.5	
Internal Channel E	leisure	170	3.3	2.8	10	3.5	
Internal Channel E	leisure	250	3.2	2.7	10	3.5	
Sporting	leisure	145	3.5	3	15	4.5	
Darsena Ovest	leisure	100	3.2	2.7	12	4	

Lights – Two lights, green to starboard and red to port, are positioned at the heads of the dykes.

Quay services -1,200 berths 40, 1 mobile crane of 3 t, 1 travel lift of 80 t, boat storage, water supply, electric supply, telephone point, fire extinguisher, fuel station (8.00 am -7.00 pm), quay lighting.

Port services – Repair workshop, dockyard, local pilot, mooring, security, skin divers, FAX, VHF, weather service, sailing club, refuse disposal, collection of used oil/spent batteries, public toilets/showers.

Accessory services – Car parking, sports equipment, diving centre, ice sales, restaurant, bar, hotel, shops of every kind, food stores, laundry, camping, gas/LPG cylinders, chandlery, boat/dinghy hire, car/cycle hire, post office, letter box, bank, pharmacy, information office, internet point, hospital (Latisana), first aid/emergency medical service (Lignano), decompression chamber (Trieste hospital).

Communications – Motorway and railway at Latisana, ferry, buses, taxis, airport and heliport at Ronchi dei Legionari.

Authorities – Locamare (Lignano Sabbiadoro), Carabinieri, Tax Police, Tourist Port Management.

APRILIA MARITTIMA (see plan) – Lies in the W part of the Laguna di Marano. It is a modern tourist complex that includes three ports: Aprilia Marittima, Marina Capo Nord and Marina Punta Gabbiani. The entire port complex is for leisure craft and can accommodate more than 2,000 vessels up to 25 m long; about 200 berths are available for visitors.

Dangers – There are unmarked shoals along the access channel. It is advisable to stay in the centre of the channel.

Lights – There are 3: 2 mark the access to the Circolo Nautico Aprilia Marittime and 1 is located at the entrance to Marina Punta Gabbiani.

Winds – In the summer period sea and land breezes are the routine with the possibility of a NE wind of short duration and a SE wind. In the winter period the NE wind is more frequent and can last for several days.

Currents – Are due to the tide.

Tides – The average excursions are about 40 cm.

Weather warning signs – In the summer period cloudy formations in the afternoon can herald storms.

Entry instructions – From the entrance to the Port of Lignano proceed N along the Canale di Marano until it meets 2 other channels (Mouth of the three channels), then head to port and enter the Canale dei Lustri, marked by dolphins up to the entrance of the Nuovo Canale di Aprilia Marittima.

Aprilia Marittima – Is the central dock that leads to the other internal stretches of water. It is fully quayed; there are a number of floating piers within. The depths are 3 m at the entrance and 2.5 m in the basin centre with a minimum of 2.4 m; at the Dockyards they are 3 m at the entrance and 3 m in the basin centre with a minimum of 2.5 m. The bottom is muddy.

Boats up to 20 m long and 5.5 m wide can moor there.

Quay services -682 berths 68 of which are for visitors, 1 fixed crane of 10 t, 1 mobile crane of 5 t, 4 travel lifts of 12, 20, 40 and 60 t, 1 haulage slip, boat storage, water supply, electrical supply TV aerial point, fire extinguisher, fuel station (8.30 am -5.00 pm), quay lighting.

Port services – Dockyard, repair workshop, locals pilot, mooring, security, skin divers, FAX, VHF, weather service, sailing club, refuse disposal, public toilets/ showers, public telephone.

Accessory services – Car parking, hotel, restaurant, bar, food stores, shops of every kind, ice sales, laundry, gas/LPG cylinders, chandlery, boat/dinghy hire, car/cycle hire, caravan parking, camping, sports equipment, information office, internet point, letter box, post office, bank, cash point, pharmacy, hospital and first aid/emergency medical service at Latisana and Lignano, diving centre, decompression chamber at Udine.

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45°42'.0 N – 013°05'.0 E

Communications – buses, railway at Latisana, taxis, motorway at Latisana, airport (Ronchi dei Legionari).

Authorities – Locamare, Tourist Port Management, Carabinieri, National Police, Tax Police, Fire Brigade.

Winds – The dominant winds are the NE and the SE.

Tides – High excursions are encountered with strong SE winds.

Weather warning signs – Fresh temperatures and a clear sky to the E indicate the arrival of the NE wind; humidity with increasing temperatures and clouds to the S indicate the arrival of the SE wind.

Marina Capo Nord – Lies within the territory of Aprilia Marittima to starboard on entry. It is a fully quayed dock; 10 floating piers are positioned within.

The depths are 3 m at the entrance and 3 m in the basin centre with a minimum of 2.5 m. The bottom is sandy.

Use of the quays, depths and draughts – Are as follows:

MOLES AND QUAYS				Maximum size of vessels that can moor		
Name	Main use	Length (m)	Depth (m)	Length (m)	Width (m)	
Terra Mare A	leisure	180	3	14	4.5	
Pier 1	leisure	150	3	12 - 14	4.25 - 4.5	
Pier 2	leisure	160	3	12	4.25	
Pier 3	leisure	150	3	12 – 15	4.25 - 4.75	
Pier 4	leisure	130	3	15 – 20	4.75 - 5.75	
Pier 5	leisure	120	3	18 – 15	4.75 - 5.25	
Pier 6	leisure	130	3	15 – 12	4.25 - 4.75	
Pier 7	leisure	140	3	12 – 11	4 – 4.25	
Pier 8	leisure	140	3	-11	4	
Pier 9	leisure	110	3	11 - 10	3.65 – 4	
Pier 10	leisure	100	3	10	3.65	
Terra Mare B	leisure	240	3	14	4.5	

Quay services -650 berths 30 of which are for visitors, 1 mobile crane of 20 t, 2 fixed cranes of 3 and 10 t, 1 travel lift of 60 t, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, telephone point, TV aerial point, cable TV point, fire extinguisher, fuel station (8.30 am -12.30 pm; 2.30 pm -5.30 pm), quay lighting.

Port services – Dockyard, repair workshop, local pilot, mooring, security, skin divers, FAX, VHF, weather service, sailing club, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone.

Accessory services – Car parking, car hire, caravan parking, sports equipment, restaurant, hotel, ice sales, bar, shops of every kind, food stores, laundry, gas/LPG cylinders, boat/dinghy hire, camping, chandlery, information office, post office, letter box, internet point, bank, cash point, pharmacy, hospital and first aid/emergency medical service in Latisana, decompression chamber in Latisana.

Communications – buses, railway in Latisana, taxis, motorway in Latisana, airport (Ronchi dei Legionari), heliport in Trieste.

Authorities - Locamare in Lignano, Tourist Port Management, Carabinieri, Tax Police, Fire Brigade.

Winds - The prevailing winds are the N and NE winds (cross winds), the dominant wind is the NE.

Tides – The maximum excursions are 1.2 m.

Entry instructions – From the breakwater of Lignano follow the Channel bounded by the green – red dolphins.

Pay attention to the shallow depths in the case of SE wind and in the lagoon at low tide.

Marina Punta Gabbiani – Is found immediately to the SSE of Aprilia Marittima; the access is independent.

The basin is protected by a breakwater; it is fully quayed and equipped with a number of piers. Entry is not recommended at low tide.

The depths are 2.5 m at the entrance and 3 m in the basin centre with a minimum of 2.2 m. The bottom is mud.

MOLES AND QUAYS				Maximum size of vessels that can moor		
Name	Main use	Length (m)	Depth (m)	Length (m)	Width (m)	
Pier I	leisure	70	3	25	7	
Pier II	leisure	120	3	20	6	
Pier III-IV-V	leisure	120	3	15	5	
Pier VI	leisure	120	3	12	4.5	
Pier VII-VIII-VIII-IX-X-XI	leisure	110	3	12	4.5	
Pier XII	leisure	90	3	15	5	
Pier XIII	leisure	80	3	18	5	

Quay services -300 berths 20 of which are for visitors, 1 fixed crane of 1.5 t, 4 travel lifts of 20-30-80 t, haulage slip, boat storage, drinking water, water supply, electrical supply, telephone point, TV aerial point, fire extinguisher, quay lighting, fuel station (8.30 am -12.30 pm; 2.30 pm -6.30 pm).

Port services – Dockyards, repair workshop, local guide, pilotage, mooring, security, skin divers, FAX, VHF, weather service, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone, sailing club.

Accessory services – Car parking, sports equipment, hotel, laundry, restaurant, food stores, bar, shops of every kind, chandlery, boat/dinghy hire, car/cycle hire, caravan parking, camping, internet point, information office, letter box, post office, bank, cash point, pharmacy, hospital in Latisana, first aid/emergency medical service in Lignano Sabbiadoro, decompression chamber in Latisana.

Communications – Motorway and railway in Latisana, buses, taxis, airport (Ronchi dei Legionari, Trieste and Venice), heliport at Palazzolo della Stella.

Authorities - Carabinieri, Police, Tax Police, Fire Brigade.

Winds – The prevailing wind is the NE, the dominant one the SE; the marina is affected by the N and the NW winds.

Tides - The excursion is about 1 m.

Currents – Are connected with the tides in and out of the lagoon.

Weather warning signs – Good visibility on the Istrian coast indicates a NE wind in the following days.

MARANO LAGUNARE – The port of Marano Lagunare is found on the Isola Dossat near the centre of habitation. It consists of a quayed dock, provided with some floating piers, the S. Vito and 1st May quays, intended for fishing boats to moor and the Banchina Dossat, used by trawlers and for unloading their catch.

The depth of the access channel to the Lagoon of Marano Lagunare is 1.5 m at the entrance and in the basin centre with a minimum of 1 m. The bottom is mud and sand. The port is accessed by means of a channel that is dredged to 1.5 m.

Quay services – Boat storage, 1 travel lift of 10 t, 1 slipway, drinking water, water supply, electrical supply, fire extinguisher, telephone point, TV aerial point, quay lighting.

Port services - Repair workshop, sailing club, FAX.

Accessory services – Car parking, sports equipment, hotel, restaurant, bar, laundry, gas/LPG cylinders, chandlery, post office, letter box, bank, pharmacy, hospitals in Latisana and Palmanova.

Communications – Motorway and railway in S. Giorgio di Nogaro, airport in Ronchi dei Legionari.

Authorities - Locamare, Tax Police.

About 1.5 M to the NE of the entrance to the Canale di Manano, to the W of the island of S. Andrea, a lagoon entrance known as Porto S. Andrea opens. It can provide a temporary refuge for small motor boats. The access channel is marked by beacons, but vessels should proceed with care, taking depth soundings.

Buoys – A wave measurement buoy is positioned at $45^{\circ}41'.97 \text{ N} - 013^{\circ}12'.54 \text{ E}$, in front of the island of S. Andrea.

Submarine pipelines – From the point on the Island of S. Andrea at $45^{\circ}42'56''$ N – $013^{\circ}13'54''$ E, a 6,800 m sewer pipeline sets out bearing 173° and terminates with two branches, each 800 m long, bearing 113° and 233° respectively. Anchoring and any fishing activities are **prohibited** in the surrounding area.

The end of the pipeline is marked by a light **buoy** with X topmark.

The pipeline and the prohibited area are marked on the charts.

Anchorages – See "Regulations for navigation, stopping and priorities for berths for ships and boats in the Aussa-Corno port area" on page 154.

Rules for the approach and the entry to Porto Buso – It is recommended to approach Punta Tagliamento, already described; then head NE until about 1.5 M from Porto Buso and then use the breakwaters as a reference (the first pair of buoys that marks the start of the dredged channel is about 1,745 m to the SSE of the E dyke). Having entered the channel, take a true course of 352° to take the next pair of buoys (about 520 m from the first), pass through it and, still with a true course of 352°, use the heads of the dykes as a reference.

It is not advisable to enter Porto Buso by night or with very high seas from the SE or SW, but to anchor under these circumstances no less than 1.5 M from the Porto Buso breakwaters, in safe depths, to avoid the difficult coastal bars.

Pilotage – Is obligatory for ships of more that 500 t gross weight. In view of the local conditions (particularly significant currents, changeable depths) it is always advisable to maker use of this service, which can be requested through the Maritime Agencies or the Porto Nogaro Circomare (tel.

043166490 – VHF channel 16). The pilots have access to a pilot boat with which they can reach the ships near the first pair of buoys marking the start of the dredged channel. When sea conditions prevent the pilot boat coming alongside it goes ahead of the ship to guide it within the dykes until the pilot can embark.

Winds – The SE and all the S winds raise waves on the bar that are considerably higher on an outgoing tide.

Tide – The maximum half-excursion of the tide is about 60 cm; high tide is about 30 minutes behind the high tide in Trieste.

Entry instructions – Access to Porto Buso is by means of a channel dredged to 7 m (with respect to average sea level), 100 m wide and 2,800 m long (starting from the pier of the Tax Police) that heads 172°. The channel is bordered by the two protection dykes referred to above: the W dyke is about 1,400 m long and bears 172°, the E one is about 1,100 m long and bears 178°.

Both dykes are marked (see List of Lights).

Vessels that draw up to 4.5 m can access the channel.

PORTO BUSO — Constitutes the access from sea to the internal ports of Porto Nogaro and Torvicosa, for vessels up to 80 m long drawing no more than 4.5 m (with average sea level) for Porto Nogaro and no more than 3.8 m (with high tide) for Torviscova. The locality is bounded by the island of S. Andrea to the W and the island of Porto Buso to the E, that constitute the coastal boundary between the sea and the lagoon lying behind it.

Conspicous Points – The town can be recognised by a large building with a red roof surrounded by trees, that stands on the island of Porto Buso and by the breakwaters that set out heading S from the two islands (S. Andrea and Porto Buso). Further inside some tanks and frameworks can be made out.

Markers – The access channel is marked by 4 pairs of beacons of the lateral system.

A green light beacon is arranged near the root of the E dyke.

A second **light beacon**, made up of a cabin of a dolphin, is arranged 500 m bearing 338° from the first; it has a white sector of 005° facing the entrance, between the E dyke and the starboard side of the access channel (see List of Lights).

Wrecks – A sunken hull lies in depths of 4 m, with about 10 m head of water, at 45°37'.36 N – 013°14'.24 E, about 5.4 M to the S of the root of the W dyke of Porto Buso.

The wreck of a leisure boat lies at 45°39'.7 N - 013°16'.0 E with about 8.8 m head of water.

Berths in the Lagoon – Sailing up the Corno and Aussa rivers the Darsena Capan is found after about 2.5 M on the port bank, where about 50 leisure craft up to 18 m long can moor. The depths are 4 m.

Marina of S. Giorgio is found on the W bank of the Fiume Corno; it is a quayed tourist dock, equipped with fixed and floating piers for about 270 boats up to 22 m long. The depths are 3.5 m.

It has the main services and equipment.

To access the dock, having passed Porto Buso, enter the Fiume Corno and sail up it for 6 km. The speed of the river current can vary according to the season and the rainfall.

Tides – The maximum excursion is about 0.7 m. The delay with respect to the port of Trieste is 52 minutes at the mouth of the Aussa and Corno rivers, 55 minutes at Porto Nogaro and 1 hour at the Darsena Torviscosa.

Weather warning signs – When the Alpine range is visible good weather conditions can be expected even in the presence of winds from quadrants I and IV; when it is not visible and winds blow from quadrants II and III bad weather conditions can be expected, associated with rainfall possibly of strong intensity.

LAGOON CHANNEL AND ACCESSES – About 150 m past the Tax Police pier of Porto Buso, in the direction of the light beacon (no. 4299 in the List of Lights), turn to port coming under the island of S. Andrea and about 100 m from it; then steer the bow between the white dolphin, equipped with an arrow and the word "Venezia" (to be left to port) and the series of dolphins with black and white stripes that border the start of the lagoon channel (these dolphins are left not less that 20 m to starboard).

In this area it is necessary to proceed with great care, due to the presence of currents that, especially with an ebb tide, reach considerable intensity.

Once near the white dolphin with the "Venezia" arrow (the indications are part of the marking of the internal waterway called "Litoranea Veneta") after a wide turn to starboard navigation can be resumed to the centre of the dolphins on an approximate bearing of 350°, which is the orientation of the lagoon channel.

This channel is dredged to about 7.5 m (with respect to average sea level) and is 60 m wide and 3.3 km long (from the start to the junction of the Aussa and Corno rivers) and is bordered by dolphins (with black and wide stripes to starboard on entry and with red and white stripes to port).

As in all the channels of the lagoon, the depths are subject to frequent variations: it is recommended therefore that if the pilot is not used vessels should proceed with caution.

At the end of the lagoon channel, after a slight turn to starboard, the junction of the Aussa (to starboard) and Corno (to port) rivers is reached.

Dangers – A strong NE wind can cause problems for shipping in the channels.

Electrical conductors – Two aerial high voltage electricity lines cross the Fiume Corno; their minimum height above the average level of the river is 43.88 m and 41.57 m respectively.

Tugs – The use of tugs for vessels in the port area of Porto Nogaro is optional. The Maritime Authority can require their temporary use in the case of ships aground in the access channel, particular characteristics of the ships or their cargos, or with adverse weather conditions associated with the safety needs of the port or the port traffic. By issuing a suitable ordinance, the Grado Circomare can make the towing of ships with dangerous cargos obligatory for particular periods and with regard to dangerous situations for access to port.

The towing service is carried out in the port area of Porto Nogaro up to a distance of 3 M from the buoys that mark the access channel to Porto Buso.

The normal hours of the service are 7.00 am - 6.00 pm (extraordinarily from 6.00 pm - 7.00 am - Ordinance 14/02 of the Grado Cercomare).

Regulations for navigation, stopping and priorities at the berths for ships and craft in the port area of Aussa-Corno – Approved with Ordinance no. 21/03 of the Grado Circomare, this applies to the sea, lagoon and river waterways that lead from Porto Buso to the landings of Porto Nogaro, Porto Margreth and Torviscosa, as well as in the harbour waters of Porto Nogaro.

The outer harbour, the Porto Vecchio quay and the

Margreth and Torviscosa quays are considered to be harbour waters.

The outer harbour includes the following sections:

- The area of sea adjacent to the Porto Buso entrance channel;
- Porto Buso: area between the breakwaters, their entrance and the junction with the internal waterway "Litoranea Veneta";
- Lagoon channel: area between the "Litoranea Veneta" branch and the junction of the Aussa and Corno rivers;
- Courses of the Aussa and Corno rivers, from the junction up to Porto Nogaro and Torviscosa.

The anchorage off the sea access of Porto Buso, called "Rada di Porto Nogaro" is between the lines joining the following points:

- 45°39'.5 N 013°17'.0 E,
- 45°39'.5 N 013°19'.0 E,
- $45^{\circ}38'.0 \text{ N} 013^{\circ}17'.0 \text{ E}$
- 45°38'.0 N 013°19'.0 E.

Ships entering/leaving the sea access of Porto Buso must pass outside the anchorage; while navigating in the roadstead of Porto Nogaro and Torviscosa, leisure and fishing boats must always give way to vessels manoeuvring in the anchorage; diving is **prohibited** in the anchorage.

The Masters of arriving ships heading for the anchorage must contact the Maritime authority with suitable notice on VHF channel 16, giving their expected time of arrival in the road.

Having reached the anchorage, the position **must** be notified to the above-mentioned Maritime Authority. If it is impossible to anchor in the area, the Maritime Authority will be able to authorise ships which have requested it, identifying any anchorages in the area to the S of the parallel 45°38' N.

Boats and vessels without automotive power that stop at the anchorage in the road **must** be assisted continuously by a suitable tug that must stay in the immediate vicinity.

During the stay in the road, a round the clock watch must be maintained to ensure rapid manoeuvre of the vessel in the case of need.

Vessels at anchor must keep a continuous look out on VHF channel 16 and must inform the appropriate Maritime authorities of any extraordinary event that might prejudice the safety of human life at sea or the safety of shipping and/or constitute a danger to the marine environment.

Navigation off the port area must be conducted as set out in the "International regulations for the prevention of collisions at sea", taking account of the changes in the depths, the presence of the dredged access channel of Porto Buso and any ships affected by their draught.

The Regulations are divided into four chapters the contents of which are as follows:

- i) Chapter I: general standards;
- j) Chapter II: standards for navigating and stopping by leisure and fishing boats;
- k) Chapter III: standards for navigating and stopping by merchant vessels that have to carry out commercial operations;
- 1) Chapter IV: standards affecting berthing.

Moreover:

- m)in the port area the speed must be limited and in any case no more than 6 knots;
- n) access is normally permitted only in daylight hours; any exceptions must be authorised;
- o) due to the presence of aerial electrical conductors navigation is prohibited along the Fiume Corno for ships with superstructures (including masts and aerials) higher than 36.5 m above average sea level; in any case

vessels may only navigate along the Fiume Corno if their superstructures are al least 7.2 m below the 380 KV lines and 5 m below the 132 and 20 KV lines, the minimum heights of which as declared by Enel [Electricity Board] are 43.88 m and 41.57 m respectively.

The berthing request must be submitted at least 24 hours before the expected time of arrival, in the form laid down by the Maritime Authorities; all movements in port must be authorised.

All vessels navigating, stopping or carrying out commercial operations must adopt every precaution to avoid dangerous situations, as required by the international safety regulations.

For further details contact the local Maritime Authority.

PORTO NOGARO – To reach the commercial port it is necessary to sail up the Fiume Corno (to port) for 8 km. The river is 40 m wide on average and has some curves where the turning radius has however been increased.

The depths at the centre of the river are about 7.5 m below the average level.

Porto Nogaro has 2 basins: Banchina Margreth and Banchina Porto Vecchio. Along the river about 800 m from the port there are berthing piers for small tankers that re-supply two small coastal deposits.

Vessels drawing 4.5 m can access Porto Nogaro, except for the final straight section where there are sections with shallower depths. In this case mooring is authorised by the Maritime authority according to the effective draught of the vessel. The maximum dimensions of ships that can access Porto Nogaro are 120 m in length and 15 m in width. The draught permitted at Porto Margreth is 6 m (reduced to 5.2 m between bollards 1 and 2); the maximum length of vessels that can access is 180 m and the maximum width 22 m.

Quay services – 430 berths, 1 crane of 25 t, 1 travel lift of 60 t, 1 slipway, 1 haulage slip, boat storage, drinking water, water supply, electrical supply, fire extinguisher, fuel station, quay lighting.

Port services – Dockyard, repair workshop, pilotage, mooring, security, FAX, VHF, weather service, refuse disposal, public toilets/showers, public telephone.

Accessory services – Car parking, car hire, sports equipment, hotel, restaurant, bar, shops of every kind, laundry, gas/LPG cylinders, chandlery, information office, post office, letter box, bank, pharmacy, hospital in Palmanova, first aid/emergency medical service.

Communications - Motorway in Porpetto, railway in S. Giorgio di Nogaro, taxis, airport in Trieste.

Authorities - Circomare, Carabinieri, Tax Police, Customs.

TORVISCOVA – To reach this locality, sail up the Fiume Aussa for 12.3 km; the river is about 40 m wide and about 4 m deep (the final section consists of an artificial channel, 25 m wide).

A yellow traffic light system in is place near Torviscova to identify the artificial channel that leads to the operational dock.

Port of Torviscova — Consists of a private dock of the "Chimica del Friuli" (ex S.A.I.C.I.) company, 300 m long and 100 m wide. It is subject to silting up. Vessels drawing up to 2.7 m can access Torviscova up to 100 m in length if equipped with bow thrusters or 80 m without, and 14 m in width.

The various islands between Porto Buso and S. Pietro d'Orio are connected by dykes.

Warnings – The Banco d'Orio is slowly disappearing: currently only three islets remain that are submerged in strong sea storms.

Along the coastal strip from Grado to Isonzo the waters are thick with algae that can be stirred up by the propellers.

Oceanographic buoys – A flashing yellow oceanographic buoy, called Mambo 4, is located at $45^{\circ}35'40''.44 \text{ N} - 013^{\circ}20'38''.22 \text{ E}$. The area affected by the buoy and its moorings is bounded by 6 small buoys.

GRADO (Chart no. 235) – Lies between the lagoon and the sea, on a large islet linked to the land by a moving bridge. The town extend to the NE also occupying the Isola della Schiusa, that is connected to the above-mentioned islet by two bridges. The channel that divides the two islands is fully quayed on the Grado side.

The port basin of Grado consists of the waters of the navigable access channel to the port, bounded by dolphins, of the navigable channel between **Punta del Groto** and the first section of the **Canale Belvedere** in line with the **Riva Mosconi**, of the channel (Channel Port of Grado) that leads to the 2 internal docks (**Porto Mandracchio**) and of the waters of the channel that surrounds the Isola della Schiusa, bounded to the E by the **Baro delle Rane**.

Conspicous Points – The bell tower in the centre of the town can be seen from a distance and is square with a conical upper part and an angel on top (weather cock). Just to the E an imposing building can be seen that covers the bell tower between bearings 280° and 310°.

About 1 M to the E of the town of Grado and separated from it by a low sandy strip some very tall modern buildings can be seen among the trees. The imposing bell tower of Aquileia which is square with a steep spire is visible to the E of the village.

Coming from the S the tall **domed bell tower of S. Maria di Barbana** can also be seen, standing above a wide expanse of trees.

Anchorages – Large vessels can anchor to the SSE of Grado, keeping away from land, on a bottom of sand and mud with a good hold. Vessels drawing less than 3 m can anchor in the Canale di S. Pietro d'Orio, inside the lagoon; in good weather they can also anchor in front of the town, to the S of the swimming facilities.

Requirements for mooring, passing through the port waters, re-supply procedures and various prohibitions – See Ordinance no. 24/97 of the Local Maritime Office of Grado. It should be noted that access to the internal Channel Port of Grado is only permitted for vessels less than 25 m long and that passing vessels (without a regular base at Grado) cannot remain at anchor for more than 48 hours and cannot return within the following 48 hours.

In the territory of Grado navigation is **prohibited** in the port area, in the access channels to the ports, at the mouths of the rivers that discharge into the sea and in the maritime channels at a speed above what is safe, or that can cause movements of water or the formation of waves that are dangerous for vessels at moorings or which are navigating. To this end a safe speed means the minimum speed that enables the pilot to be able to act in an appropriate and efficient manner to avoid collisions and to stop the vessel within a suitable distance according to the circumstances and conditions prevailing at the time (Ordinance no. 24/03 of the Grado Circomare).

During the summer season it is **prohibited** to navigate in the strip of sea reserved for swimming (400 m from the coast for the Maritime Area of Grado); it is **prohibited** to pass through the area of sea between 400 m and 1,000 m from the coast at a speed of more than 10 knots.

Along the access channel to the port of Grado and the channel of S. Pietro d'Orio vessels are **prohibited**

from exceeding 7 knots. Vessels are **prohibited** from exceeding 4 knots in the port basin of Grado (Ordinance no. 17/73).

Safe access to the port of Grado is only possible for vessels that draw less than 1.7 m in favourable sea conditions.

Vessels may only refuel by means of the pumps of the distributors on the quays.

Prohibitions – Access to the Channel Port (Riva Dandolo, Bersaglieri, Darsena XXIV Maggio and Darsena Piazzetta San Marco) is prohibited for vessels longer than 25 m.

It is prohibited to moor at the dolphins bounding the access to the port of Grado.

It is prohibited to stop and anchor in the basin of the port waters of Grado.

It is prohibited to swim or to conduct swimming vessels in the port waters.

Entry instructions for the access channel of Grado – To land at the port vessels must approach the outer lit buoy of safe waters then leave it to stern and proceed to pass through the access channel to the port that is 1,200 m long and about 300 m wide, marked to port and starboard by dolphins spaced 75 m apart.

The dolphins positioned on the W side form a leading line (035°) with the sectored light (List of Lights no. 4305), positioned on a platform at $45^\circ40'.8~N-013^\circ22'.1~E$. The white sector of this light, 005° wide and visible between 031° and 036° , indicates the access channel through which transit by night must take place with the greatest care.

Continuing navigation to enter the port, at the level of the W dyke the channel veers NE and then E up to the level of the swing bridge (Matteotti bridge) to the S and N of which the Channel Port and the Canale Belvedere open up respectively. As the dolphins have no lit markers it is not advisable to pass through the channel at night for those without expert local knowledge and/or who have no radar able to locate the dolphins. To leave the port take the opposite route.

Warnings – The depths of the access channel are subject to frequent changes; it is therefore advisable to proceed at a moderate speed and to use the depth sounder. It is advisable to enter the port at high tide.

It is only possible to enter the port of Grado with a calm sea for vessels with limited draught. With tall waves and winds from the S quadrants in conjunction with a tidal current leaving the lagoon, access is dangerous for all boats.

In the spring the dredging works start; when the dredger finishes its work it is towed to the entrance of the Channel Port; the moorings remain on the bar. The anchors are provided with floats; because of the strong current they are not found above them. Pay attention.

Shoals – To starboard of the first section of the access channel there is a vast shoal that extends almost halfway up the channel, visible with a rough sea but absolutely invisible with a calm sea. The shoal tends to expand to the W and to join up with the Banco d'Orio.

Markers - A foghorn (letter K) is positioned in the centre of the dyke.

A red **light** (red metal column on platform) is located at $45^{\circ}41'.0 \text{ N} - 013^{\circ}22'.3 \text{ E}$ at the junction of the Canale di S. Pietro d'Orio and the second section of the Canale di Grado. A **light** on a green post with a radar reflector is found at $45^{\circ}41'.05 \text{ N} - 013^{\circ}22'.50 \text{ E}$: it marks the end of a sea water take off that lands at S. Vito di Grado.

Other lights are arranged inside the Canale di Grado (see List of Lights).

Porto S. Vito (see plan) – Is a tourist marina that lies at the W end of the Isola di Grado; it consists of a quayed dock with its entrance facing NNW, marked by lights. It is provided with piers for mooring, equipped with all the equipment. There are 176 berths 16 of which are reserved for visitors, for vessels from 7 to 25 m in length. The depths at the quays are 3 m on average. The bottom is sandy.

Valle Cove/Morgon berth – Is another tourist berth consisting of a private dock, situated on the NE coast of Grado, that has about 150 berths and another 400 in the various channels. The depths are about 1.5 m.

Winds – Those in quadrants II and III are dominant in autumn and spring and raise the state of the sea. In these conditions it is not advisable to land at Grado let alone seek shelter in the port as the channel entry manoeuvre is very dangerous.

In winter the N and NE (Bora) winds dominate and raise very tall waves at sea and are dangerous for boats passing between Chioggia and the coast of the gulf of Trieste. In these conditions the port of Grado can offer excellent shelter.

Currents – Flow along the coast towards the W at a speed of 0.5 - 1 knot; after strong ENE winds the intensity is greater.

Tides – The excursions at springs are about 70-80 cm, at neaps about 30 m with respect to average sea level. The delay in the tide with respect to the port of Trieste is 25 minutes.

Weather warning signs – Cirrus and cumulous clouds on the summits of the mountains to the W indicate probable winds from the S. The presence of fog on the mountains to the N of Grado and a completely clear sky indicate probable winds from the N.

Port of Grado (Chart no. 235) (Figure 27) — The appropriately named port consists of a straight channel that opens up on the N side of the Isola di Grado (**Channel Port**), reaching into the town, and terminates with two docks sheltered from all the winds (**Mandracchio**). It includes the quays that flank the various channels and the **Isola della Schiusa**.

The depths at the entrance are 6 m and at the basin centre 2-3 m, with a minimum of 1.6 m. The bottom is sand/mud.

GRADO
PORTO SAN VITO
TOURIST MARINA

2007

45°41'.0 N – 013°22'.6 E

Use of the quays and depths – Starting from the Punta del Groto, the NE end of the Isola di Grado, and proceeding E, the quays have the following uses and depths at the berths:

	MOLES AND QUAY	IS		
Name	Main use	Length (m)	Depth (m)	
Porto San Vito	leisure		3	
Banchina Brioni	leisure	275	2	
Banchina Torpediniere	Traffic	117	2	
Banchina Bersaglieri	Fishing	425	2	
Banchina San Vito	Fishing/traffic	105	. 2	
Banchina XXIV Maggio	Fishing	150	2	
Banchina Camperio	Fishing	70	2	
Banchina S. Marco	leisure	150	2	
Banchina Dandolo	Fishing	440	2	
Banchina Squero	Fishing	35	1	
Banchina Zaccaria Gregori	Fishing	360	1	
Banchina Scaramuzza	leisure	140	1.	
Banchina Slataper	leisure	650	1	
Banchina Mosconi	leisure	130	2	
Porto Primero	leisure		2	
Marina Le Cove/Morgon	leisure		1.5	

Prohibitions – It is prohibited to moor in the stretch of water off the section of the Banchina Zaccaria Gregori between the "new road bridge" connecting the town of Grado with the Isola di Schiusa, and the "old bridge", for a length of 15 m, identified by a horizontal yellow stripe and a vertical marker. This section may only be used for haulage and launching operations, so as to enable vessels to berth alongside, that cannot stay there for a period of more than 2 hours.

Quay services - 150 + 2,350 berths, 2 travel lifts of 50 t (Porto San Vito-Darsena San Marco), 2 slipways (Molo Torpediniere-Darsena San Marco), 1 haulage slip for boats of no more than 6 m (Banchina Zaccaria Gregori), boat storage, drinking water, water supply (at the Lega Navale), electrical supply, fuel station, quay lighting.

Port services – Dockyard, 2 dry docks, repair workshop, FAX, VHF (channels 16 and 4; lookout: 08/22 hours in winter and 08/24 in summer), refuse disposal, collection of used oil/spent batteries, sailing club, public telephone, public toilets/showers.

Accessory services – Car parking, car hire, boat/dinghy hire, sports equipment, camping, hotel, restaurant, bar, shops of every kind, food stores, laundry, gas/LPG cylinders, chandlery, internet point, information office, post office, letter box, bank, cash point, pharmacy, hospital (Monfalcone), first aid/emergency medical service, decompression chamber (Trieste-Cattinara hospital).

Communications – Motorway (Palmanova Sud), railway (Cerviniano del Friuli A.G.), buses, taxis, airport and heliport (Trieste-Ronchi dei Legionari), ferry (Lignano Sabbiadoro-Trieste).

Authorities – Circomare, Carabinieri, Tax Police, Tourist Port Management (Porto San Vito-Lega Navale-Darsena Riva San Marco), Customs, National Police (Monfalcone).

Other berths provided with essential services are found inside and outside the Laguna di Grado.

There is a **berth** equipped with essential services about 2 M to the NE of the entrance to the Channel Port of Grado along the channel called Litoranea Veneta, on the N side of the **Isola di Barbana**.

Another berth without services, protected by two moles, lies at **Punta Barbacale**, the SE end of the Isola di Grado.

Marina of Aquileia – The tourist berth consists of a private dock, capable of accommodating about 300 boats 12 of which are visitors. The maximum length of boats that can access is 18 m. The depths at the quay vary from 3.5 to 4 m.

It is accessed from the port of Grado, following the channels of S. Pietro d'Orio, Merci and Taiada up to the mouth of the Fiume Natissa, sailing up the latter for 2.5 m.

Submarine pipelines – Two pipelines extend from the point at $45^{\circ}40'.45 \text{ N} - 013^{\circ}23'.65 \text{ E}$ for about 500 m to the S; the two ends are marked by a single light. Anchoring and trawler fishing are **prohibited** in the area around the two pipelines, marked on the charts.

CHAPTER 5

GULF OF TRIESTE

(CHART Nos. 924 - 39)

INFORMATION OF A GENERAL NATURE – The Gulf of Trieste extends from Grado to Capo Salvore (Rt. Savudrija) and has different characteristics in its various sections. The N coast of the gulf is low while the E and S coasts are high and mountainous, sometimes steep and inaccessible up to Trieste.

The best anchorages are found along the SE coast.

Landmarks – Attention is first brought to the Col Grosso (Monte Re or Nanos, $45^{\circ}48'$ N – $014^{\circ}03'$ E; 1,300 m), that rises to the NE of the city of Trieste and forms a characteristic calcareous terrace, high to the W and low to the E; subsequently Monte Poggioreale ($45^{\circ}41'.0$ N – $013^{\circ}45'.5$ E; 397 m) and Monte Spaccato (405 m), immediately to the E of the city, can be seen; the Tempio Mariano ($45^{\circ}41'.5$ N – $013^{\circ}45'.0$ E) is a characteristic grey building with a pyramid-shaped trunk situated on Monte Grisà (335 m), illuminated on summer nights; the TV aerial on Monte Concorello is also noteable.

Dangers – Some isolated shoals are located in the gulf; mariners are advised to examine the charts carefully.

Wrecks – Various sunken hulls that are dangerous to shipping lie at the entrance to the gulf, between the Istrian coast and the Lagoon of Grado.

"Adriatic Traffic" compulsory naval reporting scheme – See page 17.

Traffic separation scheme – See page 17.

National Border – As well as the land frontier there is also a maritime frontier between Italy and Slovenia that starts from the main boundary stone no. 1 of the Bay of S. Bartolomeo, situated in the starboard bank of the S. Bartolomeo stream, at its mouth; it is defined by great circle arcs that meet at the following points (referring to Chart no. 39):

- point no. 1: 45°35'.65 N 013°43'.15 E (main frontier stone of S. Bartolomeo);
- point no. 2: 45°35'.90 N 013°42'.75 E;
- point no. 3: 45°37'.80 N 013°37'.80 E;
- point no. 4: $45^{\circ}32'.70 \text{ N} 013^{\circ}18'.75 \text{ E}$;
- point no. 5: 45°27'.20 N 013°12'.70 E.

Restricted fishing area (Law no. 107 of 2-3-1987) – There is a fishing area in the waters of the Gulf of Trieste covering both sides of the frontier between Italy and Slovenia (see page 166).

Submarine cables and pipelines – A submarine cable stretches across the gulf between Punta Sdobba and the Castello di Miramar. It is **prohibited** to anchor near the cable.

An aqueduct connecting the springs of the Fiume Timavo to the mains water network of Trieste in laid on the bottom along the line joining the Villaggio del Pescatore di Duino (at about 45°46'.2 N – 013°36'.1 E) with the Molo 0 of the Porto Franco Vecchio di Trieste (at about 45°40'.0 N – 013°45'.5 E).

The pipe-work of the new aqueduct stands 1.7 m above the seabed and constitutes a continuous and permanent obstacle. 19 posts sticking 1.50 m up from the bottom are arranged on either side of it spaced about 1,300 m apart on average.

Tourist ports and berths – The most important are Monfalcone and Trieste. There are numerous tourist ports, marinas and berths in the area of the lagoons, within the mouths of the rivers and along the coast of Trieste.

Rules for navigation – Heading for the Gulf of Trieste it is best to keep well away from the NW coast along which the depths are low and subject to variations produced by the detritus of the rivers

In dull weather the depth sounder is used frequently; in fog, given the low coast and the current that flows to the W, it would by wise to anchor and wait for clear weather.

Requirements — In the area of sea between the line which, starting from the green light on the N head of the Diga Foranea of the Porto Franco Vecchio of Trieste, on a bearing of 313°, reaches the point abeam the launch basin of the pipe at the village of Duino described above and the line parallel to it 700 m from the coast, anchoring and fishing are prohibited to all vessels, boats and any other type of craft. Moreover ships and boats passing through the coastal waters along the Trieste "Villaggio del Pescatore-Molo 0" line must proceed with caution.

Passage and anchoring by any vessel, including kite surfing are **prohibited** along the coastline of the Maritime Authority of Trieste in the area of sea intended for swimming in the period 1 June -1 September between the hours of 7.30 am and 7.30 pm, apart from the following exceptions and dispensations:

- 1) motor boats, sailing boats or sailing boats with auxiliary motors, unless rowed, must reach the shore only using the appropriate launch corridors;
- 2) it is permitted to leave or reach the slipways and the small berthing moles, constructed and/or maintained on National concessions, along the coastline, navigating on a course at right angles to the coast, with speed reduced to minimum revolutions and in any case no more than 3 knots, provided that there are no swimmers in the sea;
- 3) in the stretch of sea between the N side of the Marina of Grignano and the entrance to the Porto del Villaggio del Pescatore anchoring is permitted for sailing boats and motor boats, at a distance of at least 60 m from the coast, except for the stretches of water off the seafront of the swimming facilities, including the 60 m sections either side of them, where the **ban** on navigation within 200 m of the coast remains in force:
- 4) the access point of the anchorages must be reached with the same procedures as mentioned in 2). Sailing boats provided with auxiliary motors must use oars or paddles to approach within the strip between 200 and 600 m from the coast.

Prohibitions – From 1 June – 1 September swimming is prohibited:

- in the waters of the Port of Trieste that are enclosed by the line joining the following points including the waters of the minor landings:
- a) the Vittoria lighthouse;
- b) 45°36'.9 N 013°43'.0 E (berthing buoy-access channel no. 4456 List of Lights)
- c) Punta Ronco,

except in the swimming facilities on concession agreed by the Port Authorities of Trieste, and in the areas equipped by the Municipalities;

- in the waters of the minor landings of the Maritime Authority of Trieste;
- within a 100 m radius of the entrances and port structures of the Port of Trieste and the minor landings of this Maritime Authority;
- within the suitably marked launch corridors;
- in the areas of sea indicated in relevant ordinances or provisions issued by the Maritime Authority concerning the safety of swimmers;
- in the stretches of sea prohibited to swimming for health-hygiene or any other reasons;
- in the waters making up an integral part of the Marine Nature Reserve of Miramare bounded by suitable floating markers;
- in the stretches of water intended for mussel farming and in the relative intermediate access channels;
- in the mouths of the rivers and in the navigable channels;

Due to shallow depths and tanker traffic, between Capo Salvore and the Capodistria anchorage navigation is prohibited within 2 M of the coast for tankers with a gross weight of more than 200,000 t, of draught greater than 15 m and at a speed over 12 knots.

Fishing – During the swimming season of 1 June – 1 September, from 7.30 am to 7.30 pm, any form of fishing is **prohibited** including underwater, except of a recreational type and only in the form of skin diving, in the stretch of water reserved for swimming. Underwater fishing is **prohibited**:

- within the port of Trieste;
- in the minor landings of the Maritime Authority of Trieste and along their outer works;
- within 500 m of the coasts frequented by swimmers;
- within 100 m of the fixed fishing equipment and positioned nets;
- from sunset to sunrise.

It is **prohibited** to cross the areas frequented by swimmers with a loaded underwater weapon.

Sporting competitions and fishing demonstrations are governed by the relevant ordinance of the Trieste Harbourmaster.

Underwater fishing is permitted from 7.30 am to 7.30 pm in the section of sea between the N side of the mole of the Marina of Grignano and the entrance to the Port of the Villaggio del Pescatore at least 60 m from the coast, except for the stretches of water off the seafront of the swimming facilities, including the sections 60 m either side of them, provided that this activity in not conducted within 100 m of swimmers.

In partial dispensation of the above, in the period 1-31 May in the area of sea off the coast from the Marina of S. Croce to the Cava di Sistiana, fishing is permitted with positioned nets, using rowing boats, between 7.30 pm and 9.30 am.

The pilots of all vessels are obliged to moderate their speed and to keep a distance of at least 100 m from the marker indicating the presence of a skin diver.

Underwater activities using breathing apparatus, for explanatory or teaching purposes other than fishing, are **prohibited** unless expressly authorised by the Trieste Harbourmaster without prejudice to the particular regulations for the Miramare reserve:

- in the port of Trieste;
- in the stretches of water off the swimming facilities and the beaches equipped by the Municipalities in the hours intended for swimming;
- within 100 m of the fixed fishing equipment and the fishing nets;
- within the landings and their relative entrances;
- in the areas of sea prohibited for swimming.

Underwater activities are permitted in the form of skin diving, for explanatory or teaching purposes other than fishing, in the areas and during the hours intended for swimming.

Fishing with nets – Fishing with light sources using encircling nets is permitted, only to catch mullet and sprats, in the waters of the province of Trieste at a distance from the coast greater than:

- 250 m in the winter period (October April);
- 500 m in the summer period (May September).

Fishing with light sources is also **prohibited** in the stretch of sea bounded by the 1 M radius semicircles centred at Punta Sottile and Castello di Duino respectively.

Fishing is permitted with **positioned nets** within the port inside and outside the L. Rizzo dyke and between Punta S. Rocco and Punta Ronco, as shown on the charts, from October to May, except for weekends in May and October and subject to specific authorisation.

Trawler fishing – Is only permitted in the Maritime Territories of Trieste and Monfalcone within 3 M during the period of 1 October – 31 March; trawling for cuttlefish is only permitted in the period 1 April – 30 June more than 1.5 M from the coast. Trawling is **prohibited** at weekends, on days of enforced shut-down and during the hours of night.

Trawling is **prohibited** in the area marked on the charts from the mouth of the Fiume Tivaro to the National Frontier.

For further details and for specific instructions consult the Maritime Authorities.

Anchorages – The depths of less than 24 m and the bottom consisting of soft sand and mud allow anchoring throughout the gulf. Larger ships can anchor in the Trieste road or in the bays of Muggia and Capodistria. The gulf is open to SW winds; the bays of the SE coast and the port of Trieste only offer mediocre shelter from the waves raised by them.

For the choice of anchorage it is necessary in any case to examine the weather conditions in the gulf: considering that the NE wind can be unexpected and violent, it is always advisable to keep a second anchor ready. When using two anchors, the line between them should be in an NW-SE direction.

Biological protection area – Called "Area Miramare" is established with the Decree of 16/03/04 published in the Official Journal no. 77 of 01/04/04.

Fishing for the fry of any species and trawling are **prohibited** in the area bounded by the line joining the following points:

- a) 45°45' N 013°39' E;
- b) 45°44' N 013°39' E;
- c) $45^{\circ}41' \text{ N} 013^{\circ}43' \text{ E};$
- d) $45^{\circ}41' \text{ N} 013^{\circ}45' \text{ E}.$

Restricted fishing area – Law no. 107 of 2 March 1987 has established the following fishing area in the waters of the Gulf of Trieste on both sides of the National border, marked on the charts:

- a) $45^{\circ}35'18'' N 013^{\circ}20'30'' E;$
- b) 45°38'30" N 013°31'00" E;
- c) 45°36'00" N 013°35'00" E;
- d) $45^{\circ}32'12'' \text{ N} 013^{\circ}25'30'' \text{ E}.$

Fishing activities can be conducted in the part of the above area that belongs to the territory of one Country by a limited number of trawlers of the other Country as well as National trawlers (see also Sailing Directions "General – Part I", page 85).

Buoys – An oceanographic buoy equipped with yellow light and radar-reflecting topmark is positioned about 5 M to the SSW of Punta Sdobba at $45^{\circ}38'.59 \text{ N} - 013^{\circ}30'.68 \text{ E}$.

An oceanographic buoy equipped with a flashing yellow light is positioned about 6.2 M to the S of the beacon marking the shoals of Punta Sdobba at $45^{\circ}41'.3 \text{ N} - 013^{\circ}31'.0 \text{ E}$.

Winds – From the NE are very violent in winter and late autumn. The fresh NE wind usually lasts 2-3 days, sometimes even more; if it does last longer, it increases in intensity on the second day.

The NE wind can reach very high speeds (over 80 knots). The violence is greatest between Duino and Sistiana, near to Trieste, between Barcola and S. Andrea and in the Zaule valley; however it is relatively weak near Miramare, in the Bay of Muggia, near the Molo V di Trieste, below Punta Grossa and in the Bay of Pirano. The latter offers the best shelter from this wind. In summer it is of short duration and generally blows when the weather changes or during/after violent rainfall and storms. It is heralded by a build-up of white clouds forming behind the Catena del Carso, a drop in temperature and an increase in pressure. Sometimes while there is a strong NE in Trieste, the weather at Capo Salvore is fine, with light breezes from the W or a SE wind.

After the NE, the SE wind is the most frequent in the winter months; although not being strong in the gulf very often, it produces sea storms along the coast of the lagoons. During a persistent SE wind in the Adriatic, the level of the water rises throughout the gulf.

In summer the SW wind blows infrequently and for a short duration; it is however violent and dangerous. The Gulf of Trieste is not protected from this wind, however it does not create problems in the Bay of Panzano, which is sheltered by Punta Sdobba. In winter however it does not cause any concern.

In the fair season winds from the sea are very frequent. Sometimes in the hotter season showers form from the SW accompanied by wind that assumes storm force and raises unexpectedly high waves.

During the winter the NW winds are sometimes accompanied by thick fog.

Tides and tidal currents – The tidal movement also contributes to stirring the waters of the gulf. The effect of the tide consists of the transport of water (tidal current) and alternate variations in level that usually cause an excursion of about 1 m: there are greater changes in level when a high tide coincides with a SE wind and low atmospheric pressure in the Northern Adriatic. Within the Gulf of Trieste the tide is practically uniform, even if its extent increases slightly from the coast of Friuli to that of Istria and even in the meanwhile produces a slight difference in the time intervals between the high and low tides on the two coasts. As is well known, the tide in this area has a half-day characteristic, that is with 2 high tides and 2 low tides in 24 hours, although of different heights. As well as the daily variations, there are also monthly variations in level as well as an annual trend, sensitive above all to the tendency of the average level and connected to meteorological/climatic causes, with maximum levels generally in October – November and minima in February or March.

The tidal current is linked to the half-daily rhythm of the tide. In the gulf this current flows mainly from NE to SW and from SW to NE in an alternating movement; the characteristics of the movement however become complicated in the S basin (Vallone di Muggia) and in the N one (Panzano) due to the morphology of the coast. The tidal current is not constant over time; it slows down and stops at the moments of high and low tide and reaches a maximum, in one direction or the other, when average sea level is reached. The tidal current is practically constant with depth. The strength of this current is weak, reaching a maximum of ¼ or ½ knot. However much stronger ebb and flow currents (over one knot) are found

in certain locations: in the access channel to the port of Monfalcone the ebb and flow currents can exceed one knot. High values of current are also encountered in the Isonzo and beyond Punta Sdobba due to the additional effect of the river, especially at times of rainfall. The abnormal variations in the level of the sea caused by the effects of pressure and wind (low pressure in the Northern Adriatic and SE wind raise the sea level, while low pressure to the S and N wind lower it) correspond in the phases of ebb and flow to proportionally higher current strengths throughout the gulf.

Currents – As mentioned, they above all depend on the tides and sometimes reflect the influence of the dominant winds. In normal conditions the currents along the N coast reach a speed of I knot. The rivers that discharge along this coast cause local currents the effect of which reaches a limited distance. Occasionally significant current movements are encountered in the middle of the gulf.

Fog – Is more frequent on the Gulf of Trieste that the other points on the Eastern Adriatic coast and is such as to make navigation difficult: 20 days of fog can be expected every year on average. It forms most frequently in the winter months, but can also be encountered in the other months in particular sea areas especially in the mornings, and is such as to make it impossible to recognise the most conspicuous points of the coast: it generally disperses towards midday or in the afternoon. Fog only forms along the beaches of the lagoons when the wind is calm or there are weak breezes and lasts for a few hours at the most, especially in the morning.

The **Banco Mula di Muggia** is marked at its outer end by a fixed S cardinal light beacon with radar reflector, consisting of a white framework on a dolphin.

To avoid the bank keep S of the "Mula di Muggia light beacon – Grado light buoy" leading line.

Bocche di Primero – They look like a single mouth and are recognised by a mushroom-shaped **tank** behind the entrance. An access channel, marked by pairs of side beacons, leads to a **marina** equipped with floating piers intended for leisure craft. The marina has 250 berths. The depth at the berths is 2 m.

Submarine pipelines – A purified water discharge pipe extends from the point on the coast at $45^{\circ}41'59"$ N $-013^{\circ}27'47"$ E near the **Bocche di Primero** for about 2.5 M in a SE direction. Its end is not marked on the surface.

Fishing and anchoring are **prohibited** in the section of sea 0.25 M wide on either side of the pipeline, that terminates at $45^{\circ}40'$ N $- 013^{\circ}31'$ E.

Punta Sdobba – Low, sandy and of clay, it stands at the mouth of the Sdobba, the final section of the Fiume Iaonzo.

A square pyramid stands almost at the E end of the point that is hard to see, while about 2.7 M to the W of the point a noticeable **cylindrical tank** is clearly visible. It is painted white and its upper half has a slightly wider diameter than the lower half.

Beacons – There is a light beacon on a red tower beacon with a conical trunk mounted on a concrete base with a terrace. The tower beacon is only visible with very clear weather. In fog it is not advisable to approach the coast to try to see it.

The **Fiume Isonzo** (or **Fiume Sdobba**) is only accessible by small boats, with local pilots. The access channel (figure 28) to the internal water way called Litoranea Veneta is to the NNE of the mouth and is bounded by concrete dolphins. Two **light beacons** are located at the entrance.

The Canale Isonzato is encountered to port on entry, after about 1 M, along which there are some well sheltered berths.

The Isola dei Gabbiani is found near Punta Sdobba, within the "Foce dell'Isonzo" Regional Nature Reserve.

About 2 M to the NW of Punta Sdobba is the mouth of the Canale di Quarantia that is the outlet of the Fiume Isonzo; this channel is usually obstructed at the mouth and cannot therefore be used to reach the interior from the sea.

Figure 28 – Fiume Isonzo, access channel (2007).

Warnings – The 2 m and 5 m depth contours around the sandy tongue of Punta Sdobba have advanced significantly to the SE and in particular an isolated minimum of 1.6 m lies 1.25 M bearing 208° from the light beacon that marks the point itself. Passing vessels should keep a suitable distance.

Bay of Panzano – Has low shores up to Duino; between Monfalcone and Duino the coast is marshy. The Carso range of hills starts at Duino. The bay is exposed to the wind that blows violently from the NE, and to the SE wind, that raises tall waves. Punta Sdobba shelters it from the SW wind; the NW wind blows along the coast raising the state of the sea.

A dock (see plan) protected by a breakwater with two arms, bearing NE and E, opens up to the W of the entrance to the port of Monfalcone, at Bagni di Panzano.

Landmarks – Are from E to W: the imposing white cylindrical tank that stands on the edge of the coastal crags just SE of Sistiana; the Castello di Duino (see below); the Ruins of S. Marco, with the outline of a fortress, located on the summit of the bare hill of La Rocca (see below) and illuminated by night; the buildings and cranes of the dockyard of Monfalcone; the cylindrical chimney of ENEL standing near the basin of the same name, with the upper part painted in red and white bands, 148 m high, marked by four pairs of red aircraft warning lights; the buildings of the new residential and swimming complex of Marina Julia, located on the shore to the SW of Monfalcone; the imposing building of the silos, on the bank on the inside of the Basin of Panzano.

Wrecks – A wreck lies about 0.9 M to the NE of Punta Sdobba, in depths of 3 m. Another wreck that is dangerous to shipping and is unmarked lies near Punta Sdobba, at 45°43.773′ N – 013°34.032′ E.

MONFALCONE

DOCK

BAGNI DI PANZANO

2007

45°46'.9 N – 013°32'.5 E

Submarine pipelines – A sewer extends from the point at $45^{\circ}46'.38 \text{ N} - 013^{\circ}31'.67 \text{ E}$, near Marina Julia and ends at $45^{\circ}41'.70 \text{ N} - 013^{\circ}35'.55 \text{ E}$. It is about 10 km long and is buried throughout almost all of its length. In the last 1,500 m long section 1.5 m high tower beacons emerge from the bottom protected by concrete boulders laid out over an area of 1,500 m by 500 m. In the area of sea 1,500 m long and 150 m astride the final section of the pipeline fishing and anchoring are **prohibited**. The end is marked by a yellow **light buoy** with X topmark located at $45^{\circ}41'34''.65 \text{ N} - 013^{\circ}35'37''.76 \text{ E}$ (WGS 84).

Mussel farming areas – There are two mussel farming areas in the Bay of Panzano, the limits of which are shown on the charts.

MONFALCONE (Chart no. 236) – Is an important industrial town situated within the Bay of Panzano, at the end of the Canale Valentinis. The town is hardly visible from the sea as it is covered by the imposing buildings of the Italcantieri docks.

Breakwaters – A breakwater rooted on the Isola dei Bagni extends, to protect the channel, for about 900 m to the SSE and then for about 120 m to the SE. Another breakwater, about 340 m long, has its origin at $45^{\circ}46'33''$ N $-013^{\circ}33'17''$ E, also bearing SE.

Between the two breakwaters referred to above there is an opening of about 200 m, in line with the old access channel. This opening, the depths of which may be other than those indicated on the chart, can be used for small boats to pass through.

There is a containing breakwater for the construction of a **new dock**, to the E of the new channel and to the W of the mouth of the Fiume Timavo, still under construction.

The above-mentioned breakwater is extended by a groyne bearing S that, together with breakwater previously described, identifies the entrance to the port. Both are marked by **lights** at the heads.

Requirements – All ships and boats intending to moor in the port of Monfalcone and in the immediate vicinity must submit a request to berth at least 72 hours before expected time of arrival (Ordinance 07/03).

Particular requirements -1) Tankers with cargos of mineral oils and derivatives, or that are empty but not yet degassed, must on arrival at Monfalcone anchor and stay in the road within a 1 M radius of the outer buoy.

- 2) Ships and boats that are passing along the channel and in the port must maintain a speed of no more than 5 knots.
- 3) Military vessels have precedence over all merchant ships in passing through the entrance channel.
- 4) Boats with a net weight of more than 30 t are **prohibited** from navigating under sail within the port as are boats with auxiliary motors under sail or with a combination of motor and sail.
- 5) Boats propelled by oars or sails must avoid obstructing the courses and manoeuvres of vessels navigating by motor and being towed.
- 6) Boats with a net weight of less than 30 t are prohibited from navigating under sail in fog.
- 7) When two ships that are passing through the channels of the port are approaching each other in such a way as to involve a danger of collision the one heading into the current must manoeuvre so as to give way to the one with the following current.

Requirements for tankers and ships equipped for bulk transport of dangerous cargos in the liquid or gaseous state – The matter is governed by Monfalcone Harbourmaster ordinance nos. 07/72 and 08/81.

1) Masters of ships equipped to transport dangerous liquid or gas cargos in bulk must:

- a) send a request to berth to the Harbourmaster at least 24 hours before arrival;
- b) submit a suitable declaration about the efficiency of the on-board service provisions and the safety and first aid equipment, before starting to disembark cargo or tranship goods;
- c) inform the Harbourmaster at the start and end of embarking and disembarking as well as any event regarding the safety of the ship, the persons and the berth;
- d) entry into Monfalcone port by ships flying flags of countries that do not adhere to the SOLAS 74 and MARPOL 73/78 standards and do not have a "Certificate of Compliance" with these standards is subject to the positive outcome of an inspection, to be conducted in the road by the Monfalcone Harbourmaster.
- 2) The following are prohibited:
- a) entry into port or manoeuvring in the stretch of port waters in the hours between sunset and sunrise;
- b) the direct discharge from tankers into vehicles or containers;
- c) loading takers from vehicles or containers.
- 3) The Masters of ships equipped to transport oil, gas and chemical products with a gross weight of 1,600 t or more must:
- a) notify the Monfalcone Harbourmaster, before entering the waters of the Monfalcone Maritime Department, of the data regarding the ship, the cargo and the voyage (using the VHF connection or Trieste Radio);
- b) compile the required "Check List" and make it available to the pilot;
- c) notify the Monfalcone Harbourmaster of any shortfall or accident that might prejudice the safety of shipping or constitute a danger to the marine environment;
- d) establish and maintain a direct connection as soon as possible with the Monfalcone Compamare on VHF channel 16.
- 4) Lighterage, transfers and works on board the ships in question are subject to specific authorisation by the Monfalcone Harbourmaster.

Local regulations for embarking and disembarking dangerous goods in packages and for ships with dangerous goods in transit – Commercial operations are prohibited in the Port of Monfalcone if they involve dangerous goods in packages belonging to classes 1a, 2a (limited to inflammable gasses and explosives) and 3a as referred to in article 3 of Presidential Decree no. 134 of 06/06/2005.

Operations involving the remaining classes are however subject to the observance of the standards contained in Ordinance no. 33/84, modified by Ordinance no. 34/91. In particular:

Embarkation authorisation request

- 1) Those who intend to embark dangerous goods in packages must present the Monfalcone Harbourmaster with a request accompanied by:
 - a) suitable declaration of the Master of the ship;
 - b) declaration of the Maritime agency to which the ship refers;
- c) declaration of the manufacturer of the dangerous products which must mention the respective technical nomenclature, chemical formula and classification;
- d) schedule issued by the manufacturer with all the requirements to be observed while the goods are being handled.
- 2) In the case of chemical substances the port works Office will have to receive a suitable certificate issued by the Health Authority.
- 3) Embarking dangerous goods onto ships without the "Certificate of Compliance" is subject to the outcome of an inspection carried out by the Technical Body.

- Disembarkation authorisation

The Master of the incoming ship must also refer to the conditions of the stowage that contains the dangerous goods in the "Informative note".

- Ships with dangerous goods in transit

- 1) Ships equipped to transport dangerous goods in transit must notify their quantity and quality to the Monfalcone Harbourmaster to obtain authorisation to moor, then provide a loading plan on arrival and a stowage plan for the dangerous goods.
- 2) Ships with dangerous cargos on board belonging to class 1a, subclasses A, B and C may not enter port.

Regulations governing activities of supplying combustible oils/lubricants and lightering for ships present in the roadstead and in the Port of Monfalcone (Ordinance no. 16/03).

The areas of sea intended for bunkerage and lightering operations in the road are indicated by the Maritime Authority.

Operations to supply combustible liquids (flash point above 60°C) and lubricants may be conducted:

- A) by lighter or tanker to ships moored in the Port of Monfalcone;
- B) by lighter or tanker to ships anchored in the Road of Monfalcone;
- C) by tanker lorry or mobile distributor in line with Ministerial Decree of 19/03/90 to ships moored in the port basin;
- D) by automatic distributors to fishing vessels and leisure craft equipped with approved safety equipment.

It is prohibited to supply ships moored in the port of Monfalcone by lighter if:

- the ship is moving inflammable liquids belonging to categories A and B;
- the ship is moving dangerous goods in packages belonging to classes 1, 2, 3, 4, 5 and 7;
- the ship is an oil, chemical or non-degassed tanker, unless it is carrying out unloading operations; if it is loading the supply is only permitted if the ship is loading products with a flash point above 60°C, on condition that:
- there is a lighter operator present ready to detach the connector rapidly; the lighter must always be in a condition to pull away under its own power in the case of emergency;
- the lighter is equipped with a portable detector of gas in the atmosphere;
- the equipment for making the connection is spark-proof.

The supply can be conducted, subject to authorisation, only to ships moored at the Banchine Porto Rosega, at the Banchina ENEL and at the Banchina De Franceschi. It can from time to time be authorised at other quays following suitable evaluations and for the Banchina Fincantieri in particular, the Harbourmaster will have to be informed promptly in advance.

Regulation of fishing – In the national waters within the Maritime Territory of Monfalcone, including the water basin of Porto Rosega and Panzano, the Canale Valentinis, the port access channel and the Locavaz and Timavo channels (from the broken bridge up to the sea mouth, on the starboard bank), the Canale Quarantia (from 100 m before the mouth), the Canale del Brancolo (limited to the mouth of the Panzano basin) and the mouth of the Fiume Isonzo, fishing is authorised according to the following procedures:

- Recreational fishing by leisure craft: can only be conducted in the areas indicated below, from dawn to dusk:
- 1) within the sector bounded by the line joining the dolphin positioned at the N end of the Isola dei Bagni to the end of the Western breakwater; within the N bank of the Isola dei Bagni up to the above-mentioned dolphin, within the 3 m depth contour;
- 2) from the new piers of the Lega Navale Italiana, within the 3 m depth contour, up to the dolphin that bounds the passage between the two parts of the Panzano Basin and up to the point 645 m

bearing 284° from the W corner of the Banchina Trieste;

- 3) the area within the 3 m depth contour bounded by the points 300 m bearing 120° and 585 m bearing 122° from the Silos.
- Recreational fishing from land: can be conducted in the following areas:
 - 1) port bank of the Canale Valentinis, limited to the Banchina N. Sauro;
- 2) beach off Via Bagni, limited to the section between the border of the ex SO.DE.NA property exclusive and the border of the property leased to the Hannibal company exclusive;
 - 3) in the areas of the Lisert outside the port;
 - 4) starboard bank of the Canale Timavo, from the old broken bridge to the sea mouth;
 - 5) mouth of the Canale Quarantia, up to 100 m from the mouth itself;
- 6) mouth of the Fiume Isonzo, up to the limits of the national maritime waters (about 600 m from the mouth itself);
 - 7) inside of the Isola dei Bagni, excluding the areas leased out;
- 8) area between the base of the Recreational Fishing Association of Monfalcone and the adjoining irrigation ditch of the Banchina Silos De Franceschi.

However in these areas fishermen are prohibited to obstruct the navigation and stopping of any vessel.

- Commercial fishing: is prohibited in the national maritime waters of the Maritime Territory of Monfalcone, including the water basin of Porto Rosega and Panzano, the Canale Valentinis, the port access channel and the Locavaz and Timavo channels (from the broken bridge up to the sea mouth, on the starboard bank), the Canale Quarantia (from 100 m before the mouth), the Canale del Brancolo (limited to the mouth of the Panzano basin) and the mouth of the Fiume Isonzo.

Anchorages – Ships waiting to enter the port of Monfalcone can enter between Duino and Sistiana, about 3 M from the entrance to the port, in depths of about 10 m. Large ships anchor to the SW of Duino, small ones near the coast. At the centre of the bay the bottom is sand and mud, under the coast it is mud.

The anchorage is sheltered from winds in quadrants I and II. Pay attention to the areas where anchoring and fishing are prohibited (see pages 164 and 166).

Winds – During the winter season the prevailing wind is from the ENE (Bora) with a strength of up to force 7 on the Beaufort scale, occasionally storm force.

Currents – In the access channel there is usually an outgoing current with a maximum of 3 knots that does not disturb the entry manoeuvre; water always flows into the internal basins which prevents bars forming in the channels and passages.

In the centre of the Basin of Porto Rosega, in line with the Banchina Commerciale, there are sometimes surface conflicts between current and whirlpools probably caused by the currents leaving the Canale De' Dottori and the Panzano Basin meeting the incoming tidal currents. There are also vertical currents in the port generated by underwater sources.

Tide – The variation in the level of the water is due to the tides and is accentuated when the SE winds dominate. The excursion varies between 0.5 m and 1.5 m. The maximum variations occur in the months of November and December, the minima in January and February.

Weather warning signs – Clear atmosphere indicates the probability of winds from quadrants I and II; a cloudy sky winds from quadrant II; a sky covered by cirrus and nimbus clouds heralds winds from quadrant III.

Berthing instructions – Coming from the SW pay attention to the shoals of Punta Sdobba and head for Castello di Duino with a bearing always less than 005° .

Having reached the buoy (should be left to port) ships entering Monfalcone proceed on a true heading of 315° for the first section of the channel.

Pilotage – Obligatory for all ships making use of tugs and for ships of more than 500 t gross weight. The pilot embarks 1 M from the light buoy marking the start of the entrance channel to the port.

Tugs – The port has 2 tugs of 1,000 HP. The tug is obligatory for ships over 65 m long berthing at the Banchina Endesa and at the Banchina Lamiere.

Access channel – The channel is marked by 4 pairs of light beacons located at intervals of about 1,000 m; the first section of the channel, marked by the outermost pair of beacons, bears 315° - 135° ; the second section that leads to the turning basin is about 800 m long and bears 338° - 158° . The start of the channel is marked by an elastic **safe water light beacon**, with topmark and radar reflector; it is positioned on the axis of the channel at $45^{\circ}44'35''.81 \text{ N} - 013^{\circ}36'21''.77 \text{ E}$ (WGS 84).

The average depths are 10.5 m.

Port of Monfalcone – Consists of the basins of Porto Rosega and Panzano, of the Canale Valentinis and the Darsena N. Sauro.

The depths are 10.5 m at the entrance with minima of 1.4 m. The bottom is sand and pebbles.

Markers – Some beacons are positioned inside the port that mark the navigable waters in the points with the following co-ordinates (WGS 84):

- $45^{\circ}46'45''.72$ N $013^{\circ}33'22''.19$ E green light beacon positioned in front of the dock under construction at the entrance to the port;
- 45°47'14".42 N 013°32'48".24 E red light beacon positioned to the N of the Isola dei Bagni;
- $45^{\circ}47'15".05 \text{ N} 013^{\circ}33'24".25 \text{ E}$ dolphin in the Panzano Basin, within the small channel between the E and W basins; it marks shallow depths.

Porto Rosega basin – Is the first encountered entering the port. The Banchina Commerciale, the Banchina ENEL and the Fincantieri C and D quays are found here.

Panzano basin – Is divided into two parts. In the E basin, the section off the Banchina Trieste and Banchina E, both owned by the Fincantieri company, have depths of 10 m. In the W basin are the Banchina De Franceschi - Silos, the Centro Motovelico Hannibal and the piers of the Lega Navale Hannibal, of the Vela Oscar Cosulich Company and of the Canottieri Timavo Company, located in the N and E parts.

Canale Valentinis — Is about 1 km long, from 35 to 80 m wide, fully quayed to the E and only in part to the W. The channel leads from Porto Rosega to the Darsena N. Sauro. It has depths of 6 m in line with the A and B quays of the Banchina Lamiere, all owned by the Fincantieri company, and 1.5 m in line with the central axis of the channel, between the point off the Caserma Guardia di Finanza and the entrance to the Darsena N. Sauro, where there are depths of 2.5 m along the longitudinal axis.

Darsena N. Sauro – Is a dock with depths of 1-2 m, intended for mooring by fishing boats and leisure craft and small vessels for passengers in transit. It has a 90 m long quay.

Use of the quays, depths and draughts – Are as follows:

Name	Main use	Size (m)	Max vessel length (m)	Depth (m)	Draugh ts (m)
Banchina Portorosega (Berth 1)	Municipal coasting	165	200	6.5	6
Banchina Portorosega (Berth 2)	Municipal coasting	165	200	7.5	7
Banchina Portorosega (Berth 3)	Commerce	165	200	7.5	7
Banchina Portorosega (Berth 4)	Commerce	165	200	7.9	7.4

Banchina Portorosega (Berth 5)	Commerce	165	200	9.6	9.1
Banchina Portorosega (Berth 6)	Commerce	165	200	9.6	9.1
Banchina Portorosega (Berth 7)	Commerce	165	200	9.6	9.1
Banchina Portorosega (Berth 8)	Commerce	165	200	11	10.6
Banchina Portorosega (Berth 9)	Commerce	165	200	11	10.6
Banchina Endesa	Ships used by thermo- electric power station behind	330		8.6	8.2
Banchina Lamiere	Owned by the Cantina Fincantieri			6	5.5
Banchina A	Owned by the Cantina Fincantieri			6	5.5
Banchina B	Owned by the Cantina Fincantieri			6	5.5
Banchina C	Owned by the Cantina Fincantieri			8.4 - 9	8 - 8.5
Banchina D	Owned by the Cantina Fincantieri	550		8.4 - 9	8 - 8.5
Banchina Trieste	Owned by the Cantina Fincantieri	180		9	8.5
Banchina E	Owned by the Cantina Fincantieri	520		9	8.5
Banchina de Franceschi – Silos	Embarking/disembarking grain	120		8.5	8

Leisure craft can moor at the following berths in concession: head of Canale Valentinis; port bank of Canale Valentinis, except for the section in line with the Piazzale Nazario Sauro; N shore of the Isola dei Bagni; Darsena Hannibal; Darsena SO.DE.NA; Darsena Lega Navale; Darsena S.V.O.C.; Darsena Canottieri Timavo.

The quay section of the Canale Valentinis in line with the Piazzale Nazario Sauro is reserved for vessels involved in the passenger transport service to moor. Visitors staying for no more than 24 hours can moor in the above-mentioned quay section when it is not used for the passenger service.

The dock of the Piazzale Nazario Sauro and the following 25 m towards the sea of the port bank of the Canale Valentinis are reserved for local fishing boats to moor.

Tourist berths – There are various tourist berths in concession in the W part of the Panzano Basin:

- Vela Oscar Cosulich Company (see plan): is in the NE part of the Panzano Basin. Three fixed piers extend from the NE shore, elongated by the same number of floating piers.
- Canottieri Timavo Company (see plan): is to the S of the Vela Oscar Cosulich Company with two piers in concession.
- Lega Navale Italiana (see plan): has three piers in concession situated on the E bank of the W part of the Panzano Basin.
- Centro Motovelico Hannibal (see plan) (figure 29): is situated in the SW area of the Panzano Basin, at Marina Julia, and is managed privately.

To reach the Centro Motovelico Hannibal pass the Easternmost point of the Isola dei Bagni, turn to port and head for the Panzano Basin; at the end of the above-mentioned island turn to port again. It is sheltered from all winds. A good part of the shore is quayed; the re-enforced concrete piers build on poles constitute small docks. The depths at the quays are from 2.5 to 3.2 m, while they reach 12 m at the piers, allowing large ships up to 50 m long to be accommodated.

MONFALCONE

TOURIST BERTHS VELA O. COSULICH AND CANOTTIERI TIMAVO COMPANIES

2007

45°47'.3 N – 013°31'.9 E

MONFALCONE

LEGA NAVALE ITALIANA TOURIST MARINA

2007

45°47'.2 N – 013°32'.1 E

MONFALCONE

CENTRO MOTOVELICO HANNIBAL

2007

45°47'.0 N – 013°32'.3 E

Figure 29 – Centro Motovelico Hannibal (2007).

Quay services – In the port of Monfalcone there are 1,626 berths overall, 10 of which are for visitors, electrical supply, telephone point, quay lighting, fire extinguisher, 1 slipway, 1 crane of 25 t, 1 travel lift of 80 t, fuel station, drinking water, boat storage.

Port services – Pilotage, tugs, mooring, security, 3 dockyards, repair workshop, deep sea diver, skin diver, FAX, VHF, weather service, refuse disposal, collection of used oil/spent batteries, public toilets/showers, public telephone, sailing club.

Accessory services – Shipping Agent, car parking, chandlery, camping, sports equipment, bar, restaurant, information office, emergency medical service, hospital/first aid.

Communications – Seasonal ferry for Sistiana, Duino and Trieste, buses, railway, taxis, motorway, airport at Ronchi dei Legionari.

Authorities - Compamare, Carabinieri, Police, Tax Police, Fire Brigade, Customs.

To the E of Monfalcone the coast remains low and marshy up to Duino. From the Bay of Monfalcone a low sandy beach extends to the E protected by a long dyke bearing approximately E – W.

Port of the Villaggio del Pescatore S. Marco (S. Giovanni di Duino) – Lies along with the village of the same name at the mouth of the Fiume Timavo on the E bank at approximately $45^{\circ}46'.80 N - 013^{\circ}35'.15$ E. The access channel, not marked on the charts starts about 400 m to the W of the light on the head of the mole of the Duino marina and is marked by two lit dolphins, one red and one green.

It is frequented by small boats that serve the paper mill, by fishing boats and by leisure craft. It consists of an artificial Channel Port, with up to date equipment, about 400 m long bearing approximately N-S, about 50 m wide and 3.5 m deep at the entrance. The channel port is quayed for a 240 m section on the starboard side on entry and for a short section on the port side. The average depths along the quays are 3 m.

A channel excavated in the coastal shallows enables access for small boats from the SSE. The dredged channel is about 25 m wide, about 1 km long and has minimum depths of 3.5 m. On the starboard side of the access channel, 100 m from the entrance, the bank is quayed for a 54 m section. To port of the dredged channel, near the entrance to the port, facing a clearly visible cave in the coastal rock, there is a vast and dangerous **shoal**, awash at a low tide.

The entrance to the channel is marked by two dolphins. Moreover, to mark the port side of the access channel to the quay better, there are 13 posts that emerge 2.5 m painted with red and white bands; there are 2 posts with black and white bands on the starboard side; 6 other posts, similar to the above are arranged at the end of the access channel; there are two directional arrows on them:

one indicates the extension of the channel to the quay of the paper mill, the other the entrance to the secondary channel use for leisure craft and local fishing boats.

There are two haulage slips in the Villaggio del Pescatore.

Information for leisure craft — The port has a capacity of 1,000 berths 100 of which are reserved for visitors. It is mainly for fishing: however leisure craft can moor throughout the port, provided that their length does not exceed 10 m. The tourist infrastructure is sparse, however technical support is guaranteed. To enter the port it is advisable to use the depth sounder.

Submarine water network – Between Duino and Trieste there is a submarine pipeline connecting the sources of the Timavo to the water network of Trieste. The area is marked on the charts and is prohibited for anchoring and fishing (see also page 163).

DUINO – Consists of a group of bright yellow and white houses dominated by the imposing bulk of the castle (figure 30). **Monte Hermada** overlooks the rocky coast and a number of framework aerials are mounted on it.

Figure 30 – Duino, castle (2007).

Marina of Duino (see plan) — Consists of a basin, about 50 m long and about 30 m wide, protected to the SW by a quayed mole bearing NW-SE on the head of which a light is mounted (see the List of Lights). It is frequented by fishermen and leisure craft. Vessels up to 7-8 m long can moor there.

At the 10 m wide entrance there are depths of 3.6 m with 2.5 m in the basin centre; the minimum is 0.4 m. The bottom is sand/mud. The inner quays of the port have very shallow depths, about 1.4 m. Approaching the quay of the mole it is necessary to pay attention to the projecting bank.

The NE wind blows in the port with violence; the SW winds raise an irritating swell.

Quay services - 50 berths, 1 slipway, drinking water.

Accessory services – Emergency medical service (Monfalcone-Trieste), hospital (Monfalcone-Trieste), decompression chamber (Trieste).

Communications – Buses (Trieste-Monfalcone route), taxis (Duino-Trieste), railway (Trieste-Monfalcone), Fire Brigade (Trieste-Monfalcone).

Authorities – Compamare (Trieste), Customs (Trieste), Carabinieri (Duino), Tax Police (Trieste), Fire Brigade (Trieste-Monfalcone).

DUINO

MARINA

2007

45°46'.0 N - 013°36'.0 E

SISTIANA – Is a small natural bay, surrounded by a series of hills; it is easy to recognise by the limestone rock quarries open on the hills that are found immediately to the SE of the port and by the whitish cliffs on the coast to the NW of the bay. The village is not built on the sea, but lies just inland.

Submarine pipelines – A sewer sets out from the coast about 300 m to the W of the red light of the port of Sistiana and terminates at $45^{\circ}45'.19 \text{ N} - 013^{\circ}37'.03 \text{ E}$. The end is marked by a small day buoy. It is **prohibited** to anchor within 100 m of the pipeline.

Marine farm areas – Along the coastal strip from Sistiana to Grignano there are 5 marine farm areas; it is prohibited to cross them:

Area A – Between Cava di Sistiana and Marina di Aurisana, marked by 2 light buoys on the sea side corners and 2 day buoys on the land side corners, all 4 of a yellow colour with radar reflectors equipped with X topmarks.

Area B – Between Manovella de' Zoppoli and Sorgente di Aurisana, marked by 2 light buoys on the sea side corners and 2 day buoys on the land side corners, all 4 of a yellow colour with radar reflectors equipped with X topmarks.

Area C – Between Sorgente di Aurisana and Filtri di Aurisana, marked by 2 light buoys on the sea side corners and 2 day buoys on the land side corners, all 4 of a yellow colour with radar reflectors equipped with X topmarks.

Area D – Between Filtri di Aurisana and Porto di S. Croce, marked by 2 light buoys on the sea side corners and 2 day buoys on the land side corners, all 4 of a yellow colour with radar reflectors equipped with X topmarks.

Area E – Between Porto di S. Croce and Grignano Mare, marked by 2 light buoys on the sea side corners and 2 day buoys on the land side corners, all 4 of a yellow colour with radar reflectors equipped with X topmarks.

Anchorages – During N winds it is advisable to anchor under the coast; during S winds it is preferable to anchor near the entrance of the access channel to the port of Monfalcone.

Particular requirements – Motor boats passing through the Sistiana stretch of water must maintain a speed of no more than 6 knots.

Equally they must reduce their speed to no more than 6 knots as soon as they are abeam of the Banchina delle Cave di Sistiana.

Winds – The prevailing wind is the NE, the dominant winds the NE and the SE.

Currents and tides – The general indications for the Gulf of Trieste apply to the currents and tides.

Port of Sistiana (see plan) – Is found in the bay protected by two breakwaters and is quayed along the whole of the Eastern arc. A passage giving access to the port opens up between the two breakwaters built on the end of the bay. A small mole 60 m long and 6 m wide extends from the SE quay. Another small mole 60 m long and 6 m wide extends in a SW direction in the centre of the N part of the port.

Some piers are arranged inside the port, some fixed and some floating, intended for leisure craft. Leisure craft are **prohibited** to moor at the S quay and the W mole. 699 berths are available. Leisure craft and fishing boats with a maximum length of 10 m and draught of 4 m can moor there.

The depths are 8.5 m at the centre and 5.2 m in the basin centre with minima of 2-3 m. The bottom is sandy but does not have a good hold.

Lights – Two **lights** are arranged on the heads of the breakwaters: the one to starboard on entry on a green post; the one to port on a red post. It is necessary to keep within 15 m of both the lights.

About 500 m to the E of Sistiana the coast is quayed over a 50 m section. This quay that is called Banchina della Cava extends 14 m from the coastline and has depths of about 3 m. Two small concrete piers extend into the sea at the two ends of the quay; they are both about 30 m long, 15 m wide and have depths of about 4 m, and it is dangerous to approach them when S winds are blowing.

Three mooring buoys are anchored at the heads of the two piers.

From Sistiana to Trieste the coast is high, steep and sometimes inaccessible. A noticeable cylindrical tank with walled fenestration (piezometric tower) stands about 80 m above sea level just to the SE of Sistiana.

At Le Ginestre, about 1 M to the SE of Sistiana, there is a large white building (Albergo Scuola) on the bank. It is easy to recognise from its bulk and light colour.

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SISTIANA

PORT

2007

45°46'.1 N – 013°37'.7 E

Marina of Canovella degli Zoppoli – Marina to the SE of Sistiana: for small leisure craft no longer than 7 m.

The depths at the entrance to the port are 3 m and 2 m at the basin centre with a minimum of 1.5 m; at the quays it is 1.5 m. The bottom is sandy.

Quay services – 25 berths.

Accessory services – Emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications - Motorway (Trieste), airport (Ronchi dei Legionari).

Authorities – Compamare (Trieste), Carabinieri (Duino), National Police (Duino-Trieste), Tax Police (Trieste), Fire Brigade (Trieste).

The large construction of the Aqueduct of Aurisina can be seen about 2 M to the SE of Sistiana, behind which the conspicuous cylindrical grey Torre Aurisina is clearly visible among the trees.

Marina of Aurisina (see plan) – Consists of a rectangular basin, about 60 m long and about 25 m wide, protected by a mole and with its entrance facing NW. The head of the mole is marked with a light (see List of Lights).

AURISINA

MARINA

2007

45°44'.5 N - 013°40'.0 E

Leisure craft or other vessels no more than 8 m long are permitted to berth at the marina, provided that they do not occupy the shore quay which is reserved for State boats and, subject to authorisation by the Compamare, those of other public bodies.

The depths are 3.5 m at the entrance and 2 m in the basin centre with a minimum of 1 m; at the quays it is 2 m. The bottom is muddy/rocky.

Prohibitions – Swimming is prohibited in the port and within a 100 m radius of its entrance and the port structures that are concerned with shipping, except in the authorised swimming facilities.

Quay services -20 berths.

Accessory services – Emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Motorway (Trieste), airport (Trieste).

Authorities – Compamare (Trieste), Customs (Trieste), Tax Police (Trieste), Fire Brigade (Trieste), Carabinieri (Duino-Trieste), National Police (Duino and Trieste).

Marina of S. Croce (see plan) — Lies about 3 M to the SE of Sistiana and is enclosed by a quayed mole with four arms, with a light at its head (see List of Lights), and by a small shore mole that is also quayed. The port basin is divided into two docks separated by a small mole about 20 m long that extends to the SW from the Banchina di Riva. The entrance is 25 m wide and faces NW. The marina is frequented by fishing boats and above all by leisure craft no more than 10 m long.

The depths are 5.3 m at the entrance and 3.3 m in the basin centre with a minimum of 0.5 m. The bottom is slimy.

SANTA CROCE

MARINA

2007

45°43'.0 N – 013°41'.0 E

Warnings – The entry manoeuvre is difficult and dangerous in rough seas for boats with draught under 2 m.

Ouav services – 70 berths, water supply, electrical supply, 1 slipway, drinking water.

Accessory services – Emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Motorway (Trieste), airport (Trieste).

Authorities – Compamare (Trieste), Customs (Trieste), Tax Police (Trieste), Fire Brigade (Trieste), Carabinieri (Duino-Trieste), National Police (Duino and Trieste).

Fish restocking area – The area centred at $45^{\circ}42'02''$ N – $013^{\circ}37'23''$ E with a 150 m radius, near the locality of **Dosso di S. Croce**, is **prohibited** to anchoring and fishing. The centre of the area is marked by a lit buoy with yellow lights.

Marina of Grignano (see plan) – Frequented by leisure craft, it is deep and well equipped. The marina is protected to the W by a long breakwater, marked at its head by a green light (see the List of Lights) and to the N by a mole that is completely sheltered by the above-mentioned breakwater. There are four piers within the marina (two fixed and two floating). Boats no more than 20 m long can moor there.

The depths are about 6 m at the entrance and 6-9 m in the basin centre with a minimum of 1.5 m; at the quays it is about 3.3 m. The bottom is sandy.

Requirements – Motor boats passing through the marina of Grignano must maintain a speed of no more than 6 knots.

Quay services – 340 berths, 1 slipway, 1 mobile crane of 15 t, drinking water, boat storage, water supply, electrical supply, quay lighting, fire extinguisher.

Port services – Refuse disposal, collection of used oil/spent batteries, public telephone, VHF, public toilets, sailing club.

Accessory services – Post office, emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Ferry for Trieste, buses, motorway (Trieste), airport (Ronchi dei Legionari).

Authority - Compamare (Trieste).

Anchorage – During the NE wind large ships can find a relatively good anchorage just over 0.5 M to the WNW of Castello di Miramare in 12 - 17 m, on a sandy bottom with a good hold. The anchorage is however exposed to all the other winds.

 ${\bf Dangers}-{\rm A}$ 2.7 m high bronze statue is positioned on the seabed about 100 m off the promontory between the marinas of Grignano and Miramare, in depths of 11 m.

The **Castello di Miramare** is situated on a rocky point that bounds the small bay of Grignano to the S; it is visible from all directions.

Marine nature reserve of Miramare (Chart no. 239) – Is established with the Decree of 12/11/1986 issued by the Ministry of the Environment in concert with the Ministry of the Merchant Navy (Official Gazette no. 77 of 2.04.1987). The borders of the reserve (Article 2) are between the coast and the line joining the following points:

GRIGNANO

MARINA

2007

45°42'.0 N - 013°43'.0 E

- point A: situated on the W corner at the head of the mole that bounds the "Miramare -Castello" swimming facility to the W;
- point B: bearing 356°, distance 200 m from point A; point C: bearing 046°, distance 200 m from the SW corner of the Castello di Miramare; point D: bearing 097°, distance 200 m from point E;
- point E: situated at the root of the breakwater of the marina of Grignano.

Outside the perimeter of the protected area there is a 400 m wide area of respect where fishing by any means is prohibited, except for recreational fishing conducted from land. The limits of this area are:

- point A': (sight) bearing 051° distance 575 m from point B';
- point B': (buoy) bearing 356°, distance 600 m from point A;

- **point C'**: (oceanographic buoy) bearing 046°, distance 600 m from the SW corner of the Castello di Miramare:
- point D': (buoy) bearing 097°, distance 600 m from point E;
- **point E'**: (sight) bearing 044° distance 385 m from point D'.

Points A, A', E and E' are provided with two yellow optical sights, points B, B', C, C', D and D' consist of **buoys** with topmarks all in yellow.

Among other things the following are prohibited in the reserve:

- a) navigation, access and stopping by ships and boats of any type, fishing whether commercial or recreational by any means and swimming;
- b) hunting, catching, gathering, damaging and in general any activity that might constitute risk or disturbance for the protection of animal or vegetable species, as well as the introduction of any destructive or hunting equipment (weapons, explosives and toxic or polluting substances).

The marina of Miramare, the space for manoeuvre of which is very limited, lies to the S of Grignano and is included in the marine nature reserve of the same name: it is not suitable for normal maritime traffic.

Contovello (260 m) is recognisable by its light coloured bell tower with red roof and is found to the E of Miramare. Cedas is its marina.

Winds – The prevailing wind is the NE, the dominant winds from the NE and the SE.

Currents and tides – The general indications for the Gulf of Trieste apply to the currents, tides and weather warning signs.

Marina of Contovello (Cedas) (see plan) – Is protected by a hook-shaped breakwater mole, marked by a light at its head. It is used by leisure craft no more than 4-5 m long.

The depths are 1.6 m at the entrance and 2 m in the basin centre with a minimum of 1 m. The bottom is slimy.

CONTOVELLO CEDAS

MARINA

2007

45°42'.0 N - 013°44'.0 E

Quay services – 80 berths, water supply, electrical supply, 1 slipway.

Accessory services – Emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Buses (Trieste route), railway (Trieste), taxis (Trieste), motorway (Trieste), airport (Ronchi dei Legionari).

Authorities – Compamare (Trieste), Customs (Trieste), Carabinieri (Trieste), National Police (Trieste), Tax Police (Trieste), Fire Brigade (Trieste).

Marina of Barcola (see plan) — Is a tourist-fishing marina. It is protected to the SW by a breakwater mole with three arms, marked by a **light** (green post) at its head and includes two rectangular docks. A pier leased to the Associazione Amici del Mare extends from the shore quay of the first dock.

BARCOLA

MARINA

2007

45°41'.0 N - 013°45'.0 E

Boats up to 12 m can access the marina; the draught permitted is 3 m.

The depths are about 4.2 m at the entrance and 3.5 m in the basin centre with a minimum of 1.7 m.

Warnings – The entry and exit manoeuvres are dangerous during sea storms from quadrant III. The marina is well protected from wind and sea from the other quadrants.

Quay services – 180 berths, water supply, electrical supply, boat storage.

Accessory services – Emergency medical service (Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Motorway (Trieste), airport (Trieste).

Authorities – Compamare (Trieste), Customs (Trieste), Carabinieri (Trieste), National Police (Trieste), Tax Police (Trieste), Fire Brigade (Trieste).

Submarine cables and pipelines – A sewer starts at the point 900 m bearing 325° from the green light on the Barcola protection dyke and extends 600 m at right angles to the coast. Anchoring and fishing are **prohibited** for all ships, boats and vessels within 50 m of either side of the pipeline.

TRIESTE (Charts nos. 237 and 238) – Nestling at the foot of the Carso Uplands, it is bordered by hills about 350 - 360 m high that fall sheer to the sea at some points. The centre of the city is overlooked by the characteristic ridge of S. Giusto, with the castle of the same name, and has a modern look with a decidedly industrial and commercial appearance.

Landmarks – Are: the Col Grosso (1,300 m), to the NE of the city, with the characteristic shape of a limestone terrace; the Monte Peggioreale (Opicina) (397 m); the Monte Spaccato (405 m), immediately to the E of the city; the Tempio Mariano, with a pyramid-shaped trunk, built on the Monte Grisà (334 m), visible from a great distance and lit on summer nights; the Faro della Vittoria (figure 31) situated on the Collina Gretta, to the N of the port of Trieste, (cylindrical white monumental tower, with a winged copper figure on top). A 110 m high television aerial, on a square base painted in redorange and white stripes is located on the summit of the Monte Conconello, about 1.6 M to the ESE of the Faro della Vittoria; it constitutes an excellent landmark that is clearly visible from sea even on foggy days.

Figure 31 – Trieste, Faro della Vittoria.

The following are recognised on approaching the port: the modern building of the Sanatorium; the Monte Radio, with two tall aerials on top; the castle that overlooks the city; a modern tower block close to the shores of the port; the bell tower of the Chiesa della Madonna del Mare and the various sections of the Diga Luigi Rizzo in front of the Baia di Muggia.

The capacity and the receptive quality enable the port of Trieste to be one of the largest in the Mediterranean.

Rules for ships stopping in the anchorage areas - a) Ships stopping in the roadstead of Trieste must anchor at the points assigned to them.

- b) Floats and vessels that are not self-propelled staying at the anchorage in the road must be assisted continuously by a suitably powerful tug, which must remain in the immediate vicinity.
- c) While staying in the road, the ships must maintain a continuous watch, guaranteeing the presence on board of the Master of the ship or in his absence the First Mate, as well as the personnel needed to enable the vessel to manoeuvre rapidly.
- d) Ships at anchor must keep a continuous look-out on VHF channels 16-14 and must notify the Operations Centre of the Harbourmaster of any extraordinary event that might prejudice the safety of shipping and/or constitute a danger to the marine environment.
- e) Tankers, ships transporting dangerous goods in general and ships carrying out bunkerage operations while staying at the anchorage must display, in addition to the required signals and lights, the following signals:
- by day a red flag corresponding to the letter "B" of the International Signals Code;
 - by night a red light visible from every point of the compass.
- f) Salvage or service boats must be authorised to put to sea by a request via VHF on channel 16 by the Operations Room of the Harbourmaster of Trieste.

Note: The requirements referred to in points c), d) and e) also apply to ships moored at the quayside.

Anchorages – The anchorage in the road, on a sandy bottom, although good does not provide sufficient shelter in bad weather. Strong SW winds can become dangerous due to the high waves raised; it is always advisable to keep a second anchor ready to lower into the sea if the NE or other strong winds appear unexpectedly.

Ships are permitted to stop in the following anchorage areas:

- 1) **South Area**: reserved for tankers to anchor (oil, chemical, gas). Area outside the Southern section of the Diga L. Rizzo between the following lines:
- a) parallel 45°37'.3 N;
- b) meridian 013°40'.0 E;
- c) bearing 285° from the green light on the N head of the Southern section of the Diga Luigi Rizzo.

The following anchorages are identified in the above-mentioned area:

- A1: 1.5 M bearing 265° from green light on N head of S section of Diga L. Rizzo;
- A2: 2.5 M bearing 294° from red light on S head of S section of the Diga L. Rizzo;
 - A3: 2.7 M bearing 265° from green light on N head of S section of Diga L. Rizzo;
- A4: 3.1 M bearing 294° from red light on S head of S section of the Diga L. Rizzo;
- S1: 0.9 M bearing 265° from the green light on the N head of the S section of the Diga L. Rizzo, reserved for disembarking oily residues and bunkering for tankers.
- 2) North Area: between the following lines:
- meridian 013°40' E;
- parallel 45°41' N;
- bearing 313° from the green light on the N head of the breakwater of the Porto Franco Vecchio

up to the intersection with the parallel 45°41' N;

bearing 275° from the red light on the S head of the breakwater of the Porto Franco Vecchio up to the intersection with the meridian 013°40' E;

The following anchorages arte identified in the N area:

- a) W area anchorages, reserved for anchoring by tankers, if the anchorages of the South Area are occupied, and those that are transporting dangerous goods:
- Distances and true bearings from the green light on the N head of the Porto Franco Vecchio dyke:
- **B1**: 2.6 M bearing 272°;
- B2: 3.3 M bearing 272°;
- Distances and true bearings from the Faro della Vittoria;
- B3: 3.3 M bearing 272°;
- **B4**: 2.6 M bearing 272°;
- b) E area anchorages, reserved for anchoring by tankers that are not transporting dangerous goods, are as follows:
- Distances and true bearings from the green light on the N head of the Porto Franco Vecchio breakwater:
- C1: 1.4 M bearing 272°;
- **C2**: 1.9 M bearing 272°;
- Distances and true bearings from the Faro della Vittoria;
- C3: 1.9 M bearing 272°;
- **C4**: 1.3 M bearing 272°;

If the above-mentioned anchorages are not available the Operations Room of the Harbourmaster of Trieste, having listened to the pilot on duty, can authorise anchoring to the W of meridian 013°40' E.

- c) Anchorage reserved for disembarking oily residues and bunkerage for ships other than tankers:
- S2: 0.9 M bearing 272° from the green light on the N head of the Porto Franco Vecchio breakwater:

Winds (see also page 167) – During the harsher period of the year the NE wind often rages in Trieste with maximum violence; with a tempestuous NE wind it is not advisable to enter port; in this case anchor near the Riviera di Barcola or the Valle di Grignano, or under the Punta Grossa.

The port of Trieste is not sheltered from the SW wind.

Currents – The ebb and flow currents are minimal; they reach a maximum of 1 knot (see also page 167).

Tides – Generally the maximum excursion is about 0.85 m. The establishment of the port is 9 hours and 30 minutes.

Weather warning signs – Whitish rounded clouds rising behind the Carso range with a simultaneous fall in temperature and increase in atmospheric pressure are sure signs of a NE wind. The SE wind however is heralded by dark clouds near the Vallone di Muggia, with a rise in temperature and a fall in pressure.

Rules and procedures for berthing at the port (see also "Rules for navigation" page 164) — With a strong NE wind, ships with low engine power do not persist in attempting to enter port; it is advisable however to wait in sheltered positions, to the S of Capo Salvore. Vessels that shelter in the bay of Capodistria, in a NE wind, should note that the bottom does not always have a good hold. On arrival at the port of Trieste all ships must contact the local Pilots' Station on VHF channel 14 in good time notifying their expected time of arrival and requesting anchoring directions.

1) Ships heading for the mooring – Ships heading for the mooring not subject to the pilotage obligation must agree movement procedures in the North or South Channel and within the port with the above-mentioned Corporation.

Ships subject to the pilotage obligation must be authorised by the Pilots' Station to access the

North or South Channel and embark the pilot at the above points.

2) Ships heading for the anchorage area – The Masters of ships heading for the anchorage areas of the roadstead must contact the local Pilots' Station on VHF channel 14 in good time detailing their expected time of arrival in the roadstead and requesting the allocation of an anchorage.

Once the anchorage is reached, the Operations Centre of the Harbourmaster must be notified on VHF channel 16, giving the initials of the anchorage being used.

Roadstead and entry and exit channels of the port -1) The road of Trieste lies between the following lines:

a) S limit;

- Bearing 270° from Punta Ronco to the intersection with the maritime border between the Italian and Slovenian territorial waters;
- maritime border between the Italian and Slovenian territorial waters to the intersection with meridian 013°40' E;
- b) W limit: meridian 013°40' E;
- c) N limit: parallel 45°41' N;
- bearing 313° from the green light on the N head of the Southern section of the Porto Franco Vecchio breakwater to the intersection with parallel 45°41' N;
- d) E limit: breakwater of the Porto Franco Vecchio, line joining the S head of the breakwater of the Porto Franco Vecchio with the N head of the N section of the Diga L. Rizzo, Diga L. Rizzo, line joining the S head of the S section of the Diga L. Rizzo with Punta Ronco.
- 2) The following channels for entering and leaving port are established in the road:
- A) North Channel, between the following lines:
- a) bearing 275° from red light on S head of the breakwater of Porto Franco Vecchio;
- b) bearing 285° from green light on N end of the S section of the Diga Luigi Rizzo.
- A1) The following are established in the North Channel:
- the Pilot Embarkation Point, 1.6 M bearing 293° from the green light on the N head of the central section of the Diga L. Rizzo.
- the **Traffic Separation Line**, starting from the above-mentioned Pilot Embarkation Point with a (true) bearing of 283°.
- A2) Ships heading for or coming from the Porto Franco Vecchio, Porto Vecchio, Porto Doganale, Porto Franco Nuovo, Arsenale Triestino "S. Marco", Scalo Legnami and Banchina Terni must enter and exit by means of the North Channel.

As an exception to the above, the duty Pilot can use the South Channel to enter and exit with ships in the event of adverse weather conditions or having assessed the movement of the ships currently in port.

- A3) The North Channel may not be crossed from N to S and vice versa by ships drawing more than 14 m.
- A4) Ships passing through the North Channel must keep to starboard. In particular:
- a) incoming ships must pass to the S of the Traffic Separation Line, leaving the elastic light beacon marking the end of the submarine pipeline (see below) to starboard;
- b) outgoing ships must pass to the N of the Traffic Separation Line, leaving the above-mentioned light beacon to port.

- A5) Ships may only pass through the channel from N-S and vice versa with the Pilot on board, or having agreed procedures and times with the Pilots' Station.
- B) South Channel, between the following lines:
 - a) parallel 45°37'.3 N;
 - b) bearing 270° from Punta Ronco.
- B1) The Pilot Embarkation Point at 1.5 M bearing 270° from the red light on the S head of the S section of the Diga Luigi Rizzo is established in the South Channel.
- B2) Tankers, ships heading for moorings in the Vallone di Muggia and ships heading for moorings referred to in point A2 above, which due to their draught cannot use the North Channel, must enter and exit by means of the South Channel.
- B3) Under no circumstances can the South Channel be used by two ships. Outgoing ships have priority.
- B4) A tanker cannot start its entry manoeuvre until the exit manoeuvre of another ship has been completed.
- B5) When a tanker is manoeuvring ships moored in the Vallone di Muggia area are prohibited to start any other manoeuvre.
- 3) The following **prohibitions** apply in the channels that enter and exit the road:
- a) stopping, anchoring, fishing and any other activities are prohibited in the channels entering and leaving the port;
- b) underwater diving is prohibited in the road, except where authorised by the Harbourmaster.

Procedures for ships to exit the port – Similar to what is required for entry, ships leaving the port that are not subject to the pilotage obligation must agree procedures and times for movements within the port and in the North and South channels with the Pilots' Station.

Ships subject to the pilotage obligation must disembark the Pilot in the North or South Channels beyond the meridian 013°43′ E, continuing to navigate in the channel using the route suggested by the Pilot, at least up to the meridian 013°40′ E.

Under no circumstances may ships enter or leave by means of the anchorage areas without the assistance of the Pilot on board.

For the purposes of the exit manoeuvre, having disembarked the Pilot the Masters of the ships must give the Operations Centre of the Harbourmasters by VHF (channel 16) a message containing the following data:

- a) type of ship;
- b) route;
- c) speed;
- d) destination;
- e) date and time of expected arrival;
- f) number of passengers;
- g) quality and quantity of the cargo.

Regarding point g) passenger ships must specify:

- number of motor vehicles (including campers, caravans, bodies, etc.);
- number of empty commercial vehicles and trailers;
- number of loaded commercial vehicles and trailers.

Pilotage – Is obligatory for ships with more than 500 t gross weight. The Pilots' Station keeps a constant look-out on VHF channel 14. The pilot embarks at the points already mentioned, or:

- in the North Channel 1.6 M bearing 293° from the green light on the N head of the central section of the Diga L. Rizzo;

- in the South Channel 1.5 M bearing 270° from the red light on the S head of the central section of the Diga L. Rizzo.

The Pilot disembarks beyond meridian 013°43' E, in both North and South Channels.

Tugs – At least 7 vessels with a maximum power of 5,400 HP are available as tugs. The watch duty is ensured by 4 tugs that keep a lookout on VHF channels 16 and 8.

Ships of more than 30,000 t gross weight entering or leaving the oil terminals and in any case the port of Trieste are obliged to use the escort service.

Any manoeuvre must be carried out using at least one tug.

For incoming tankers the tug operation must start at the embarkation point for the pilot in the South Channel.

The speed of a ship manoeuvring with cable secured to the tug must be no more than 4 knots where possible.

Mooring – The service is obligatory.

Port of Trieste – The port of Trieste is accessible by ships of any tonnage. It includes the following areas: Porto Franco Vecchio, Porto Doganale, Porto Franco Nuovo, Arsenale Triestino "San Marco", Scalo Legnami, Banchina Terni, Vallone di Muggia and Porto Industriale. The port structures are protected from the SW by the Breakwater of the Porto Franco Vecchio and by the Diga Luigi Rizzo. The latter is divided into three parallel sections named as follows from N to S: N section, central section and S section; they are laid out so as to enable ships heading to Porto Franco Nuovo to pass through them, in the presence of the NE wind, by keeping the bow into the wind. An active Racon that responds in Morse with the letters TS (-/...) is positioned on the S end of the N section.

Requirements regarding ships mooring in port -1) Tier and side-by-side mooring by ships at the quayside must be expressly authorised by the Harbourmaster. Mooring must be by means of cables of a suitable structure and number to deal with any deterioration in weather conditions. During embarkation and disembarkation operations the mooring cables must be adjusted so that they are never slack.

- 2) The use of sinkers or the arrangement of cables to the mooring buoys must be marked by day by positioning a red flag and by night by illuminating the cables themselves.
- 3) Changing position from the allocated mooring, even in the case of moving along the same quay, must be authorised beforehand by the Harbourmaster.
- 4) Maintenance works are not permitted on board ships moored in the port unless expressly authorised by the Harbourmaster. Small operations are permitted that do not restrict the operation of the motor equipment, the efficiency of the services or the safety systems of the ship, and that do not involve a risk of polluting the sea.
- 5) Ships at moorings must maintain a state of readiness so as to enable them to take to sea or carry out any movements at any moment. Carrying out any works that involve a momentary immobilisation of the ship must be authorised by the Harbourmaster. Tankers authorised to be immobilised may not carry out any other operational activity while the works are in progress, unless authorised by the Harbourmaster, for reasons connected with safety of the environment or shipping. Tankers must be assisted by a "dedicated" tug at the quayside ready to intervene.
- 6) Ships present in port must immediately notify the Operations Centre of the Harbourmaster of any emergency taking place on board. This obligation is also extended

to the personnel forming part of the auxiliary teams of the port services and operators and to anyone else who is aware of a dangerous situation.

- 7) The on board fire extinguisher equipment must be maintained in perfect working order and pressure. The on board fire service must be ready to intervene immediately. If there are urgent technical reasons that cannot be postponed for the onboard fire extinguisher equipment to be momentarily deactivated, the Master must request authorisation from the Harbourmaster beforehand. This authorisation may be given subject to the observation of requirements and conditions of a technical nature that will be imparted from time to time, including the obligation to ensure fire protection using a "dedicated" tug ready to intervene.
- 8) All vessels are **prohibited** from mooring or berthing:
 - at the buoys and means of maritime signalling or near the electrical supply cables of same;
 - at the heads of the sections of the Diga Luigi Rizzo, up to a distance of 30 m from them.
- 9) Stopping and mooring are **prohibited** at the Breakwater of the Porto Franco Vecchio in the area off the building of the former "Alla Diga" swimming facility. Vessels involved in port services and working activities are permitted to moor when not being used at the remaining quayside to the N of the above area. Any exceptions must be issued, from time to time, by the Harbourmaster.

Regulation of the navigation of small boats in the port of Trieste -1) Small boats include the vessels involved in port services, fishing boats and leisure craft.

- 2) Small boats must navigate within the Trieste road:
- giving way to larger vessels manoeuvring in the anchorage areas or that are using the channels entering or leaving the port;
- not obstructing their manoeuvres.

Without prejudice to the ban on stopping and anchoring in the North and South Channels for any vessel and the obligation to give way to manoeuvring vessels, small boats may pass from N to S and vice versa through the entry and exit channels of the port, always following the shortest route. Sailing boats must use the auxiliary motor if fitted.

- 3) Small boats must navigate within the port of Trieste:
 - giving way to larger vessels entering or leaving the port;
- not obstructing their manoeuvres.

Without prejudice to the obligation to observe the rules contained in the "Regulations for the prevention of collisions at sea", small boats navigating within the port must observe the following rules of conduct:

- a) vessels heading for the Banchina Sacchetta, the Porto Doganale and the Porto Franco Vecchio must pass near the Molo Fratelli Bandiera on entry, while vessels leaving the above areas must keep at least 300 m from the above mole;
- b) vessels passing between the sections of the Diga Luigi Rizzo and the berths of the Porto Franco Nuovo must keep close to the dyke when heading for the Vallone di Muggia and close to the moles when heading for the Porto Doganale;
- c) passing though the basins or near the port works and crossing small boats, vessels must reduce speed, not in any case exceeding 5 knots, and pass at a safe distance;
- d) fishing boats and leisure craft are **prohibited** to anchor and stop in the passages between the sections of the Diga L. Rizzo and in the internal stretch of water up to the structures of the Porto Franco Nuovo. Anchoring and stopping are also **prohibited** in the stretch of water between the breakwater of the Porto Franco Vecchio and its port structures;

- e) to navigate inside the breakwaters of the Porto Franco Nuovo and the Porto Franco Vecchio sailing boats must make use of the auxiliary motor, if fitted.
- 4) In the area of the Vallone di Muggia the following limits to navigation apply:
- a) leisure craft and fishing boats are **prohibited** from passing within 200 m of the piers of the terminals for moving mineral oils situated in the Vallone di Muggia (S.I.O.T. SAN SABBA former AQUILA);
- b) small vessels are prohibited to anchor and stop in the area between the lines joining the following points:
- W limit: "S head of the S section of the Diga Luigi Rizzo green light buoy (No. 4458.5 List of Lights)";
- N limit: "red light on S head of the S section of the Diga Luigi Rizzo continuous green light on a post at the root of pier no. 2 S.I.O.T. (No. 4460.2 List of Lights)";
- S limit: "green light buoy (No. 4458.5 List of Lights) red light (mole E end) port of Muggia (No. 4471 List of Lights) continuous green light post S. Sabba (No. 4470.2 List of Lights)".

Without prejudice to the obligation to give way to larger vessels and not to obstruct their manoeuvres, this area can be crossed from N to S and vice versa following the shortest route.

Sailing boats must make use of the auxiliary motor, if fitted.

Leisure craft entering/leaving the South Channel heading for Porto San Rocco/Muggia/Industrial Channel must not under any circumstances use the small channel reserved for tankers, but navigate between the coast and the green buoys; any crossing of the small channel must be at right angles with the use of the motor.

5) Without a formal permit issued by the Harbourmaster, leisure craft and fishing boats are absolutely **prohibited** to berth or moor:

- a) at any of the works of the port of Trieste intended for embarking and disembarking goods, as well as in the basins of San Giorgio, San Giusto and San Marco;
- b) at the section of quay intended for units belonging to the Civil Service and at those intended for mooring of vessels involved in the port services;
- c) at the quays and moles of the Arsenale Triestino San Marco and at the other moorings intended for repairing and outfitting ships.

For further information refer to Ordinance 08/06 of the Trieste Compamare: "Regulations of navigation in the road and port of Trieste".

For the signals see the list of lights.

Quay services – 1,829 berths for leisure craft, water supply, electrical supply, quay lighting, fire extinguisher, fixed cranes (within Porto Franco Vecchio and Porto Franco Nuovo), travel lift (within Porto Franco Vecchio and Porto Franco Nuovo), fuel station, drinking water.

Port services – Pilotage, local guide, tugs, mooring, dockyard at S. Marco, repair workshop, deep sea diver, skin diver, FAX, VHF, weather service, refuse disposal, collection of used oil/spent batteries, public toilets, public telephone, sailing club.

Accessory services – Gas/LPG cylinders, car/cycle hire, car parking, chandlery, shops of every kind, food stores, laundry, caravan park, camping, sports equipment, bar, restaurant, information office, hotel, internet point, letter box, post office, cash point, bank, pharmacy, emergency medical service, hospital/first aid, decompression chamber.

Communications – Ferries, buses, railway, taxis, motorway, airport at Ronchi dei Legionari.

Authorities – Compamare, Port Authority, Tourist Port Management, Carabinieri, National Police, Tax Police, Fire Brigades, Customs.

Porto Franco Vecchio - Includes:

- the Molo 0 (zero) and the adjoining Bacino I, reserved for leisure craft, antipollution vessels and vessels of small tonnage;
- the Adria Terminal, with quays on posts including the former moles I and II, intended for commercial ships;
- the **Molo III** and the **Molo IV**, intended for commercial ships (the part of the quayside of the two basins, including the former Molo II and the Molo IV renumbered I and II, that are not used for commercial operations are reserved for mooring vessels used by the port services, as well as the naval vessels of the Civil Service).

The Porto Franco Vecchio is protected by the above-mentioned Breakwater, which is almost parallel to the coast, used for local service vessels when they are not required.

Wrecks – A sunken hull (ferry, about 40 m long) is located near the centre of the dyke, along the edge.

Electrical cables – Two submarine electrical cables extend from the head of the Molo 0 and from the S head of the Adria Terminal to supply the two lights situated at the ends of the Breakwater. The cables are shown on the charts.

Moorings and depths – Are as follows:

Mooring no.	Quay length (m)	Depth (m)
1	154	4.88
2	151	3.66
3	109	6.1
4	115	6.1
5	168	3.66
12-13 (Adrian Terminal)	238	11.28
14	196	8.84
15 (res. for police vessels)	149	5.49
16 (res. for launch service vessels)	148	5.49
17 (res. for tugs)	105	6.7
18 (res. for tugs)	106	5.49
19 (res. for Fire Brigade)	76	3
20	106	5.79
21	105	5.79
22	160	6.7
23	138	6.7
24	134	5.49
25	85	4.57
26	154	6.4

Porto Doganale – Extends from the Idroscalo to the SW, right up to the Porto Lido, and includes:

- the **Molo Audace**, reserved for small almost exclusively naval vessels never for commercial use;
- the **Bacino San Giusto**, off the Piazza Unità d'Italia, intended for mooring naval vessels bow fast (in the basin there are 5 sinkers of which those nearest to the Molo Audace are suitable for large tonnage vessels);
- the **Molo Bersaglieri**, reserved for passenger and naval vessels;

- the Molo Pescheria and the Molo Venezia, used by fishing boats and visiting leisure craft;
- the Bacino Sacchetta, protected by the Molo Fratelli Bandiera, is mainly intended for leisure craft (one part is reserved for the motor patrol boats of the police forces);
- the **Porto Lido**, between the W side of the Molo Fratelli Bandiera and the inner mole rooted at its end, used by ships that are carrying out works at the local dockyard (there are also some swimming facilities in the basin).

Moorings and depths – Are as follows:

Mooring no.	Quay length (m)	Depth (m)
27 (Molo Audace)	237	3.6
28 (Molo Audace)	233	3.3
29 (Stazione Marittima)	210	9
30 (Stazione Marittima)	243	7.9
Molo Pescheria Nord	157	4.5
Molo Pescheria Sud	126	4.5
Molo Venezia Nord	195	4.5
Molo Venezia Sud	195	4.5
Frigo Molo Fratelli Bandiera	130	7
Diga Molo Fratelli Bandiera	170	4.5
Porto Lido		4.5

Porto Franco Nuovo – Is intended for commercial operations only; it includes:

- the Riva Traiana, for ferries;
- the **Molo V**, for moving explosives (see relative local regulations);
- the Molo VI:
- the Molo VII (with considerable depths), mainly for container ships (mooring at the head reserved for coal barges and 2 Ro-Ro vessels; possibility of moving explosives).

Electrical cables - A submarine electrical cable extends from the head of the Molo V to supply the lights on the Diga Luigi Rizzo. The cable is shown on the charts.

Works in progress – Works are in progress to extend the first section of the Diga Luigi Rizzo near the Molo V to the N. The area affected by the works is marked by six yellow special marker light buoys and by a green light beacon located at the N end. Navigation, anchoring, stopping, swimming, underwater diving and any type of fishing are prohibited in the area.

Vessels navigating within 500 m of the external limits of the working area must proceed at reduced speed.

The works are expected to finish in March 2009.

Moorings and depths – Are as follows:

Porto Franco Nuovo		
Mooring no.	Quay length (m)	Depth (m)
31	252	12.16
31 bis	258	11.89

Porto Franco Nuovo Mooring no.	Quay length (m)	Depth (m)
32	160	9.42
33	185	9.42
34	173	4.86
35	369	7.62
36	173	8.84
37	363	8.84
38	363	8.53
39	360	8.53
40	360	9.75
41	361	9.75
42	361	7.92
43	167	9.14
44	529	9.14
45	106	9.45
46	360	7.92
47	360	7.92
48	120	9.75
49	188	12.8
50	222	15.85
51	230	16.76
52	250	17.98
53	240	17.98
54	200	16.76
55	202	16.46
56	168	14.32
57	350	9.14

Arsenale Triestino "San Marco" – Includes a dockyard and 4 brick-built careening docks for ships up to 300,000 t gross weight.

Moorings and depths – Are as follows:

Porto Franco Nuovo		
Mooring no.	Quay length (m)	Depth (m)
D	98	6.5 - 9.5
E	168	8.5 - 12.5
F	168	5 – 12.5
H	168	7.5 - 10
I	236	8 - 12.5
G	119	9.2 – 14
K	156	9 – 13
L	173	9 – 13

Scalo Legnami – Situated to the S of the Arsenale Triestino "San Marco", it is intended for moving timber and is also equipped, among other things, for moving explosives.

Submarine pipelines – A submarine pipeline set out from Punta Servola (between the Scalo Legnami and the area of the ironworks), crosses the Diga Luigi Rizzo between the central and Southern sections and extends WNW for about 7,500 m in total. The diffuser terminal is marked by a **light beacon** equipped with radar reflector (see the List of Lights).

Moorings and depths – Are as follows:

Banchina Scalo Legnami		
Mooring no.	Quay length (m)	Depth (m)
A	195	7.01
В	150	10.67

Banchina Terni – Owned by the adjacent **Ferreira de Servola**, it is reserved for the movement of minerals. It is 350 m long and accessible to vessels with a draught of 42 m.

Vallone di Muggia – Makes up the S part of the port of Trieste; the NE wind blows very violently there. It includes:

- an access channel excavated to about 18 m, marked by light buoys (see List of Lights), which leads to the basin, also dredged to about 18 m where the S.I.O.T. terminal is found consisting of piers I and II intended for mooring oil tankers. The heads of the piers are marked by lights:
- the **Pontile di San Sabba** (two moorings for ships with a maximum gross weight of 30,000 t no more than 185 m long), moving category "C" minerals intended for the adjoining coastal warehouse;
- the **Pontile ex Aquila** (mooring for ships with a maximum length of 185 m and a maximum gross weight of 35,000 t), moving refined products of all categories.

	Pontile	SIOT
Mooring no.	Quay length (m)	Depth (m)
1	290	16.5
2	290	16.5
3	305	17.4
4	328	17.4
	Pontile di S	San Sabba
Mooring no.	Quay length (m)	Draught (feet)
87 S.S. 1	216	32 (max. length of ship 175 m, 30,000 DWT)
87 S.S. 2	216	34 (max. length of ship 175 m, 30,000 DWT)
	Pontile ex Aq	uila (Silone)
Mooring no.	Quay length (m)	Draught (feet)
Pontile	141	21 (max. length of ship 185 m, 5,000 DWT)
Testata	70	34
Bitumi	18	18

Mooring buoys (see plan) – The Pontile ex Aquila is served by the following mooring buoys (positions referred to the Muggia bell tower, at about $45^{\circ}36'.2 \text{ N} - 013^{\circ}46'.1 \text{ E}$):

u	Jositions referred to the Muggia	ocii towci, at about 45 50.2
-	buoy no. 14:	2,080 m bearing 082°30';
-	buoy no. 15:	2,100 m bearing 086°30';
-	buoy no. 16:	2,094 m bearing 087°30';
-	buoy no. 18:	1,800 m bearing 090°30';
-	buoy no. 19:	1,700 m bearing 090°30';
_	buoy no. 20:	1.537 m bearing 087°30';

PORT OF TRIESTE

VALLONE DI MUGGIA MOORING BUOYS

2007

The diagram only shows the positions of the mooring buoys, regardless of their structural characteristics.

Dangers – There are **shallow depths** at the entrance to the Industrial Port, to port on entering, at approximately $45^{\circ}36'.53 \text{ N} - 013^{\circ}48'.03 \text{ E}$, because of landslip by the quay under construction.

Industrial Port — Opens at the bottom of the Vallone di Muggia and consists of a channel, about 200 m wide, that extends for about 1,000 in a SW-NE direction. Access is restricted to vessels with draught up to 7.4 m. A quay 150 m long is available on the N side; on the S side there is a quay for the movement of chemical products in bulk and for disembarking frozen fish.

To mark the access to the Industrial Port there are 2 leading line lights (063°.47) on the ENE end of the channel, mounted on aluminium coloured posts: the front one is 9.5 m high, the rear one 12 m (see List of Lights).

Moorings and depths – Are as follows:

Industrial Port			
Mooring	Quay length (m)	Depth (m)	
SERVOLA S.p.a.	350	12.65	
DEPOSITI COSTIERI	200	11.5	
ITALCANTIERI	200	9.14	
EX SAFA	200	8.53	
ALDER	50	7.01	
FRIGOMAR	145	7.92	
SILONE	-	7.5 - 10.36	

MUGGIA (Chart no. 238) – Consists of a group of houses laid out on the slope of the hill and overlooked from the top of the hill by the tall bell tower of Muggia Vecchia, square, with a steeple in the shape of an octagonal pyramid. From the sea a castle is also visible to the W of the town.

Muggia Marina – Protected by two moles, it is almost entirely quayed; two lights in metal columns are positioned on the heads of the two moles, one painted green, the other red.

It is frequented by fishing boats and leisure craft. The depths are 7.4 m at the entrance and 6.2 m in the basin centre, with a minimum of 2.5 m. Along the Molo di Levante (Molo C. Colombo) the average depths are 2.3 - 3.5 m, at the quays 3.5 - 4.1 m. The bottom is muddy. Vessels no greater than 18 m long can access the port.

Quay services – 430 berths, water supply, electrical supply, quay lighting, 1 slipway, drinking water, fuel station.

Port services - Public toilets/showers, sailing club, collection of used oil/spent batteries.

Accessory services – Emergency medical service (Muggia-Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Buses (Trieste-Muggia route), railway (Trieste), motorway (Trieste), airport (Ronchi dei Legionari).

Authorities – Compamare (Trieste), Carabinieri (Muggia), National Police (Trieste), Tax Police (Muggia), Fire Brigade (Muggia).

Porto S. Rocco (see plan) – Is found about 0.6 M to the W of Muggia. It consists of the Molo Foraneo Ovest, with two arms, and the Molo Foraneo Nord, which has an internal spur near its head. It is bounded to the E by the Banchina Est, to the S by the Banchina Sud and by the Banchina Ovest. A 60 m mole extends to the N between the Banchina Ovest and the Banchina Sud. Inside the port there are a number of floating piers. The entrance faces E.

The mooring is intended for leisure craft no more than 35 m long.

The heads of the moles are marked by lights (see the List of Lights).

The depths are 5 m at the entrance and 4.5 m in the basin centre. The bottom is muddy.

Quay services – 600 berths, electrical supply, water supply, drinking water, TV aerial point, cable TV point, telephone point, fuel station, quay lighting, fire extinguisher.

Port services – Refuse disposal, collection of used oil/spent batteries, security, weather service, public toilets/showers.

Accessory services – Car parking, shops of every kind, laundry, sports equipment, hotel, cash point, information office, emergency medical service (Muggia-Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Heliport, buses (Trieste-Muggia route), railway (Trieste), taxis (Muggia-Trieste), motorway (Trieste), airport (Ronchi dei Legionari).

Authorities – Compamare (Trieste), Tourist Port Management, Carabinieri (Muggia), National Police (Trieste), Tax Police (Muggia), Fire Brigade (Muggia-Trieste).

Punta Ronco, about 40 m high, is sheer to the sea. A small pier extends at its feet.

An aerial on a framework painted with red and white stripes stands on the ridge of the hills, about 1,200 m to the SSE of Punta Ronco and is clearly visible from the sea.

On the centre of the bay that opens between Punta Ronco and Punta Sottile there is a characteristic group of 6 residential villas laid out on the slope in pairs, like a flight of steps.

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MUGGIA PORTO SAN ROCCO

TOURIST PORT

2007

45°36'.6 N – 013°45'.2 E

Wrecks – About 250 m to the NE of Punta Ronco lie two sunken hulls, in 12 m of water: a barge loaded with crushed stone and a lighter loaded with sand.

Punta Sottile bounds the Valle S. Bartolomeo to the N; it is adjacent to unmarked shallows to which attention must be paid.

To the S of Punta Sottile, facing Lazzaretto Nuovo, there is a quay just for naval and police vessels to berth, without markers.

Anchorages – A good anchorage sheltered from the NE wind, for ships of any size, is located to the W of Lazzaretto Nuovo, in 15 m of water, on a bottom of mud with a good hold. The W winds can however become dangerous.

Small boats can also find some shelter from the SW wind in the S part of the Valle S. Bartolomeo.

Marina of S. Bartolomeo – Is bounded to the W by a mole that extends from the S corner of the quay located in front of Lazzaretto Nuovo and to the E by a mole at right angles to the coast, that bounds the S side of the marina itself.

The port offers a well protected shelter from winds in quadrants I and II and from sea storms from the W and SW. There are 4 mooring bollards on the outside of the quay. A **light** (see List of Lights) is mounted on the head of the mole.

The marina is intended for leisure craft and fishing boats with a maximum length of 8 m.

The depths are 3.5 m at the entrance and 3 m in the basin centre, with a minimum of 1.5 m; they are 2 m at the quay. The bottom is sandy.

Quay services – 90 berths, water supply, 1 slipway.

Accessory services – Emergency medical service (Muggia-Trieste), hospital (Trieste), decompression chamber (Trieste).

Communications – Buses (Trieste-Muggia route), railway (Trieste), taxis (Muggia-Trieste), motorway (Trieste), airport (Ronchi dei Legionari).

Authorities – Compamare (Trieste), Carabinieri (Muggia), National Police (Trieste), Tax Police (Muggia), Fire Brigade (Muggia-Trieste).

The demarcation line of the State boundary (see page 163) is found about 300 m to the S of Lazzaretto.

Mussel farming areas – Some mussel farms are installed from Punta Ronco up to the marina of S. Bartolomeo (State boundary). The areas are marked on Chart no. 238.

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[HIGHLIGHTED TEXT DOES NOT NEED TRANSLATING]

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION – WERSJA PRÓBNA e-NAVIGATOR thefutureofnavigation.com

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ZANIM ZACZNIESZ

Celem przewodnika jest umożliwienie użytkownikowi łatwego i szybkiego uruchomienia Admiralty e-Navigator Planning Station. Aby uzyskać szczegółowe instrukcje instalacyjne oraz informacje na temat rozwiązywania problemów, należy zapoznać się z Podręcznikiem Użytkownika Planning Station.

Minimalne wymagania sprzętowe:

Procesor Pentium IV lub wyższa wersja Pamięć 512 MB lub więcej Monitor rozdzielczość 1024 x 768 Wolne miejsce na dysku 60 MB Sieć Port USB Drukarka Drukarka kolorowa Pamięć USB

Minimalne wymagania systemowe:

Systemy operacyjne:

- Windows 2000 SP2
- Windows XP SP2
- Vista

Użytkownik musi mieć zainstalowane odpowiednie oprogramowanie antywirusowe i je regularnie aktualizować.

Należy upewnić się, że jednostka pływająca została zarejestrowana przez dystrybutora oraz że dystrybutor przesłał hasło i nazwę użytkownika wraz z pakietem medialnym Planning Station.

Do rozpoczęcia instalacji potrzebne będą:

- Płyta instalacyjna Planning Station
- Plik z wykazem papierowych map (przesłany przez dystrybutora)
- Nazwa użytkownika i hasło (otrzymane od dystrybutora)
- Adres e-mail jednostki pływającej oraz maksymalny rozmiar przychodzących wiadomości e-mail, które można odbierać na pokładzie
- Elektroniczne pozwolenia dla map cyfrowych użytkownika

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION

KROK 1: INSTALACJA

- 1. Włóż płytę instalacyjną Planning Station do komputera, na którym oprogramowanie ma być zainstalowane. Instalacja wykona autoodtwarzanie po 4-5 minutach; można również wykonać niżej opisane kroki.
- 2. Otwórz CD, korzystając z funkcji Komputer.
- 3. Na płycie CD znajdź plik ENSetup.exe i kliknij go dwa razy.
- 4. Postępuj zgodnie z kreatorem instalacji.
- 5. Aby przejść dalej, przeczytaj i zatwierdź warunki umowy licencyjnej, a następnie kliknij dalej ("next").
- 6. Aby zainstalować program w folderach domyślnych, wybierz "Next" w każdym z kolejnych dwóch okien.
- 7. Konieczny jest program Adobe Acrobat; zaznacz pole, wyłącznie jeżeli chcesz zainstalować podaną wersję; kliknij dalej ("next")
- 8. Istnieje możliwość utworzenia skrótów startowych; zaznacz odpowiednie pola skrótów, które chcesz utworzyć; kliknij dalej ("next")
- 9. Kiedy program zapyta się o uruchomienie aplikacji, wybierz "No".
- 10. Kliknij "Finish"

KROK 2: URUCHOMIENIE PROGRAMU

- 1. Aby uruchomić program ręcznie, kliknij dwa razy ikonkę umieszczoną na pulpicie podczas instalacji.
- 2. Aplikacja uruchomi się na swojej stronie domowej, wyświetlając status katalogu.
- 3. Program można uruchomić poprzez menu start i programy.

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION

KROK 3: METODA KOMUNIKACJI

- 1. Przejdź do ustawień użytkownika "User Settings" na pasku głównego menu, a następnie do "Communication Method" w liście rozwijanej, w której znajduje się wykaz opcji transferu danych.
- 2. Z wykazu wybierz opcję, która będzie używana: np. poczta elektroniczna, przenośny dysk lub https

KROK 4: AKTYWACJA

- 1. Przejdź do "User Settings" i wybierz aktywację "Activate my e-Navigator" pojawi się okienko logowania.
- 2. Podaj nazwę użytkownika i hasło przekazane przez dystrybutora. Uwaga: funkcja logowania rozróżnia małe i wielkie litery.
- 3. Kliknij "Submit". Jeżeli korzystasz z przenośnego dysku, należy go włożyć przed kliknięciem "Submit"

Aktywacja w przypadku korzystania z przenośnego dysku

- 1. Pojawi się okienko z komunikatem, że na przenośny dysk skopiowano plik .txt i .ads; kliknij "ok".
- 2. Włóż przenośny dysk do komputera komunikacyjnego
- 3. Jeżeli wybrano pocztę elektroniczną, należy ustawić ustawienia konta e-mail, a następnie przejść do "User Settings" na pasku głównego menu i wybrać "Email Settings" z listy rozwijanej
- 3. Otwórz plik .txt, w którym znajdują się informacje, gdzie i w jaki sposób należy przesłać plik .ads.
- 4. Na wysłany e-mail otrzymasz odpowiedź z załącznikiem
- 5. Zapisz nowy plik na przenośnym dysku i przenieś go na komputer z Planning Station
- 6. Z menu głównego paska narzędziowego wybierz "Tools", a z listy rozwijanej "Apply Update"; uruchomi się okno przeszukiwania.
- 7. Znajdź plik "Reply" na przenośnym dysku i kliknij "Open"
- 8. Pojawi się okienko z komunikatem, że program e-Navigator jest już zarejestrowany.

KROK 5: PREFERENCJE DOTYCZĄCE POBIERANIA I SUBSKRYPCJA

- 1. Jeżeli program nie prosił wcześniej o wybór preferencji dotyczących pobierania lub w przypadku powrotu do procesu instalacji, należy przejść do "User Settings" w pasku głównego menu i wybrać "Download Preferences" z listy rozwijanej.
- 2. Otworzy się okienko o nazwie "Subscription"; w odpowiednich polach należy wprowadzić adresy email oraz maksymalny rozmiar wiadomości e-mail.
- 3. Aby rozpocząć proces subskrypcji, w okienku kliknij "Next".
- 4. Drugie okienko wyświetla listę dostępnych produktów; produkty znajdujące się na jednostce pływającej zostaną zaznaczone.
- 5. Jeżeli wybraną metodą komunikacji jest dysk przenośny, należy włożyć dysk, a następnie kliknąć "Finish"
- 6. Pojawi się okienko z komunikatem, że na przenośny dysk skopiowano plik .txt i .ads; kliknij "ok".
- 7. Włóż przenośny dysk do komputera komunikacyjnego i otwórz plik .txt, w którym znajdują się informacje, gdzie i w jaki sposób należy przesłać plik .ads.

Ciąg dalszy na następnej stronie.

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION

KROK 5: PREFERENCJE DOTYCZĄCE POBIERANIA I SUBSKRYPCJA (KONTYNUACJA Z POPRZEDNIEJ STRONY)

- 8. Otrzymasz odpowiedź z instrukcjami, w jaki sposób należy przesłać informacje z powrotem do Planning Station
- 9. System subskrybuje zaznaczone usługi.

KROK 6: AKTUALIZACJA KATALOGU PRZED UŻYCIEM

Aby dokonać aktualizacji katalogu, kliknij przycisk "Check my Status", znajdujący się w prawym dolnym rogu ekranu.

Aktualizacja katalogu za pośrednictwem https:

- 1. Jeżeli stacja Planning Station jest obsługiwana w trybie https, będzie stale podłączona do serwera ADS.
- 2. Przycisk "Check my Status" przekaże dyspozycję oraz będzie bezpośrednio odbierał aktualizacje i je wdrażał.

Aktualizacja katalogu za pośrednictwem poczty elektronicznej:

- 1. Jeżeli stacja Planning Station jest obsługiwana w trybie poczty elektronicznej, będzie automatycznie wysyłać emaile do serwera ADS.
- 2. Przycisk "Check my Status" wyśle dyspozycję do serwera ADS
- 3. Odpowiedź serwera na konto e-mail na komputerze z Planning Station spowoduje automatyczną aktualizację katalogu.

Aktualizacja katalogu za pośrednictwem przenośnego dysku:

- 1. Jeżeli stacja Planning Station jest obsługiwana w trybie dysku przenośnego, dysk musi być podłączony do komputera.
- 2. Przycisk "Check my Status" zapisze plik z dyspozycją na dysku
- 3. Przenieś plik z dyspozycją do komputera komunikacyjnego i wyślij go e-mailem do serwera ADS; postępuj zgodnie z instrukcjami, które program Planning Station zapisał w pliku tekstowym na przenośnym dysku.
- 4. Przesłany zostanie e-mail z odpowiedzią zawierający załącznik.
- 5. Zapisz załącznik na przenośnym dysku i przenieś go na komputer z Planning Station
- 6. Załaduj plik poprzez wybranie "Tools" na pasku głównego menu i wybierz "Apply Update" z listy rozwijanej

7. Używając okna przeszukiwania, znajdź plik aktualizacyjny i kliknij "open"

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION

DANE KONTAKTOWE

Emma Wise, menadżer ds. wersji próbnych e-Navigator emma.wise@ukho.gov.uk

Tel.: +44 (0)1823 337900 wewn. 4290

Tel. kom.: +44 (0)7917 502806

Biuro Obsługi Klienta UKHO +44 (0)1823 723366 customerservices@ukho.gov.uk

SZYBKI PRZEWODNIK INSTALACYJNY PLANNING STATION

UKHO 2010 Wszelkie prawa zastrzeżone

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船舶へのスムーズな導入

すべての航海で、電子海図表示システム (ECDIS) を安全かつ 効率的に使用するという、最終目標を達成する方法

ECDIS への移行における最後の、そして最も重要な ステージは、船舶への導入です。

この期間、海運会社には、各船舶における安全かつ効率的な ECDIS トレーニングや手順の実行と、ECDIS システムそのもの の導入をサポートすることが求められます。これには企業の事 務や海洋部門からの管理面および技術面でのサポートが含ま れます。

効果の高い実践的サポート

可能であるなら、 ECDIS 経験者の上級航海士が各船舶に短 期間乗船してシステムの導入をサポートし、必要に応じて疑 問点を明確にしたり、修正措置を取るようにするのが極めて効 果的です。船団のほとんどの船舶に、上級航海士が乗り込 み、実践的なサポートを行うことで、船団全体において共通の ECDIS 基準を促進することもできます。

効果に対する継続的評価

ECDIS の船舶への導入が完了したら、ECDIS のトレーニング、 手順、設置の効果に対する評価を、ブリッジ監査または航行 監査に組み込みます。これにより、企業の ECDIS 手順や方針 の必要な改善を行うことができます。



船舶への導入チェックリスト

- ECDIS の導入に向けて、企業のサポート体 制を確立する
- 任命された ECDIS 指導官が実際に船舶に 乗船し、導入を支援する
- ECDIS を含めた形に監査プロセスを改訂する
- 監査後に、ECDISトレーニングと手順のプロ セスについての確認を行う

メモ:	

Correction to publications:

Nº 521, List of Lights Volume I – 2010 edition (last updated in Polish NM 28/12)
Nº 522, List of Lights Volume II – 2011 edition (last updated in Polish NM 28/12)
Nº 523, List of Lights Volume III – 2012 edition (last updated in Polish NM 28/12)

Comprises four pages.

1

Volume I (521 1616	l) Light buoy KO 6/⊤ 63	In column 8	3, delete:	(T) Raco	n (T) tume	d off.		
9				(G	erman NM N	27/List. Hamburg 2012)		
1671	Light buoy 3	54 15.5 12 02.8	FI G 4s			Green, pillar.	38888	29/12
1673	Light buoy 4	54 15.5° 12 03.1	FIR 4s	930TE	### ###	Red, pillar.	(146)	
1675	Light buoy 5	54 14.7 12 03.3	FI G 4s	122		Green, pillar.	NAME:	29/12 29/12
1677	Light buoy 6	54 14.7 12 03.5	FI G 4s	Storic:	100	Red, pillar,	***	29/12
1679	Light buoy 7	54 13.9 12 03.8	QG	(CANA)	X2.51	Green, pillar.	31000	29/12
1681	Light buoy 8	54 13.9 12 04.0	QR	•••	7X.8	Red, pillar	(Cormon N	29/12 M No 26 Hamburg 2012)
							(German N	M № 26. Hamburg 2012)
2402 C 1084.3	RISTINGE S line of lights – front light	54 49.8 10 36.3	FR	18	5	Cable beacona	032.2°-172.2°	Line of lights. Dir. 102.2°. Lit 24 hours a
2402.1 C 1084.31	- rear light	54 49.8 10 36.4	FR (vert) FW	27 23	W 6 R 5	Cable beacon.	032.2°-172.2	day. Marks a cable. 29/12
								(Danish List of Lights)

2402 C 1084	ÆRØS HALE leading lights – front light	54 50.6 10 31.0	FR	5	5	Cable beacon.	219.8°-359.8°	Line of lights. Dir. 289.8°. Lit 24 hours a
2404.1 C 1084.1	- rear light 350 m from the front light	54 50.7 10 30.7	FR (vert) FW	13 9	W 6 R 5	Cable beacon.	219.8°–359.8°	day. Marks a cable 29/12 (Danish List of Lights)
V-l II (50	۵۱							
Volume II (52 0058	2) Light buoy	54 54.0 9 47.1	FI(2) R 5s	***	***	Red, can.	(1559)	
		×						29/12 (Danish Chart № 152)
0062 C 1115.5	Sønderborg —marina At the head of the S breakwater	54 53.9 9 47.5	FG I	4	4	Post.	(812)	29/12
								(Danish List of Lights)
0063	Høruphav At the head of the E pier	54 54.4	FI G 3s	2 .	4	White perch, lit.		
C 1115.4	At the head of the E pier	9 53.4	0.75+(2.25)	2	4	writte perori, it.	3555	00440
								29/12 (Danish List of Lights)
	Mommark							
0073 C 1042	At the head of the W pier	54 56.0 10 02.7	FR	3	5	Grey perch, lit.	***	
0 1042		10 02.1						29/12 (Danish List of Lights)

0344 C 1704	STRYNØ list of lights – front light	54 53.5 10 37.0	FR	6	8	Cable beacon.	274°–310°	Line of lights. Dir. 292°.
0344.1 C 1704.1	– rear light 270 m from the front light	54 53.6 10 36.9	FR (vert) FW	10 8	W 8 R 8	Cable beacon.	274°–310°	Marks a cable. 29/12 (Danish List of Lights)
			BIRKHO	DLM—islan	d			
0346 C 1090	BIRKHOLM line of lights – front light	54 55.7 10 30.1	FR	3	2	Cable beacon.	Line of lights, dir.	007°,
0346.1 C 1090.1	- rear light	54 55.7 10 30.1	FR (vert)	6 4	W 2 R 2	Cable beacon.	Marks a cable.	29/12 (Danish List of Lights)
0364 C 1074	Søby Sector light	54 56.6 10 15.5	Iso WR 2s	6	W 7 R 5	White, hexagonal tower.	151° – W – 255 – Fog sig. (2) – sir 5+(5)+5+(45). Operating, if vess (occas).	ren 60s.
1510	GILLELEJE FLAK N light buoy	56 10.4 12 17.5	QW	15555	***	Black / yellow, pillar, two cones.	***	29/12 (Danish Chart № 100)

56 35.8 11 09.2	Mo(U) W 15s	25	10	Transformer plat- form, perch.	Synchronised with light 1768.1.
56 35.7 11 09.2	Mo(U) W 15s	25	10	Transformer plat- form, perch.	Synchronised with light 1768. 29/12 (Danish NM № 23/609. Copenhagen 2012) (UK List of Lights)
61 09.0 21 09.6	FI(2) WRG 10s 1+(2)+ 1+(6)	22	W 11	Red tower, helicopter platform.	065° - W - 180 - R - 243 - G - 317 - W - 332 - R - 356.5 - G - 065°. Racon (T). 29/12 (Finnish List of Lights)
	11 09.2 56 35.7 11 09.2	11 09.2 56 35.7 Mo(U) W 15s 11 09.2 61 09.0 FI(2) WRG 10s 21 09.6 1+(2)+	11 09.2 56 35.7 Mo(U) W 15s 25 11 09.2 61 09.0 FI(2) WRG 10s 22 21 09.6 1+(2)+	11 09.2 56 35.7 Mo(U) W 15s 25 10 11 09.2 61 09.0 FI(2) WRG 10s 22 W 11 21 09.6 1+(2)+	11 09.2 form, perch. 56 35.7 Mo(U) W 15s 25 10 Transformer plat- form, perch. 61 09.0 FI(2) WRG 10s 22 W 11 Red tower, helicop- 21 09.6 1+(2)+ Red tower, helicop- ter platform.

(Polish NM 29/12)

Correction to publication № 552, Catalogue of Marine Charts and Nautical Publications – 2012 edition

(Last updated in Polish NM 26/12) Comprises two pages.

Page 10 Chart 39

Column 4

A m e n d: 2006 to 2012

Chart 46

Column 4

A m e n d: 2009 to 2012

Chart 128

Column 4

A m e n d: 2007 to 2012

Page 11 Chart 151

011411

Column 4

A m e n d: 2009 to 2012

Page 19

Chart 128

Column 6

A m e n d: 2007 to 2012

Line 2, column 3

A d d: 'A' before: Flensburg. Approach and port

Page 21

Chart 128

Column 6

A m e n d: 2007 to 2012

Line 2, column 3

A d d: 'A' before: Flensburg. Approach and port

Page 23

Chart 151

Column 6

A m e n d: 2009 to 2012

Page 27

Chart 15

Line 3, column 7

A d d: block correction Polish NM 29/12

Chart 39

Line 1, column 3

A m e n d : Baltic. Zalew Kamieński and Cieśnina Dziwna¹

Column 6

A m e n d : 2006 to 2012

Chart 46

Column 6

A m e n d: 2009 to 2012

Column 7

Delete: block correction Polish NM 46/11

Page 29

Chart 151

Column 6

A m e n d : 2009 to 2012

Page 37

Set of charts 3020 Sheet 9

Column 7

A d d: block correction Polish NM 29/12

Page 39

Set of charts 3021, Sheet 7

Column 7

A d d: block correction Polish NM 29/12

Page 41

Set of charts 3022, Sheet 7

Line 2, column 3

A $m \ e \ n \ d$: From the Port (*Port*) to Przekop Wisły $T \ o$: From the New Port (*Nowy Port*) to Przekop Wisły

Polish NM 29/12

We have provided a literal translation of the source text; however the sentence seems to be incomplete. There does not appear to be an instruction of what the text should be amended to.

* 7258

Charts: 6162, 6171

Sweden. Northern Baltic. N of Nynäshamn. Herrön. Torsviken. Shoaling.

Shoaling has been noted in Torsviken on the left side of Herrön.

Insert | Submerged rocks | 58-57.58N | 17-59.16E | extend the 3 m contour to include the rocks

Bsp Stockholm S 2009/p20, Stockholm S 2011/p20

Sweden. Northern Baltic. Stockholm archipelago. Eriksö Sound (Vaxholm)-Kullö. Wakeboard competition. Closure.

Period: 9 July 0900 - 1930 and 10 July 1000 - 1700

A wakeboard competition will take place during the indicated period in the sound between Eriksö and Kullö, and the area of water marked on the copy of the chart will be closed to unauthorized traffic.

59-24.6N 18-18.5E Competition area, see copy chart approx.

Bsp Stockholm M 2009/p46, Stockholm M 2011/p46, Stockholm N 2009/p26, Stockholm N 2011/p26

Central Baltic

* 7280 (T)

Charts: 623, 6231

Sweden. Central Baltic. Västervik. Gränsö canal. Temporary closure. Channel swimming event.

Period: 13 July 1150 – 1400

The canal will be closed to all marine traffic during the above period because of the channel swimming competition.

Position: approx. 57-46.2N 16-40.5E

Not shown on ENC.

Bsp East Coast 2007/p24, p48, East Coast 2010/p24, p48

County Administrative Board Kalmar Publ. 29 June 2011

Sweden. Kattegat. Styrsö. Halsvik. Stora Lyngskär. Submerged rock.
A submerged rock has been found ESE of Stora Lyngskär, E of an existing rock. Shipping is advised to pass E of the rocks.

Insert | Submerged rock, and extend the 3 m contour to include the rock

Bsp West Coast S 2007/p36, West Coast S 2010/p36

57-36.560N 11-45.723E

Sweden. Skagerrak. Uddevalla. River Bäveån. Collapse. Spar-buoys deployed.

Cancel: 2008:232/5233(T)

Notice previously published in Swedish Notices to Mariners (Ufs) 2008:237

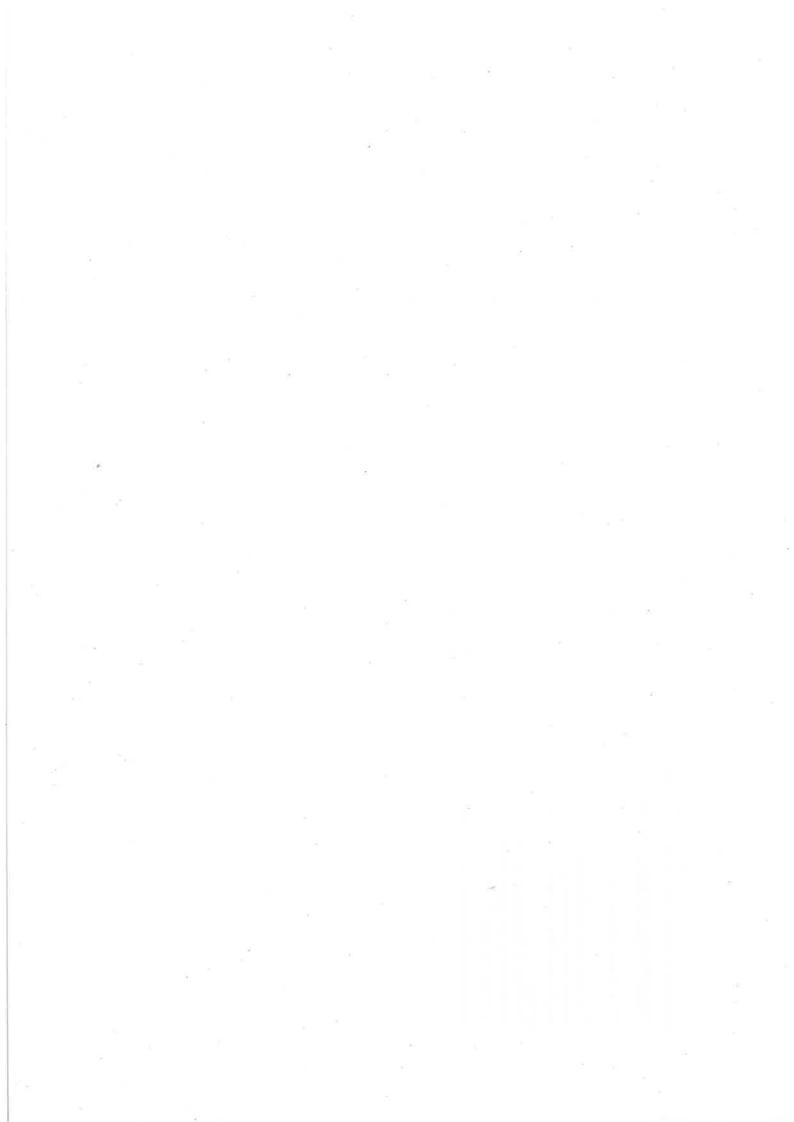
Quay 18-20 has collapsed for approximately 10 m into the River Bäveån and has reduced the depth to approximately 3 metres. Four yellow special spar-buoys and 2 red port spar-buoys have been deployed to mark the area. The area should be negotiated with great care.

Insert	Port spar-buoy	a)	58-20.831N	11-55.090E
	Port spar-buoy	b)	58-20.816N	11-54.995E
	Special spar-buoy	c)	58-20.843N	11-55.106E
	Special spar-buoy	d)	58-20.835N	11-55.100E
	Special spar-buoy	e)	58-20.822N	11-54.963E
	Special spar-buoy	f)	58-20.818N	11-54.985E

Bsp West Coast N 2007/p35, West Coast N 2010/p35

FTP WEBSITES AND E MAIL DETAILS - FOR TIMED TRIAL EXERCISE

FTP website address	
-	
Contractor Account Manager e mail	
address and full contact details and	
telephone/mobile numbers- main point of	
contact	
Contractor IT Manager e mail and full	
contact details and telephone/mobile	
numbers – for any IT and FTP issues	



Klant: WEC Lines Betreft: persbericht Order: 9328-1103

Datum: 8 april 2011

Nieuwe lijndiensten WEC Lines

Vanaf eind april verbindt WEC Lines de havens van Gijon en Bilbao met die van Antwerpen. Het is een aanvulling op de reeds bestaande diensten die de onderneming onderhoudt vanaf Gijon/Bilbao naar Sines (NS-PT). Deze lijnvaart wordt uitgevoerd door de 'Green Fast'. Voor de lijndienst naar de Canarische Eilanden zijn de 'WEC Goya' en de 'WEC Velazquez' (NSC) in de vaart.

Voor de nieuwe lijndienst tussen Gijon/Bilbao en Antwerpen wordt gebruik gemaakt van de 868 teus grote 'WEC van Eijck'. De rotatie ziet er als volgt uit: woensdag/donderdag Gijon, vrijdag Bilbao en maandag Antwerpen.

Ander nieuws is dat er vanaf begin maart ook een separate verbinding is gestart met de 'Elisabeth' tussen Sines, Las Palmas en St. Cruz de Tenerife. In totaal heeft WEC Lines dan 13 schepen in gebruik voor de lijnvaart tussen NWC/UK en het Iberisch schiereiland, de Canarische Eilanden en Marokko.

Meer informatie: bel +31 (0)10 491 33 50, mail naar office@nl.weclines.com of kijk op www.weclines.com

Customer: WEC Lines

Re: Press release Order: 9328-1103

Date: 8 April 2011

New scheduled service by WEC Lines

From the end of April WEC Lines will connect the harbours of Gijon and Bilbao with that of Antwerp. This is an addition to the existing services from Gijon/Bilbao to Sines (NS-PT) operated by the company The 'Green Fast' will be the vessel sailing this route. The 'WEC Goya' and the 'WEC Velazquez' (NSC) will operate the services to the Canary Islands.

For the new service between Gijon/Bilbao and Antwerp the 868 TEUs capacity 'WEC van Eijck' will be used. The schedule is as follows: Wednesday/Thursday Gijon, Friday Bilbao and Monday Antwerp.

Other news is that a separate service between Sines, Las Palmas and St. Cruz de Tenerife began operation in early March. In total WEC Lines has 13 vessels operating scheduled services between NWC-UK and the Iberian Peninsular, the Canary Islands and Morocco.

For more information: telephone +31 (0)10 491 33 50, e-mail office@nl.weclines.com or visit www.weclines.com

Kunde: WEC Lines

Betreff: Pressemitteilung

Order: 9328-1103

Datum: 8. April 2011

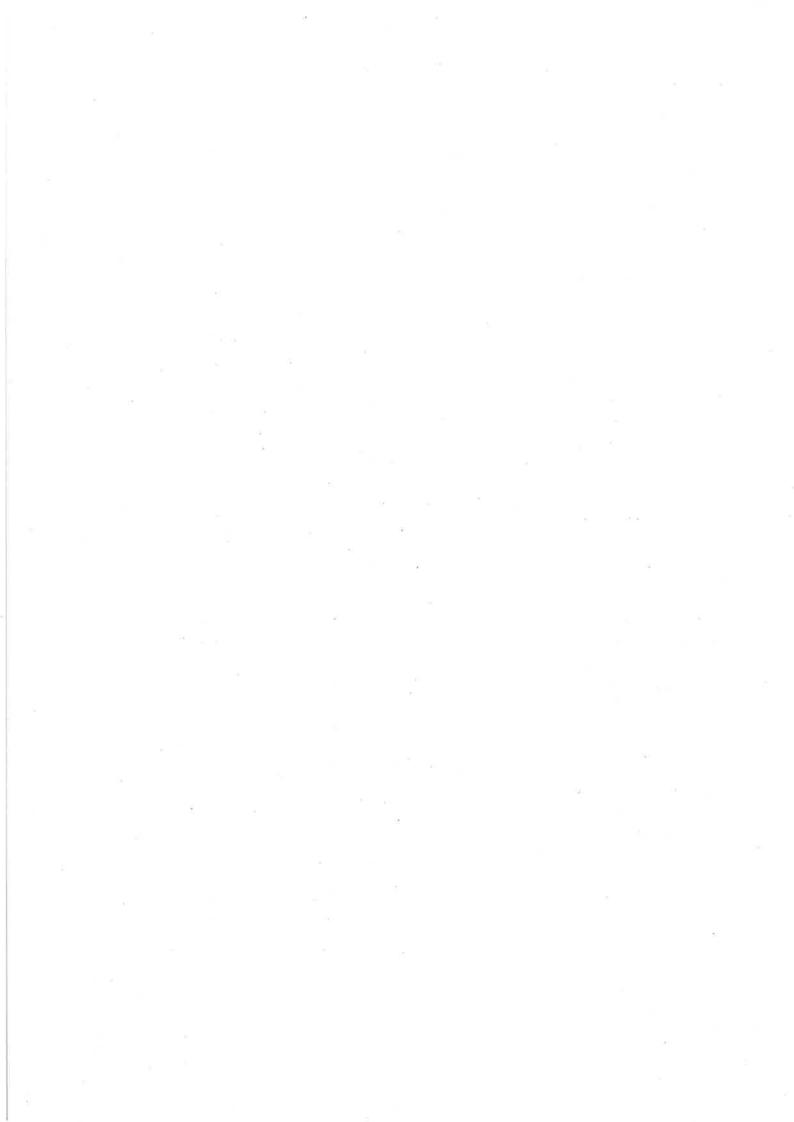
Neue Liniendienste der WEC Lines

Ab Ende April wird die WEC Lines die Häfen von Gijon und Bilbao mit Antwerpen verbinden. Damit werden die bereits vorhandenen Liniendienste, mit denen das Unternehmen Gijon/Bilbao mit Sines verbindet (NS-PT), ausgebaut. Der letztgenannte Liniendienst wird mit der "Green Fast" durchgeführt. Der Liniendienst zu den Kanarischen Inseln wird von der "WEC Goya" und der "WEC Velazquez" (NSC) unterhalten.

Auf dem neuen Liniendienst zwischen Gijon/Bilbao und Antwerpen wird die 868 TEU große "WEC van Eijck" eingesetzt. Das Rotationsschema hat folgende Gestalt: mittwochs/donnerstags Gijon, freitags Bilbao und montags Antwerpen.

Darüber hinaus wurde Anfang März mit der "Elisabeth" auch eine separate Verbindung zwischen Sines, Las Palmas und St. Cruz de Tenerife gestartet. Insgesamt setzt die WEC Lines nun 13 Schiffe auf den Liniendiensten zwischen NWC/UK und der iberischen Halbinsel, den Kanarischen Inseln und Marokko ein.

Weitere Informationen sind telefonisch unter +31 (0)10 491 33 50 oder per E-Mail an office@nl.weclines.com erhältlich oder auf der Website www.weclines.com zu finden.



Cliente: WEC Lines

Asunto: comunicado de prensa, versión española

Pedido: 9328-1103

Fecha: 8 de abril de 2011

Nuevas líneas de servicio WEC Lines

Desde principios de marzo de 2011 WEC Lines ofrece una conexión separada con el 'Elisabeth' entre Sines, Las Palmas y Santa Cruz de Tenerife. Y a partir de finales de abril de este año, la empresa conectará los puertos de Gijón y Bilbao con el de Amberes.

Se amplían así los servicios ya existentes que WEC Lines ofrece desde Gijón/Bilbao a Sines (NS-PT). Este recorrido marítimo se realiza en el 'Green Fast'. El 'WEC Goya' y el 'WEC Velázquez' (NSC) se emplean para la conexión con las Islas Canarias.

Para la nueva línea entre Gijón/Bilbao y Amberes se utiliza el 'WEC van Eijck', de 868 TEU. La rotación es como sigue: Gijón los miércoles/jueves, Bilbao los viernes y Amberes los lunes. En total, WEC Lines dispondrá de más de 13 navíos para las conexiones marítimas entre NWC/UK y la Península Ibérica, las Islas Canarias y Marruecos.

Para más información, llame al +31 (0)10 491 33 50, envíe un correo electrónica a office@nl.weclines.com o consulte la página web www.weclines.com

9328-1103 tekst persbericht te vertalen voor Duitsland, Spanje en Engels-internationaal

Nieuwe diensten WEC Lines

In vervolg op de reeds bestaande diensten vanaf Gijon/Bilbao naar Sines (NS-PT) met de "Greenfast" en de Canarische Eilanden service met de "WEC Goya" en de "WEC Velazquez" (NSC) gaat WEC Lines vanaf eind april 2011 Gijon en Bilbao met Antwerpen verbinden.

Hiervoor wordt de 868 teus grote "WEC van Eijck" gebruikt.

De rotatie wordt Gijon woensdag/donderdag – Bilbao vrijdag en Antwerpen maandag.

Begin maart is ook de separate verbinding tussen Sines, Las Palmas en St. Cruz de Tenerife gestart met de "Elisabeth".

WEC Lines heeft dan 13 schepen in de lijnvaart tussen NWC/UK en het Iberisch schiereiland, Canarische eilanden en Marokko.

New Service by WEC Lines

In addition to the existing services from Gijon/Bilbao to Sines (NS-PT) with the "Green Fast" and the Canary Islands service with the "WEC Goya" and the "WEC Velazquez" (NSC), from the end of April 2011 WEC Lines will connect Gijon and Bilbao with Antwerp. The 868 TEUs capacity "WEC van Eijck" will be used for this service.

The rotation will be Gijon Wednesday/Thursday – Bilbao Friday and Antwerp Monday.

The separate service between Sines, Las Palmas and St. Cruz de Tenerife with the "Elisabeth" began operation early in March.

WEC Lines now has 13 vessels operating scheduled services between NWC/UK and the Iberian peninsula, the Canary Islands and Morocco.



9328-1103 tekst persbericht te vertalen voor Duitsland, Spanje en Engels-internationaal

WEC Lines nimmt weitere Häfen auf

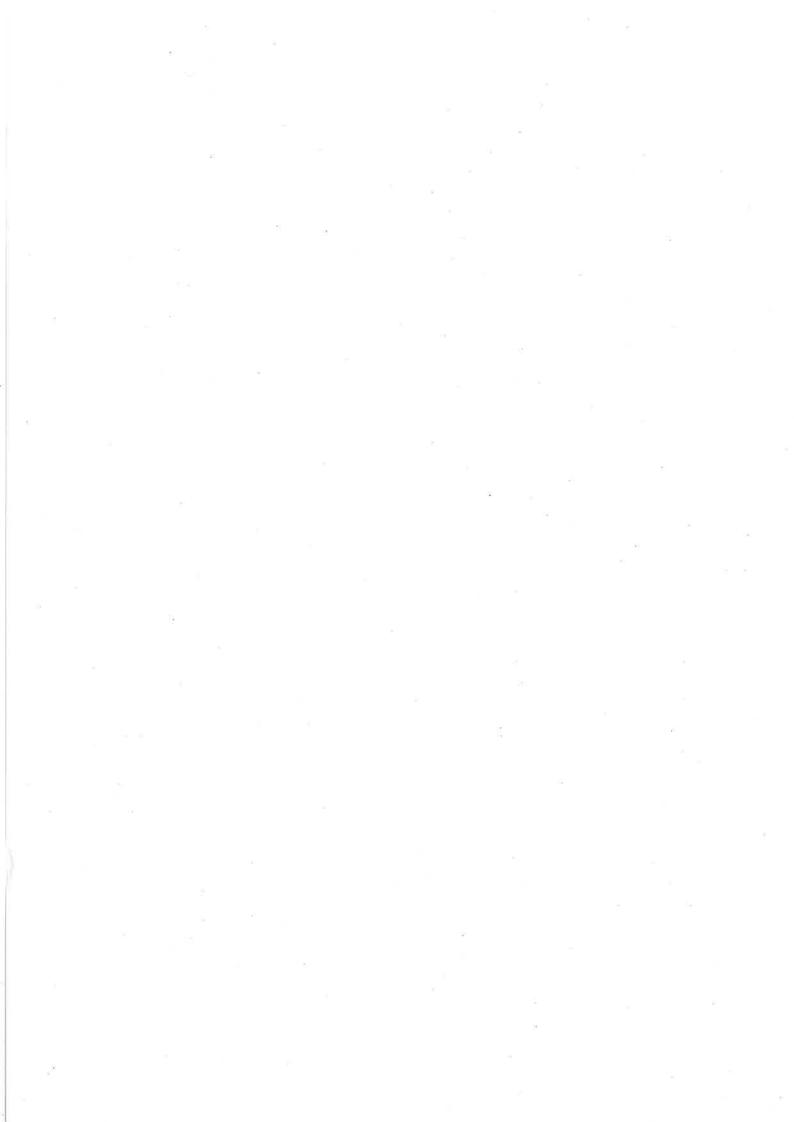
Zusätzlich zu den bestehenden Services von Gijon/Bilbao nach Sines (NS-PT) mit der "Green Fast" und zu den Kanarischen Inseln mit der "WEC Goya" und der "WEC Velazquez" (NSC) wird die WEC Lines ab Ende April 2011 Gijon und Bilbao mit Antwerpen verbinden.

Auf dieser Linie wird die 868 TEU große "WEC van Eijck" eingesetzt.

Die Abfahrten werden mittwochs/donnerstags in Gijon, freitags in Bilbao und montags in Antwerpen stattfinden.

Anfang März wurde auch die separate Verbindung zwischen Sines, Las Palmas und St. Cruz de Tenerife mit der "Elisabeth" gestartet.

Mit 13 Schiffen betreibt die WEC Lines den Liniendienst zwischen NWC/UK und der iberischen Halbinsel, den Kanarischen Inseln und Marokko.



9328-1103 tekst persbericht te vertalen voor Duitsland, Spanje en Engels-internationaal

Nuevos servicios de línea WEC Lines

Además de las líneas actuales desde Gijón/Bilbao a Sines (NS-PT) con el "Green Fast" y el servicio a las Islas Canarias con el "WEC Goya" y el "WEC Velázquez" (NSC), a partir de finales de abril de 2011 WEC Lines conectará Gijón y Bilbao con Amberes.

Para ello se utilizará el "WEC van Eijck", de 868 TEU.

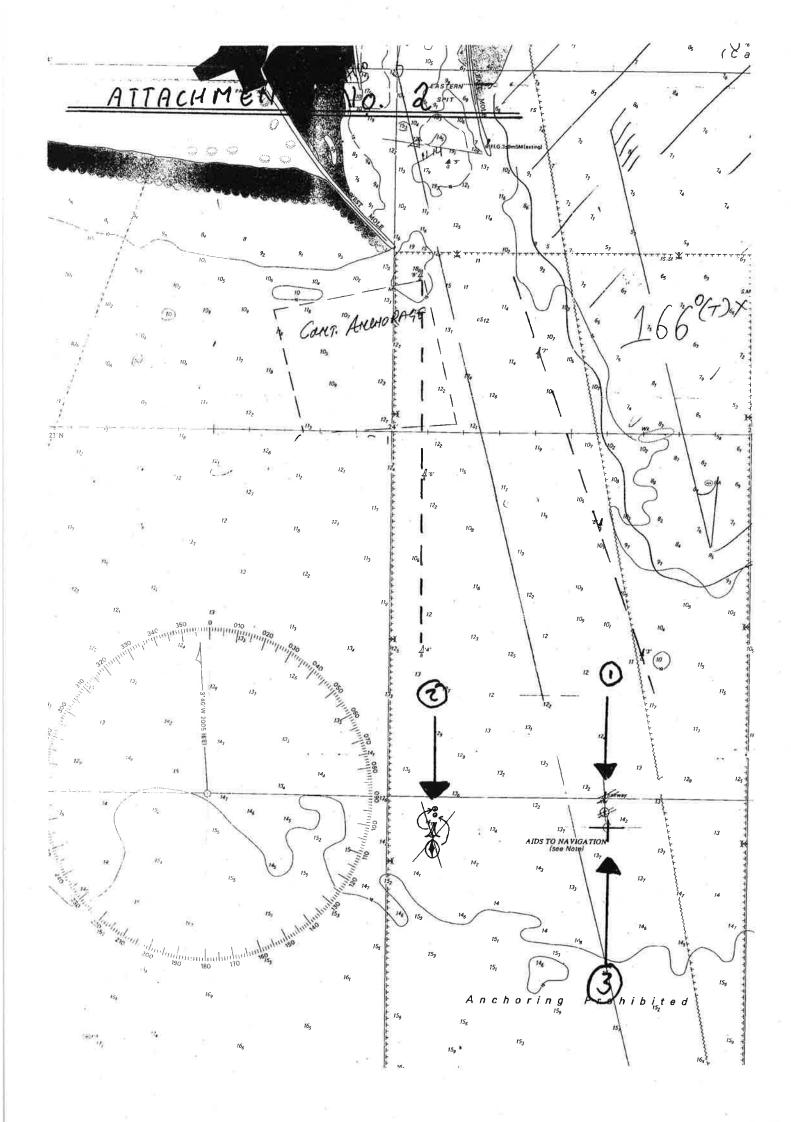
La rotación será Gijón los miércoles/jueves, Bilbao los viernes y Amberes los lunes.

A principios de marzo, comenzó también otra línea entre Sines, Las Palmas y Santa Cruz de Tenerife con el "Elisabeth".

WEC Lines tendrá 13 navíos en el servicio de línea marítimo entre NWC/Reino Unido y la península Ibérica, las Islas Canarias y Marruecos.

Attachment 1 - Cielo di Salerno - Statutory & Trading Certificate Status

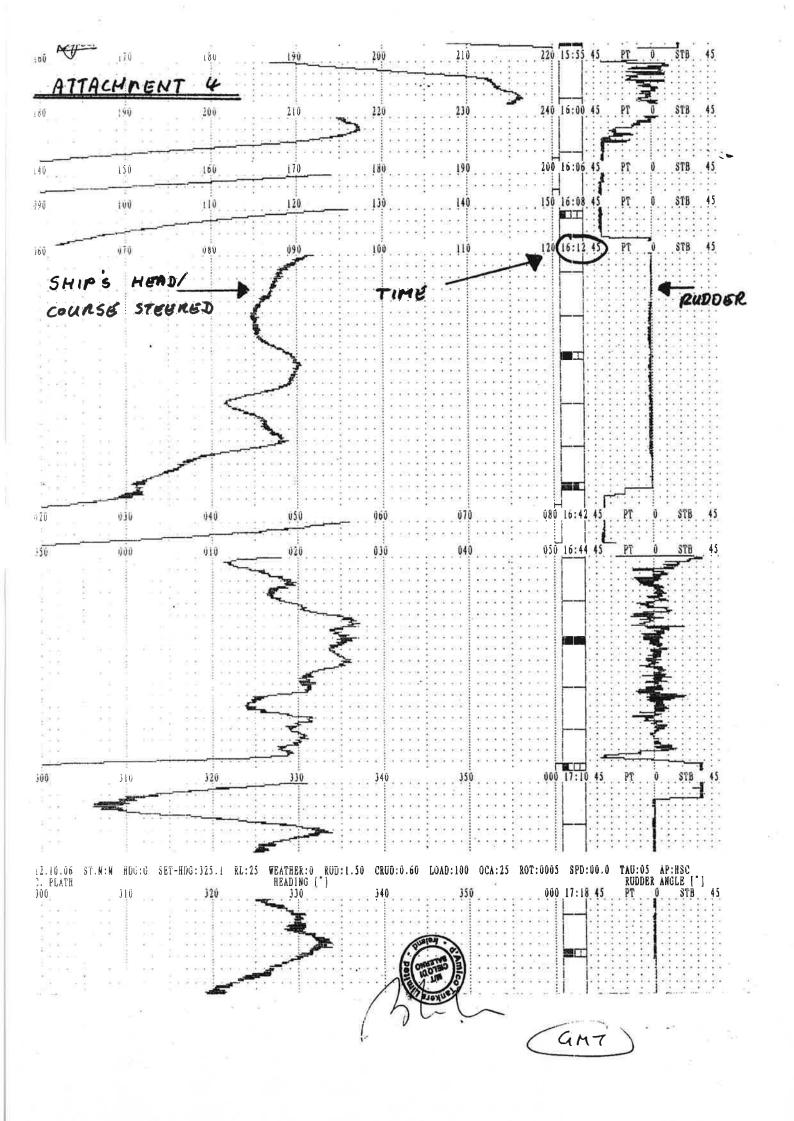
	Certificate	Issued Issue Date By		Last Intermediate / Annual	Expires	
1	Registration Certificate	Liberia	24 May 2005	N/A	N/A	
2	Tonnage Certificate	RINA	23 April 2002	N/A	N/A	
3	Load Line	RINA	11 June 2002	3 February 2006	28 March 2007	
4	Certificate of Class - 1	ABS	19 May 2005	4 February 2006	31 March 2007	
5	Certificate of Class - 2	RINA	28 March 2002	3 February 2006	28 March 2007	
6	Safety Construction	RINA	28 March 2002	3 February 2006	28 March 2007	
7	Safety Radio	RINA	11 June 2002	3 February 2006	28 March 2007	
8	Safety Equipment	RINA	11 June 2002	3 February 2006	28 March 2007	
9	IOPP	RINA	11 June 2002	3 February 2006	28 March 2007	
10	Safety Management Certificate	RINA	13 November 2002	28 April 2005	2 August 2007	
11	Document of Compliance	RINA	14 November 2002	30 July 2006	3 October 2007	
12	Safe Manning Certificate	Liberia	28 March 2002	N/A	N/A	



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FERTONIO EUG •
                                                                          >0:SLOW
                                                                                   AHEAD
                                                                                            82 RPM
 **********************
                                    12 OCT 06
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                                    ***********
PERIODIC LOG:
                                                                                            72 RPM
                                    Telegraph pos :
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                20 00:00
                                                                         BRIDGE
                                                                                   CONTRL 15.59:24
                                     Order.: STOP
 *******************
                                                                          >0:STOP
                                                                                            42 RPM
Telegraph eng : ATTACHMENT
                                    Reply.: STOP
                                                                                   CONTRL 15.59:53
                                                                           BRIDGE
 Order : STOP 📥
                                    Sub telegraph pos :
                                                                                            24 RPM
 Reply: STAP
                                     Order.: ⊩FWE
 Sub telegraph pos :
                                     Reply.: FWE
                                                                          ********
 Order.: FWF
                                    Control location :
                                                                          PERIODIC LOG :
 Reply: FWF
                                     CONTROL ROOM CONTROL
Control location :
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                                                                                          16.00:00
                                    Dead band check:
                                                                          ***************
 CONTROL ROOM CONTROL
                                                      0 RPM
                                                                          Telegraph pos :
Dead hand check:
                                    Alarm inputs :
                                                                           Order.: STOP
                                     SLOW DOWN
                   0 RPM
                                                                           Reply.: STOP
Alarm inputs :
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                                    END OF PERIODIC LOG
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                                                                           Order.: STAND BY
Reply: STAND BY
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PERIODIC LOG :
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                                    >N SLOW DOWN
                                                  14.45:09
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                                    >0:STAND BY
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                                                                          ********************
                                    >R:STAND BY
                                                      0 RPM
 Reriv.: STOP
                                                                          EVENT LOG :
Sub elegraph pos :
                                     CTRL.R CONTRL 14.46:30
                                                                          12 OCT 961
                                                                                          16.00:38
                                    >R:D.SLOW AHEAD
                                                      0 RPM
                                                                          ********
 Order.: FMF
                                     CTRL.R CONTRL 14,46:42
                                                                           BRIDGE CONTRL 16.00:37
 Reply.: FMF
                                    >0:0.SLOW AHEAD
                                                      @ RPM
Control location :
                                                                                           16 RPM
                                     CTRL.R CONTRL 14.46:58
 CONTROL ROOM CONTROL
                                                                           BRIDGE CONTRL 16.00:51
                                    >R:STOP
                                                      A RPM
                                                                                           √0 RPM
Dead band check:
                                     CTRL.R CONTRL 14.47:00
                                                                           BRIDGE CONTRL 16.02:26
                  0 RPM
                                    >0:STOP
                                                      0 RPM
                                                                          >O:SLOW
                                                                                    ASTERN 0 RPM
Alarm iseuts :
                                                                                  CONTRL 16.02:30
                                     CTRL.R CONTRL 14.47:44
                                                                           BRIDGE
 ิรีโดฟ ออฟฟ
                                    >R:D.SLOW AHFAD
                                                                                    ASTERN 6 RPM
                                                      0 RPM
                                                                          >0:HALF
                                     CTRL.R CONTRL 14.47:50
                                                                           BRIDGE
                                                                                   CONTRL 16.02:54
END OF PERIODIC LOG
                                    >0:D.SLOW AHEAD
                                                                          \Sigma 0: SLOM
                                                                                    ASTERN- 76 RPM
                                                      A RPM
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                                                                                 CONTRL 16.03:10
                                     CTRL.R - CONTRL 14.48:06
                                                                          >0:D.SLOW ASTERN- 53 RPM
                                    >R:STOP
                                                      @ RPM
                                                                           BRIDGE CONTRL 16.03:25
                                     CTRL.R
                                            CONTRL 14.48:08
43 RPM
                                    >0:STOP
                                                      0 RPM
PERIODIC LOG:
                                                                                   CONTRL:16.04:28
                                                                           BRIDGE
                                    Control Loc.:
                                                   14.49:13
12 OCT 06
               04.00:00
                                                                          >0:STOP
                                                                                            3 RPM
                                    >BRIDGE CONTROL
*********
                                                                           BRIDGE CONTRL 16.04:35
                                     BRIDGE
                                            CONTRL 14.50:22
Telegraph pos :
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                                    >0:D.SLOW AHEAD
                                                      0 RPM
 Order.: STOP
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                                                                                  CONTRL 16.08:10
                                     BRIDGE CONTRL 14.50:34
 Reply.: STOP
                                                                                   ASTERN
                                 *** >0:STOP
                                                                          >O:SLOW
                                                                                            Ø RPM
                                                      5 RPM
Sub telegraph pos :
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                                                                                   CONTRL 16.08:25
                                     BRIDGE
                                            CONTRL 14.52:26
 Π.
   r.։ FWE
                                    >0:D.SLOW ASTERN @ RPM
                                                                                       _
                                                                                           58 RPM
 Reply.: FWE
                                                                           BRIDGE
                                                                                  CONTRL 16.08:44
                                     BRIDGE CONTRL 14.52:38
Control location :
                                    >0:STOP
                                                      3 RPM
                                                                          >0:STOP
                                                                                         - 32 RPM
 CONTROL ROOM CONTROL
                                            CONTRL 15.18:14
                                     BRIDGE
                                                                           BRIDGE
                                                                                  CONTRL-16.08:57
Dead band check:
                                    >0:0.SLOW AHEAD
                                                     27 RPM
                                                                                            Й RPM
                  0 RPM
                                     BRIDGE CONTRL 15.18:18
                                                                          Control Loc.:
                                                                                         16.19:19
Alarm inputs :
                                    >0:SLOW
                                             AHEAD
                                                     53 RPM
                                                                          >CONTROL ROOM CONTROL
 SLOW DOWN
                                     BRIDGE CONTRL 15.18:25
                                                                           CTRL.R CONTRL 16.19:39
END OF PERIODIC LOG
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                                                                                            Ø RPM:
米本本本本本本本本本本本本本本本本本本本本本本
                                     BRIDGE CONTRL 15.19:18
                                                                           CTRL.R CONTRL 16.19:41
                                    >0:D.SLOW AHEAD
                                                    58 RPM
                                                                          >R∶FWE "
                                                                                            0 RPM
                                     BRIDGE CONTRL 15.19:39
                                                                           CTRL.R | CONTRL 16.29:39
*******************
                                                     42 RPM
                                                                          >0:STAND_RY -
                                                                                            0 RPM
PERIODIC LOG:
                                     BRIDGE
                                            CONTRL 15.20:12
                                                                           CTRL.R CONTRL 16.29:41
12 OCT 06
                                                                          >R:STAND BY
               08.00:00
                                                                                            0 RPM
                                    >O:SLOW
                                             AHEAD
                                                     45 RPM
**********
                                     BRIDGE
                                             CONTRL 15.20:21
                                                                          Control Loc.:
                                                                                         16.29:47
Telegraph pos :
                                                                          >BRIDGE CONTROL
                                                     56 RPM
 Order.: STOP
                                                                           BRIDGE
                                                                                  CONTRL 16.37:56
                                     BRIDGE
                                             CONTRL 15.21:27
 Reply.: STOP
                                                                          >0:0.SLOW AHEAD
                                                                                           13 RPM
                                    ×
                                                     66 RPM
                                                                           BRIDGE CONTRL 16.38:07
Sub telegraph pos :
                                     BRIDGE
                                            CONTRL 15.24:27
                                                                          >
 Order.: FWE
                                                                                           48 RPM
                                                     70 RPM
                                                                           BRIDGE CONTRU 16.38:17
 Reply.: FWE
                                     BRIDGE
                                             CONTRL 15.25:46
Control location :
                                                                          5
                                                                                           43 RPM
                                    >0:HALF
                                             AHEAD
                                                     68 RPM
                                                                          BRIDGE CONTRL 16.39:06
 CONTROL ROOM CONTROL
                                     BRIDGE
                                             CONTRL 15.29:03
                                                                                  AHÉAD
Dead band check:
                                                                          >0:SLOW
                                                                                          47 RPM
                                                     82 RPM
                                                                          BRIDGE
                                                                                  CONTRL 16.39:15
                  0 RPM
                                     BRIDGE
                                             CONTRL 15.43:46
Alarm inputs :
                                                                                           56 RPM
                                    >0:SLOW
                                              AHEAD
                                                     82 RPM
 SLOW DOWN
                                                                          BRIDGE CONTRL 16.39:56
                                     BRIDGE
                                             CONTRL 15.43:57
                                                                          >0:D.SLOW AHEAD
                                                                                           58 RPM
                                                      72 RPM
END DE PERIODIC LAG
                                                                          BRIDGE CONTRL 16,40:23
                                            CONTRL 15.59:24
                                     BRIDGE
```

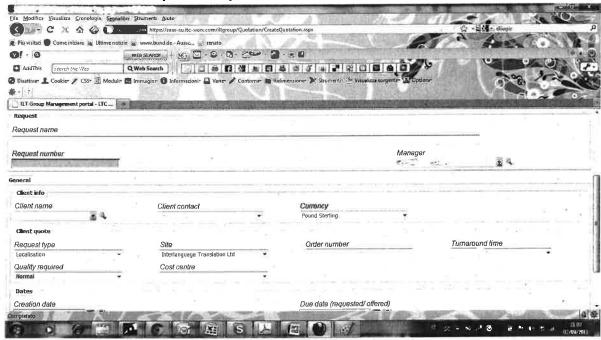
26 RPM		DKINGE	CUNTRE IT. 80.40) U
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<pre>>O:D.SLOW AHEAD 58 RPM SRIDGE CONTRL 16.40:23</pre>	•	>0:HALF	AHEAD 27 RPM	AC.	⇒> □so B
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BRIDGE CONTRL 16.41:16 >0:SLOW AHEAD 46 RPM		BRIDGE	CONTRL 17.09:30		B >
BRIDGE CONTRL 16.41:31		>O∶HALF BRIDGE	ASTERN- 15 RPM CONTRL 17.09:46		>0 9 B
> 57 RPM BRIOGE CONTRL 16,42:47		>0:FULL	ASTERN- 36 RPM		" B
69 RPM	* e8	BRIDGE >	CONTRL 17.09:47 - 36 RPM		> B
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⇒ 75 RPM BRIDGE CONTRL 16.49:14		BRIDGE >	COMTRL 17.12:09 - 76 RPM		> B
DO:FULL AHEAD 77 RPM		BRIDGE	CONTRL 17.14:09		>0
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BRIDGE CONTRL 16.53:41		>0:HALF	ASTERN- 84 RPM		B >
> 86 RPM BRIQGE CONTRL 16.57:51		BRIDGE >0:SLOW∞	CONTRL 17.19:42 ASTERN- 82 RPM		B
> 95 RPM		BRIDGE	CONTRL 17.19:53		>0
BRIDGE CONTRL 17.01:37		> BRIDGE	- 72 RPM CONTRL 17.20:46		8
BRIDGE CONTRL 17,01:49		>0:STOP	- 41 RPM		. 8
> 96 RPM BRIDGE CONTRL 17.02:03		BRIDGE	CONTRL 17.20:59 0 RPM	ω ³)0 3
) 90 RPM		> BRIDGE	CONTRL 17.27:24		>
BR. E CONTRL 17.02:15	8 5		M ASTERN- 25 RPM		8
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BRIDGE CONTRL 17.04:58 >0:HALF AHEAD 91 RPM	17 (4)	>0∶SLOW	ASTERN- 53 RPM		3)<
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BRIDGE CONTRL 17.05:26		>	- 74 RPM		E
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8RIDGE CONTRL 17.09:02 >0:STOP 30 RPM		>	- 61 RPM:		> E
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The translation process cycle



a) Project Analysis

Project Analysis is carried out entirely by the PM.

The phase of analysis aims to: identify which translators should be included in the project according to specific strengths and abilities; establish the specific thematic/text characteristics of the files to be translated; check formats, execute any necessary conversions that will allow materials to be translated with our CAT tools. If there is pre-existing material, a TM with an alignment process is created to leverage the existing translation as much as possible. If files show repetitions and 100% translated phrases, they are pre-translated and the translator assigned to the relevant file will then have to proofread the leveraged text.

During analysis, the execution times for each individual role are defined, taking into consideration general timescales and the specific issues of each role, which vary according to the project characteristics.

Timescale includes periodic reviews (programmed meetings to discuss eventual problems, progress ...) as well as times and procedures adopted in the final stage of the cycle: 4 eyes review, final revision by consultant.

During analysis, the PM also takes specific steps for lowering risk in general; a back-up list of substitute translators is created and availability is verified; The PM will also check that appropriate back-up measures are in place to avoid, or at least minimize, data loss (TM backup is done on a weekly basis).

b) Translation

Files or relevant material are distributed to the selected translators, together with all reference material for the project undertaken: the TM path, the login info, the Multiterm glossary to be used and – when relevant – the newsgroup/querytracker to be used for addressing issues which might arise and for clarification requests. The communication infrastructure thus created ensures that the history of all questions is recorded, which, at the end of the relevant project, will be systematised and leveraged. This also provides for an immediate and seamless communication structure.

c) Editing

Once the translation is completed, the text is ready for editing (4 eyes principle). QA Distiller/SDL Studio checks are applied (automatically) on technical texts, a spell-check and a copyediting phase is applied on creative text production, in order to verify that the target text is coherent with the source text requirements. If the text is very specialized, we ask a consultant to check on its specialised content. Once all corrections are implemented, the file

(still unclean) is cleaned, and our TM updated. Thus, the quality and correctness of TMs is quaranteed.

d) Customer revision

At this point, we deliver the files to the customer – via ftp, mail, VPN or other specified method. If the client wants to implement further changes, there is a second revision phase.

e) Second revision

All change requests are implemented according to the customer's wishes and all changes are updated in the relevant TM. A record of preferential changes is kept for reference.

f) Peaks handling

As previously pointed out, we do have an efficient PM tool that allows us to quickly sort out new translators for a specific task. Prior to working with the new recruit, we would inform our customer about the specific need to include the new person in our team and submit all relevant documents, awaiting our customer's go-ahead.

g) Handling the client's feed-back

Feed-back is crucial for all work performed. For that reason, it is important that the client concerned indicates what did or did not work well.

All feedback will be logged into our project management system and taken into account for future projects.

All corrections proposed by any customer will be implemented into the text as required, and submitted for reference to the translator in charge of the initial translation for reference. All terminological changes proposed will be included into our centralised terminology tool, can be accessed by customer directly.

h) Backup methods

Each week, our Linux server performs a general back-up of all configurations and contents. The backup is done on CDs, which are archived accordingly.

We produce backup copies for all projects assigned (files are all duplicated into our project management system, and as such available anytime at a click).

8 ISO Certification and Quality assurance

Interlanguage Translation Ltd. was ISO certified in 2000 and 2001. We decided to stop certification since it did not add value from a commercial point of view and our company was subsequently certified by SAP in observance of very strict procedural standards. We have implemented statistical quality assurance processes throughout the production phases. We emphasize, in particular, uniformity and standardisation of all production processes involved by using tools aimed at guaranteeing formal consistency. We apply automatic formal checks on all texts.

As mentioned, creative writing has to undergo a different set of QA rules which are less "measurable". The formal structure of target texts does not always reflect the relevant source and thus makes formal statistical checks inapplicable.

In the case of marketing or creative text production, the last word is given to the copyeditor, who will elaborate the text and deliver it back to the reviser for a final reading.

Job-specific instructions and reference materials provided, and how

Each project is introduced by a project page, which includes: Specific requirements as format, page set up or else

Delivery date

Reference materials.

Indication of which memory to use

Indication of which terminology database to use

Indication of whom to contact for specific queries

Reference Materials will be provided in all projects and indicated in our system project page. Each project will be logged into our system and delivered, with all relevant reference files and materials, to the chosen translator.

All legal translations are submitted to a double-eyes check by one of our lawyer linguists.

9 Membership to National Association of Translation Companies

The owner and Director is member of the ITI and applies business standards subscribed by the same association.

We recently were admitted to the Association of Translation Companies (ATC, member of the EUTAC).

10 EN15038 certification

The Company is not EN1508 certified, but has been certified by SAP AG in view of its partnership. Four extensive audits on processes and procedures were so far performed.

11 Quality Management System

The Company has implemented a Translation Management System that allows streamlining, tracking and tracing functions, improving total quality and administration tasks.

12 Quality Charter

The Company aims to incrementally improve its processes by the elimination of "waste" and undergoes an annual internal and external review of its processes and procedures. We apply the standard business terms for translation developed by the ITI /BDU and other associations.

13 Job allocation and skills

All translators selected for this tender have matured a considerable experience in the field of International Organisations (UN, FAO, USAID, UNICEF, ECOWAS, WORLDBANK, EU...). Our Project Management System allows us to rank translators according to their experience in a certain field. It is our policy not to include translators with less than 3 years experience in a specific field.

The translators included in the tender team have on average more than 10 years experience in the translation of the required texts.

For a specific indication on how our Project Management System works, please see the screenshots:

Supplier search by subject and sub-subject:

