[Photos]

4.2.8.1.D. – Grand Charpentier lighthouse. Pointe d'Aiguillon lighthouse.

- 76 SW of Saint-Nazaire, the main landmarks are: the **Aiguillon** lighthouse (view 4.2.8.1.D.), a cylindrical white tower (19 m). A microwave tower, which is 100 m tall and bears air obstruction lights, located next to a massive water tower located 1 M N of this headland and **Tour du Commerce** (view 4.2.6.2.A.), as well as the old lighthouse of **Kerlédé**, a white tower with a black top (26 m) that is not very highly visible above the trees, located 1 M farther E.
- 81 Anse de Trébézy and Anse de Porcé, which follow on to the NE of Pointe d'Aiguillon, are fairly well protected in winds from the W by the relatively elevated coastline. Numerous craft remain here at anchor in summer, on the deadmen installed around 30 m from the shore. There is a landing slipway located close to the Porcé rear light.
- 86 Located 0.8 M SW of the outer harbour of Saint-Nazaire, the vast cove of **Grand Traict** is fairly well sheltered from the dominant winds and is located away from the currents. There is an area for anchoring on deadmen organised here. This area is marked at the NE and SE corners by special mark buoys. A wooden stockade enables landing by tenders. The shore riprap has stilts for square net fishing.
- The Saint-Nazaire bridge that spans the Loire 1.7 M upstream of the outer harbour can be seen from a great distance within the estuary; its vertical clearance is 55 m.

01 4.2.8.2. Le Pouliguen

- 05 Le Pouliguen (47° 16.4' N 2° 25.4' W), a fishing port and marina, occupies the W part of Baie du Pouliguen. It is located in the estuary of the Le Pouliguen river, which separates the communes of Le Pouliguen, to the W, and La Baule-Escoublac, to the E.
- O9 ACCESS (view 4.2.8.2.A.). Passe des Guérandaises constitutes the main access channel to Baie du Pouliguen. It opens between the shoals that lie off Pointe de Penchâteau to the SE, and the uncovering rocks that extend to the NW of Les Évens. It is marked by two light buoys: the "Guérandaises" starboard lateral light buoy, to the SE, and the "Penchâteau" port lateral light buoy, to the NW.
- 13 Vessels pass through the passage following a heading of 082.5° towards the truncated conical white tower with a green top (10 m) on the end of Digue Sud du Pornichet (§ 4.2.8.3.). This tower bears a light, the white sector of which (081° 084°) covers the passage.
- Once past the "Penchâteau" buoy, the route towards Le Pouliguen leaves **Basse Martineau**, which uncovers and is marked by a port lateral light buoy, to the W and the "La Vieille" starboard lateral beacon and the "Les Impairs" starboard lateral light beacon tower to the E. This beacon tower is located on a group of rocks, the N side of which bears a white beacon.
- 21 The channel is then roughly marked by lateral poles, port on the W side and starboard on the E side. Within the channel, the bottom uncovers 0.6 to 1.9 m (1.9 m at the entrance to the port).
- The entrance, which is around 50 m wide, is protected by two jetties made up of loose boulders. The S jetty bears a light, a white column with a red top that bears a signal mast.

[Photo]

Les Petits Impairs beacon tower

4.2.8.2.A. – Le Pouliguen. Entrance, to the NE.

- 33 TIDAL CURRENTS. Level with the "Les Impairs" beacon tower, the currents flow along the beach and are therefore cross-currents within the channel. At the entrance to the port they flow within the bed of the river and may be strong at half-tide at springs. Mariners should exercise utmost caution during manoeuvres in the port.
- 37 OUTER ANCHORAGES. Vessels may anchor to the E of Pointe de Penchâteau, in a depth of 3 to 4 m, over a bottom of sand.
- The grounding area (Anse de Toulin) located W of the port channel, 600 m S of the entrance, is fairly well sheltered. Within it there flat bottoms of firm sand. A wooden post, which is a port lateral mark, marks the N end of the rocks that border the grounding area to the SE. Another rocky projection, which is unmarked, limits the area to the NW.
- PORT (view 4.2.8.2.B.). The entrance is blocked by rocky bar that forms a retaining reservoir, which ensures a minimum water level of 1.3 m above chart datum within the port, which is dredged, from downstream to upstream, to between 0.2 and 0.8 m above this chart datum, but the bottom of which is subject to silting up. The port, which is bordered by riprap, is made up of 3 basins that are delimited by the 2 road bridges that span the river. It is well sheltered except from winds from the SE.

49

[Photo]

4.2.8.2.B. – Le Pouliguen. General view, to the NNE.

53 The basin downstream of the S-most bridge (Vieux Pont, with stone arches and a vertical clearance of 1.75 m) is reserved for large vessels and sailing vessels. Its entrance is protected by a transversal wavescreen pontoon that is rooted on the left bank. Its left bank is equipped with pontoons A to M with catwalks, for recreational use. Its right bank comprises, from downstream to upstream, longitudinal pontoon N, a large careening slipway, Quai Jules Sandeau which is mainly reserved for fishing and, closer to the bridge, a second careening slipway. Downstream of pontoon F, located roughly halfway between the entrance and Vieux Pont, the bottom is dredged to 0.2 m below chart

- datum. Upstream, the dredging level is 0.5 m above chart datum. The harbour master's office is located within this basin, on the left shore, close to pontoon A.
- Located between the two bridges, from downstream to upstream, are: on the right bank, longitudinal pontoon 4, transversal pontoons 5 to 12 and then a landing slipway. On the left bank, a launching slipway and then a 100 m-long line of longitudinal pontoons equipped with catwalks. This basin is dredged to 0.8 m above chart datum.
- 61 Upstream of Nouveau Pont the right bank is lined by 2 pontoons with catwalks, whilst the left bank comprises a launching slipway, close to the bridge, and then transversal pontoons 14 to 20. The bottom is dredged to 0.8 m above chart datum.
- 65 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 830 berths on pontoons and catwalks, 30 of which are for vessels in transit (pontoon A); maximum length 12 m, draught 1.75 m; water and electricity at the pontoons; sanitary facilities; fuel; waste separation; masting capabilities (500 kg) and a launching crane with a capacity of 5 to 18 t; slipways, gridiron; salvage yard⁵, yards and workshops for naval and mechanical repairs.
- 69 INFORMATION. Department of Loire-Atlantique (44); communes of La Baule-Escoublac (16,400 inhabitants) and Le Pouliguen (5400 inhabitants).
- Harbour master's office: 1 quai Rageot de la Touche, villa Mortureux; tel: + 33 (0)2 40 11 97 97; fax: + 33 (0)2 40 11 97 98; VHF: channel 9 (working hours); email: port.labaule-lepouliguen@saint-nazaire.cci.fr
- 77 Maritime Affairs: 9 boulevard de Verdun, 44600 Saint-Nazaire; tel: + 33 (0)2 40 22 46 32.
- 81 Customs: rue des Morées, 44550 Montoir-de-Bretagne; tel: + 33 (0)2 40 45 88 78; fax: + 33 (0)2 40 45 82 14.
- 85 CONNECTIONS. Railway station and airfield at La Baule-Escoublac, respectively located 4 km and 6 km from the port. Saint-Nazaire-Montoir airport 17 km away.
- 89 Vannes-Nantes express route 40 km away; Guérande 8 km away, Nantes 70 km away.

01 4.2.8.3. Pornichet (Pornichet-La Baule)

- Pornichet marina (47° 15.5' N 2° 21.1' W) [view 4.2.8.3.] is located at the E end of Baie du Pouliguen. This vast deep water port, which is entirely artificial, consists of a square basin surrounded by dykes that are made up of loose boulders and connected to land by a 250 m bridge. The dry harbour (old port) extends to the N of this bridge, protected to the NW by a dyke that is just about submersible and to the SW by a short jetty.
- ACCESS. The access channel to Baie du Pouliguen via Passe des Guérandaises is described in section 4.2.8.2. After having passed through this passage, which is marked by the "Guérandaises" and "Penchâteau" lateral buoys, vessels follow a heading of 082.5° towards the white tower with a green top of the light on Digue Sud at Pornichet, in the axis of the white sector (081° 084°) of this light. There is a starboard lateral buoy anchored on the S edge of the channel, marked to the NE by a rock covered with 0.4 m of water.
- 13 By day, vessels may enter Baie du Pouliguen via **Passe des Troves**, leaving Les Evens to the NW and Les Troves to the SE. This passage, which is marked by a pair of lateral buoys, is dangerous in rough seas.
- 17 The access passage to the port, which is 30 m wide, opens to the N as a chicane between two lights on thick posts (10 m) that are separated by a short distance from the heads of the S and NW dykes. It is hidden from offshore by the section of Digue Sud that returns towards the shore, which provides it with a little protection from the dominant winds. Fairly hollow waves form here in strong winds from the W. Entry may be tricky in strong fresh winds.

⁵ Translator's note: we assume this is the correct translation given the context, but a "station de récupération" may also be a recovery plant for waste water, a recycling plant, etc.

[Photos]

4.2.8.3. - Pornichet - La Baule, to the E (2006).

- 25 OUTER ANCHORAGE. In good weather, vessels anchor WNW of the entrance to the port in a depth of 2 to 3 m over a bottom of sand.
- 29 DEEP WATER PORT. The entirety of the port is equipped with pontoons with catwalks, connected to the dykes. Throughout the port the depth is 2 m. The NE part of the port is occupied by a vast terreplein that bears the technical and commercial facilities.
- EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 1150 berths, 150 of which are for vessels in transit; maximum length 15 m (up to 25 m with prior consent from the harbour master's office), draught 2.5 m; water and electricity at the pontoons; sanitary facilities; fuel; hoist with a capacity of 24 t; careening and launching slipway; workshops.
- 37 DRY HARBOUR. This is accessible by day only, around the time of high water, via a marked channel that leads vessels to the S of Roches de Cuy and to the N of the loose boulders of the terreplein of the deep water port, then to the NW of Roche Doloire, supported upon which is a small jetty connected to land by a stockade. On the NW side, the port is protected by a dyke that curves inwards, is partly submerged during high water at springs, is constructed on the Roches de Cuy and bears a port lateral beacon at its S end.
- Vessels in transit may use 28 of the 500 end-on mooring berths that are spread across 18 lines of deadmen. All vessels ground at low water, on a bottom of sand and mud. There are six deadmen for holding anchored at the entrance to the port. S of the head of the submersible dyke.
- 45 In the middle of the port, a pontoon that is connected to the coast enables tenders to berth.
- 49 Water and electricity on the pontoon. Sanitary facilities at the harbour master's office. Launching slipway.
- 53 INFORMATION. Department of Loire-Atlantique (44); 9950 inhabitants.
- 57 Deep water port harbour master's office: tel: + 33 (0)2 40 61 03 20; VHF: channel 9 (permanent radio watch).
- 61 Harbour master's office of the dry harbour: tel: + 33 (0)2 40 61 61 06.
- 65 Maritime Affairs: 9 boulevard de Verdun, 44600 Saint-Nazaire; tel: + 33 (0)2 40 22 46 32.
- 69 Maritime gendarmerie: 138 avenue du Général de Gaulle; tel: + 33 (0)2 40 61 24 02, fax: + 33 (0)2 51 73 23 22.
- 73 Customs: tel: + 33 (0)2 40 45 88 78.
- 77 CONNECTIONS. Railway station and coach station respectively located 2.5 km and 300 m from the port. Road and air connections, see section 4.2.8.2.

- 81 Launches for boat-rides: excursions to Bell-Île.
- 01 4.2.9. FROM LE PILIER ISLAND TO POINTE DE MINDIN
- 07 Charts 7395 and 6797.
- 13 ENC FR473950.

- 01 4.2.9.1. Coast, landmarks and anchorages
- 06 Île de Noirmoutier, its NW approaches and their conspicuous landmarks have been described in section 4.2.4. on making landfall in clear weather. Opening between this island and Pointe de Saint-Gildas is Baie de Bourgneuf, the coast of which, except in the N, is entirely low-lying. This bay and Île de Noirmoutier are covered in section 4.6.
- 11 To the E, the Loire estuary is lined by a flat coast, along which there are large uncovering sandbanks interspersed with some rocks. **Pointe de Saint-Gildas** (47° 08.0' N 2° 14.9' W) bears a lighthouse (view 4.2.9.1.A.). On the N side of the headland, there is a small port maintained in Anse de Boucau, sheltered by a jetty oriented to the N.

[Photo]

4.2.9.1.A. – Pointe de Saint-Gildas lighthouse.

- 21 This port, which is sometimes called the port of Saint-Gildas, is described in section 4.2.9.2.
- There are very few important landmarks. There are several visible water towers, however, the most conspicuous of which are those of **La Plaine-sur-Mer** and **Saint-Michel-Chef-Chef**, respectively located 3.3 M E and 5.5 M NE of Pointe de Saint-Gildas.
- 31 Located around 2 M NE of Pointe de Saint-Gildas, the port of La Gravette is a vast grounding area that is sheltered to the W by a long dyke that bears a light at its end.
- 36 The port of La Gravette is described in section 4.2.9.3.
- 41 1.5 M farther E, **Le Cormier** (view 4.2.9.1.B.) is a grounding area with a bottom of flat, firm sand, located within an indentation of the coast. It is delimited to the NW by a 1.5 m-high submersible dyke, the head of which bears an E cardinal beacon. The bottoms here uncover 2.1 m. For access, vessels must give a wide berth to **Les Cohaux** and **Rocher de la Cormorane**, dangers that are marked by a N cardinal buoy and a white beacon, respectively.

[Photos]

4.2.9.1.B. - Le Cormier and Port-Giraud.

- Vessels may also anchor in the grounding area to the W of the Le Cormier dyke, off **Port-Giraud** (view 4.2.9.1.B.), with a bottom of sand that uncovers 1.9 m, protected by the rocks that extend SSE of Rocher de la Cormorane. Vessels reach this anchorage by rounding these rocks at a fair distance to the E, not passing S of the line of latitude of the head of the Le Cormier dyke.
- Located 1.2 M farther NNE, the dry harbour of Comberge is protected by 2 high concrete dykes. The W dyke bears a light at its head.

61 The port of Comberge is described in section 4.2.9.4.

- Beginning 2 M N of the port of Comberge is the settlement of **Saint-Brévin-l'Océan**, which is extended to the N by the settlement of **Saint-Brévin-les-Pins**. These 2 settlements are separated by **Le Pointeau**, a projection of the coast that is bordered to the SW by the dry harbour of the same name.
- 71 The port of Le Pointeau is a simple nautical centre sheltered by a dyke made up of loose boulders, the end of which bears a sector light. There is a very wide launching slipway that descends from the shore, immediately to the E of the dyke. This is followed by a vast terreplein to the NE. Due to the banks that extend offshore, access is possible at high water only, in the white sector (074° 149°) of the light of the jetty. The passage, between the head and the rocky plateau that uncovers more than 4.8 m to the N, is only around 70 m wide. The grounding area, with a bottom of sand that uncovers 1.3 to 1.8 m, is protected very little from winds from the N to NE sector.
- Established around 2 M SW of Le Pointeau is an area of "bouchots" [mussel pilings], marked by cardinal poles (§ 4.2.2.4.). Nearer the coast, 4 cardinal beacons mark the corners of an old area of "bouchots" [mussel pilings].
- 81 The shore of Saint-Brévin-les-Pins, which is first oriented to the N, turns sharply to the E at **Pointe de Mindin**. The Loire traffic monitoring radar station (view 4.2.9.1.C.) is located very close to this headland, to the E

86

[Photo]

Radar tower

4.2.9.1.C. - Pointe de Mindin, to the S.

91 From Pointe de Mindin, at the S root of the Saint Nazaire bridge, leisure craft and fishing vessels may anchor on the edge of depths of 1 to 2 m. The shelter is mediocre against strong winds from the W and the chop

is unpleasant in winds blowing against the current; however, the holding in the soft mud is very good here. Vessels may ground on a muddy tidal flat, just E of the stockade of the old tank, the end of which bears a light.

01 4.2.9.2. Anse du Boucau (port of Pointe de Saint-Gildas)

- 07 On the N side of Pointe de Saint-Gildas, a dyke that is over 400 m long, bears a light at its end and is oriented almost due N, protects to the E Anse du Boucau (47° 08.4' N 2° 14.6' W) [view 4.2.9.2.], in which leisure craft and small fishing vessels may anchor or ground.
- 13 The Pointe de Saint-Gildas lighthouse and the square block of the tide gauge, located just slightly W of the head of the dyke, are the best landmarks for access by day. Their leading line, on a bearing of about 177°, constitutes a completely safe approach axis. By night, this axis is shown by the white sector (174° 180°) of the light. From 15 May to 1 October, there is a starboard lateral light buoy anchored 250 m NW of the head. The aforementioned route leaves the **Îlot**, which uncovers 1.8 m and is marked by a port lateral pole, rock 300 m to the E. Less than 300 m NNW of the head, there is a starboard lateral pole marking the rocks that lie off the headland.
- Off the N half of the dyke there is a depth of 1.2 m at low water. In total, the sheltered area has around 220 mooring buoys on deadmen, only 5 of which are available for visiting vessels.
- 25 Located on the landward side of the dyke, inside of and along the latter, from N to S, are: a protective concrete groyne (40 m) located perpendicular to the dyke, a wide launching slipway (with a concrete grid) descending towards the E and a terreplein. This terreplein is bordered, from N to S, by a landing slipway, a small quay with uncovering bottoms and another landing slipway, which is connected to the shingle beach. Located on the terreplein is the sailing club and harbour master's office building (tel: + 33 (0)2 40 21 60 07; VHF: channel 9 [working hours]), with sanitary facilities. Water and electricity at the quay. Crane with a capacity of 10 t.

31

[Photos]

4.2.9.2. - Anse du Boucau. La Gravette.

01 4.2.9.3. La Gravette

- 07 The vast dry harbour of La Gravette (47° 09.7' N 2° 12.6' W) [view 4.2.9.2.], located 2 M NE of Pointe de Saint-Gildas, is fairly well sheltered from swells from the W by an 800 m-long dyke that is curved towards the E and then to the SE at its end. The head of this dyke bears a sector light on a white metal tube surmounted by a green platform.
- 13 The white sectors of this light cover the possible approach axes, to the NW (124° 138°) and N (183° 188°). The "La Gravatte" N cardinal buoy marks an uncovering rock in position 289° at a distance of 0.3 M from the light. In order to avoid the dangerous outcrops of rocks that enclose the port to the E, vessels must remain fairly close to the head. A N cardinal beacon marks the N end of Roche de Mouton, 300 m SE of the head.
- 19 At its root, the jetty widens into a terreplein that is extended to the N by a launching slipway positioned against the jetty.
- The port is frequented by recreational fishing vessels and by a few trawlers, for which an area is reserved along the dyke up to 400 m from the head. The grounding area, located E of this reserved area, is subdivided into three sub-areas, from N to S: A (buoys with black numbers) in a depth of around 0.9 to 0.6 m; B (buoys with red numbers) with a bottom that uncovers 0.3 m; C (buoys with blue numbers) with a bottom that uncovers 1.3 m.

- 31 The port has a capacity of just over 300 berths. At the entrance to the port, there are 10 buoys that are reserved for vessels in transit.
- 37 Located 500 m W of the root of the dyke, off the beach of La Tara, is a small grounding area in which craft stop over between mussel farms. It is accessed via a gap between the La Gravette rock, on which the dyke is constructed, and the **Tara rock**. In this area the bottoms uncover from around 500 m from the head of the dyke. Vessels reach the sheltered area leaving a beacon to the W.

01 4.2.9.4. Comberge

07 The dry harbour of **Comberge** (view 4.2.9.4.), located 4 M NE of Pointe de Saint-Gildas (§ 4.2.9.1.) in the commune of Saint Michel Chef Chef, is protected by 2 high concrete dykes, 1 to the N and the other to the SW and W. The end of the latter, which bears a sector light on a white tower with a green top (5 m), curves towards the N, covering the majority of the head of the other one, which bears a port lateral mark post.

13

[Photo]

4.2.9.4. – Comberge, to the S (2006).

- On the inner side of these structures, close to the passage, rooted on the W dyke is the mole that bears the old lighthouse (surmounted by a starboard lateral mark) and rooted on the N dyke is a breakwater groyne. These 2 short additional structures increase the protection of the water area, but they make the double-chicane entrance fairly tricky, particularly in moderate seas.
- The basin dries 2.3 to 3.3 m, with a bottom of sand and mud. It has numerous mooring buoys attached to chains. The port is frequented mainly by recreational fishing vessels.
- 31 By night, the access channel is shown by the axis of the white sector (123° 140°) of the light on the W dyke. The interior of the port is dimly illuminated by lamp posts. By day, the approach axis is shown by the leading line bearing 136° of the thick cylindrical white tower (7 m) of the old lighthouse and the lighthouse of the W dyke.
- 37 The inner end of the port is occupied by a terreplein bordered by a quay with a wide launching slipway positioned against it.
- Water and electricity at the quay. Crane with a capacity of 6 t.
- 49 Harbour master's office: tel: + 33 (0)2 40 27 82 95.

4.3. SAINT-NAZAIRE

- 07 Charts 6797 and 7396.
- 13 ENC FR502220.

01 4.3.1. GENERAL INFORMATION

07 The port of Saint-Nazaire (view 4.3.1.) forms part of the Grand Port Maritime de Nantes-Saint-Nazaire. It may receive vessels 180 m long and with a draught of 8.5 m. It is essentially a commercial port and a large building harbour that specialises in the construction of large vessels, in particular the construction of passenger vessels. It is also the home port for a few fishing vessels and a port of call for leisure craft.

13 The lookout station of the port of Nantes-Saint-Nazaire (call sign Loire Ports Contrôle) is located in the premises of the Saint-Nazaire harbour master's office.

19

[Photo]

Bassin de Penhoët

Bassin de Saint-Nazaire

Outer harbour

4.3.1. - Port of Saint-Nazaire, to the NNE (2006).

25 The port comprises:

- the external port, the administrative limits of which correspond to the line that connects the following positions: the Ville-ès-Martin lighthouse, the "Morées" light beacon tower, the S buoys of the channel as far as the Saint-Nazaire bridge and the mouth of the Brivet, at the N end of the bridge;
- an outer harbour that is connected to Grande Rade, between Jetée Ouest and Jetée Est;
- a non-tidal basin called Bassin de Saint-Nazaire, which is connected to the outer harbour via the S gated lock (or S entrance) and to Petite Rade via the E gated lock (Entrée Est or Vieille Entrée);
- a second non-tidal basin called Bassin de Penhoët, which is accessed via Bassin de Saint-Nazaire or, in
 exceptional circumstances, from the small roadstead via Forme-écluse Joubert. It is normally accessed
 via the outer harbour and then via the S entrance to Bassin de Saint-Nazaire.
- 31 Located upstream of the port and downstream of the Saint-Nazaire bridge are the 3 large dry construction docks (A, B and C).

- 37 ANCHORAGE PROHIBITED. Within the administrative limits of the port of Saint-Nazaire, anchorage is prohibited for all vessels without authorisation from Loire Ports Contrôle.
- 01 4.3.1.1. Signal station
- 07 Pointe de Chémoulin, lookout station (47° 14.0' N 2° 17.9' W) [§ 1.4.7.2.].

01 4.3.1.2. Tide and currents

- O7 Spates in the Loire increase the strength and duration of the ebb current. The water level is affected by the influence of the wind (§ 4.4.1.1.). The heights of the water in the Loire are broadcast every 15 minutes via VHF, channel 23.
- 13 DIRECTIONS. The most favourable time to enter is during the slack water that follows high water or, draught permitting, the slack water that follows low water.
- 19 Vessels entering before or after slack water must take the cross current into consideration when entering and passing through the passages.

01 4.3.2. PILOTAGE

07 See section 4.2.3. and the publication Radiocommunications pour la surveillance du traffic et le pilotage [Radio Communications for Monitoring Traffic and Pilotage].

01 4.3.3. PORT

01 4.3.3.1. Entrance

07 The passage between the jetties is 124 m wide. The outer harbour is periodically dredged in order to maintain a theoretical depth of 4.6 m.

01 4.3.3.2. Outer harbour

- 07 Located along Jetée Est is Quai des Marées, which is the berthing quay for tugs. At the foot of this quay the depths are 4 m to the S and 2 to 3 m to the N.
- 13 In winds from the SW quadrant, the backwash here is sometimes strong. Vessels must deploy fenders along their side prior to berthing and steel mooring ropes are prohibited.
- 19 The flood current flows towards Quai des Marées and flows around the outer harbour for the entire duration of the flood. It hinders manoeuvres at the quay for getting underway.
- 25 Immediately to the N of Quai des Marées, moored end-on towards the NNW is the 50 m-long tank barge, from which the Île d'Yeu and Belle-Île oil refuelling vessel obtains supplies.
- This barge is positioned against 2 dolphins, extending to the N of which is a terreplein with an area of 700 m², which is raised and is protected by loose boulders. This terreplein may be accessed by tank trucks, from which the coaster is fuelled by means of gravity feed. The jetty is connected to the barge and to the dolphin closest to the latter via 2 footbridges. A third footbridge, between the 2 dolphins, connects the terreplein to the barge.

01 4.3.3.3. Basins

- 07 The water level in Bassin de Saint-Nazaire and in Bassin de Penhoët is maintained at a height that is sufficient for receiving vessels with a draught of 8.5 m.
- Along Quai Ouest in Bassin de Saint-Nazaire, the old submarine base comprises covered passages that are connected to the basin. At the N end of its Quai Est, Bassin de Penhoët has three graving docks (nos. 1, 2 and 3, from N to S). See Annex I, section 7.1.

- 19 FORME-ÉCLUSE JOUBERT (view 4.3.3.3.). It is only possible to access the basin via the Joubert gated dry dock with permission from the harbour master's office, provided that it is not in use, as a priority, as a dry graving dock.
- The axis of Forme-écluse Joubert is shown by a leading line of two occasional red lights mounted on white masonry bases, the upper parts of which are red, located on the terreplein to the W of Bassin de Penhoët.

[Photo]

Bassin de Penhoët

4.3.3.3. – Forme-écluse Joubert, to the N (2006).

01 4.3.3.4. Locks and bridges

- O7 S LOCK. Useable length 206 m; useable width 28 m. Lockage is carried out for vessels every day, both work days and non-work days, by night and by day, from 2 hours before to 2 hours after high water. Exceptions may be granted by the harbour master's office, if necessary, provided that the request is submitted a day in advance or, at the latest, at the time of the high water preceding the low water for which lockage is requested and following payment of a duty. The harbour master's office shall remain the judge of whether or not a requested movement is possible.
- 13 By night, the manoeuvring of the bascule bridge that spans the S lock is signalled by green and red lights.
- 19 E LOCK. Width 13 m. Lockage is carried out for vessels with a maximum length of 40 m by both day and night, regardless of the tide.
- An outlet of the Saint-Nazaire basin pumping station, located on the S side of Entrée Est, is marked by continuous flashing violet lights. Mariners must be wary of the danger posed by the suction created by the intake pipes and by the sill that lies off the protective pilings upstream of these intakes.
- 31 BRIDGE OF THE CONNECTING SOUND BETWEEN THE BASINS. Width of the sound: 34.5 m; the bridge is opened on request made via VHF, channel 14, to Loire Ports Contrôle.
- Due to the presence of power cables and telephone cables, it is prohibited to anchor when passing through the sound.

01 4.3.4. SUPPLIES. TOOLS. REPAIRS.

01 4.3.4.1. Supplies

- 07 All manner of food and provisions. Water: 7 to 9 m³ per hour at the outlets on the quays.
- 13 Fuel oil and diesel: via self-propelled tank barges from the Donges refineries or from Quai des Darses. Static facility at Quai Demange for supplying diesel to fishing craft.

01 4.3.4.2. Tools. Equipment.

- 07 The Joubert gated dry dock is equipped with a crane with a capacity of 14 t, on railway, and potentially travelling cranes on wheels; a crane with a capacity of 35 t on railway, which serves dry graving docks nos. 1 and 2; sheerlegs at dry graving dock no. 3. There are land-based sheerlegs with a capacity of 400 t on a quay in Bassin de Penhoët.
- 13 Tugs with powers of 1400 to 3600 hp for port manoeuvres and rescues at sea. Scuba divers (private company).
- 19 Private refrigeration facilities. Cereal silo, rate: 400 t per hour. Fruit terminal.

01 4.3.4.3. Repairs

O7 All repairs; the facilities, which are grouped together on a terreplein with an area of 15,000 m² on the edge of the gated dry dock, mainly comprise: a sheet metal workshop with an area of 1000 m² with an opening roof (through which parts of up to 50 t may pass by means of the crane of the gated dry dock, § 4.3.4.2.); a mechanical workshop with an area of 2000 m², which caters to any naval repair need; a plumbing workshop; a logistics workshop and various shops. Fire service. Equipment for supplying electricity.

01 **4.3.5. TOWN**

07 Department of Loire-Atlantique (44); 68,600 inhabitants (172,400 for the settlement).

01 4.3.5.1. Information

- Harbour master's office and port police: 3 bis boulevard de Verdun; tel: + 33 (0)2 40 45 39 00; fax: + 33 (0)2 40 91 03 17; email: kplacement@nantes.port.fr
- Loire-Les Sables d'Olonne pilotage service: to the E of the S lock; 1 rue de l'Écluse; tel: + 33 (0)2 51 76 08 76; fax: + 33 (0)2 51 76 08 75; VHF; email: pilote-major@pilotes-loire.com
- 19 Customs: tel: + 33 (0)2 40 45 88 70.
- 25 Maritime Affairs: 9 boulevard de Verdun; tel: + 33 (0)2 40 22 46 32. Vessel safety centre: tel: + 33 (0)2 40 22 95 16.
- 31 Towing: company "Boluda", 1 bis, boulevard de Verdun; tel: + 33 (0)2 40 22 49 82; fax: + 33 (0)2 40 22 51 93.
- Grand Port Maritime de Nantes-Saint-Nazaire (haulage and boatage): S entrance; tel: + 33 (0)2 40 22 21 91 and + 33 (0)2 40 00 45 15.
- 43 Health inspection at the borders: see customs.
- 49 Hospital: Centre Hospitalier de Saint Nazaire; tel: + 33 (0)2 40 90 60 00.

01 4.3.5.2. Connections

- 07 Railway station. Road connections: Nantes 52 km away via express route; bridge over the Loire 3 km away (Saint-Nazaire bridge).
- 13 Saint-Nazaire-Montoir airport (5 km) and Nantes-Atlantique airport (60 km).

01 4.4. THE LOIRE MARITIME

- 07 Charts 6797 and 7396.
- 13 ENC FR502220, FR502230 and FR502231

01 4.4.1. GENERAL INFORMATION

- 07 The Loire Maritime is the part of the river that is accessible to sea vessels, which extends between the transversal line of the sea (straight line connecting Pointe de Mindin on the W side of the entrance to dry dock C of the Port of Saint-Nazaire) and the limit of Maritime Affairs at Nantes (Pont Anne de Bretagne and Pont des Trois Continents). It is around 56 km long.
- 13 Located on its banks are the port of Nantes (§ 4.5.) with, downstream, its annexes of Haute-Indre, Basse-Indre, Indret, Couëron, Cordemais and Paimbœuf, the port of Donges and the port of Montoir.
- 19 Mariners may navigate by radar in fog, taking special care. There is a radar monitoring station located on Pointe de Mindin. The images it sends are used by the Saint-Nazaire harbour master's office (Loire Ports Contrôle).
- 25 In the event of *force majeure* (mechanical failure, fog, etc.) vessels may anchor in the river, outside of the areas through which cables and pipelines pass (§ 4.4.2.). They must immediately inform Loire Ports Contrôle of this situation, specifying their position.
- 31 Within the Loire, for leisure craft, there are only small dry harbours that are generally located at the mouths of tidal channels or in the indentations of the banks. The main stopping places are located at Paimbœuf, Le Pellerin, Couëron, Basse-Indre, Haute-Indre and finally Trentemoult, immediately downstream of Nantes (§ 4.5.4.5.).

01 4.4.1.1. Water level

- 77 The depths within the channels are maintained at 4.7 m by dredging upstream of Donges. The tide scales in the Loire Maritime indicate the water heights above chart datum.
- 13 The water heights forecast in the *Annuaire des marées* [Tide Tables] are altered considerably by spates of the river. Between Nantes and Le Pellerin (47° 12.2' N 1° 45.3' W), spates increase the low water level more than the high water level. Their influence decreases quickly downstream of Le Pellerin and can no longer be felt upon reaching Donges.
- Winds from the W tend to raise the water levels, whilst winds from the E tend to lower them. The mean corrections due to the wind, which must be made to the times and water heights are given in table 4.4.1.1.
- The water heights in the Loire Maritime are broadcast regularly via VHF (§ 4.3.1.2.). The water height measurement stations are located, from downstream to upstream, at Pointe de Saint-Gildas, Saint-Nazaire, Donges, Cordemais, Le Pellerin, Nantes-Usine Brûlée.

2	7
J	1

Nature of the winds	nture of the winds High waters Low waters			
	Time	Height (m)	Time	Height (m)
Moderate winds from the W sector	-0 to 15 mins	+ 0.10 to 0.30	-0 to 15 mins	+ 0.10 to 0.30
Strong winds from the W sector	-0 to 15 mins	+ 0.50 to 1.00	-0 to 15 mins	+ 0.50 to 1.00
Winds from the E sector	+ 0 to 10 mins	-0.10 to 0.30	÷	-0.10 to 0.30

4.4.1.1. – Corrections to the water heights due to the wind.

01 4.4.1.2. Currents

- 07 At Nantes, the flood current reaches 4 knots at springs, during the minimum flow low waters, and the ebb current reaches 6 knots during heavy spates.
- 13 Further details on the currents may be provided by the pilots (see also tide tables and the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents on the W coast of France, from Saint-Nazaire to Royan]).

01 4.4.2. AREAS IN WHICH ANCHORAGE IS PROHIBITED

- Anchorage is prohibited in the approaches to the quays of the port of Indret (\S 4.4.8.5.), as well as on either side of the gas pipeline that crosses the Loire in the vicinity of Couleuvrou (47° 15.6' N 1° 51.4' W). These areas are marked on the chart.
- 13 Anchorage is also prohibited on either side of the Cheviré bridge and in the Trentemoult turning area (§ 4.5.3.).

01 4.4.3. PILOTAGE

07 See section 4.2.3. and the publication Radiocommunications pour la surveillance du traffic et le pilotage [Radio Communications for Monitoring Traffic and Pilotage].

01 4.4.4. CHANNEL

- 07 Charts 6797 and 7396.
- 13 ENC FR502220, FR502230 and FR502231.

01 4.4.4.1. General information

- The channel is characterised by the variations in the nature of the bottom and also by the mobility of the sandbanks. Sand and mud are most common, but there are some rocky bottoms: level with buoy "7"; between Ville-ès-Martin and the "Morées" beacon tower; off **Basse Nazaire**; N of the channel between berths 4 and 5 of Donges; at Les **Brillantes** and La **Calotte** (respectively located downstream of Paimbœuf and just upstream of Cordemais). There are also some small rocky plateaux located in the vicinity of the Haute-Indre lighthouse, downstream of the Roche-Maurice quay, on the N edge of the channel, and off Quai Président Wilson. The pilings of the Saint-Nazaire bridge are protected by loose boulders located on either side of the channel.
- 13 The maintenance of the channel requires constant surveys and dredging. In a general manner, the depths may decrease during the low water period. The theoretical width of the channel is 300 m downstream of Donges and 150 m upstream of Donges.

01 4.4.4.2. Beaconage

07 From Saint-Nazaire to Nantes, the channel is marked by lateral light buoys, shore lights, stockade lights and leading lights.

01 4.4.4.3. Ferries

07 Ferries cross the river at Le Pellerin and at Basse-Indre.

01 4.4.4.4. Air draughts

- 07 The air draughts permitted below the bridges and power cables that span the Loire, specified below, are given in relation to the level of the highest navigable waters.
- In addition, for the power cables, the second value given in brackets represents the safety air draught, which takes into consideration the electrical safety distance (voltage distance) that must be maintained between the top of the masts of vessels and the power cables:
 - Saint-Nazaire bridge (axis of the channel): 54 m;
 - Le Pellerin power cable: 53 m (48 m);
 - Basse-Indre power cable: 53 m (47 m);
 - Cheviré bridge: 49 m.

01 **4.4.5. DIRECTIONS**

Vessel movements are restricted in accordance with the journey within the shallower section (§ 4.4.4.1.). The tidal wave ascends the river at a speed of around 11 knots, in such a way that vessels accompany it, whilst ascending the river, at a speed that is generally slightly slower, whereas they cross it whilst descending the river.

01 4.4.5.1. Ascent

07 Vessels ascend during the flood preferably. They may enter the shallower section as soon as it is deep enough. At springs, the deepest-draught vessels set off from Saint-Nazaire 1 hour before high water at the latter port.

01 4.4.5.2. Descent

07 The time for vessels to set off from Nantes in order to enable them to pass through the middle of the shallower section at high water is around 1 to 2 hours after low water at Nantes. It depends on the level of the river and the draught of the vessel.

01 4.4.6. REGULATIONS

01 4.4.6.1. Loire Maritime navigation police

- 03 Main provisions of Interprefectoral Decree 6/90 of 15 February 1990, with references to the articles of this Decree
- 05 Note: the below text sometimes deviates from the text of the Decree, in particular so as to take into consideration certain provisions that have been enacted recently.
- 07 Article 1. The 1972 International Regulations for Preventing Collisions at Sea shall apply as far as upstream of the port of Nantes.
- 09 Article 2. Berths at quay. Priority may be granted to vessels that must use the specific facilities of Saint-Nazaire, Montoir, Donges and Nantes, subject to certain conditions relating to notice.
- 11 Article 3. Admission. Admission to the ports for vessels carrying dangerous materials shall be subject to the regulatory provisions for the transportation and handling of dangerous materials in ports and the local regulations for the transportation and handling of dangerous materials in the Basse Loire.
- 13 Article 4-1. Circulation of vessels:
- a) upon entering the channel, vessels must inform the Saint-Nazaire lookout station (VHF, channel 14; call sign Loire Ports Contrôle) of their entry and of any anomaly that may affect safety.
- 17 Vessels descending the river, or those moving within a port, must report when they get underway to Loire Ports Contrôle via VHF. Vessels navigating in the Loire and passing through the port of Nantes must provide notification in the same manner, when ascending and descending the river, upon crossing the upstream limit of the Loire Maritime.
- 19 The total deadweight tonnage for 2 vessels passing each other is limited to 200,000 t by day and 175,000 t by night. However, in the event that the passing vessel with the lower deadweight tonnage is able to use the marked navigation track to the N of the channel between Pointe de l'Eve and Pont de Saint-Nazaire (§ 4.2.6.2.), this provision shall not apply.
- 21 These conditions may be reduced in accordance with the direction and strength of the wind, the visibility, the passing place, the hydrological conditions and the nautical qualities of the vessels by the harbour master's office, following consultations with the masters of vessels.
- 23 b) during the channelling of methane carriers:
- Vessels must not travel either in front of or behind the methane carrier within a distance of 2 M. This safety distance shall be increased to 5 M for vessels travelling upstream of the methane carrier berth.
- 27 For vessels berthing at the miscellaneous goods and container terminal (TMDC):
 - the safety distance is 2 M when berthing with the bow facing upstream, regardless of the length of the vessel;

- it is also 2 M for vessels less than 150 m long when berthing with the bow facing downstream at the berths located downstream of berths 1 and 2 of the terminal;
- the safety distance is 5 M for vessels over 150 m long when berthing with the bow facing downstream at the miscellaneous goods and container terminal, regardless of the berth at quay.
- Vessels must not pass the methane carrier in the channel during channelling. Passing is authorised, however, in the event that the passing vessel uses the marked navigation track to the N of the channel between Ville-ès-Martin and Basse Nazaire (§ 4.2.6.2.). This manoeuvre may be prohibited by the port authority and the masters of vessels may refuse it. Manoeuvres for overtaking methane carriers are not permitted. Passing is prohibited for vessels undergoing tests or exiting from repairs.
- 31 These conditions may be adjusted in accordance with the direction and strength of the wind, the visibility, the passing place, the hydrological conditions and the nautical qualities of the vessels by the harbour master's office, following consultations with the masters of vessels.
- d) vessels and boats must reduce their speed whenever they pass close to craft in the process of loading or loaded with dredging products. Stationary dredgers shall cease operations in order to allow the passage of vessels, whenever necessary. Vessels must slow down when passing the methane carrier and oil tanker piers and abeam of the port facilities, the fishing port or marina and off the boarding points.
- 35 Article 4-2. Vessels that are impeded by their draught must navigate to the S of the channel within the area of the river contained between the Indret pier downstream and the downstream berth of Usine Brûlée at Quai Cormerais upstream. They must bear the lights and marks specified by Rules 23 and 28 of the 1972 International Regulations for Preventing Collisions at Sea.
- 37 All vessels must keep the S half of the channel clear in the area in question in the event that a vessel impeded by its draught is reported descending in this area by the boards specified hereinafter. In this event, ascending vessels shall turn off to Indret towards the N part of the channel and descending vessels shall abide by the normal rules of navigation, staying close to the N bank.
- 39 2 boards diverting the route of vessels that are not impeded by their draught shall be installed, 1 on the Indret pier downstream, with the other level with berth "3" of Quai Cormerais.
- 41 Each of these 2 boards shall bear an arrow showing the direction of navigation in the channel. When they are illuminated and surmounted by an occulting orange light, they signal that there is a vessel impeded by its draught in the deep channel to the S of the river. In this event, all vessels must report their entry or departure, by VHF, to Loire Ports Contrôle.
- 43 In the event of a breakdown of the occulting light or illumination of 1 or both of these boards, the vessel impeded by its draught shall sound 4 blasts on its whistle upon entering the S channel and it shall report its passage to other vessels by VHF.
- 45 Article 4-3. Sailing vessels and craft must avoid moving in front of an isolated vessel or a vessel towing another and crossing its route.
- It is prohibited for them to anchor in the route of vessels. They must anchor outside of the channel, as close as possible to the bank, with the exception of within the prohibited areas defined in Article 8 hereinafter.
- 49 Article 4-4. Radio communications. Vessels must maintain a radio watch on VHF, channel 14.
- 51 Article 4-5. Vessel reporting. Vessels stopped along the bank or moored at the quays or piers must bear by night, in the event that they are over 50 m long, a white light placed towards the middle of their length, on the channel side, as low as possible whilst remaining visible from all points of the river.
- Article 4-6. The maximum length for convoys shall be set at 200 m downstream of Cordemais and, in principle, at 130 m upstream.
- 55 Article 4-7. Spates. In low water at Nantes greater than:
 - 4 m: the harbour master's office may impose additional tugs;
 - 5 m: no getting underway at night for large vessels;
 - 6 m: no getting underway at night.
- 57 Article 4-8. Ferries. When a vessel or boat enters one of the areas of the Basse-Indre or Le Pellerin ferries, the station ferry shall wait for the vessel to pass before leaving its slipway.

- 59 In the event that, as a result of any circumstance whatsoever, a vessel or boat is underway in any of the areas at the same time as a ferry, the latter must manoeuvre at all times so as to leave the route free for the vessel or boat.
- 61 Ferries must bear the following route lights:
 - a white light at the top of a mast visible across the entire horizon;
 - below this light, 2 strings of coloured lights positioned vertically and spaced out by at least 1 m, 1 red on green and the other green on red; the lower light must be positioned at least 6.5 m above the waterline.
- 63 The strings of lights shall be alternately green on red when the ferry is travelling from the N bank to the S bank and red on green when it travels in the opposite direction; they must be visible for a distance of at least 1 M
- 65 The white light shall be extinguished once the ferry begins to cross the river.
- 67 The ferry shall bear neither stern lights nor side lights.
- 69 Article 8. In addition to the general prohibition, except in cases of *force majeure*, to anchor in the passages, anchorage is prohibited:
- a) in a 50 m strip: off and on either side of the commercial berths; above the crossing routes of the underriver cables and pipelines that are marked on the banks;
- b) at Nantes: in the Trentemoult turning area and between the upstream quay of Cheviré (upstream) and Port-Lavigne, downstream;
- 75 c) at Basse-Indre and Le Pellerin: within the ferry routes;
- d) at Indret: except with special authorisation from director of the Établissement d'Indret, between the channel and Indret, in the part contained between the Indret light and the W access slipway for the ferry.
- 01 4.4.6.2. Lights and marks for river vessels and convoys
- 07 See section 1.4.8.4.
- 01 4.4.7. PORTS
- 07 Chart 7396.
- 13 ENC FR502231.

01 4.4.7.1. Montoir

- 07 The port of Montoir (47° 18.0' N 2° 08.5' W), located on the right bank of the Loire, comprises from downstream to upstream:
 - a Ro-Ro berth (no. 3), located 0.3 M upstream of the Saint-Nazaire bridge for vessels with a maximum length of 180 m and a draught of 9 m, with a stern ramp or a bow ramp;
 - a Ro-Ro berth (no. 2), located 0.4 M upstream of the Saint-Nazaire bridge for vessels with a maximum length of 180 m and a draught of 9 m, with a stern ramp or a bow ramp;
 - a miscellaneous goods and container quay (TMDC) [view 4.4.7.1.A.] 950 m long for vessels with a draught of 12.5 m (4 berths). The upstream berth is extended by a ramp to serve vessels with diagonal starboard stern gates;

[Photo]

TMDC

Ro-Ro no. 2

Ro-Ro no. 3

4.4.7.1.A. - Ro-Ro berth. TDMC (2006).

19 − a GDF methane carrier terminal (the largest in Europe) [view 4.4.7.1.B.] with 2 berths (downstream and upstream) that are able to receive methane carriers of 125,000 m³ with a draught of 13.1 m;

25

[Photo]

Methane carrier terminal

TMDC

4.4.7.1.B. - Montoir. Methane carrier terminal (2006).

- an agri-foodstuff terminal (view 4.4.7.1.C.) served by the 930 m-long Montoir quay (4 berths) that is able to receive vessels with a deadweight tonnage of 140,000 (length 280 m, draught 13.5 m). Due to the presence of the berth moorings, it is prohibited to anchor within 80 m of this terminal;
- 37 a pier (or liquid berth) [view 4.4.7.1.C.], for storage tankers with a deadweight tonnage of 40,000 and a draught of 11 m;

[Photos]

Agri-foodstuffs terminal

Downstream liquid berth

Coal carrier terminal

- 4.4.7.1.C. Montoir. Agri-foodstuffs terminal. Downstream liquid berth. Coal carrier terminal (2006).
- a coal carrier terminal (view 4.4.7.1.C.) that is able to receive vessels with a capacity of 140,000 t and a draught of 16 m, connected via a conveyor belt to a berth for barges located downstream.
- The turning area of the methane carrier terminal is marked to the S by the "MA" and "MB" starboard lateral light buoys and the "ZEM1" and "ZEM2" special mark buoys.
- At the 3 terminals: GDF, agri-foodstuffs and coal carrier, vessels must strengthen their mooring using the berth moorings consisting of steel mooring ropes.
- 67 INFORMATION. Department of Loire-Atlantique (44); commune of Montoir-de-Bretagne (6600 inhabitants).
- 73 Harbour master's office: contact the Saint-Nazaire harbour master's office (§ 4.3.5.1.).
- 79 CONNECTIONS. Railway station. Road connections: Vannes-Nantes express route 16 km away, Nantes 45 km away.
- 85 Saint-Nazaire-Montoir airport 2 km away.
- 01 4.4.7.2. Donges
- Donges (47° 18.3' N 2° 05.2' W) [view 4.4.7.2.A.], located on the right bank of the Loire, immediately upstream of Montoir, is essentially a large oil tanker port. Its facilities, which extend over 3000 m, enable it to receive 350 m-long lightened vessels with a deadweight tonnage of 300,000 t. The maximum permissible draught is 15.6 m.

ng

[Photo]

Port of Donges

4.4.7.2.A. – Port of Donges.

13 ACCESS. – In general, coaster traffic may continue regardless of the tide. Large oil tankers that are coming to unload their crude products may berth at high water only. In contrast, vessels get underway

whilst ballasted at low water. Night manoeuvres for these large vessels, which are familiar with the port, are authorised subject to certain conditions: nautical (risk of fog, spates, etc.), draught, traffic (obstruction of the channel or nearby berths) and lastly assistance (tugs and VHF contacts).

- 17 The access conditions are maintained by means of dredging.
- MOORING. Vessels may only moor at berth no. 3 using side moorings. For berths nos. 4, 5, 6, 7 and the Arceau berth, the port has berth moorings consisting of synthetic fibre mooring ropes that are suggested in addition to the side moorings.
- The port safety directives state that vessels must only use moorings that are in perfect condition and have sufficient levels of resistance. Vessels must monitor their moorings at all times and makes corrections to them, if necessary, after gaining permission from the harbour master's office, at the Donges low water slack.
- 29 SIGNALS. The harbour master's office has a VHF radio-telephone set.
- PROHIBITED ANCHORAGES. Due to the presence of berth moorings, it is prohibited to anchor in the vicinity of the following structures: berth no. 4, downstream part, within 50 m of the extension of pile 12; the Arceau berth, berths nos. 5, 6 and 7 within 80 m on either side of the extensions of the structures.
- 37 FACILITIES (table 4.4.7.2.B.).

A	1
4	I

Berth number	Mean depth (m)	Uses	
2	2.6	Reserved for oil tanker barges	
3	7.1	Accessible for oil tankers 135 m long and with a draught of 6.5 to 7.5 m	
4	9	Accessible for oil tankers 206 m long and with a draught of 8 to 9 m	
5	11.6	For receiving oil and refined products and for the export of refined products; accessible for oil tankers with a deadweight tonnage of 95,000, 255 m long	
Arceau berth	10.1	Accessible for oil tankers carrying refined products	
6	15.6	For receiving crude oil; accessible for lightened oil tankers with a deadweight tonnage of 300,000 t, length 350 m	
7	15.6	For receiving refined oil and products; accessible for lightened oil tankers with a deadweight tonnage of 300,000 t, length 350 m	
Note. – The depths specified in this table are mean values.			

4.4.7.2.B. – Uses of the quay berths and depths.

- 45 REGULATIONS (§ 4.4.6.). Vessels must conform to both general and local regulations relating to the transportation and handling of dangerous materials. These regulations are available for mariners at the harbour master's office.
- 49 From the time at which they berth, oil tankers must be earthed by a power grounding cable.
- 53 SUPPLIES. Provisions; water (industrial and fresh) at the outlets of the piers (40 t per hour); fuel oil: stock of 10,000 to 30,000 t, via pipelines (200 m³ per hour) or barges; petrol, via pipeline, barges or tank trucks.
- 57 TOOLS AND EQUIPMENT. Tugs: provided by Saint-Nazaire. All of the berths have telephone outlets, standardised water outlets for in the event of a fire and power outlets (230/400 volts).
- 61 DEBALLASTING. There is a 12,000 m³ reservoir that enables deballasting (1200 m³ per hour).
- 65 REPAIRS. Minor machinery and boiler repairs (see Saint-Nazaire, § 4.3.4.3.).
- 69 INFORMATION. Department of Loire-Atlantique; 6360 inhabitants.
- 73 Harbour master's office: see Saint-Nazaire (§ 4.3.5.1.).
- 77 CONNECTIONS. Railway station. Road connections: Vannes-Nantes express route 15 km away, Nantes 42 km away.
- 81 Saint-Nazaire-Montoir airport 11 km away.

01 4.4.7.3. Cordemais

77 The port of Cordemais (47° 16.5' N - 1° 53.0' W) [view 4.4.7.3.], on the right bank of the Loire, 7.5 M upstream of the port of Donges, comprises an oil tanker berth and a coal pier.

[Photo]

4.4.7.3. - Cordemais, to the E (2008).

01 4.4.8. ADDITIONAL PORTS

07 Chart 7396.

01 4.4.8.1. Paimbœuf

- 07 Paimbœuf (47° 17.4' N 2° 01.8' W) [view 4.4.8.1.], a port located on the left bank, 2 M upstream of Donges, mainly comprises a public quay called "Vertical". The bottoms are rocky and grounding is not recommended. Access is permitted for vessels with draughts not exceeding 3 m. Vessels berth at floating defensive structures, which keep them away from the loose boulders in place at the foot of the quay wall. A wide launching slipway occupies the downstream end of this quay.
- 13 Located 250 m downstream of this quay, on the inside of a metal footbridge that sets off from the lighthouse and is supported by 2 thick concrete pylons, is a small grounding area for craft and leisure vessels, with a fairly firm muddy bottom. There is a pontoon at which vessels may berth at low water located on the inside of the footbridge between the 2 pylons. The grounding area is limited to the W by the section of the shore quay angled towards the coast, with a supported slipway along which the berths are clear.
- 19 Located 1.3 M upstream of the Paimbœuf lighthouse, 450 m E of the Petit Carnet light, is a pier that is able to receive storage tankers 160 m long with a draught of 7.1 m. It bears a light.

25

[Photo]

4.4.8.1. – Paimbœuf, to the WSW.

- 31 RESERVED ANCHORAGES. An area of anchorages reserved for craft of the autonomous port extends along the S bank of the Loire between 0.7 and 1 M upstream of Paimbœuf. Its limits are marked on the charts.
- 37 INFORMATION. Department of Loire-Atlantique (44); 2840 inhabitants.
- 43 Harbour master's office: contact the Saint-Nazaire harbour master's office (§ 4.3.5.1.).
- 49 CONNECTIONS. Road connections: Saint-Nazaire 17 km away, via the Pointe de Mindin bridge; Nantes 50 km away; coaches to the Saint-Nazaire railway station.

- 01 4.4.8.2. Le Pellerin
- 07 Le Pellerine (47° 12.2' N 1° 45.0' W) [view 4.4.8.2.], located on the left bank of the Loire 7 M downstream of Nantes, is a port with small cargo quays in depths of 2 to 2.5 m and a double slipway used by the ferry that is used for vehicle crossings.
- 13 Extending upstream of this slipway is a vast tidal flat of soft mud on which craft ground. There is a mole made up of old rocks located at the inner end of this uncovering cove. Vessels may berth at this mole at high water and it has a slipway on each side; it houses the majority of the local small boats. A pontoon, located 150 m upstream of the mole, enables around 10 fishing vessels to remain afloat on the riverbed side. On the other side the mud bottoms uncover.
- 19 The port is equipped with a floating dock with a capacity of 1700 t and a shear hulk with a capacity of 90 t.

[Photo]

4.4.8.2. – Le Pellerin, to the SSE (2008).

01 4.4.8.3. Couëron

07 Couëron (47° 12.5' N - 1° 43.8' W) [view 4.4.8.3.], a leisure haven on the right bank around 6 M downstream of Nantes, is located in the mouth of the small channel **Étier du Darau**. The E jetty bears a port lateral mark light. Fishing and leisure vessels ground here on very sited-up bottoms and it is not necessary to shore up, even for sailing keelboats; the port has a capacity of 36 berths on pontoons for vessels less than 7.5 m long with a maximum draught of 1.3 m.

13

[Photo]

4.4.8.3. – Couëron, to the NE.

- 19 INFORMATION. Access: 2 hours before high water; tel: + 33 (0)2 40 37 04 62; fax: + 33 (0)2 40 29 10 90; VHF: channel 9; water, electricity; slipway; waste recovery; website: www.nge-nantes.fr
- 01 4.4.8.4. Basse-Indre
- 77 There are 2 stockades located on the right bank at Basse-Indre (47° 12.3' N 1° 41.7' W) [view 4.4.8.4.], 1.5 M upstream of the Couëron light, just downstream of Île la Motte.
- 13 Located just upstream of Île la Motte, there is a double slipway on either bank, used by the ferry that is used for vehicle crossings.

[Photo]

4.4.8.4. – Basse-Indre. Indret, to the WNW (2008).

01 4.4.8.5. Indret

Quai d'Indret (47° 12.0' N - 1° 41.2' W) [view 4.4.8.4.], located on the left bank, opposite Île la Motte, is reserved for activities linked with National Defence. It is 140 m long and the permissible draught is 5 m. A slope perpendicular to the quay makes it necessary to use a floating pontoon for deep draught vessels. The end of the gantry for loading large packages overhangs 46 m into the river. It is marked with a light.

01 4.4.8.6. Haute-Indre

- 07 At Haute-Indre (47° 11.6' N 1° 39.3' W), the private pier owned by the company SOFERTI located on the right bank 1.4 M upstream of the preceding quay, is equipped so as to receive phosphates, potassium products and acids. The permissible draught is 6.4 m. It bears 2 lights, upstream and downstream. There are berth moorings at this pier and vessels must use them in addition to their own moorings.
- 13 Located on the other bank, slightly downstream, is Estacade Dodin, with uncovering bottoms, of the Lavigne port industrial area.
- 19 Flowing out 650 m E of the SOFERTI company pier, on the right bank of the Loire, is a tidal channel. The W bank of this tidal channel is lined with a quay and 4 leisure pontoons with catwalks. The bottom is of soft mud and uncovers 1.9 to 3.4 m.
- 25 See section 4.5. (Nantes).

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01 4.5. NANTES

07 Chart 7396

01 4.5.1. GENERAL INFORMATION

Nantes forms part of the Grand Port Maritime de Nantes-Saint-Nazaire. It is a large port for the importation of raw materials as well as citrus fruits and exotic woods, which also handles traffic for the exportation of miscellaneous goods and manufactured products. Its port facilities extend over around 4 M along the banks of the Loire, which forms 2 branches in its upstream part: Bras de la Madeleine, to the N, and Bras de Pirmil, to the S (view 4.5.1.).

13 The port of Nantes is able to receive vessels 225 m long (the permissible draughts depend on the tidal coefficient and the state of dredging). The quantity of muddy sediment carried here may be particularly significant during the period of the lowest minimum flow of the river, in the La Madeleine and Pirmil branches.

19

[Photo]

Bras de la Madeleine

Bras de Pirmil

Sand carrier terminal

4.5.1. – Nantes. General view, to the ENE (2008).

25 Upstream of Nantes, the Loire is accessible for river navigation as far as Angers.

01 4.5.2. REGULATIONS

07 The opportunity to use tugs is usually left to the discretion of the masters of vessels, with the exception of during spates (low water height greater than 3 m). The harbour master's office may impose the use of tugs as a safety measure.

01 4.5.3. PROHIBITED ANCHORAGES

07 It is prohibited to anchor between Port Lavigne, located 2000 m downstream of Pont de Cheviré, and Quai de Cheviré, located 1400 m upstream of this bridge, as well as in the Trentemoult turning area, shown on the chart and marked to the S by 2 special mark light buoys (§ 4.4.6.1.).

01 4.5.4. PORT

07 Extending on the right bank, from downstream to upstream successively, are the oil tanker port (view 4.5.4.A.), downstream of Pont de Cheviré, and the industrial port (view 4.5.4.B.), upstream. The public port mainly occupies the right bank of Bras de la Madeleine and the right bank of Bras de Pirmil.

13

[Photo]

4.5.4.A. – Nantes. Oil tanker port, to the E (2008).

19

[Photo]

4.5.4.B. – Nantes. Port of Cheviré and Cheviré industrial area, to the E (2008).

- 25 On the left bank, the Cheviré industrial area comprises 2 quays for miscellaneous goods, a stockade and a Ro-Ro pontoon (Cheviré Ro-Ro).
- The quay upstream of the Cheviré bridge, which is 300 m long, comprises the Cheviré 1 and Cheviré 2 berths. The quay downstream of the bridge, which is 330 m long, comprises the Cheviré 3 and Cheviré 4 berths. The stockade, which is 120 m long, located 500 m upstream of the bridge, is used as a holding berth. The Ro-Ro pontoon, located 250 m upstream of the bridge, is used by river barges. There is a sand carrier terminal (view 4.5.1.), located 1500 m upstream of the Cheviré bridge, left bank, that is dredged to 5 m.
- 37 The permissible draughts are given below. They are subject to variations due to silting up and to changes in the flow rate of the river:
 - Quai Émile Cormerais: 6.2 m at the downstream berth and 6 m at the upstream berth;
 - Quai de Roche-Maurice, from downstream to upstream: 5.1 to 9.1 m;
 - Cheviré downstream quay: 9.6 m;
 - Cheviré Ro-Ro pontoon: 3 m;
 - Cheviré stockade: 6.6 m;
 - Cheviré upstream quay: 7.6 m;

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- Quai Président Wilson: from 7.1 m at the W end to 5.6 m from 400 m upstream; only berths 1 to 3 are maintained. The use of the quay at berth no. 7 is limited by a bridge.
- The depths at the bases of the quays on the right bank of the Loire upstream of Quai de Roche-Maurice and in Bras de la Madeleine are shallower: 0.5 to 1.6 m at Quai des Antilles; 1.6 m at Quai Ernest Renaud.
- The additional ports of Nantes, downstream of the oil tanker port, are described in section 4.4.8.

01 4.5.4.1. Mooring

07 Vessels may moor with the bow either facing downstream or upstream, it does not matter, with the exception of during heavy spate periods, during which it is compulsory for vessels to moor with the bow facing upstream.

01 4.5.4.2. Supplies

67 Food and provisions of all manner; water at outlets at the quays (14 t per hour). Fuel oil: vessels may obtain supplies by barge. Diesel and petrol: 2 berths at Quai Émile Cormerais (70 m³ per hour) or by tank barges from Donges.

01 4.5.4.3. Tools

2 tugs of 1000 hp. A crane with a capacity of 60 t (Quai Président Wilson); quay cranes at all berths. Scuba divers (private company). Cereal silo and grain hoppers (automatic bagging and weighing). Sugar hoppers. Refrigerated warehouse. Sheds and shops.

01 4.5.4.4. Repairs

07 All repairs. Small building harbours.

01 4.5.4.5. Trentemoult marina

07 Located on the left bank of the Loire, just before the bifurcation of the La Madeleine branch and the Pirmil branch, Trentemoult (47° 11.7' N – 1° 34.7' W) [view 4.5.4.5.] is situated immediately downstream of Nantes. It is a dry harbour equipped with pontoons with catwalks. The port has a capacity of 24 berths for vessels with a length not exceeding 12 m, with a maximum draught of 1.3 m.

13

[Photo]

4.5.4.5. – Trentemoult marina, to the SSW (2008).

- 19 PROHIBITED ANCHORAGE. Anchorage is prohibited in the river off the port (turning area; see section 4.5.3.).
- 25 RESOURCES. INFORMATION. Access: 2 hours before high water; VHF: channel 9; water, electricity, sanitary facilities; slipway; waste recovery; website: www.nge-nantes.fr.
- 31 Harbour master's office: Quai Surcouf (root of the mole); tel: + 33 (0)2 40 37 04 62; fax: + 33 (0)2 40 29 10 90.

01 4.5.4.6. Les Chantiers pontoon

- 07 Located in the La Madeleine branch, upstream of Trentemoult, downstream of the Anne de Bretagne bridge, the 100 m-long Les Chantiers pontoon (47° 12.3' N 1° 34.2' W) is accessible at any tide time for vessels 60 m long with a draught of 2.5 m. The current may reach up to 6 knots during the ebb with a high coefficient. This pontoon may be accessed by leisure vessels from mid-September to the start of May only⁶.
- 13 INFORMATION. Access: request the digital access code from the NGE manager; tel: + 33 (0)2 40 37 04 62; water, electricity.

01 4.5.4.7. Anne de Bretagne pontoon

- 07 Located immediately downstream of the Anne de Bretagne bridge, the Anne de Bretagne pontoon (47° 12.5' N 1° 34.1' W), which is 60 m long, is accessible at any tide time for vessels up to 13.5 m long and with a draught of 2.5 m. The current may reach up to 6 knots during the ebb with a high coefficient.
- 13 A second pontoon located upstream (13.5 m x 10 m) is accessible at any tide time for vessels 60 m long, with a draught of 3.5 m.
- 19 INFORMATION. Access: request the digital access code from the NGE manager; tel: + 33 (0)2 40 37 04 62; water, electricity.

01 4.5.4.8. The Sèvre Nantaise

07 Located 2400 m upstream of Trentemoult, the Sèvre Nantaise flows out into Bras de Pirmil. Small craft may enter this river from around 1 hour before to 1 hour after high water, with the first bridge forming a retention dam. The river is navigable for small craft over around 20 kilometres.

01 4.5.4.9. The Erdre

This small river is also navigable, over around 24 km, for small craft (with an air draught of less than 4 m). It is accessed via Bras de la Madeleine, Canal Saint-Félix and from there via a subterranean canal 800 m long, in which traffic is regulated by green and red lights. Located 21 km from Nantes, a lock on the right bank provides access to Canal de Nantes à Brest, which ends close to Pontivy but which allows vessels, via Redon (§ 3.7.4.7.), to descend the Vilaine or to reach La Manche via Rennes.

01 4.5.4.10. Town

- 07 Department of Loire-Atlantique (44); prefecture; headquarters of a unit of the French National Navy; 277,700 inhabitants (711,100 for the settlement).
- 13 INFORMATION.
- 19 Grand Port Maritime de Nantes-Saint-Nazaire; 18 Quai Ernest Renaud; tel: + 33 (0)2 40 44 20 20.
- 25 Harbour master's office: see Saint-Nazaire (§ 4.3.5.1.).
- Loire Les Sables-d'Olonne pilotage station: 1 rue Eugène Varlin; tel: + 33 (0)2 40 69 29 00; fax: + 33 (0)2 40 73 29 36; email: pilote-major@pilotes-loire.com
- 37 Maritime Affairs: 2 boulevard Allard; tel: + 33 (0)2 40 37 04 32.
- Hospitals: regional and university hospital centres (CHR and CHU), Hôtel-Dieu, place Alexis Ricordeau. Hôpital Saint-Jacques, 85 rue Saint-Jacques; tel: + 33 (0)2 40 08 33 33 (shared by the 3 establishments).
- CONNECTIONS. All manner of road and rail connections. Nantes-Atlantique airport. Tronçon Est of the Canal de Nantes à Brest, connected to the Breton Blavet, Ille and Rance network.
- River navigation between Nantes and Angers and the Le Mans and Laval industrial region, by means of the Loir, the Sarthe and the Mayenne.

⁶ Translator's note: There appears to be an error in the source text. The text reads "ne ... uniquement", but we believe it should read either "ne ... que" or "uniquement" and have translated it accordingly.

01 4.6. BAIE DE BOURGNEUF AND ÎLE DE NOIRMOUTIER

- 07 Charts 7068 and 7394.
- 13 ENC FR473940.

01 4.6.1. GENERAL INFORMATION

- 07 **Baie de Bourgneuf**, located to the E of the Chenal du Sud access channel to the Loire, is contained between Île de Noirmoutier and the mainland. This vast bay is protected from winds from the N to S by E. In winds from the W, however, the sea may become very rough here, in particular during the ebb current.
- 13 The coast is entirely low lying, except to the N. Mud banks have a tendency to extend throughout the bay. The depths are uneven throughout the bay, in particular in its E part where however, in the middle of the banks, there are 2 deep trenches: Chenal du Centre (10.3 to 16.1 m deep) and Fain (11.8 to 20 m deep).
- 19 There is an abundance of oyster farms and "bouchots" [mussel pilings] throughout the intertidal area, in particular in the E part of the bay (§ 4.6.2.1.).
- 25 Île de Noirmoutier, which limits Baie de Bourgneuf to the SW, is only separated from the mainland, to the SE, by a narrow passage called Goulet de Fromentine (§ 4.6.4.). Lying off it to the NW is Île du Pilier (§ 4.2.4.) and to the W is Chaussée de Bœufs (§ 4.2.5.4.).

01 4.6.1.1. Rescue stations

07 Pomic (47° 06.5' N – 2° 06.8' W); L'Herbaudière (47° 01.6' N – 2° 17.8' W).

01 4.6.1.2. Tidal currents

- 07 In the middle of Baie de Bourgneuf, the current is rotary and rotates towards the right. The maximum flood occurs around 0300 HW at Saint-Nazaire and flows to the E at a speed of 1.5 knots at springs. The maximum ebb occurs around + 0430 HW at Saint-Nazaire and flows to the W at a speed of 1.5 knots at springs. Approaching the shores the currents become reversing currents.
- 13 The ebb begins very early in Chenal de la Grise (§ 4.6.6.2.) and in Goulet de Fromentine (§ 4.6.4.), whilst the flood still dominates along the coast of the mainland to the N, so it can be said, in a general manner, that between 0130 and + 0015 HW at Saint-Nazaire, the bay fills up from the N and empties to the S and the current flows around the bay in a clockwise direction. See also the atlas Courants de marée côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].

01 **4.6.2. AREAS**

- 07 Chart 7394.
- 13 ENC FR473940.

01 4.6.2.1. Marine farms

- O7 Concessions have been granted for marine farms in the areas described below, outside of the navigation channels and the anchorage areas:
- a) uncovering bottoms extending within the E coastal area of Baie de Bourgneuf, between Bernerie-en-Retz (47° 04.7' N 2° 02.4' W) and Noirmoutier-en-l'Île (46° 59.3' N 2° 13.1' W);
- b) Maison Blanche "bouchots" [mussel pilings] area, delimited by the line connecting the following points, in relation to the Noirmoutier-en-l'Île bell tower:
 - A, in position 088° at a distance of 1.38 M,
 - B, in position 093° at a distance of 1.9 M,
 - C, in position 102° at a distance of 1.84 M,

- D, in position 100° at a distance of 1.32 M;
- c) uncovering bottoms extending along the SW coast of Île de Noirmoutier, an area limited to the SE by the line of latitude 46° 54' N and to the NW by the line of longitude 2° 15' W.
- 01 4.6.2.2. Explosives temporary dumping ground
- 07 See section 4.2.2.6.
- 01 4.6.3. ACCESS FROM THE NW. DANGERS AND BEACONAGE
- 07 Charts 7068, 7394 and 7395.
- 13 ENC FR473950 and FR473940.
- 19 The dangers of Chaussée des Bœufs, as well as the Les Chevaux and La Couronnée rocks, which extend to the W of Île de Noirmoutier and at the W entrance to Baie de Bourgneuf, are described in section 4.2.5.4.
- 25 In the N part of the entrance, Banc de Kerouars, which is covered in some places with less than 1 m of water, extends to the E of the La Couronnée uncovering rock. In bad weather from the W the sea breaks here heavily. In the S part of this same entrance, located 1.5 M NE of the Île du Pilier lighthouse, the Grand Sécé uncovering rock bears a N cardinal beacon tower. There are some isolated shoals located to the N and NW of this beacon tower.
- Extending 1.5 M E of the "Grand Sécé" beacon tower is **Banc de la Blanche**, marked 0.7 M N of its NE end by the "Banc de la Blanche" N cardinal buoy. Halfway between this buoy and the "**Pierre-Moine**" light beacon tower, located 3 M to the ESE, there is a rocky head covered with 4.1 m of water. 0.8 M S of this rocky head, an E cardinal buoy marks **Basse des Pères**.
- 37 The dangers in the approaches to the N access channel to L'Herbaudière, passing to the W of Banc de la Blanche, are described in section 4.6.6.2.
- Lying off the S coast of Île de Noirmoutier are the rocky shoals between Chaussée des Bœufs and Anse de la Guérinière (§ 4.6.6.5.), to the E of Pointe de la Loire (46° 57.5' N 2° 15.5' W).
- 2.7 M W of this headland, at the entrance to the access channel to the port of Morin (§ 4.6.6.6.), a port lateral light buoy marks an uncovering wreck.
- 01 4.6.4. ACCESS FROM THE S. GOULET DE FROMENTINE
- 07 Chart 7394.
- 13 ENC FR473940.
- 01 4.6.4.1. General information
- O7 Goulet de Fromentine (view 4.6.4.1.), which provides access to Baie de Bourgneuf from S of Île de Noirmoutier, leads vessels under the Noirmoutier bridge and along the Le Gois submersible route (§ 4.6.4.3.). It is frequented by local users in particular. Mariners that do not know the area well are not advised to pass through it, in particular in bad weather.

[Photo]

Fromentine

4.6.4.1. - Goulet de Fromentine and the Noirmoutier bridge, to the E.

01 4.6.4.2. Tidal currents

07 In the trench of this narrow passage, the currents are particularly strong. The flood that begins around – 0500 HW at Saint-Nazaire flows to the ENE and reaches 4 knots. The ebb that begins very early (from – 0130 HW at Saint-Nazaire) flows to the WSW and exceeds 5 knots. Vessels must be prepared, even at positions that are very close together, to encounter currents that vary notably, with regard to both direction and strength.

01 4.6.4.3. Channel and beaconage

- 07 Located 7 M WSW of Goulet de Fromentine, the "L'Aigle" S cardinal buoy marks Basse de l'Aigle, which is covered with 2.6 m of water. There is a wave recorder light buoy anchored nearby and to the E of this buoy. The approach to the channel is marked by the "Fromentine" safe water mark landfall light buoy, which is anchored 1.8 M WSW of the strait.
- 13 The passage is open beneath the Noirmoutier bridge, between Pointe de Notre-Dame-de-Monts, which bears the Fromentine lighthouse, and Pointe de la Fosse, at the S end of the island. In order to access it, vessels must avoid the uncovering shoals that include the Roches de la Fose and Banc du Braillard.
- The channel, which is marked by lateral buoys, rounds Banc du Braillard to the S. The sandy bottoms uncover here around 1 m. It then passes between the "Milieu" port lateral light beacon tower, and the Boisvinet white beacon tower. The buoys are frequently moved in accordance with the movements of the sandbanks, and the actual route of the channel may differ greatly from that marked on the chart.
- 25 The name **Route du Gois** (view 4.6.4.3.) is given to the submersible causeway that is located 2.5 M NE of Pointe de la Fosse and which connects the island to the mainland. This road, which is 3700 m long, is raised around 3 m above chart datum and is therefore useable at certain tide times only: in good weather from 1 hour 30 minutes before to 1 hour 30 minutes after low water at Saint-Nazaire; in poor weather the time slots for passing through must be reduced around the time of low water, and in storms from the W care must be taken as the road sometimes does not uncover. It is marked out by 6 simple beacons and 3 beacons with upper platforms used for receiving travellers that may have been surprised by the flood. By night, the road is marked by lights located at the 2 bends and at both ends.
- Vessels may cross this road via passage between the E-most beacon with an upper platform and a starboard lateral pole. This passage is navigable, with a draught of 1.5 m, from 2 hours before high water at mean springs, however is has a depth of only 1 m at high water at mean neaps. Between the Le Gois road and the Noirmoutier bridge 2 red buoys mark the wrecks of Goulet de Fromentine.

[Photo]

4.6.4.3. - Route du Gois, to the E (2008).

- The **Noirmoutier bridge** spans Goulet de Fromentine. The navigable passage below the central span is 85 m wide, with a vertical clearance of 24 m. It is marked by 4 thick cylindrical piles on dolphins (2 located 20 m downstream and 2 located 20 m upstream) each of which is surmounted by a reflective board bearing a red rectangle on a white background on the island side and a green triangle on a white background with a radar reflector on the mainland side. There are 2 similar boards fitted to the deck of the bridge, upstream and downstream, just inside the pilings of the central span.
- A light borne by the guard rail on the upstream side and another on the guard rail on the downstream side of the central span enable vessels to rejoin the passage, the entrance axis of which is oriented on a bearing of 085.5° towards the upstream light, with the exit axis on a bearing of 259.5° towards the downstream light.

01 4.6.5. FROM POINTE DE SAINT-GILDAS TO GOULET DE FROMENTINE

07 Chart 7394.

01 4.6.5.1. Coast, landmarks and anchorages

- 07 From Pointe de Saint-Gildas (§ 4.2.9.1.) the coast, which is rocky and low-lying, is oriented towards the ESE and is interrupted 5.5 M from the headland by the indentation of Pornic. There are no havens between this headland and Pornic.
- 13 Visible in the middle of the bay $(47^{\circ} 03.4^{\circ} N 2^{\circ} 12.4^{\circ} W)$ is the thick "Pierre-Moine" isolated danger light beacon tower.
- On the coast, the largest landmarks are the **Préfailles** and **La Plaine-sur-Mer** water towers, respectively located 1.7 M and 3.3 M E of Pointe de Saint-Gildas, then, 0.5 M W of Pornic, the Sainte-Marie church, close to a large water tower.
- 25 Located 1.5 M SW of the entrance to Pornic, the "Notre-dame" W cardinal light beacon tower marks the WNW end of a line of rocks and shoals that also bears, 1.3 M farther ESE, the "Le Caillou" white beacon tower. Located 0.9 M SW of Le Caillou, the "Pierre-du-Chenal" isolated danger buoy is anchored SW of a rock that uncovers 0.8 m.
- 31 The E part of Baie de Bourgneuf, beyond Pornic, is cluttered with dangers. The uncovering bottoms, with their oyster farms, sometimes lie up to over 2 M off the shore. Recognisable on the coast are the bell towers of Bourgneuf-en-Retz, Bouin and Beauvoir-sur-Mer. The 8 white wind turbines of Bouin, which are highly visible, are located between Port des Champs and Port du Bec.
- The numerous tidal channels that indent the shoreline contain the small ports described in sections 4.6.5.3. to 4.6.5.9.

⁷ Translator's note: this could mean either "background" or "base".

- 01 4.6.5.2. Pornic and La Noëveillard
- 04 This complex is located on the N coast of Baie de Bourgneuf, around 5.5 M E of Pointe de Saint-Gildas, to the W, and **Pointe de Gourmalon**. The dry harbour of Pornic, which is also called Vieux-port, occupies the deep indentation of the coast at the inner end of which the town is located. The La Noëveillard deep water marina (47° 06.5' N 2° 06.7' W) has been reclaimed from the sea to the W of the entrance to Pornic. The port of Pornic is used mainly by fishing, leisure and excursion vessels.
- 07 TIDAL CURRENTS. Off the entrance and in the outer anchorage the flood current flows to the E and the ebb current flows to the W. They reach speeds of 1.5 knots at springs.
- ACCESS. When coming from Saint-Nazaire, vessels pass to the N of Banc de Kerouars, following the N coast of the bay. The indentation of Pornic can be made out from a fair distance on this dark coastline. Upon approach, mariners will then make out the concrete wall that forms the angled dyke of the port of La Noëveillard more clearly.
- 13 A special mark light buoy marks the end of a submarine pipeline, 0.4 M SW of the angle of this line.
- 16 For vessels coming from the W or SW, the access channel is contained between the E end of Banc de Kerouars and the "Notre-Dame" beacon tower. The rocks and rocky shoals that extend to the ESE of this beacon tower, beyond the "Le Caillou" white beacon tower, block the approach to Pornic from the S.
- 19 In the access channel from the SW, vessels are guided by the leading line bearing 056° of the Pornic bell tower and the Noëveillard lighthouse, a square green and white tower and white house (15 m). By night, vessels travel towards the light within its white sector (051° 079°).
- There is a special mark beacon located at the sea water suction intake of the Pornic thalassotherapy resort, in position 116° at a distance of 1395 m from the Noëveillard lighthouse.
- 25 ANCHORAGE. Vessels anchor on the access leading line in a depth of 3 to 5 m, over a bottom of sand and mud.
- 28 PORT OF PORNIC (view 4.6.5.2.A.). The access channel opens between Digue Est of the marina and Pointe de Gourmalon. It is marked by lateral poles and buoys and dries 0.3 to 1.6 m.
- 31 The fishing port is 240 m long from Môle Leray, located on the N shore 750 m NE of Pointe de Gourmalon, as far as the **Haute-Perche** automated discharge valves, which constitute its upstream limit. It has an average width of 70 m.
- 34 The berths dry around 2.4 m. The bottoms are mud, with the exception of a 100 m-long stretch along the downstream part of Quai du Gourmalon (at the E end of the port, S shore) and along Quai de l'Écluse (located on the N shore opposite the previous one) where the bottoms are rocky and covered with a thin layer of mud. The level of the bottom varies by around 0.4 m in accordance with when dredging was carried out, which is at irregular intervals. There is a tide scale located at the inner end of the port close to the valves. It gives the water heights above chart datum.
- 37 The discharge of spates from the Haute-Perche intertidal channel creates a current that must be taken into consideration when entering the port off Môle Leray and mooring at this mole and Quai de l'Écluse.
- 40 Located on the edge of the access channel to the fishing port are the communal dry harbours for leisure vessels and small craft: in Anse aux Lapins, Gourmalon side, and in Anse du Château, Pornic side. These ports are equipped with end-on moorings on deadmen that are spread across 4 areas. Located S of Anse du Château, there is a large terreplein with a slipway that is managed above the highest high waters, for lightweight centreboard boats.

[Photo]

4.6.5.2.A. - Pornic (Vieux-port), to the NE (2008).

- 46 PORT OF LA NOËVEILLARD (view 4.6.5.2.B.). This marina is located in a rectangular basin that may be accessed at any time, except at low water with a coefficient of 90 or greater, and in all weather, except in winds from the SE of force 7 or greater. Its entrance passage, which is 35 m wide and open to the E, is delimited by 2 thick metal piles bearing lights and a third port lateral mark pole. These poles mark the inner overhang of the wide base of the dykes.
- The port is equipped throughout with pontoons and catwalks, with a depth of 1.7 to 2.2 m.

52

[Photo]

4.6.5.2.B. – La Noëveillard, to the NE (2008).

- 55 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows:
 - La Noëveillard: 920 berths, 165 of which are for vessels in transit; maximum length 25 m; draught 3.5 m; water and electricity at the pontoons; sanitary facilities; fuel; a crane with a capacity of 1.5 t and a hoist with a capacity of 50 t; slipway and careening area; chandleries, repair workshops and guard service;
 - Pornic: 340 grounding berths, around 30 of which are for vessels in transit; launching slipway at Digue Gourmalon (communal port) with 0 m of water at its foot.
- 58 INFORMATION. Department of Loire-Atlantique (44); 12,100 inhabitants.
- 61 Harbour master's office: port of La Noëveillard; tel: + 33 (0)2 40 82 05 40; fax: + 33 (0)2 40 82 55 37.

- 64 Communal port of Gourmalon: tel: + 33 (0)2 40 82 42 26.
- 67 Maritime Affairs: 9 boulevard de Verdun, 44600 Saint-Nazaire; tel: + 33 (0)2 40 22 46 32.
- 70 Customs: rue des Morées, 44550 Montoir-de-Bretagne; tel: + 33 (0)2 40 45 88 70; fax: + 33 (0)2 40 45 82 14.
- 73 CONNECTIONS. Road connections: Saint-Nazaire bridge 22 km away; Nantes 52 km away. Coach to the Saint-Nazaire railway station. Nantes-Atlantique airport 40 km away.
- 76 Maritime connections with Île de Noirmoutier in summer.

01 4.6.5.3. La Bernerie-en-Retz

- 07 La Bernerie-en-Retz (47° 04.7' N 2° 02.4' W), a small dry harbour with a bottom of firm, flat sand that uncovers 2.8 to 3.8 m, is located 3.5 M SE of Pornic. It is tricky to approach due to the presence of Les Grands Rochers, which separate it from the safe waters, to the W. It may be accessed only in calm seas with good visibility, via a narrow opening to the S. Good knowledge of the area is necessary.
- 13 The grounding area is protected to the W by a dyke made up of loose boulders that is 100 m long and bears a light at its end. There is an enclosed water area, for nautical activities, managed within the shelter of the N part of the dyke.

01 4.6.5.4. Port of Le Collet

- 07 Port of Le Collet (47° 01.7' N 1° 58.8' W), a coastal fishing and shellfish farming port located 4 M SE of Bernerie-en-Retz, consists of a long canal enclosed upstream by valves and the N bank of which features some wooden piers at the ends of which vessels ground on a bottom of soft mud.
- 13 A set of leading lights bearing 118.5° consisting of 2 cylindrical white pylons with green tops (8 and 15 m) with topmarks (white with a vertical green stripe down the middle for the front one, vice-versa for the rear one), leads to the 2 lateral beacons at the entrance to the access channel. At this entrance the bottoms uncover 1.7 m. Then, the channel dug into the mud is marked by poles. There is a light borne by a square white shelter, the upper edge of which is red (6 m), located on the N bank of the tidal channel, close to the entrance to the port.
- Mariners must be wary of the current created by the overspill of the tidal channel over the valves. The piers are all private. The port has a launching slipway.

01 4.6.5.5. Les Brochets

07 The port of Les Brochets (46° 59.9' N – 2° 02.2' W) [view 4.6.5.5.], is located on the left bank of the tidal channel of the same name; a white beacon tower (7 m) bears a sector light. It is able to receive vessels up to 12 m long, 4 m wide and with a draught of 3 m at springs (1 m at neaps).

[Photo]

4.6.5.5. – Les Brochets, to the ESE (2002).

- 19 The axes of the 2 white sectors (091° 102.5°) and (116.5° 119.5°) show the 2 approach routes through the **Roches de Bouin**. The N-most route leads directly to the entrance to the channel, the axis of which heads in the same direction, but it leads over some rocks that uncover 5.2 m. The S-most one heads through a gap that is marked by the "Ringeau" port lateral pole and the "Petit Ogé" starboard lateral pole. This gap is obstructed by rocks that are awash or uncover slightly. By day, vessels enter it following a bearing of 120° towards the Bouin bell tower and they then follow the leading line bearing 058° of the Bourgneuf-en-Retz bell tower and Pointe des Poloux as far as the entrance to the channel marked by a pair of lateral beacons that form a gate. After this the channel is marked only on the N side by a row of stakes from which vessels should be kept at a distance of 5 to 7 m.
- 25 The port forms a fairly long canal between the riprap on both shores, rooted at which are numerous small wooden piers, all of which are privately owned. It has 2 slipways that are reserved for professionals and a fuel berth.
- 31 0.4 M S of Les Brochets, Étier de la Louippe flows out through an opening in the concrete dyke that borders the entire coast. Vessels may enter this mouth by staying close to the riprap on the N bank. Some poles delimit the shoals on the S side. Vessels moor to small isolated wooden piers, which are the only things that remain uncovered at high water at springs.

01 4.6.5.6. Port of Les Champs

- 07 This tidal channel is located 1.5 M S of Étier de la Louippe, which itself flows out through an opening in the coastal dyke, and is able to receive vessels up to 10 m long, 4 m wide and with a draught of 4 m at springs (2 m at neaps). It houses a small oyster farming port that consists of numerous piers, all of which are private, that line both shores as far as the valves of the spillway.
- 13 It is accessed via a straight channel that is roughly marked. The entrance to the port is marked by a starboard lateral beacon with reflective boards. There are shoals lying off the S bank and vessels must remain closer to the N bank, whilst remaining within the axis of the channel.
- 19 The port has 500 m of quays in total and a launching slipway.

01 4.6.5.7. Port of L'Époids (Port-du-Bec)

07 The port of L'Époids (Port-du-Bec) [46° 56.4' N - 2° 04.5' W] (view 4.6.5.7.) is located 2.2 M SSW of the port of Les Champs, in **Étier du Dain**. It is the largest fishing port in Baie de Bourgneuf and is able to receive vessels up to 25 m long, 4 m wide and with a draught of 5 m at springs (3.5 m at neaps).

13

[Photo]

4.6.5.7. - Port of L'Époids, to the SSE (2008).

- 19 **Bec-de-l'Époids**, located on the E side of the entrance, bears a sector light on a square white tower with a red top (7 m). The white sector of this light (171.5° 176°) shows the axis of the access channel, the entrance to which is marked by a starboard lateral buoy, then by the "La Perche" port lateral beacon with reflective boards. Vessels may also reach the entrance to the port in the narrow white sector (157.5° 158.5°) of the light.
- The inner end of the port is enclosed by the valves of a marsh drainage channel. Mariners must be wary of the fairly strong current that these valves may create.
- 31 Both banks of the tidal channel are lined by a total of 500 small private piers that are occupied by numerous coastal fishing and oyster farming vessels, which ground on a bottom of soft mud. There is a masonry flat area, in front of the valves and between the 2 riprap structures, which is used for careening. A straight 70 m-long quay lines the NE bank, close to the valves. The port also has 2 slipways and fuel berths. Three workshops for mechanical repairs.

01 4.6.5.8. Pont-Neuf or the port of La Noue Fromagette

- 77 The port of La Noue Fromagette (46° 54.0' N 2° 07.2' W), located 1.5 M ENE of Goulet de la Fromentine, is a grounding area located in the mouth that is shared between **Étier de la Barre-de-Monts** and the **L'Allière** river. It is able to receive vessels up to 15 m long, 3.5 m wide and with a draught of 2 m at springs (1.5 m at neaps).
- 13 Some poles mark the access channel to this haven from Goulet de Fromentine. At the corner of the remains of an old dyke, a port lateral beacon, with reflective boards, marks the entrance to the port.
- 19 Some small private wooden piers occupy both banks. Many of these are dilapidated.

01 4.6.5.9. Port Fromentine

07 Made up of a port terminal and its maritime station, Port Fromentine (46° 53.6' N $- 2^{\circ}$ 08.5' W) [view 4.6.5.9.] is located 700 m E of the Noirmoutier bridge.

- 13 A starting point for maritime connections to Île d'Yeu, this terminal is located on a concrete platform.
- 19 The following berths are located from W to E:
 - berth 1 reserved for passenger transportation vessels;
 - berth 2 (central part), 80 m long, reserved for freight vessels for supplying Île d'Yeu;
 - berths 3 and 4: 2 pontoons, connected to the platform by footbridges, reserved for private passenger transportation companies, the SNSM [Société national de sauvetage en mer (National Lifeboat Association)] (berth 3) and professional fishing vessels (berth 4).
- 25 Located to the W of the terminal are the remains of an old wooden stockade (40 m) at which vessels may not berth.

[Photo]

B4

B3

B2

Stockade

B1

4.6.5.9. - Fromentine, to the SSE (2008).

- 01 4.6.6. ÎLE DE NOIRMOUTIER
- 07 Chart 7394.
- 13 ENC FR473940.
- 19 Île de Noirmoutier forms the SW edge of Baie de Bourgneuf. 10 M long, it is low-lying with some not very marked raised areas. The coast is foul, with numerous dangers lying off it, with the exception of in the approaches to Pointe des Dames, at its NE end.
- 01 4.6.6.1. Coast, landmarks and anchorages
- When approaching from the W, mariners will see the 2 beacon towers of Goulet de Fromentine and the Noirmoutier bridge (view 4.6.4.1.). Visible 3.5 M S of Goulet de Fromentine is the very pointed bell tower of **Notre-Dame-de-Monts**.
- 13 The Noirmoutier bridge leads to **Pointe de la Fosse**, the S end of the island. Very close to the bridge, to the E, a grounding anchorage area has been organised around the stockade of the old ferry. This stockade, which is still useable, is reserved for passenger vessels during summer. Leisure vessels remain afloat close to the head and they are relatively well sheltered here from winds from the W.
- Recognisable in the S part of the island is the large water tower, located 1 M NNW of Pointe de la Fosse, as well as the pointed bell tower of **Barbâtre**.
- Visible in the N part of the island are: the town of Noirmoutier-en-l'Île (§ 4.6.6.4.) with its bell tower and castle; Bois-de-la-Chaise (to the NE of the town) which covers the upper part of the island and from which the lantern of the **Pointe des Dames** lighthouse barely emerges; the old **Moulin de la Lande**, which is whitened and bears a lookout point, located on the coast immediately to the W of the N edge of Bois-de-la-Chaise; the Pointe de L'Herbaudière radio pylon (§ 4.2.4.).

- 31 Located 2 M WNW of L'Herbaudière, Île du Pilier (view 4.2.4.) is conspicuous due to 2 wind turbines located close to the lighthouse and the old lighthouse.
- 37 The port of L'Herbaudière, located immediately to the E of the headland.
- The other ports and anchorages of Île de Noirmoutier are described in sections 4.6.6.3. to 4.6.6.7.

01 4.6.6.2. L'Herbaudière

- 706 The port of L'Herbaudière (47° 01.6' N 2° 17.8' W) [view 4.6.6.2.], with a depth of 1 to 2.2 m, is located at the NW tip of Île de Noirmoutier and comprises a fishing port and marina that are separated by a central mole
- 11 TIDAL CURRENTS. In Chenal de la Grise, which separates Pointe de l'Herbaudière from the Île du Pilier causeway, the currents are strong. The flood flowing to the NE begins at 0615 HW at Saint-Nazaire and reaches 2 knots. The ebb flowing to the SW begins at 0115 HW at Saint-Nazaire and reaches 2 knots.

16

[Photo]

4.6.6.2. - L'Herbaudière, to the S (2008).

- ACCESS. When coming from Baie de Bourgneuf, vessels access L'Herbaudière by passing between Banc de la Blanche to the N, the **Roches des Pères** and **Basse du Martroger** to the S. There is an isolated head, covered with 1.1 m of water, located almost in the middle of the passage. The white sector (201° 240°) of the Martroger light covers the approach by night.
- When coming from the NW, vessels may pass between Grand Sécé and Banc de la Blanche. Another white sector (124° 153°) of the Martroger light covers the approach by night.
- When coming from the SW, vessels pass through **Chenal de la Grise** between the dangers to the SE of Île du Pilier, marked by the "Passe de la Grise" S cardinal light buoy, and Pointe de l'Herbaudière. The channel is covered by the third white sector (055° 060°) of the Martroger light.
- The white and red radio pylon (48 m), which bears air obstruction lights, located between the port and Pointe de l'Herbaudière, is a good landmark for locating the entrance passage. The access channel, which is bordered on both sides by several rocky heads that are awash or covered only very little, is dredged to a depth of 1.2 m over a width of 25 m. It is marked by 3 lateral light buoys numbered "N 1", "N 2" and "N 3".
- By night, vessels reach the passage by following the leading line bearing 187.5° of 2 lights, 1 of which is located on the E side of the entrance whilst the other is located at the inner end of the marina.

- The passage, which is 35 m wide, opens to the N between the head of Jetée Ouest and a port lateral beacon located around 20 m N of the head of Jetée Est. Each of the 2 heads bears a light.
- 51 Given the orientation of the channel and the jetties that hide vessels exiting the port, sailing vessels with a motor are advised to use it for entry.
- 56 PORT. The fishing port occupies the W part. It is limited to the W and NW by a wide terreplein lined with quays. The deep water berths are positioned along pontoons that are connected to the terreplein by footbridges. A wide launching slipway occupies the SW corner of the port, close to the boat hoist. There are 2 landing slipways, 1 of which is located on the W side of Môle Central whilst the other is located along the W terreplein.
- 61 The marina is equipped with a dozen pontoons with catwalks. It receives vessels at pontoon "F", located in the extension of Môle Central. On the E side of the entrance there is a launching slipway, lined on the outer side by the patent slip and the old haven of the lifeboat, and on the inner side by a pontoon along which the greatest depth can be found (2.5 m). The technical facilities and miscellaneous facilities for recreational use are located in the SE corner and on the terreplein at the inner end of the port.
- 66 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 574 berths, around 50 of which are for vessels in transit; maximum length 15 m, draught 3 m; water and electricity at the pontoons, at quay and at the slipways; sanitary facilities; fuel; crane with a capacity of 30 t and a hoist with a capacity of 140 t; slipways, recovery of black water and careening area; small naval building and repair workshops.
- 71 INFORMATION. Department of the Vendée (85); commune of Noirmoutier-en-Île (§ 4.6.6.4.).
- Harbour master's office: tel: + 33 (0)2 51 39 05 05; fax: + 33 (0)2 51 39 75 97; VHF: channel 9 (working hours: until 22:00 in July and August); email: herbaudiere.port@wanadoo.fr
- 81 Maritime Affairs: at Noirmoutier-en-Île (§ 4.6.6.4.).
- 86 Customs: rue des Morées, 44550 Montoir-de-Bretagne; tel: + 33 (0)2 40 45 88 70; fax: + 33 (0)2 40 45 82 14.

01 4.6.6.3. Bois de la Chaise anchorage

- 67 From June to September, there are 4 rows of berths for anchoring on crossing chains and blocks located off the beaches of Souzeaux, Anse Rouge, Les Dames, Saint-Pierre and Les Sableux. There is a safe water mark landfall buoy anchored in the Bois de la Chaise roadstead (47° 01.3' N 2° 11.9' W). There is a wooden stockade, at which berthing is prohibited due to its dilapidated condition, located at Pointe des Dames (47° 00.7' N 2° 13.0' W) [view 4.6.6.3.]. A sector light on a square white tower (19 m) constitutes a conspicuous landmark.
- When coming from the N, vessels reach the anchorage area by passing between the "Basse des Pères" E cardinal buoy and the "Pierre Moine" isolated danger light beacon tower and by heading towards the Pointe des Dames lighthouse. By night, the white sector of this light (165° 191°) enables vessels to reach the anchorage. This approach sector leads over the W part of Banc de la Chaise, which is covered with almost 2.6 m of water in the axis.

19

[Photo]

Bois de La Chaise

Lighthouse

Plantier tower

4.6.6.3. – Pointe des Dames stockade, to the NNW (2008).

The current flows to the SE during the flood and to the NW during the ebb, with speeds of around 2 knots. Changes of tide take place 45 minutes after low water and before high water. The relief of the island provides the anchorages with decent protection against winds from the W sector. These anchorages are much less comfortable in winds from the N to SE. The muddy bottoms to the S of Banc de la Chaise are of good holding, however it is preferable to moor

to a buoy of the organised anchorages (bureau de gestion des mouillages [anchorage management office], close to the stockade; tel: + 33 (0)2 51 26 03 36).

01 4.6.6.4. Noirmoutier-en-Île

07 Noirmoutier-en-Île (46° 59.4' N – 2° 13.2' W) [views 4.6.6.4.A. and 4.6.6.4.B.], a port the entrance to which is located 1.3 M S of Pointe des Dames, is located downstream of the valves of Étier du Moulin. It is enclosed to the S by a 1000 m-long dyke that bears a light at its head and limited to the NE by Jetée Jacobsen, which is 1800 m long and straight. Vessels with a draught of 2.5 m at springs, 1.5 m at neaps, may access this port via a narrow channel (20 m) running along the jetty.

13

[Photo]

4.6.6.4.A. - Noirmoutier-en-l'Île. Entrance, to the NW (2008).

- 19 The access channel follows the NW edge of La Vendette and the other rocky plateaux that extend to the E of the port. It is marked on the SE side by port lateral poles and 1 starboard lateral pole located 600 m before the first homes.
- At the entrance to the port the flood current flows to the S and reaches 3 knots at springs. The ebb current flows to the N and reaches 2 knots at springs. Within the port, poles mark the mud banks of the marshes that widen the SW side of the channel. At low water this channel is no more than a runnel.
- 31 The port itself is lined on the NE shore by 320 m of quays and 167 m of riprap. The berths along the quays dry 1.8 m with a bottom of soft mud. Vessels may also ground on the other shore on the edge of the channel. The SW shore has a gridiron and, very close to the valves, a wide slipway.

[Photo]

4.6.6.4.B. – Noirmoutier-en-l'Île. The port, to the NW (2008).

- 43 RESOURCES. Provisions; 2 berths with water; 1 berth with electricity; 2 cranes with capacities of 2 and 4 t, a grounding grid; repairs for vessels (wood and plastic) and marine motors; electronics workshop; chandlery shops; sail making; all manner of business in the town.
- 49 INFORMATION. Department of the Vendée (85); 5440 inhabitants.
- 55 Town Hall: tel: + 33 (0)2 51 39 99 99.
- 61 Harbour master's office: tel: + 33 (0)2 51 26 03 36.
- 67 Maritime Affairs: 7 avenue de la Victoire; tel: + 33 (0)2 51 39 94 01; fax: + 33 (0)2 51 39 77 67.
- 73 Customs: rue des Morées, 44550 Montoir-de-Bretagne; tel: + 33 (0)2 40 45 88 70; fax: + 33 (0)2 40 45 82 14.

01 4.6.6.5. Anse de la Guérinière

- 07 Anse de la Guérinière (46° 57.7' N 2° 14.5' W), a grounding area on flat sandy bottoms that uncover from 1 to 3.3 m, is located 5.5 M NW of Goulet de Fromentine, immediately to the E of Pointe de la Loire, which does not provide it with a great deal of protection from winds from offshore.
- 13 The Roches de la Loire, which lie off the headland to the S, are marked by a S cardinal buoy 0.6 M from the coast. Located 1000 m NE of this buoy, a S cardinal beacon marks the outcrop of rocks that uncover most, to the NE of which the grounding area is located. Several old mills stand on the coast, some of which still have their sails. Extending to the E of the grounding area are numerous "bouchots" [mussel pilings] and oyster farms.

01 4.6.6.6. Port of Morin

- 07 The dry harbour of Morin à L'Épine (46° 58.9' N 2° 17.4' W) [view 4.6.6.6.] is protected by a jetty (Digue Julien Boutet) rooted at the foot of the small white structure (7 m) of the light of **Pointe de Devin**. The end of the jetty bears a light.
- 13 The access channel, which is oriented on a bearing of 031.5° and covered by the white sector (028° 035°) of the Pointe de Devin light, leads vessels between the Giglio wreck port lateral light buoy and the **Trois-Noures** rocks starboard lateral buoy, located 0.7 M NE of the wreck. The channel then leads to a port lateral light buoy that forms a gate with a starboard lateral buoy and marks the place at which vessels must leave the white sector of the light. The shallow depths mean that vessels must not navigate level with the end of the jetty.
- 19 The port, which is well sheltered except in winds from SE to S, is able to receive 420 keelless vessels, moored end-on to deadmen, and 120 vessels at the pontoons and catwalks laid out in the hollow created by the jetty. At the entrance to the port, the 2 red buoys "V1" and "V2" are reserved for vessels in transit.
- The port has a slipway, a quay, a travelling crane and services such as telephone, water, electricity, sanitary facilities and laundry services.
- 31 Harbour master's office: tel: + 33 (0)2 51 35 81 26.

[Photo]

4.6.6.6. – Port Morin, to the N (2008).

- 43 MORIN ANCHORAGE (46° 58.5' N 2° 17.7' W). Vessels may anchor in a depth of 1 to 2 m, over a bottom of sand of good holding, 1200 m S of the Pointe de Devin light.
- 49 This is the best, if not the only, anchorage on the W coast of the island.

01 4.6.6.7. Île du Pilier

- 07 Located on the E coast of Île du Pilier (47° 02.5' N 2° 21.5' W) [view 4.2.4.], close to the S end, is a small mole the SE side of which is a quay at the foot of which vessels may ground from around 2 hours before low water. The berths are clear on a bottom of uncovering sand.
- 13 Vessels may also anchor to the E of the lighthouse, close to the white buoy of the lighthouses and beacons service or level with the mole, mentioned above.
- Lying off the island to the NW is the Les Chevaux rocky causeway. Between the latter and the N end of the island, there is a small cove that maintains a depth of 2 m at low water over a flat sandy bottom which may, in calm seas, constitute a good anchorage. Vessels must approach this cove from the NE, as the passage from the SW is obstructed a great deal by rocks.

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CHAPTER 5

FROM ÎLE D'YEU TO POINTE DE LA COUBRE

- 13 Charts 7211, 6990 and 7069.
- 19 ENC FR302020, FR302030 and FR302070.

25

[diagrams]

5. — Map of the chapter.

01 5.1. GENERAL INFORMATION

- 77 The coast of the Vendée, in the N part of the area described in this chapter, is fairly steep; it has no natural shelter against bad weather from the SE to NW by W.
- 13 To the S of the area, Île de Ré and Île d'Oléron form, with the mainland coast of Charente-Maritime, two large roadsteads situated on either side of Île de Ré; Pertuis Breton extends to the N of Île de Ré and Pertuis d'Antioche to the S. Pertuis de Maumusson is the passage between the S end of Île d'Oléron and the mainland. Of these three passages, only Pertuis d'Antioche is accessible by vessels of any size.

01 5.1.1. LANDFALL

07 Île d'Yeu is the landfall point for vessels coming from the SW and heading for the Loire estuary, and for vessels coming from the NW and heading towards La Rochelle (§ 1.7.3.3.).

01 5.1.2. CURRENTS

- 07 References:
 - chart tables providing tidal current characteristics;
 - atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].
- 13 In the Pertuis, the currents are stronger than in the passages between the islands and the mainland. They are very variable, depending on the strength of the wind and the tidal coefficient.
- 19 The currents can be violent at the mouth of the Charente and in Coureau d'Oléron.

01 5.1.3. PILOTAGE

- 07 In the area covered by this chapter, the "La Loire et des Sables d'Olonne" and "La Rochelle Charente" pilotage stations are authorised to steer vessels for which pilotage is compulsory in the ports of Les Sables d'Olonne, La Rochelle-La Pallice and Rochefort.
- 13 The general provisions relating to pilotage stations are the subject of section 5.3.6.4.

01 5.1.4. PORTS

- 07 The Grand port maritime de La Rochelle, near the foot of the bridge of Île de Ré, is a large port complex that focuses on activities relating to commerce, fishing and leisure on several sites.
- 13 The other largest ports are Saint-Gilles-Croix-de-Vie and Les Sables-d'Olonne, on the mainland coast, and Port-Joinville, on Île d'Yeu. The activities in these three ports are related to both fishing and leisure.
- 19 The activities of many ports, the largest of which are Marennes and Oléron, are orientated towards aquaculture.

01 5.1.5. REGULATED AREAS

There are many submarine cables between the mainland and the islands mentioned on the charts. The area is characterised by the important activity of marine farming.

01 5.1.6. CAUTIONARY ADVICE

Plateau de Rochebonne (§ 1.7.3.4.), situated 35 M W of Île de Ré, constitutes the main offshore danger. Fishing is very active, in particular in the approaches to this plateau and along the coast, between Île d'Yeu and Les Sables-d'Olonne.

- 1 5.2. ÎLE D'YEU
- 07 Charts 7402 and 7410.
- 13 ENC FR474020, FR574100 and FR67410A.

01 5.2.1. GENERAL INFORMATION

13

Port Joinville

Lighthouse

Pointe du But

Île Les Chiens Perrins

5.2.1. — Île d'Yeu, to the ESE.

01 5.2.1.1. Signal station

- 07 Saint-Sauveur, lookout station (46° 41.6' N 2° 19.8' W) [§ 1.4.7.2.].
- 01 5.2.1.2. Rescue station
- 07 Port-Joinville (46° 43.6' N 2° 20.8' W).
- 01 5.2.1.3. Tide and currents
- 07 See also the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].
- 13 The current turns to the right near the NW tip of the island, at Les Chiens Perrins. At its highest, the flood heads ENE over the rocks and exceeds 2 knots. The ebb heads in the opposite direction and reaches the same speed. To the SE, at Pointe des Corbeaux, the directions are E and W and the speeds are 2 knots. The prevailing winds have a significant impact on the currents. On the SW coast of the island, the separation line between the flood streams rounding the E and W of the island passes E of Pointe du Châtelet. The streams join together on the NE coast of the island near Pointe Gauthier, 1.3 M ESE of Port-Joinville. Off Port-Joinville the flood, which heads E, begins at 0545 HW at Les Sables-d'Olonne and reaches 1 knot at springs. The ebb, which heads W, begins at 0015 HW at Les Sables-d'Olonne and reaches the same speed at springs.
- On Pont d'Yeu, the current rotates to the right and is very noticeably stronger in the vicinity of the "Pont d'Yeu" S cardinal buoy than in the regular depths farther to the S. Its maximum speed is 1.3 knots towards the NE and 1 knot towards the SW.

01 5.2.2. AREAS

01 5.2.2.1. Pipeline and submarine cables

- With a view to protecting the water pipeline and submarine power and telephone cables connecting Île d'Yeu to the mainland, anchoring, dredging and trawling are prohibited in Pont d'Yeu within a 2.25 M-wide strip, which is marked on the charts.
- 13 The S limit of this area is marked by the "Câbles Île d'Yeu" special mark light buoy anchored 2.6 M NE of Pointe des Corbeaux (Decree 31/69 of 1 December 1969 of the Maritime Prefect of the Second Region).
- 19 The end of the cables on the mainland, at the La Vacherie beach near Saint-Jean-de-Monts, is marked by the leading line on a bearing of 040° consisting of two yellow beacons; the front beacon bears a red triangular topmark and the rear beacon is surmounted by a square topmark.
- 25 Decree 10/86 of 28 February 1986 of the Maritime Prefect of the Second Region grants an exemption to this prohibition to the Yeu marine farming organisation.

01 5.2.2.2. Explosives temporary dumping ground

07 A circular area with a radius of 200 m, designated as a temporary dumping ground for suspect devices caught by fishing nets or fishing equipment (§ 1.6.2.5.) is established around position 46° 42.47' N — 2° 12.99' W.

01 5.2.2.3. Marine farms

Mussel farming facilities extend for 1700 m SE of Pointe de la Conche, at a distance of between 150 and 550 m from the coast. The mussel lines are marked by regularly spaced yellow buoys.

01 5.2.2.4. Artificial reefs

77 There are unmarked artificial reefs submerged in two areas, marked on the charts, situated respectively 3 M E of Pointe des Corbeaux (46° 41.2' N — 2° 12.9' W) and 3 M SW of Pointe du Châtelet (46° 40.8' N — 2° 26.6' W) [Decrees 2003/37 of 1 July 2003 and 2003/62 of 23 September 2003 of the Maritime Prefect of the Atlantic]. These reefs are made up of concrete units. Anchoring, dredging and diving are prohibited in these areas.

01 5.2.2.5. Anchorage area for passenger vessels

07 An area reserved for the anchoring of passenger vessels has been established 0.4 M ESE of the entrance to the port. The mooring of fixed fishing gear is prohibited here. Fishing and leisure vessels must give priority to passenger vessels coming from or heading to this area (Decree 2001/75 of 14 December 2001 of the Maritime Prefect of the Atlantic).

01 5.2.2.6. Prohibited area

07 Navigation, stopping and anchoring by all vessels and craft, as well as diving, are prohibited within a circular area with a radius of 0.2 M around a dangerous wreck situated near Pointe de la Tranche, at position 46° 41.1' N — 2° 19.7' W (Decrees 2000/34 of 26 June 2000 and 2002/18 of 6 May 2002 of the Maritime Prefect of the Atlantic).

01 **5.2.3. PILOTAGE**

77 There is no pilot on Île d'Yeu. There is information available from the port supervisor, for mariners who do not know Port-Joinville, every day from 0900 to 1900 (§ 5.2.6.2.).

- 01 5.2.4. LANDFALL
- 07 See section 1.7.3.3.

01 5.2.5. DANGERS

- The approaches to the SW coast are clean. However, vessels coming from Le Goulet de Fromentine should be wary of Basse de l'Aigle, covered with 2.6 m of water, situated 8 M NNE of the N tip of the island. This shoal is marked to the SW by the "L'Aigle" S cardinal buoy and by a wave recorder light buoy, anchored very close to the E of this buoy.
- 13 The depths are less than 10 m between the NE coast of the island and the mainland, where Récif du **Pont** d'Yeu, marked to the SW by the "Pont d'Yeu" S cardinal buoy, is located. (§ 5.3.3.).
- 01 5.2.6. NE COAST OF ÎLE D'YEU
- 07 Chart 7410.

01 5.2.6.1. Coast, landmarks and anchorages

07 The main landmark is the Île d'Yeu lighthouse (view 5.2.6.1.A.), a high white square tower with a green top (38 m). The "Les Chiens Perrins" W cardinal lighted beacon tower (19 m) (view 5.2.6.1.A.), installed on the reefs of the same name, stands off the coast at the W end of the island.

13

[photo] Île d'Yeu lighthouse, to the E.

[photo]
Les Chiens Perrin beacon tower, to the NE.

5.2.6.1.A. — Île d'Yeu. Landmarks.

- 19 0.8 M E of this beacon tower, **Anse des Broches** provides an anchorage in good weather, it is exposed to winds from SW to E by N. Vessels anchor in 5 to 8 m of water, over a sandy bottom, keeping the lighthouse of the island on a bearing of 155° and the "Les Chiens Perrins" beacon tower on a bearing of 250°, SW of **Le Grand Champ**, uncovering 5.1 m, and of the **Petit Champ** rock (2.7 m). Vessels access the anchorage, from the NW, by setting course on a bearing of 145° on the lighthouse until the beacon tower is on a bearing of 230°, then coming from the small sandy beach that cuts through the cove. In good weather and by day, coming from the S, vessels can pass to landward of the beacon tower, keeping halfway between the latter and Pointe du But. This passage, 0.2 M wide, has a least depth of 2.8 m.
- 25 On the coast, mariners can make out the large church and its square tower with a lantern, a factory chimney, the jetties, the three Port-Joinville lighthouses, and, to the SW of the port, a high white water tower (view 5.2.6.1.B.).

31

[photo]

Church

Water tower

Old lighthouses

Chimney

5.2.6.1.B. — Île d'Yeu. Port Joinville landmarks.

37 The SE end of the island is low-lying and is marked by the **Pointe des Corbeaux** lighthouse (view 5.2.6.1.C.), a white square tower with a red top (19 m).

43

[photo]

5.2.6.1.C. — Île d'Yeu. Pointe des Corbeaux lighthouse, to the NNE.

01 **5.2.6.2. Port-Joinville**

05 Port-Joinville (46° 43.7' N — 2° 20.8' W) [view 5.2.6.2.] is a fishing port and marina established on the N coast of Île d'Yeu. It is well protected from winds from E to NW by S. The swell enters the port in winds from NW to NE and there is a backwash in bad weather.

09

[photo]

5.2.6.2. — Île d'Yeu. Port-Joinville, to the SSW (2008).

- 13 ACCESS. For landmarks by day, see above (view 5.2.6.1.B). When coming from the NW, vessels must enter the entrance channel more than 1000 m from the coast, in order to avoid **Basse Cantin**, which uncovers 0.3 m, then **Basse du Bouet**, which uncovers 0.6 m, situated 1 and 0.3 M NW of the entrance respectively.
- 17 The La Sablaire bank extends from the E side of the entrance, with a least depth of 3.3 m, marked at its S end by the "La Sablaire" S cardinal light buoy. To the N of this bank, Basse Mayence, covered with at least 5 m of water, is marked to the N by the "Mayence" N cardinal buoy.

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- 21 By day, vessels enter the passage by setting course on a bearing of 204° on the church, bearing slightly to port of the head of Jetée NW, which bears a white metal quadripod lighthouse with a green top. The white octagonal beacon tower on the old lighthouse of this jetty is easily visible 100 m SW of the head (view 5.2.6.2.). By night, vessels follow the leading lights on a bearing of 219°. The white sector (279° 285°) of the light on Jetée NW allows vessels to approach from the SE by passing to the S of the "La Sablaire" buoy before opening to the NW to take the leading line on a bearing of 219°.
- Around 100 m SE of the entrance, the "La Galiotte" port lateral buoy marks the bottoms covered with 0.3 to 0.7 m of water.
- 29 ANCHORAGE. In good weather, vessels can anchor off Port-Joinville between the access to the port and Banc la Sablaire, in 5 to 7 m of water, over a sandy and gravel bottom of fairly good holding. Leisure vessels can also find a suitable anchorage sheltered from the S, in 2 to 3 m of water, off Anse de Ker Châlon 0.6 M SE of the entrance.
- PORT. The port includes: the marina and the non-tidal basin, in the E part, basins 1 to 3 in the S part and the W part. The depths in the marina vary between 1.5 and 2.5 m. The basins and the access channel are dredged to 1.50 m. The height of the water in the non-tidal basin is maintained at 3.70 m by a lock gate.
- 37 Basin 1 is reserved for fishing vessels. Basin 2 is reserved for passenger transport vessels and small local leisure craft. The non-tidal basin accommodates fishing vessels and coasters, as well as leisure vessels during July and August. The lock gate, the sill of which is at chart datum, is open on average from 0200 HW to + 0200 HW. In basin 3, the W quay is used by passenger vessels providing a connection with the mainland. The E quay is used for unloading operations at the fish market.
- The marina, situated in the NE part, is equipped with pontoons and catwalks. The international port traffic signals are displayed on the mast situated at the entrance, NW side. Only exit movements from the marina are subject to restrictions, from 1 May to 31 August, during passenger vessel or public service vessel manoeuvres.
- EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 650 berths, 200 of which are for vessels in transit; maximum length 25 m, draught 2.5 m; water and electricity at the pontoons; sanitary facilities; fuel at the quay; 15 t crane; slipway and gridiron; hull and engine repairs possible; marine supplies; all trades in the town.
- 49 INFORMATION. Department of the Vendée (85); commune of Île d'Yeu (4870 inhabitants).
- 53 Port surveillance: tel: +33 (0)6.07.74.84.19; telephone/fax: +33 (0)2.51.59.20.39.
- 57 Marina harbour master's office: tel: +33 (0)2.51.58.38.11; fax: +33 (0)2.51.26.03.49; VHF: channel 9 (working hours: until 2100 in season).
- 61 Local maritime fishing committee: tel: +33 (0)2.51.58.51.88.
- 65 Health care centre (evacuation by helicopter): tel: +33 (0)2.51.26.08.00.
- 69 Saint-Sauveur semaphore: tel: +33 (0)2.51.58.31.01.
- 73 Maritime affairs: Quai de la Mairie, 85350 Île d'Yeu; tel: +33 (0)2.51.59.42.60; fax: +33 (0)2.51.58.78.52.
- 77 Customs: at Saint-Gilles-Croix-de-Vie.
- 81 CONNECTIONS. Regular connections by passenger vessels with Fromentine and, in summer, with Saint-Gilles-Croix-de-Vie and Les Sables-d'Olonne. Private airport; regular connections with Roche-sur-Yon and Nantes, as well as with Les Sables-d'Olonne in summer.
- 01 5.2.7. SW COAST OF ÎLE D'YEU
- 07 Chart 7410.
- 01 5.2.7.1. Coast, landmarks and anchorages
- 07 The Saint-Sauveur semaphore, 40 m to the N, with a red and white microwave tower with air obstruction lights (view 5.2.7.1.A.), is located 2 M W of Pointe des Corbeaux.

⁸ Translator's note: The French reads "sheltered from the S", however this could either mean "sheltered to the S" or "sheltered from S winds".

[photo]

5.2.7.1.A. – Île d'Yeu. Semaphore, to the ENE.

Anse des Vieilles (view 5.2.7.1.B.) is situated 0.8 m E of the lookout station. Vessels anchor sheltered from NW winds, but not from the swell, in 7 to 8 m of water over a sandy bottom, on the leading line of the Saint-Sauveur bell tower by the left side of Plage des Vieilles on a bearing of 313°. Out to sea, the Saint-Sauveur bell tower is hidden by trees. In order to avoid the Ours des Vieilles uncovering rocks, which limit the cove to the W, vessels access the latter from the SE, by setting course on a bearing of 290° on the Saint-Sauveur lookout station until the Les Courbeaux lighthouse is on a bearing of 075°, then towards the anchorage.

25

[photo]

5.2.7.1.B. – Île d'Yeu. Anse des Vieilles, to the N.

- 31 The small port of La Meule is located in an indentation in the coast, 0.6 M W of the lookout station.
- 01 5.2.7.2. Port of La Meule
- 07 The shelter port of La Meule (46° 41.6' N 2° 20.7' W) [view 5.2.7.2.], formed by a very narrow indentation, is situated around the middle of the S coast of the island. It acts as a refuge for small fishing vessels and is used by leisure vessels because of its fairly picturesque location.

[photo]

5.2.7.2. – Île d'Yeu. Port of La Meule, to the N.

- 19 The entrance between the grey beacon tower with a red top (6 m) of a sector light, on the W side, and a white chapel on the E side, is visible from the open sea, but not from too far away. By night, vessels are guided by the white sector (018° 027.5°) of the light.
- The port does not provide safety in storms from the SE or SW. In settled weather and offshore winds, leisure vessels can anchor off the entrance rather than inside the port, as the water area is small.
- 31 There are two coves and a quay bordering the W side of the inlet. Its flat, firm sandy bottoms uncover

01 5.3. BETWEEN LE GOULET DE FROMENTINE AND PERTUIS BRETON

- 07 Charts 7068, 7069, 7402, 7403 and 7404.
- 13 ENC FR473940, FR474020 and FR402170.

01 5.3.1. GENERAL INFORMATION

01 5.3.1.1. Signal station

07 Les Baleines (Île de Ré), semaphore (46° 14.5' N — 1° 33.7' W) [§ 1.4.7.2.].

01 5.3.1.2. Rescue stations

07 Saint-Gilles-Croix-de-Vie (46° 41.9' N — 1° 56.8' W); Les Sables-d'Olonne (46° 29.9' N — 1° 47.6' W); Port-Joinville (46° 43.7' N — 2° 20.8' W).

01 5.3.1.3. Tidal currents

- 07 See also the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].
- 13 Out to sea, the currents rotate clockwise; their maximum speed is less than 1 knot, except to the W of Pertuis Breton, where they can reach 2.2 knots. The speed of the currents also increases in the vicinity of the coasts.

01 5.3.2. AREAS

01 5.3.2.1. Submarine pipelines and cables

- 07 In order to protect submarine pipelines and cables, anchoring, trawling or dredging are prohibited in the two areas the limits of which are provided below:
- 13 BETWEEN ÎLE D'YEU AND THE MAINLAND. See section 5.2.2.1.
- 19 SW APPROACHES TO SAINT-HILAIRE-DE-RIEZ. In a 0.5 M-wide strip, centred on the broken line connecting the following positions (WGS 84):
 - A: 46° 43' N 2° 00' W;
 - -B: 46° 35.5′ N 2° 07.8′ W;
 - C: 46° 33' N 2° 22' W;
 - D: 46° 30' N 2° 26.8' W.
- 25 The end of this line at the coast, 2.15 M NW of Pointe de Grosse Terre, is shown by the leading line on a bearing of 040° of two special mark beacons.
- 31 Mariners should be wary of the many disused cables surrounding this area.
- 37 The area and the route of the cables are marked on the charts (Decree 2007/81 of 15 October 2007 of the Maritime Prefect of the Atlantic).

01 5.3.2.2. Explosives temporary dumping ground

Two circular areas with a radius of 200 m, designated as temporary dumping grounds for suspect devices caught by fishing nets or fishing equipment (§ 1.6.2.5.) are established around positions 46° 40.64' N — 1° 59.58' W (approaches to Saint-Gilles-Croix-de-Vie) and 46° 31.23' N — 1° 51.47' W (approaches to Les Sables-d'Olonne).

01 5.3.2.3. Regulated fishing

07 The entrances to the ports of Saint-Gilles-Croix-de-Vie and Les Sables d'Olonne are protected by areas, marked on the charts, in which the anchoring of passive fishing gear is prohibited (*Decrees 45/93 of 19 July 1993 and 02/98 of 2 February 1998 of the Maritime Prefect of the Atlantic*).

01 5.3.3. DANGERS AND BEACONAGE

- 07 SW of Notre-Dame-de-Monts, the Pont d'Yeu reef is extended by a submarine causeway, generally covered with less than 9 m of water and known as **Pont d'Yeu**, which connects the shallow depths lying off Île d'Yeu to the NE. The "Pont d'Yeu" S cardinal buoy, anchored 5.5 M SW of Notre-Dame-de-Monts, marks the SW end of the depths under 5 m.
- 13 Les Barges d'Olonne extend out to sea to the W of Pointe de l'Aiguille off Les Sables-d'Olonne. The Grande Barge, near the W edge, bears the Les Barges lighthouse. The Petite Barge, which stands off the SW end of the dangers, is marked by a S cardinal light buoy. A dangerous isolated rock, Basse Vermenou, is located 1.3 M W of the lighthouse. In poor weather, the sea breaks from this shoal as far as the land.
- 19 Plateau de Rochebonne, situated around 30 M SW of Les Sables-d'Olonne, is described in section 1.7.3.4.

01 5.3.4. FROM LE GOULET DE FROMENTINE TO LES SABLES-D'OLONNE

07 Chart 7402.

31

- 13 ENC FR473920 and FR474020.
- The coast of the Vendée is generally clean, except to the NE of Île d'Yeu and in the approaches to Les Sables-d'Olonne, but does not provide any shelter in bad weather from SE to NW by W. The entrance to Saint-Gilles-Croix-de-Vie is therefore blocked by breakers.
- 25 Refer to section 4.6.5. for landmarks situated in the S vicinity of Le Goulet de Fromentine.

01 5.3.4.1. Coast, landmarks and anchorages

- 67 From Le Goulet de Fromentine to Saint-Gilles-Croix-de-Vie (§ 5.3.5.), the coast is made up of a long beach bordered by wooded dunes. 4 M S of Le Goulet, the white buildings of Notre-Dame-de-Monts stand out clearly in the forest. There are two conspicuous water towers in the approaches to this town: the Grande Croix water tower, 1.5 M ENE, and the Saint-Jean-de-Monts water tower, 4 M SE.
- 13 The port of Saint-Jean-de-Monts, which can be recognised by its long wooden stockade, is described in section 5.3.4.2.
- 19 5 M SE of Saint-Jean-de-Monts, on the edge of the beach, the leading line of two special mark beacons marks the end of submarine cables (§ 5.3.2.1.). Saint-Gilles-Croix-de-Vie can be made out because of the water towers that surround it and the pointed bell tower of Saint-Hilaire-de-Riez. This entire coast is lined with many villas and large buildings visible from out to sea, especially when level with Saint-Jean-de-Monts.
- 25° A rocky plateau extending up to 1.5 M offshore lies off **Pointe de Grosse Terre**, bearing a lighthouse, a white truncated conical tower (17 m) [view 5.3.4.1.A.], 2.5 M farther to the SE.

[photo]

5.3.4.1.A. – Grosse Terre lighthouse, to the SE (2008).

37 The port of Saint-Gilles-Croix-de-Vie, established to the NE of this lighthouse, is described in section 5.3.5.

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- Then, as far as Les Barges d'Olonne, the coast, which is low-lying, sandy and wooded, is made up of beaches cut into by rocky plateaux.
- The many reefs that make up Les Barges d'Olonne extend up to 2.5 M offshore, to the W of Les Sables-d'Olonne. The Les Barges lighthouse, a 29 m-high grey tower (view 5.3.4.1.B), stands on the Grande Barge (46° 29.7' N 1° 50.5' W). The La Chaume lighthouse, or Tour d'Arundel, a large grey crenellated tower with a white beacon tower on top (27 m), stands 2 M farther E at the entrance to the port of Les Sables-d'Olonne. The L'Armandèche lighthouse (view 5.3.4.1.C), 0.5 M WSW of the latter, is a white hexagonal tower with a red top (39 m). The town of Les Sables-d'Olonne is recognised by many structures, of which a red and white radio pylon is clearly visible 1.3 M NNW of this lighthouse.

[photo]

5.3.4.1.B. – Les Barges lighthouse, to the E.

61

[photo]

5.3.4.1.C. – L'Armandèche lighthouse, to the E.

- 67 The port of Les Sables-d'Olonne is described in section 5.3.6.
- 01 5.3.4.2. Saint-Jean-de-Monts
- 07 In Saint-Jean-de-Monts (46° 47.2' N 2° 05.0' W) [view 5.3.4.2.], a 400 m-long stockade, perpendicular to the shore, the end of which bears a light, is used in the summer by vessels providing a connection with Île d'Yeu. A deadman anchorage area, marked from 15 May to 15 September, is established

to the SW of the end of the stockade. In season, it is serviced by a shuttle service and includes berths for vessels in transit. Information can be obtained from the boating centre situated 100 m NW of the root of the stockade (tel.: +33 (0)2.51.58.00.75).

13

[photo]

5.3.4.2. Saint-Jean-de-Monts. The stockade, to the E (2008).

01 5.3.5. SAINT-GILLES-CROIX-DE-VIE

- 07 Chart 7402.
- 13 ENC FR474020.
- 19 The port of Saint-Gilles-Croix-de-Vie (46° 41.6' N 1° 57.4' W) [view 5.3.5.] is a fishing port and marina established at the mouth of the river Vie. Its marina area, known as **Port-la-Vie** (or simply marina) is situated immediately upstream of the fishing basins.

25

[photo]

5.3.5. – Saint-Gilles-Croix-de-Vie. Access, to the NE (2008).

01 5.3.5.1. Access

- 07 The landmarks are described in section 5.3.4.1. When vessels come from the NW, the jetties are hidden by Pointe de Grosse Terre. The overhang of the **Pill'Hours** rock, over which the sea breaks in fresh onshore winds, stands off the latter. This danger is marked around 700 m to the SW by the "Pilours" S cardinal light buoy.
- 13 CURRENTS. In the approaches to Saint-Gilles-Croix-de-Vie, the tidal currents are weak and rotate anti-clockwise. They are generally cancelled out by currents caused by the prevailing winds. In the access channel, between the jetties, the currents reach 2.2 to 3.4 knots. The flood current is less violent: 1.2 to 1.9 knots.
- 19 ANCHORAGE. The roadstead, sheltered from winds from N to E, only provides a temporary anchorage. It is hardly protected from the strong onshore winds. In land winds, vessels anchor in 3 to 4 m of water, over a bottom of sand and mud, immediately SE of the entrance leading line.
- 25 ANCHORING PROHIBITED. See section 5.3.2.1.

- 31 CHANNEL.— The passage opens to the SW between Jetée de Boisvinet to the NW and the very long Jetée de la Garenne, which, to the SE, largely overlaps the former. Each bears a light at its head. The light on Jetée de Boisvinet can be difficult to make out, due to road traffic lights in the background. The entrance axis is shown by the leading line on a bearing of 043.7° of two lights on two white square towers with red tops (7 and 24 m). This route leaves the "Pilours" buoy, then the dangers of the Pill'Hours rock 120 m and 160 m to the NW, respectively.
- 37 From the jetties as far as the marina, the channel is 1 m deep. The channel is narrow and vessels must remain on the leading line as far as the bend; beyond this, it is a little wider and is well marked by small buoys.

[photo]

5.3.5.1. – Saint-Gilles-Croix-de-Vie, to the E (2008).

01 5.3.5.2. Port

- 07 Almost all of the facilities are situated on the right bank, upstream of Grand Môle, which bears an old light at its end and which used to constitute the protection of the old port. This mole provides mediocre protection to a pontoon, where around twenty local leisure vessels remain afloat. A pier, in 1.5 m of water, used for the berthing of shuttles providing a connection with Île d'Yeu, is located immediately upstream of this pontoon.
- 13 A grounding area extends upstream, on the same bank and in the hollow of the bend. Two tidal basins intended for fishing follow on from it. They provide around 1000 m of quays, 260 m of which are on the edge of the channel where fishing vessels can remain afloat; the depth in the basins is 1 m.
- 19 Following on from the fishing port, the marina is equipped with pontoons with catwalks. There are seven pontoons rooted on the right bank. There is a group of eight pontoons directly next to the curve of the channel, on the side of the left bank. There are mooring buoys anchored downstream of these pontoons.
- 25 Pontoon no. 8, situated at the inner end of the marina, upstream of the technical and fuel station area, is reserved for vessels in transit.
- 31 On the left bank, the straight quays of Saint-Gilles-sur-Vie (or fitting out quay) extend for 150 m. The bottom here uncovers 1.5 m.
- 37 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 1000 berths, of which 100 are for vessels in transit; maximum length 20 m; draught 3 m; water and electricity at the pontoons; sanitary facilities; fuel; 35 t lift and small mast crane of 2.2 t; launching slipway and grounding grid, slip dock (40 m x 25 m, at 2 m above chart datum); naval building and repair yards (wooden and plastic hull, engines, electronics).
- 43 Slip dock (40 m x 25 m) at 2 m above chart datum, upstream of the marina.
- 01 5.3.5.3. Town
- 07 Department of Vendée; 7000 inhabitants.
- 13 INFORMATION.

- 19 Maritime service: Quai Marcel Bernard; telephone and fax: +33 (0)2.51.54.60.63; mobile: +33 (0)6.30.17.79.54.
- Marina harbour master's office: Boulevard de l'Égalité; tel: +33 (0)2.51.55.30.83; VHF: channel 9 (working hours: until 2200 in season); email: port.la.vie@wanadoo.fr
- 31 Maritime affairs: Boulevard de l'Égalité; tel: +33 (0)2.51.55.10.58.
- 37 Customs: Les Sables-d'Olonne.
- 43 CONNECTIONS. The port is connected by departmental roads to Saint-Jean-de-Monts (17 km), Les Sables-d'Olonne (30 km) and Roche-sur-Yon (prefecture) [43 km].
- 49 Railway [SNCF] station. Roche-sur-Yon-les Ajoncs airport 50 km away.
- 55 Shuttles providing connections with Île d'Yeu.

01 5.3.6. LES SABLES-D'OLONNE

- 07 Charts 7403 and 7411.
- 13 ENC FR402170 and FR474020.
- 19 Les Sables-d'Olonne (46° 29.3' N 1° 47.4' W) [view 5.3.6.] is a fishing and commercial port made up of an outer harbour, or dry harbour, and a non-tidal basin that can accommodate vessels up to 110 m long and 16 m wide, with a draught of 4.5 m at neaps and 6.5 m at springs. It also includes the Port Olona marina in the N part and the port of the Chamber of Commerce and Industry of Vendée, Quai Garnier, in the W part of the outer harbour.

25

[photo]

5.3.6. - Les Sables d'Olonne, to the NNE (2008).

01 5.3.6.1. Tidal currents

- 07 The characteristics of the current 0.4 M SW of the Les Barges lighthouse are shown in table 5.3.6.1. (times refer to the HW time at Les Sables-d'Olonne).
- 13 In the channel, between the jetties, the flood current does not exceed 1 knot, except when the sluice gate is open. In this case, the current can reach 1.5 knots on the flood and 2 knots on the ebb.

Times	Direction	Speed at springs
-0600 (-0545 at neaps)	310°	0.3 knots
-0300 (-0245 at neaps)	090°	1.0 knot
HW (+ 0015 at neaps)	180°	0.5 knots
+ 0300 (+ 0315 at neaps)	270°	1.0 knot

5.3.6.1.- Tidal currents 0.4 M SW of the Les Barges lighthouse.

25 TIDE SCALES. – Jetée Saint-Nicolas and the basin gates are equipped with tide scales marking the heights of the water in relation to chart datum.

01 5.3.6.2. Channels and beaconage

- 07 Two main passages for normal traffic and a secondary passage for local users lead to the Les Sablesd'Olonne roadstead.
- 13 SW PASSAGE. This passage is the normal access track to Les Sables d'Olonne. The axis on a bearing of 032.5° of this passage, which is also the compulsory access track for vessels transporting oil (§ 7.4.2.), is shown by the leading line of the La Potence lighthouse by a metal mast bearing a light, installed on the seafront. The lights are permanently lit, but the leading line, against a backdrop of buildings, is not easy to make out by day. A red mark, painted on the parapet wall of the sea boulevard, at the base of the metal mast of the front light, makes it easier to identify.
- 19 This channel passes W of **Barre Marine**, covered with 8 m of water, and E of the **Le Nouch** rock, covered with 0.7 m of water and marked 300 m S and N by the "Nouch Sud" S cardinal light buoy and the "Nouch Nord" N cardinal light buoy.
- 25 SE PASSAGE. The leading line, marked on the chart, of the La Chaume lighthouse, which is not clearly visible by day amongst neighbouring constructions, by that of Jetée Est (Jetée des Sables) on a bearing of 320°, passes successively over Basse de la Pironnière, covered with 8.8 m of water, situated 1.3 M WSW of the Saint-Jean-d'Orbestier abbey, and E of Barre Marine, situated 1 M farther NW, in a least depth of 7 m. On this leading line, the tower of the La Chaume lighthouse is partially hidden by a white building; when coming from out to sea, only the upper crenellated part is visible.

01 5.3.6.3. Vessels transporting oil or dangerous substances, the gross tonnage of which is greater than 3000

- 07 Decree 2006/69 of 30 August 2006 of the Maritime Prefect of the Second Region (§ 7.4.2.).
- 13 1. Approach channel. 300 m-wide channel, centred on the leading line on a bearing of 033° (actually 032.5°) of the La Potence lighthouse by a minor post bearing a light, from a position situated 8 M from this lighthouse as far as the leading line of the La Chaume lighthouse by that of Jetée des Sables on a bearing of 320°.
- 2. Holding area. The holding area is limited by latitudes 46° 28.3' and 46° 28.6' N and longitudes 1° 46.6' and 1° 47.0' W.
- 3. Access channel. The access channel is a 200 m-wide channel, the axis of which is the leading line of the La Chaume lighthouse by that of Jetée des Sables on a bearing of 320°, from a position situated on the leading line of the La Potence lighthouse by the L'Estacade lighthouse (disused) on a bearing of 051°, up to 0.8 M from the Jetée des Sables lighthouse; it is subject to pilotage obligations.
- 31 4. Semaphores affected. Saint-Sauveur (Île d'Yeu) or Les Baleines (Île de Ré).

01 5.3.6.4. Pilotage

- 07 Pilotage is provided by the pilots at the La Loire station and the Les Sables-d'Olonne station, the headquarters of which are at Nantes. It is compulsory for entry to and departure from the port for vessels with a length equal to or greater than 50 m, as well as for any vessel transporting oil or dangerous substances.
- 13 The compulsory pilotage area includes the approaches to the port of Les Sables-d'Olonne, which are limited on the seaward side by two straight lines extending from position 46° 28.9' N 1° 50.4' W, one passing by the Les Barges lighthouse and the other by the La Péruse rock (46° 28.5' N 1° 45.9' W). In addition, the pilots from the station are authorised to provide pilotage in an area between Plateau des Birvideaux and Les Sables-d'Olonne, for vessels that request it.

- Vessels anchor in the roadstead while waiting for the pilot. A VHF watch is provided by the Les Sablesd'Olonne-Port station (publication Radio communications for monitoring traffic and pilotage). Vessels must confirm their ETA and their draught one hour prior to their arrival in the roadstead.
- The pilot cruising vessel stops in the port and remains ready to get underway as soon as the vessel arrives in the vicinity of Grande Rade.
- In bad weather, vessels must await the pilot's instructions in the holding area (§ 5.3.6.3.) before approaching.

5.3.6.5. Anchorages

- The roadstead, open to winds from SE to W by S, is dangerous in gusts of wind from the SW. Vessels must only anchor there in good weather. The best holding is located in 10 m of water over a muddy bottom, at the intersection of the two passages, SW and SE.
- Petite Rade provides, to the NNW of the previous anchorage, to port of the leading line on a bearing of 320°, an anchorage in 6 to 8 m of water over a bottom of sand and clay. There is an uncovering wreck marked by the "Jean Marthe" isolated danger buoy, which vessels leave to starboard when entering.

01 5.3.6.6. Signals

- The following signals, displayed on the manoeuvring post of the lock in the non-tidal basin, mark the 07 conditions of use of the basin:
- By day and night, a fixed green light indicates that the gate is open and a fixed red light indicates that the
- A flashing orange light positioned at the top of the signal mast of the lock area indicates that a commercial vessel is in the process of entering or exiting the port.

5.3.6.7. Port 01

The access passage is open to the SE between two jetties, the heads of which each bear a light. 07

13

[photo]

5.3.6.7.A. - Les Sables-d'Olonne. Access, to the NNW (2008).

To the W, Jetée Saint-Nicolas, extended by Quai George-V (Quai de la Chaume), has masonry blocks and a natural rocky scarp lying off it; vessels are therefore not able to approach within 25 m of it. To the E, Jetée des Sables also has a scarp lying off it up to a distance of 7 m. In order to pass through the passage, vessels take the leading line on a bearing of 328.1°, open to port, of a lighted beacon tower with a red and white rectangular topmark, by a shelter bearing a light and a red rectangular topmark. The depth of the channel, on the leading line, varies between 2.75 and 2 m between two dredgings. It is around 20 m wide.

[photo]

Port Olona

Non-tidal basin

Outer harbour

5.3.6.7.B. – Les Sables-d'Olonne. The port to the N (2008).

- 31 OUTER HARBOUR. The outer harbour (or dry harbour, or indeed tidal basin) occupies the area of water situated S of the terreplein surrounding the non-tidal basin. It is bordered by quays on its entire perimeter. The depth is 1.5 m, with the exception of a 20 m-wide strip along the fish market on one side and along the lightening quay, situated to the NW, on the other side, where there is a depth of 2 m.
- 37 The Quai E. Garnier marina, managed by the Chamber of Commerce and Industry of Vendée, is made up of six pontoons with a capacity of 120 berths established perpendicular to Quai R. Guinée, heading back to the W corner of Quai E. de Franqueville. Farther E, six pontoons, reserved for fishing, are established perpendicular to Quai E. de Franqueville.
- 43 NON-TIDAL BASIN. This basin constitutes the commercial port. The lock, with a single gate, is 18 m wide. Its sill is 1.5 m below chart datum. It is open on each tide from 0130 HW to + 0130 HW at neaps and from 0200 HW to + 0200 HW at springs.
- 49 MARINA. The marina, Port Olona, is situated N of the commercial and fishing port. The access channel is dredged from 2 to 5 m. This marina is made up of two basins (Port Olona 1, to the W, and Port Olona 2, to the E), separated by a technical area. It is equipped with pontoons with catwalks. Vessels in transit must, upon their arrival, moor at the reception pontoon situated under the marina harbour master's office, on the NW bank of the access channel, in order to settle the formalities.
- 55 EQUIPMENT. RESOURCES. The main equipment and resources provided are as follows: 1400 berths, of which around 100 are for vessels in transit; maximum length 25 m, draught 4 m; water and electricity on the quays and at the pontoons; sanitary facilities; fuel; travelling cranes of 1.5 to 3 t, 500 t vessel lifting truck at the non-tidal basin (SE part) with scrubbing terreplein.
- 61 The marina has a 30 t mobile lift and 2 slipways (30 x 20 m, with 3 m at the foot).
- 67 Hull (wooden and plastic), engine and electronics repair possibilities and all nautical trades in the technical area or on the E terreplein of the marina.
- 01 5.3.6.8. Town
- 07 Department of Vendée (85); sub prefecture; 16,050 inhabitants.
- 13 INFORMATION.
- 19 Harbour master's office: rue Colbert, tel: +33 (0)2.51.95.11.79; on-call telephone: +33 (0)6.64.00.56.78; fax: +33 (0)2.51.21.40.04; email: cdtport.dde85@wanadoo.fr, adjct.dde85@orange.fr.
- 25 La Loire Les Sables-d'Olonne pilotage station: 1 rue Eugène Varlin, 44100 Nantes; tel.: +33 (0)2.40.69.29.00; fax: +33 (0)2.40.73.29.36; email: pilote-major@pilotes-loire.com.

- 31 Marina: Port Olona; Quai Alain Gerbault; tel: +33 (0)2.51.32.51.16; fax: +33 (0)2.51.32.37.13; VHF: channel 9; email: portolona@wanadoo.fr
- Marina of the CCI: Quai Garnier; tel: +33 (0)2.51.96.43.34; fax: +33 (0)2.5196.43.35; VHF: channel 9; email: plaisance.sablesdolonne@vendee.cci.fr
- 43 Maritime affairs: rue Colbert; tel: +33 (0)2.51.21.81.81; fax: +33 (0)2.51.21.81.75.
- 49 Customs: Quai Archereau, BP 378, 85119 Les Sables-d'Olonne Cedex; tel: +33 (0)2.51.23.58.00.
- 55 Non-tidal basin lock: tel: +33 (0)2.51.95.11.56.
- 61 Centre Hospitalier Côte de Lumière: avenue d'Aquitaine; tel: +33 (0)2.51.21.85.85.
- 67 Town hall: boulevard Maréchal Leclerc; tel: +33 (0)2.51.23.16.00.
- 73 Maritime police: 24 rue Jean Nicot; tel: +33 (0)2.51.23.98.63; fax: +33 (0)2.51.23.98.64.
- 79 CONNECTIONS. A national road connects Les Sables-d'Olonne with Roche-sur-Yon. Railway station 1.5 km from the port. Municipal buses at Port Olona.
- 85 Roche-sur-Yon-les-Ajoncs airport (41 km away); Les Sables-d'Olonne-Talmont airfield (12 km away).
- 91 Maritime links with Île d'Yeu; cruises in season.

01 5.3.7. FROM LES SABLES-D'OLONNE TO POINTE DU GROUIN-DU-COU

01 5.3.7.1. Coast, landmarks and anchorages

- 07 To the S of Les Sables-d'Olonne, the coast is low-lying, rocky and formed of small cliffs, cut into by predominantly grey pebble beaches. There are few landmarks.
- 13 M SE of the port of Les Sables-d'Olonne, the **Saint-Jean-d'Orbetiers** abbey is surrounded by large conspicuous buildings.
- 19 The Roches du Joanne are two shoals covered with 2.9 and 3.7 m of water that flank the access to the port of Bourgenay. A safe water mark landfall light buoy is anchored around 0.5 M SW of these rocks.
- Between **Pointe du Payré**, situated at the mouth of the tidal channel of the same name, 1.2 M SE of Bourgenay, and Pointe du Grouin-du-Cou (§ 5.4.6.1.), the coast is foul. It is a long beach with rocks and shoals lying off it. **Roche de la Brunette** and Roches de l'**Islatte**, both of which uncover, are scattered in the approaches to Jard-sur-Mer, which is established 3.3 M SE of Pointe du Payré. **Rocher des Vendeurs**, 2 M farther SE, is barely covered.
- 31 The port of Jard-sur-Mer is described in section 5.3.7.3.

01 5.3.7.2. Bourgenay

07 Bourgenay (46° 26.3' N — 1° 40.7' W) [view 5.3.7.2.], a deep-water marina, is established 5.5 M SE of Les Sables-d'Olonne. It is an artificial basin, equipped with pontoons and catwalks, protected by two jetties made of large loose boulders. Jetée Ouest, slightly curved to the E, overlaps the head of Jetée Est and has a groyne, also made of loose boulders, on its inner side. The entrance to the port also includes a double bend. The depth in the passage is generally less than its theoretical value of 1 m, due to silting up.

[photo]

5.3.7.2. – Bourgenay, to the NE (2008).

- 19 ACCESS.— The head of each of the three structures mentioned above bears a light. The loose boulders at the end of Jetée Ouest are whitened and allow the passage to be located by day.
- The safe water mark landfall light buoy is anchored 1.3 M SW of the entrance to the port. The axis of the access channel, which passes by this buoy, is marked by leading lights on a bearing of 040°. The channel passes between the two heads of the **Roches du Joanne**, covered with 2.9 and 3.7 m of water, which are dangerous in bad weather. A starboard lateral buoy and a starboard lateral perch mark the NE end of the channel.
- 31 Access can be tricky, or even impossible, in a strong swell that may break onto the entrance to the passage.
- 37 PORT. The harbour master's office terreplein, to which pontoons oriented N-S are connected, borders the N side of the basin. There is another terreplein in the technical area, to the E. A launching slipway and two grounding grids occupy the SE corner of the port.
- The reception is located on the pontoon along the inner face of the E jetty. There is a fuel station nearby, to the E of this pontoon.
- 49 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 660 berths, 50 of which are for vessels in transit; maximum length 20 m, draught 2 m; water and electricity at the pontoons; sanitary facilities; fuel; 20 t mobile lift; slipway, grounding grids, scrubbing area and recovery of black water; vessel repair and maintenance yard; chandleries.
- 55 INFORMATION. Department of Vendée (85); Commune of Talmont-Saint-Hilaire (5450 inhabitants).
- 61 Harbour master's office: tel: +33 (0)2.51.22.20.36; fax: +33 (0)2.51.22.29.45; VHF: channel 9; email: portbourgenay@wanadoo.fr
- 67 Maritime affairs and customs: at Les Sables-d'Olonne (§ 5.3.6.8.).

01 5.3.7.3. Jard-sur-Mer

- 07 Jard-sur-Mer (46° 24.4' N 1° 34.8' W) [view 5.3.7.3.] is a dry harbour situated 4.5 M ESE of Bourgenay, which is protected to the SW by a jetty made of loose boulders. The port dries completely at low water springs.
- 13 The passage, between Roche de la Brunette and Roches de l'Islatte, is marked by a leading line on a bearing of 036° formed of two boards, one white and the other with a white edge with its centre cut out, standing out at the bottom of the forest to the E of the town. The entrance to the passage is marked, during the summer season, by a starboard lateral buoy anchored WSW of the Roches de l'Islatte. This buoy replaces a destroyed beacon, the base of which constitutes a danger.

19 Around 600 m from the entrance to the port, the passage joins the entrance leading line on a bearing of 293° formed of two minor posts with topmarks: white with a red vertical median stripe (front); red with a white vertical median stripe (rear). The entrance to the port is marked by a pair of lateral beacons.

25

[photo]

5.3.7.3. – Jard-sur-Mer, leading line on a bearing of 036° (inset).

- 31 The port can accommodate 540 leisure vessels or craft; there are around 10 berths reserved for visitors. There are two launching slipways; one, established near the NW corner of the basin, is equipped with a grounding area and mast sheerlegs.
- 37 There are a water tap, electricity terminal and sanitary facilities.
- 43 Supplies available in the town, 800 m away.
- 49 INFORMATION. Department of Vendée (85); 2250 inhabitants.
- 55 Harbour master's office: tel: +33 (0)2.51.33.90.61.

91 5.4. PERTUIS BRETON

- 07 Charts 7069, 7403 and 7404.
- 13 ENC FR302020, FR402080 and FR402170.

01 5.4.1. GENERAL INFORMATION

- 07 **Pertuis Breton** is the name given to the passage between the N coast of Île de Ré and the mainland coast of Vendée. The sea there is rough in bad weather from the W. The depths in its E part, on the sill of Le Peu Breton, are shallow and in order to head for La Rochelle-La Pallice, large vessels use Pertuis d'Antioche (§ 5.5.) S of Île de Ré.
- 13 The bridge on Île de Ré crosses Pertuis Breton between Pointe de Sablanceaux, on the island, and Pointe de la Repentie, on the mainland.
- 01 5.4.1.1. Signal station
- 07 Les Baleines, semaphore (46° 14.5' N 1° 33.7' W) [§ 1.4.7.2.].
- 01 5.4.1.2. Rescue stations
- 07 See sections 5.3.1.2. and 5.7.1.1.

01 5.4.1.3. Tide and currents

The tide has the same characteristics everywhere as at La Rochelle. In general, in Pertuis Breton, the currents are noticeably reversing. Changes of tide take place six hours before and at low water. The maximum speeds are less than 2 knots (see chart tables and the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan]. The flood currents running around Île de Ré meet N of the latitude of Pointe de Sablanceaux.

01 5.4.2. AREAS

01 5.4.2.1. Submarine cables

- 07 Anchoring, trawling and dredging are prohibited in the approaches to the bridge on Île de Ré in an area, marked on the charts, limited to the N by the line connecting Fort de la Prée, on Île de Ré, to the entrance light of the port of Le Plomb, and to the S by the line connecting the root of the stopover mole of the port of La Rochelle-Pallice to Pointe de Sablanceaux (Decree 2000/80 of 13 October 2000 of the Maritime Prefect of the Atlantic).
- Within the area defined above, anchoring with an anchor is, however, authorised within a radius of 0.5 M around the entrance light of the port of Le Plomb and the entrance light of the port of Rivedoux.

01 5.4.2.2. Marine farms

- 07 ON UNCOVERING BOTTOMS. Marine farming concessions are established on uncovering bottoms around Île de Ré and along the mainland coast to the S of Pointe du Grouin-du-Cou, outside the channels and anchorage areas.
- 13 IN DEEP WATER. A shellfish line area, centred 2.7 M WSW of Pointe d'Arçay, is 1 M wide and extends from NW to SE over a length of 2.3 M. This area, marked on the chart, is marked by cardinal and special mark light buoys. All nautical and submarine activities are prohibited in this area (Decree 2010/26 of 22 March 2010 of the Maritime Prefect of the Atlantic).

01 5.4.2.3. Regulated areas under the Île de Ré bridge

07 Stopping, anchoring and fishing are prohibited on the entrance side, in each marked channel, and on the exit side, in a semi-circular area with a radius of 200 m, centred in the middle of each passage under the bridge (Decree 43/88 of 2 September 1988 of the Maritime Prefect of the Second Region). See also section 5.4.6.7.

01 5.4.2.4. Nature reserves

07 Anse de l'Aiguillon and the NW part of Le Fier-d'Ars are classed as nature reserves (§ 1.6.5.). Activities there are regulated.

01 5.4.3. PILOTAGE

- 07 Pilotage is compulsory between the "Chauveau" S cardinal light buoy, situated 3 M SSW of the Île de Ré bridge, and the ports of Marans (Sèvre Niortaise), La Rochelle-Ville and La Rochelle-Pallice, for the following vessels:
 - those with a length overall equal to or greater than 40 m, heading to or coming from Sèvre Niortaise;
 - those with a length overall equal to or greater than 55 m, heading to or coming from the ports of La Rochelle-Ville or La Rochelle-Pallice, with the exception of the Chef-de-Baie fishing port;
 - those with a length overall equal to or greater than 50 m, heading to or coming from the Chef-de-Baie fishing port.
- 13 Movements within the La Pallice non-tidal basin, as well as simple movements, are excluded from the pilotage obligation.
- 19 Vessels must report their arrival at least 12 hours prior to their ETA at the "Chauveau" buoy, or at the latest when they leave the previous stopover port; they must also, where relevant, report any change to their ETA by more than 1 hour at least 4 hours in advance; they must also confirm their ETA 2 hours prior to arrival at the "Chauveau" buoy.
- 25 The pilot boards (and disembarks) 1 M S of the "Chauveau" buoy.
- For the call sign of the pilot cruising vessel, radio frequencies and details of procedures, consult the publication Radio communications for traffic surveillance and pilotage.

01 **5.4.4. DIRECTIONS**

- 07 Chart 7404.
- 13 ENC FR402080 and FR402170.
- In order to make for the ports of La Rochelle through Pertuis Breton, from the position where the Grouindu-Cou lighthouse is on a bearing of 070° and the Les Baleineaux lighthouse is on a bearing of 183°, set
 course on a bearing of 112°. This route, which follows the great depths of Fosse Occidentale de
 Chevarache then Fosse Orientale de Chevarache, leaves Roche du Fier, covered with 6.5 m of water, to
 the S, and Banc Breton to the N. It then passes N of Banc du Rocha, which forms the N limit of Rade de
 Saint-Martin. When the lighted beacon tower with a moiré effect mark of the port of La Flotte is on a
 bearing of 220° (limit between the white and green sectors), set course on a bearing of 162° towards the
 track descending from the Île de Ré bridge, marked by lateral light buoys and a light situated under the
 deck of the bridge, on the axis of the passage (§ 5.4.6.7.).

01 5.4.5. OFFSHORE DANGERS

- 07 Plateau de Rochebonne, which extends 35 M W of Île de Ré, is described in section 1.7.3.4.
- 01 5.4.6. FROM POINTE DU GROUIN-DU-COU TO THE ÎLE DE RÉ BRIDGE (MAINLAND COAST)
- 07 Charts 7403 and 7404.

13 ENC FR402080 and FR402170.

01 5.4.6.1. Coast, landmarks and anchorages

07 The coast is lined with beaches to the E of **Pointe du Grouin-du-Cou** (46° 20.7' N — 1° 28.2' W), which is marked by a lighthouse (view 5.4.6.1.A.), a white octagonal tower (16 m) with a black lantern, and extended by the plateau of the same name.

13

[photo]

5.4.6.1.A. – Pointe du Grouin-du-Cou lighthouse, to the NE.

- 19 The port of La Tranche-sur-Mer, established 1.5 M E of this headland, is described in section 5.4.6.2.
- The La Tranche-sur-Mer water tower (view 5.4.6.2.) and the L'Aiguillon-sur-Mer water tower, respectively 2 M ENE and 6 M E of Pointe du Grouin-du-Cou, as well as a reservoir to the N of the latter, are conspicuous landmarks.
- 31 "Bouchots" [mussel pilings] and oyster farms are established between Pointe du Grouin-du-Cou and Pointe de Digolet (46° 13.3' N 1° 11.0' W). Their offshore limit is marked by special mark buoys "G1" to "G13" between Pointe du Grouin and Pointe de l'Aiguillon; to the S of the mouth of the Sèvre Niortaise, by two special mark beacons and two W cardinal mark beacons. Floating mussel farming lines are established in a rectangular area centred on a position 2.7 M WSW of Pointe d'Arçay (Pointe du Grand Abois). This area is marked by cardinal buoys and special mark light buoys (§ 5.4.2.2.). An isolated danger buoy marks the wreck of the "Centaure" 1 M WNW of the headland.
- 37 The Lay river, which flows out to the E of Pointe d'Arçay, shelters the ports of La Faute-sur-Mer and L'Aiguillon-sur-Mer, which are described in sections 5.4.6.3. and 5.4.6.4.
- To the S and W of the Pointe d'Arçay national forest, at the charted low water limit, special mark buoys "F1" to "F4" mark the maritime limit of a water game reserve.
- 49 Vessels can anchor in 2.5 m of water, over a muddy bottom, 1 M ESE of the landmark to the NE of the landfall buoy.
- Anse de l'Aiguillon, with muddy bottoms, dries completely except on the bed of the Sèvre Niortaise, which crosses it from NE to SW. This river, which is channelled, allows vessels to access the port of Marans, described in section 5.4.6.5.
- 4 M SE of Pointe de l'Aiguillon, the large **Marsilly** water tower is easily visible, as are the fortified churches of Marsilly and **Esnandes**. The Port of Le Plomb, the W mole of which bears a light on a red and white column, is located around 3 M farther SW, near the headland of the same name. This port is described in section 5.4.6.6.
- At the S end of Pertuis Breton, the Île de Ré bridge spans the narrow passage between the island and the mainland. It partially hides the infrastructure of the port of La Rochelle-Pallice, of which Môle d'Escale and its old maritime terminal can nevertheless be made out, as well as a large white silo on the N side of the outer harbour.

01 5.4.6.2. La Tranche-sur-Mer

07 At La Tranche-sur-Mer (46° 20.6' N — 1° 25.3' W) [view 5.4.6.2.] 2 M E of Pointe du Grouin-du-Cou, a 160 m wooden stockade at the end of the **Anse de Maupas** dyke-groyne, marked by a light on a red stand, allows berthing by vessels providing a maritime tourist link between La Tranche-sur-Mer and Saint-Martin-de-Ré during the summer season.

13

[photo]

5.4.6.2. - La Tranche-sur-Mer, to the N.

- In order to approach, vessels can set course to the N of the conspicuous water tower (view 5.4.6.2.), leaving Roche de l'Aunis, an unmarked shoal covered with 0.8 m of water, to the W, before setting course to the NW towards the stockade, making sure not to drift with the current heading across the rocks situated on either side of the entrance. The rocks lying off **Pointe du Chiquet** to the SE are marked during the summer season by S cardinal buoys.
- 25 There is a launching slip at the root of the stockade. There is an anchorage area comprising 272 deadmen, of which 28 are reserved for vessels in transit, laid out to the E of the stockade between the latter and the beach. Vessels can remain afloat there at low water neaps. Local leisure vessels anchor on deadmen to the NE of the stockade. The shelter is fairly comfortable in winds from the E but the swell enters easily in winds from the SE to SW sector. In winds from the W, the swell rounds Pointe du Chiquet and the rocks standing off it. The bottoms in the cove uncover over a fairly firm sandy bottom.
- 31 The anchorage area is managed by the La Tranche-sur-Mer town hall (tel: +33 (0)2.51.30.37.01).
- 37 A small area of water for dinghies is separated from the beach, to the NW, by a narrow and low-lying row of dunes.

01 5.4.6.3. La Faute-sur-Mer

- 07 La Faute-sur-Mer (46° 19.8' N 1° 18.6' W), situated on the right bank of the **Lay river** (or **Saint-Benoist river**), level with the N end of Banc Cantin, is a small port providing around 100 berths on small wooden piers for fishing and leisure vessels. There are four berths available for visitors (report to the town hall, see hereinafter). The port is equipped with a slipway.
- 13 Vessels can anchor in the river in 1 to 2 m of water over a muddy bottom.
- ACCESS TO THE RIVER. The Lay flows out into Pertuis Breton, perpendicular to the direction of the swell, between Pointe d'Arçay (view 5.4.6.3.A.), which constitutes the end of a narrow spit of sand covered with a forest, and Pointe de l'Aiguillon (view 5.4.6.3.B.) situated 4 M farther SE.

[photo]

La Faute-sur-Mer

L'Aiguillon-sur-Mer

Banc des Marsouins

5.4.6.3.A. - Pointe d'Arcay, to the NNW (2008).

31 This entrance is fairly difficult to recognise from out to sea, as the low-lying lands of Pointe d'Arçay merge with the flat coast of Pointe de l'Aiguillon.

37

[photo]

5.4.6.3.B. - Pointe de l'Aiguillon, to the N (2008).

- 43 After having recognised the "Le Lay" S cardinal light buoy, vessels set course leaving this buoy around 400 m to starboard, to join the "Banc des Battures no. 1" starboard lateral buoy and the "Grand Abois" port lateral buoy, which form the first gate of the marked channel. Lateral mark buoys then mark the channel as far as the port of L'Aiguillon-sur-Mer. This beaconage is likely to be moved depending on changes in the depths. The depth of the channel is around chart datum up to the E of Pointe d'Arçay. Upstream, vessels with a draught of 1.5 m can navigate the channel from 0300 HW at neaps.
- The entrance must be considered to be dangerous in bad weather. Strong currents occur in the estuary when it empties (2 knots per coefficient of 70), against which the sea rises in fresh winds from S to W.
- 55 INFORMATION. Department of Vendée (85); 920 inhabitants.
- 61 Town hall: tel: +33 (0)2.51.97.19.20.
- 67 Harbour master's office: tel: +33 (0)2.51.97.03.92.
- 01 5.4.6.4. L'Aiguillon-sur-Mer
- 67 L'Aiguillon-sur-Mer (46° 20.1' N 1° 18.8' W) is a fishing port and marina situated on the left bank of the Lay river, 0.4 M upstream of the Faute-sur-Mer river. It is limited upstream by a road bridge fitted on the downstream side with a footbridge for pedestrians with a vertical clearance of 3 m. To access the river, see section 5.4.6.3.

- 13 A wide concrete slipway is located near the bridge. There are wooden piers in place downstream of the slipway. Vessels ground on soft muddy bottoms at the foot of these piers, where visitors cannot berth without authorisation.
- 19 The port dries entirely at low water springs. A vessel with a draught of 1.5 m can access the port 3 hours before high water, at neaps. Vessels can anchor in the river in around 2 m of water over a muddy bottom.
- 25 Supplies and fuel replenishment available. Water and electricity at the slipway. Hull and engine repairs possible. Vessel building yard (plastic). Maritime association.
- 31 INFORMATION. Department of Vendée (85); 2230 inhabitants.
- 37 Town hall: tel: +33 (0)2.51.56.40.31.
- 43 Maritime affairs: The Port; tel: +33 (0)2.51.56.45.35.

01 5.4.6.5. Ports and anchorages of the Sèvre Niortaise

- 64 From the "Att. de l'Aiguillon" safe water mark light buoy, anchored 1 M SE of Pointe de l'Aiguillon, the Anse de l'Aiguillon channel leads, 4 M farther NE, to the mouth of the Sèvre Niortaise. The beaconage of this channel is made up of a second safe water buoy, unlit, which is anchored 1.6 M NE of the former, then by lateral buoys numbered from 1 to 10.
- The beaconage of the river, which is formed of minor posts bearing lateral marks, begins at the mouth. The first of these beacons, "no. 1", is situated in the cove, 130 m S of the light of the port of Le Pavé de Charron. The last, "no. 46", is situated at the entrance to the locks of Le Brault, which allows access to the channel leading to Marans.
- 10 The currents in the river can reach 3 to 5 knots. It is preferable to enter well before high water in order to reach the Le Brault lifting bridge before its scheduled opening at the time of local high water, which theoretically takes place 20 minutes after high water at La Rochelle-Pallice.
- 13 PILOTAGE. See section 5.4.3.

22

- PORT OF LE PAVÉ DE CHARRON AND LE CORPS-DE-GARDE SLIPWAY. On the E bank of the mouth of the Sèvre Niortaise and just outside of this, the long launching slipway of Le Pavé de Charron (46° 18.1' N 1° 08.0' W) [view 5.4.6.5.A.] is marked at its end by a light on a white column with a green top (12 m), and has a quay marked by a special mark beacon on its S side.
- 19 The oyster-farming vessels ground on a flat concrete area to the N of the slipway or remain afloat at anchorage in the channel.

[photo]

5.4.6.5.A. — Port of Le Pavé de Charron, to the NE (2008).

- 25 The Le Corps-de-Garde landing slipway is located 2 M upstream of this slipway, on the left bank at the location known as Loge Salée. The port of Le Pavé de Charron is accessible from 4 hours before to 4 hours after high water.
- Vessels can replenish at Charron, a town with 1670 inhabitants situated 2 km S of the Le Corps de Garde slipway. There is no other disembarkation point before the Le Brault locks.
- 31 LE BRAULT LOCKS (views 5.4.6.5.B. and 5.4.6.5.C.) AND ACCESS CHANNEL TO MARANS. —
 The locks for access to the Canal maritime de Marans à la mer is situated on the left bank of the river,
 3.5 M from the mouth (at km 65). This lock has a useful length of 104 m and it is 45 m wide between the
 banks and

11 m wide at the end (that is, at the inner end of the lock); the depth of the sill is 0.5 m. It is crossed by a road bridge. Entry into the lock is dangerous in very strong winds from the SSW.

34

[photo]

Lock

Bridge of the old Passage

5,4.6.5.B. - Le Brault lock and access channel to Marans.

37

[photo]

[photo]

Bridge of the old Passage

Le BRAULT lock

5.4.6.5.C. – Bridge of the old Passage and Le Brault lock.

- Vessels travelling upstream through the lock must arrive at the lifting span of the Le Brault bridge, situated 800 m downstream of the lock, one hour before high water. When vessels wait at this bridge, it is open, by day only, at the time of local high water; two holding buoys are anchored downstream.
- Within the lock, on the N bank, a short pontoon allows vessels to moor whilst they wait for the gate to open, however it is possible to remain in the middle when manoeuvring with an engine.
- The straight canal that leads 5 km farther to the port of Marans can admit vessels with a draught of up to 2.5 m. It is 7 m wide at the end and 35 m wide in the normal area of water.
- 49 PORT OF MARANS. The port of Marans (view 5.4.6.5.D.) comprises two sections of canal fitted out as a marina on either side of a triangular basin with 550 m of quays along the edge, in 2.5 to 4.5 m of water. Downstream, the port is limited by the Portes d'Ebes, old locks that open onto the canal. Upstream, it is separated from Sèvre Niortaise by the Le Carreau d'Or lock. A vessel 40 m long with a draught of no more than 1.5 m at the bow can turn in the basin. However, due to frequent congestion, this manoeuvre is generally not possible for vessels longer than 20 m.
- The two sections of canal are equipped with pontoons and catwalks installed on the S bank. The total capacity for vessels is 150 berths, of which around 10 are intended for vessels in transit.
- Water and electricity at the pontoons; sanitary facilities; fuel upon request and for leisure vessels at the garage near the supermarket; slip dock; 3 t and 8 t cranes; small naval building yard (wood) with 8 t slipway; chandleries.

[photo]

5.4.6.5.D. – Port of Marans, to the E (2008).

- 61 INFORMATION. Department of Charente-Maritime (17); 4430 inhabitants.
- 64 Harbour master's office: S bank, near the silo; tel: +33 (0)5.46.01.02.99.
- 67 Le Brault locks: tel: +33 (0)5.46.01.53.77.
- 70 CONNECTIONS. A trunk road runs across the town of Marans, from N to S, connecting it to La Rochelle (25 km) and to the road junction formed by Fontenay-le-Comte (26 km). Bus to the La Rochelle railway station. La Rochelle-Laleu airport.
- Several canals run across the region of Marans, which is connected in particular to La Rochelle. Upstream of Marans, the Sèvre Niortaise is navigable over a length of 72 km as far as Niort (8 locks; average depth of 1.2 m; maximum vertical clearance of 2.2 m).

01 5.4.6.6. Port of Le Plomb

- 07 The Port of Le Plomb (46° 12.1' N 1° 12.2' W) [view 5.4.6.6.], a small departmental port, is situated at the mouth of the Lauzières tidal channel, 1.7 M NNE of the Île de Ré bridge. It is mainly used for shellfish farming, however it can accommodate leisure vessels no longer than 7 m long on pontoons and catwalks. It is accessible from 3 hours before to 2 hours after high water.
- 13 The passage is limited to the NW by a masonry jetty that rests on the headland and bears a light at its end, and to the SE by a groyne made of loose boulders, off the inner side of which stands a low wall that channels the tidal channel and acts as a slipway and landing quay. This groyne bears a starboard lateral beacon at its end.

19

[photo]

5.4.6.6. – Port of Le Plomb, to the NE (2008).

- Vessels approach this port by setting course on a bearing of 055° on the light on the jetty and enter it by keeping close to the latter, on more or less the same route that corresponds to the axis of the mouth. Vessels must keep a distance from the groyne. The currents reach 4 knots in the passage at half tide.
- 31 Vessels can berth at the jetty quay in 0.6 m of water. On the inner side, the bottoms uncover completely at low water and the berths on mud are very irregular. Professional vessels moor at several wooden piers in the first bend of the tidal channel. The shelter is generally very congested.

01 5.4.6.7. Île de Ré bridge

07 The Île de Ré bridge (view 5.4.6.7.) crosses Pertuis Breton between Pointe de Sablanceaux and Pointe de la Repentie. The piers are around 110 m apart. The navigable tracks under the bridge are established between the tenth and the fourteenth pier from Pointe de Sablanceaux, that is around 0.7 M ENE of the latter headland. The height of the bridge at this point is 30 m above the highest high water level.

13

[photo]

5.4.6.7. – Île de Ré bridge, to the NE (2008).

- 19 Navigation is carried out under the following conditions:
 - in a N-S direction, between the tenth and the eleventh pier;
 - in a S-N direction, between the thirteenth and the fourteenth pier.
- Each entrance to the navigable tracks is marked by a port lateral light buoy and a starboard lateral light buoy. The piers on either side of the passages also bear day beaconage lateral marks (red square or green triangle pointing upwards on a white base⁹).
- The axis of each passage is also marked by a white isophase light installed on the deck of the bridge, near the entrance to the navigable track.
- 37 The navigable tracks under the bridge are included in the regulated areas (§ 5.4.2.3.).

01 5.4.7. N COAST OF ÎLE DE RÉ

- 07 Charts 7404 and 7412.
- 13 ENC FR402080 and FR402170.
- 19 Vessels navigating in the immediate vicinity of the coast must be aware of the oyster farms and "bouchots" [mussel pilings] established almost everywhere on uncovering bottoms (§ 5.4.2.2.) as well as fish locks that lie off the coast between the Les Baleines lighthouse and the entrance to Le Fier d'Ars (§ 5.5.2.2.).

01 5.4.7.1. Coast, landmarks and anchorages

The NW end of Île de Ré bears the **Les Baleines lighthouse**, a grey octagonal tower with a red top (57 m), next to which stand the crenellated tower of the old lighthouse and the semaphore, with its radio pylon (42 m) bearing air obstruction lights (view 5.4.7.1.A.). Partially uncovering rocks, which constitute **Pointe des Baleines** and which bear the Les **Baleineaux** (or **Haut Banc du Nord**) lighthouse [view 5.4.7.1.B.] lie off this end. These rocks are covered by the red sector (034° – 061°) of the Le Grouin-du-Cou lighthouse (§ 5.4.6.1.).

⁹ Translator's note: The French is "fond", which could also be "background".

[photo]

5.4.7.1.A. – Les Baleines lighthouse, old lighthouse and semaphore, to the SE (2008).

19

[photo]

5.4.7.1.B.-Les Baleineaux lighthouse, to the SE (2008).

- Conche des Baleines is a cove, which indents slightly into the NW end of the island, immediately E of the Les Baleines lighthouse. It constitutes the only area of the island where leisure vessels can come to anchor and remain afloat very close to the shore. It is lined by a large, fairly steeply-sloping sandy beach.
- However, the cove is only sheltered from winds from SE to S. In SW winds, the swell surrounds Pointe des Baleines, and in W winds, the uncovering rocks that close off the cove to the W only provide mediocre protection at low water.
- From the Les Baleines lighthouse, mariners see successively towards the SE, at a distance of 1.6 M, the white cylindrical tower of a conspicuous water tower, at a distance of 2.1 M, a red and white pylon, and at a distance of 3 M, the white pointed spire with a black top of the **Ars-en-Ré** bell tower. The Loix water tower, 5.2 M ESE of the same lighthouse, is conspicuous.

- The small bay known as Le Fier-d'Ars opens out 4 M E of the Les Baleines lighthouse. It provides shelter to the port of Ars-en-Ré. The bay and the port are described in section 5.4.7.2.
- 49 3.5 M E of the entrance to Le Fier-d'Ars, mariners will notice the "Les Islattes" N cardinal lighted beacon tower installed on the E end of the uncovering rocks that lie off Pointe du Grouin (Pointe de Loix), the W point of entry to Rade de Saint-Martin.
- Rade de Saint-Martin provides good anchorages, which are described in section 5.4.7.3.
- 61 The small **port of Loix**, situated SW of the headland of the same name, is connected to the sea by a narrow and winding channel, which is marked by port lateral perches and dries 2 m. The only port structure is a quay built on the left bank of the channel, along which the bottom uncovers 2.1 m. This anchorage is not recommended for leisure vessels.
- 67 The port of Saint-Martin-de-Ré, dominated by its citadel and the square church tower, is established 2.3 M SE of Pointe du Grouin. This port and the port of La Flotte, 2.1 M farther SE, are described in sections 5.4.7.4. and 5.4.7.5.
- 73 The ruins of the Les Châteliers abbey are clearly visible above the whitish cliffs of Pointe des Barres, 1 M E of La Flotte. The bay that shelters the port of **Rivedoux-Plage** (view 5.4.7.1.C.) opens out to the E of this headland.

[photo]

5.4.7.1.C. – Île de Ré. Rivedoux-Plage, to the WNW (2008).

- 85 The bottoms uncover 2.1 m in this port, which is mainly used by oyster-farming vessels. In fresh winds from NW to E, the jetty is too short to shelter the port from choppy seas. Several submarine cables make landfall in the N part of the port (§ 5.4.2.1.).
- 91 0.9 M farther E, **Pointe de Sablanceaux**, where the Île de Ré bridge ends, forms the E end of the island. On the SE side of the bridge and the headland, there is a landing stage, a concrete structure comprising a platform and a pier. There is a light on the SE end of the pier. This landing stage is no longer used by passenger vessels due to silting up.

01 5.4.7.2. Le Fier-d'Ars

06 Le Fier-d'Ars (46° 13.5' N — 1° 29.5' W) [view 5.4.7.2.A.] is a cove that cuts Île de Ré nearly into two. Its entrance, bordered to the W by Pointe du Fier, is 750 m wide and is blocked by a rocky sill that uncovers 1.7 m. After having crossed this sill, vessels find a trench around 400 m long and 150 m wide, where the least depth is 2 m. The channel then dries again as far as the port of Ars-en-Ré.

[photo]

Ars-en-Ré

Fier-d'Ars

Banc du Bûcheron

5.4.7.2.A. – Île de Ré. Le Fier-d'Ars. Access, to the SW.

- 16 ACCESS. The entrance axis is shown by a direction light, which is marked on the chart and lit at night only. This landmark, established at Pointe du Fier, in Bois de Trousse-Chemise, is not visible by day. The beaconage of the channel is made up of 2 light buoys and one starboard lateral beacon. This beaconage marks Banc du Bûcheron. This sandbank tends to extend towards the S.
- Another set of leading lights, on a bearing of 232.5°, then leads vessels to the port of Ars-en-Ré. Lateral buoys and perches mark the channel. The leading line on a bearing of 232.5° keeps vessels at a distance of 30 m from the submerged end of the **La Patache slipway**, marked by a starboard lateral beacon.
- The banks of Le Fier-d'Ars are bordered by salt pans. The Lilleau des Niges nature reservé, situated in the NW part of Le Fier-d'Ars, is delimited by four special mark beacons.
- 31 ANCHORING PROHIBITED. Anchoring is prohibited in the channel, within a marked strip 40 m wide on either side of the leading lights on a bearing of 232.5° (Decree 61/80 of 16 December 1980 of the Maritime Prefect of the Second Region).
- 36 ANCHORAGE. The trench mentioned previously provides small vessels with a well-sheltered anchorage, except in winds from the NE, with bottoms of good holding; however, the currents are strong in the trench. Mariners' attention is drawn to the fact that this anchorage is almost permanently congested. Vessels must avoid anchoring on the entrance leading line on a bearing of 232.5° (see above).
- Outside of Le Fier-d'Ars, vessels can disembark on Pointe du Fier, which is sandy. There are white buoys anchored 1 M N of this headland available for leisure vessels.
- PORT OF ARS-EN-RÉ (46° 12.9' N 1° 30.3' W) [view 5.4.7.2.B.]. The port of **Ars-en-Ré** is now only used by leisure vessels. After crossing Le Fier-d'Ars, the access channel leaves the new port to the W and continues as far as the old port, between two concrete walls, through a 1200 m-long canal. The new port is established in Bassin de la Criée, the sill of which uncovers 2.5 m. The opening hours are displayed above the gates. A 30 m-long holding pontoon is installed outside the basin.
- 51 The old port extends for around 250 m, almost on the extension of the canal, and is 50 m wide. Its banks are lined with quays, at the foot of which bottoms of mud over rock uncover 2.5 m and provide very good grounding.

At its SW end, the old port is connected to the old scouring basin, or Bassin de la Prée, equipped to accommodate vessels on pontoons and catwalks, via a narrow sound. This basin is dredged to 1.5 m above chart datum. The sill of the sound is 3 m above chart datum. This sound is equipped with automatic gates. They open and close when the water level reaches 0.8 m above the sill. A green light indicates that the gates are open. Two minutes before the gates close, this light turns red and a sound signal is emitted. Out of season, with a tidal coefficient equal to or greater than 80, sluices are carried out with the gates closed at low water, in order to maintain the channel. The opening hours are displayed above the gates.

61

[photo]

Bassin de la Criée

5.4.7.2.B. – Île de Ré. Ars-en-Ré, to the SW (2008).

- 66 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 550 berths, of which 250 are in Bassin de la Criée, 135 in Bassin de la Prée and 165 are for grounding; maximum length 16 m, draught 2.2 m; water and electricity at the pontoons; sanitary facilities; waste separation; 4 t crane; 2 launching slipways (outer harbour and Bassin de la Prée); mechanical repair workshops, chandleries.
- 71 INFORMATION. Department of Charente-Maritime (17); 1370 inhabitants.
- Harbour master's office: Quai de la Criée; tel: +33 (0)5.46.29.25.10; fax: +33 (0)5.46.29.66.91; VHF: channel 9; email: port.arsenre@mairie17.com
- 81 Customs: at La Rochelle (§ 5.6.6.8.).

01 5.4.7.3. Rade de Saint-Martin anchorages

- 77 The anchorage in Rade de Saint-Martin (46° 13.6' N 1° 21.0' W) is the best sheltered in Pertuis Breton, however it is exposed to winds from N to NE. Vessels coming from the NW access it by passing E of Banc du Rocha and anchor in 4 to 7 m of water over a muddy bottom of very good holding, 1.3 M NNE of the entrance to the port of Saint-Martin-de-Ré.
- 13 Vessels with a draught of more than 5 m use the outer anchorage, NE of Banc du Rocha, in 16 to 20 m of water over a muddy bottom of excellent holding. There is also an anchorage known as Mouillage du Préau, in Trou des Sept Brasses, in 13 m of water, which vessels reach by keeping the Les Islattes beacon tower on a bearing of 277°.

01 5.4.7.4. Saint-Martin-de-Ré

O7 Saint-Martin-de-Ré (46° 12.5' N — 1° 21.9' W) [view 5.4.7.4.], a fishing port and marina situated 2.2 M SE of Pointe du Grouin, comprises an outer harbour, a dry harbour and a non-tidal basin. The outer harbour is protected to the NW by Grand Môle, which bears a light at its head, to the E by the short Jetée Est, and to the NE by a breakwater shaped like a circumflex accent [^], which is free-standing and bears a light at its NW end.

13 The bottoms uncover 1.3 m in the outer harbour and 1.5 m to 2.5 m in the dry harbour. The non-tidal basin, with an average of 3 m of water, is equipped with pontoons laid out along the quays.

19

[photo]

5.4.7.4. – Île de Ré. Saint-Martin-de-Ré, to the SSW (2008).

- 25 HOLDING ANCHORAGE. There are four mooring buoys for leisure vessels less than 15 m long, painted white and numbered (PL. 16, 17, 18 and 19), anchored in 2 m of water 0.5 M NNE of the entrance to the port. Stopover, which is free, is only authorised here for 24 hours, provided that vessels carry the signalling marks required by the regulations, by day and night.
- 31 ACCESS. For access by day, vessels follow the leading line on a bearing of 201.5° of the square bell tower of the church, by the white lighthouse with a green top on the end of Grand Môle, which takes them 110 m E of the buoys intended for the mooring of leisure vessels. By night, vessels approach by setting course on a bearing of 205° on the light on Grand Môle, which takes them 0.1 M E of these buoys before heading towards the entrance to the outer harbour.
- 37 PORT. The entrance to the outer harbour, between the NW end of the free-standing breakwater and the head of Grand Môle, is 50 m wide. A channel, around 20 m wide, the bottoms of which uncover 1.2 m, leads to the dry harbour. A tide scale on the head of Grand Môle and another to starboard of the non-tidal basin gates show the heights of the water above the sill of the lock. A third, on the fortifications on the left when entering the port shows the heights of the water above chart datum.
- 43 Leisure vessels can also moor in 2 m of water along Grand Môle during the summer season when the offlying pontoon is in place. However, in strong winds from W to N, these mooring berths are untenable because of choppy seas. Stopping is not possible in the outer harbour, which acts above all as a swell blocker.
- In the dry harbour, which is well sheltered from all winds, the berths dry 1.5 to 2.5 m over rocky bottoms covered with 0.3 to 0.5 m of mud. Fishing vessels should have priority to use the berths at the quay.
- The non-tidal basin, which is formed of two right-angled branches, is accessible via a 12 m-wide lock, the sill of which is 0.7 m above chart datum. Vessels less than 15 m long can turn inside it, immediately inside the gates. Longer vessels cannot generally do so, because of congestion in the port. The lock gates and the footbridge that crosses the sound are open from 0300 HW to + 0200 HW with a coefficient higher than 60 (– 0200 HW with a coefficient lower than 60), every day between 0500 and 2300 in season, between 0600 and 2300 in the shoulder season and between 0800 and 1800 in winter.

- 61 The soft muddy bottom throughout the non-tidal basin is dredged to 3 m. Pontoons established to the right of and along the quays take the stern of the vessels and the bow is moored to buoys.
- 67 THE CITADEL SHELTER. There is a small dry harbour surrounded by the ramparts of the citadel, 500 m E of the port of Saint-Martin-de-Ré. Vessels access it by setting course perpendicular to the shore and they enter it via a passage around 10 m wide. The sand and gravel bottoms uncover 3 m.
- 73 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 220 berths of which 50 are for vessels in transit; maximum length 25 m, draught 2.5 m; water and electricity at the pontoons; sanitary facilities; fuel; 10 t crane and 15 t tug; launching slipway and grounding grid; hull (wood and plastic) and engine repair workshops, chandleries.
- 79 INFORMATION. Department of Charente-Maritime (17); 2670 permanent inhabitants.
- 85 Harbour master's office: Quai Daniel Rivaille; tel: +33 (0)5.46.09.26.69; VHF (working hours: in season).
- 91 Customs: at La Rochelle (§ 5.6.6.8.).

01 5.4.7.5. La Flotte

07 La Flotte (46° 11.3' N — 1° 19.3' W) [view 5.4.7.5.], a small dry harbour situated 2.2 M SE of Saint-Martin-de-Ré, is an old oyster-farming port fitted out as a marina. It is formed by an outer harbour, sheltered by a semi-circular jetty with a light at its end, and a rectangular basin accessible by its NE corner between the heads of two small moles. The outer harbour and the basin are equipped with pontoons and catwalks. The muddy bottoms uncover 2.5 m at the foot of the quays bordering the basin, and 2.1 to 2.4 m in the outer harbour.

13

[photo]

5.4.7.5. – Île de Ré. La Flotte, to the SW (2008).

- 19 OUTER ANCHORAGES. Vessels can anchor in 4 m of water, over a muddy bottom, 1.2 M NNE of the port, sheltered from winds from S to W.
- Leisure vessels can anchor nearer to land in 2.5 m of water over a muddy bottom, 0.6 M NNE of the head of the jetty. They can also moor to five white buoys numbered from "1" to "5" intended for this purpose, 0.6 M NNW of this jetty, in 1 to 2 m of water.
- There is a grounding area near the coast on the edge of the Clavette beach, from the root of the jetty up to 0.4 M to the NW. There are two landing slipways on this beach.
- 37 ACCESS. In order to access the port, set course on a bearing of 212.5° on the lighthouse on the head of the jetty, on the axis of the white sector of the light. A direction mark with a square screen, yellow moiré, measuring 1 m on each side, is installed next to the lighthouse. This rod displays either a black vertical stripe when the vessel is on the axis of the channel, or a black horizontal arrow marking the edge towards which vessels must proceed in order to join the axis of the channel.
- PORT. The pontoons in the outer harbour are laid out according to the radius of the semicircle of the jetty. An area of anchorages on buoys is in place to the SE of the pontoons, for grounding.

- 49 The entrance to the basin is 13 m wide. The basin is 120 m long and 40 m wide, on average. The muddy bottoms, in clear berths, uncover from 2.5 to 2.8 m. The quays are multi-use, for fishing and leisure. There is a pontoon laid out on the longitudinal axis of the basin, rooted to the S. There are other pontoons installed along the quays.
- 55 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 321 berths of which 190 are at the pontoons; maximum length 12 m in the outer harbour and 8 m in the basin, draught 2 m; water and electricity at the pontoons; sanitary facilities; slipway and grounding grid.
- 61 INFORMATION. Department of Charente-Maritime (17); 2780 inhabitants.
- 67 Harbour master's office: around 100 m SW of the root of the jetty; tel: +33 (0)5.46.09.67.66.
- 73 Customs: at La Rochelle (§ 5.6.6.8.).

01 5.5. PERTUIS D'ANTIOCHE

- 07 Charts 7404 and 7405.
- 13 ENC FR402080, FR402090 and FR402170.

01 5.5.1. GENERAL INFORMATION

07 Pertuis d'Antioche, which lies between Île de Ré to the N and Île d'Oléron to the S, provides access mainly to the port of La Rochelle-Pallice, the port of Les Minimes (marina) and the port of La Rochelle-Ville, and also to Charente Maritime, which leads to the port of Rochefort and the port of Tonnay-Charente. The sea is very choppy in heavy weather from out to sea.

01 5.5.1.1. Signal stations

07 Les Baleines (Île de Ré), semaphore (46° 14.5' N — 1° 33.7' W); Pointe de Chassiron (Île d'Oléron), lookout station (46° 02.8' N — 1° 24.6' W) [§ 1.4.7.2.].

01 5.5.1.2. Rescue stations

07 See section 5.9.1.2.

01 5.5.1.3. Tidal currents

07 Off Île d'Oléron, the tidal currents are weak and are generally hidden by currents occurring because of the wind. For the currents in Pertuis d'Antioche, see the chart tables and the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].

01 5.2.2. AREAS

01 5.5.2.1. Explosives temporary dumping ground

07 A circular area with a radius of 200 m, designated as a temporary dumping ground for suspect devices caught by fishing nets or fishing equipment (§ 1.5.3.4.) is established around position 46° 05.70' N — 1° 13.47' W.

01 5.5.2.2. Marine farms and fishing stakes

- ON UNCOVERING BOTTOMS. Marine farming concessions have been granted, on uncovering bottoms, on the S coast of Île de Ré, on the E coast of Île d'Aix, on the E coast of Île d'Oléron, to the S of Pointe de Boyardville (§ 5.9.6.2.), as well as on the mainland coast, between Pointe des Minimes, to the N, as far as Pertuis de Maumusson, to the S, outside channels and anchorage areas.
- 13 IN DEEP WATER. Three marine farming concessions have been granted in Rade des Basques, to the N of Île d'Aix; they are marked. Two of these oyster-farming concessions are not marked. The third, which is for shellfish farming, is marked by six light buoys. In these areas, marked on the chart, anchoring, dredging, trawling and laying nets, as well as any underwater activity, are prohibited (Decree 2000/36 of 5 July 2000 of the Maritime Prefect of the Atlantic and Decree 05.579 of 1 March 2005 of the Prefect of Charente-Maritime).
- 19 FISH LOCKS. These installations, which are mainly situated on the S coast of Île de Ré and on the N and W coasts of Île d'Oléron, are designed to trap fish on the falling tide in an area known as "foue" with small channels flowing through it; it is limited by a stone wall around 1000 m long, connecting two points on the coast in a semi-circle.
- Each lock comprises 6 to 8 narrow openings (known locally as "bouchots"), some of which may have a bridge across them, through which the sea withdraws quickly without taking the catch with it. It is marked, in its widest part, by a 2 m high perch installed on the wall.

- 31 Mariners navigating the coast must take care not to damage these relatively fragile installations.
- 01 5.5.2.3. Regulated areas
- 07 DANGEROUS WRECK. Anchoring and diving are prohibited within 50 m of the wreck of the cargo vessel "Nautilus" (46° 11.0' N 1° 32.5' W) [Decree 17/88 of 27 June 1988 of the Maritime Prefect of the Second Region].
- 13 FORT BOYARD. The movement, stopping and anchoring of all vessels and all nautical craft, as well as bathing and diving, are prohibited within 200 m of **Fort Boyard** (46° 00' N 1° 12.8' W) [Decree 2007/47 of 26 July 2007 of the Maritime Prefect of the Atlantic]. Navigation by any vessel and nautical craft is limited to five (5) knots within the circle between 200 m and 300 m from the fort.
- 01 5.5.3. LANDFALL
- 07 Chart 7069.
- 13 ENC FR302020.
- 19 See also landfall on Île d'Yeu in section 1.7.3.3.
- 25 Landfall in Pertuis d'Antioche does not pose any difficulties in clear weather. It is easier by night than by day because the landing lights are visible from a great distance, whereas the coast is sometimes misty, especially in the morning. The "PA" safe water mark landfall light buoy is anchored 13 M WNW of Pointe de Chassiron, NW end of Île d'Oléron, and 800 m W of a wreck (46° 05.7' N 1° 41.7' W).
- When coming from the W in good weather or in winds from the NW, vessels make landfall on the latitude of Pointe de Chassiron, watching out for the Plateau de Rochebonne buoys, where an area to be avoided is established for vessels transporting oil (§ 1.7.3.4.). In fresh winds from the SW, it is advisable that vessels pass 3 or 4 M N of this plateau and make landfall on the Les Baleines lighthouse (Île de Ré).
- 37 If mariners have not seen the Plateau de Rochebonne buoys or the "PA" landfall buoy, they should take care not to confuse the Les Baleines lighthouse with the Chassiron lighthouse. The Les Baleines lighthouse, a grey tower and a red lantern, stands between the semaphore, to the S, and the old lighthouse, to the N. The Chassiron lighthouse, a tower with white and black bands, is situated S of its semaphore, and there is no old lighthouse. A microwave tower bearing air obstruction lights is situated around 10 m NE of the Les Baleines semaphore and there is another microwave tower the same distance to the SE of the Chassiron semaphore. Furthermore, Île de Ré can be distinguished from Île d'Oléron because it bears several bell towers, including the Ars-en-Ré bell tower, pointed with a black spire, whereas the only bell tower on Île d'Oléron is square and is also barely visible amongst the pine trees.
- When vessels come from the S, after having recognised the La Coubre lighthouse, they set course in order to pass at least 3 M W of Île d'Oléron and Pointe de Chassiron.
- In fog, in addition to the radio aids to navigation, the sounding can provide useful indications. Whereas the 100 and 30 m isobaths are, on the whole, parallel to the coast, the 50 m isobath extends considerably to the W to surround Plateau de Rochebonne. However, mariners must not forget that the tracks running between the 100 and 50 m isobaths then from 50 to 30 m do not completely determine the position of the vessel, as they can correspond to two equally possible positions, one to the N, the other to the S, of the latitude of Plateau de Rochebonne.

01 5.5.4. PILOTAGE AND HOLDING ANCHORAGES

- For the pilotage of vessels heading for the ports of La Rochelle-Pallice and La Rochelle-Ville, see section 5.4.3. For the pilotage of vessels heading for Charente, see section 5.8.2.
- 13 Vessels that have not received instructions anchor in the holding anchorage to the S of the "Chauveau" buoy and keep a VHF watch.
- 19 The area of water situated in the middle of Pertuis d'Antioche to the NW of Île d'Aix is a good holding anchorage where the swells from out to sea are very weak. There is a depth of 11 to 15 m of water over a muddy bottom of excellent holding. Vessels

can anchor in 15 m of water between 1 and 2 M S of the latitude of the "Chauveau" S cardinal light buoy on a bearing of 315° from this buoy.

01 5.5.5. DANGERS AND BEACONAGE

- 07 Charts 7404 and 7405.
- 13 ENC FR402080, FR402090 and FR402170.
- 19 The dangers that lie off the S coast of Île de Ré are covered by the red sectors of the Chanchardon lighthouse and the **Pointe de Chauveau** lighthouse. The S limit of Plateau de Chauveau, which lies off this headland to the S, is marked by the "Chauveau" S cardinal light buoy. The dangers lying off the mainland to the S of La Rochelle-Pallice are described in section 5.7.3.
- To the N of the NW tip of Île d'Oléron, the Rocher d'Antioche lighthouse marks the uncovering rocks off this part of the coast, where the 10 m isobath passes in places more than 2 M from land. When vessels enter Pertuis d'Antioche, they must give this lighthouse a wide berth. To the SE, between the coast of Oléron and Île d'Aix, La Longe and Le Boyard form a free-standing bank made of rocks covered with sand, the SE part of which dries, and bears Fort Boyard (view 5.5.6.4.C.). This area is particularly dangerous due to the overfalls and breakers that form in bad weather. The Boyard "bouchots" [mussel pilings], which extend up to 2 M S of Pointe de Boyardville, constitute a danger at high water.
- The ends of the bank are marked to the NW by the "Longe Boyard N" W cardinal buoy and to the SE by the "Longe Boyard S" S cardinal buoy. By night, the bank is covered by the red sector (342° 057°) of the Chauveau light. Its NW end, Bout-de-la-Longue, is covered by the red sector (103° 118°) of the Île d'Aix light. The Fort Boyard access platform established on its SW side bears a light.

01 5.5.6. COAST, LANDMARKS AND ANCHORAGES

- 07 Charts 7404 and 7405.
- 13 ENC FR402080, FR402090 and FR402170.

01 5.5.6.1. Recommendation to mariners navigating the coast

- 77 There are fish locks installed in a good many places on the S coast of Île de Ré, which are marked by perches. Mariners navigating the coast must take care not to damage them.
- 13 The fish locks are described in section 5.5.2.2.

01 5.5.6.2. S coast of Île de Ré

On the S coast of the island, mariners see, from its W end, the Les Baleines lighthouse and the Ars-en-Ré bell tower, described above, then, standing off the coast, the **Chanchardon lighthouse** (view 5.5.6.2.A.), a black octagonal tower (20 m) with a white base. Anse du Martray, where there is an area for anchoring on buoys described in section 5.5.6.3., is located N of this lighthouse.

[photo]

5.5.6.2.A. – Chanchardon lighthouse, to the NE (2008).

- 19 To the E of this anchorage, mariners notice: near the beach, the La Couarde-sur-Mer bell tower with a spire, a conspicuous water tower 3.5 M ESE of this bell tower; the **Sainte-Marie-de-Ré** bell tower and, also standing off the coast, the **Chauveau lighthouse** (view 5.5.6.2.B.), a white truncated conical tower (31 m) with a red top.
- 25 From Pointe de Chauveau, the coast curves slightly to form **Anse de l'Oubye**. White buoys designated for the mooring of leisure vessels are anchored there, in 1 to 2 m of water, 0.7 M SSW of the Pointe de Sablanceaux pier (§ 5.4.7.1.).

31

[photo]

5.5.6.2.B. - Chauveau lighthouse, to the NE (2008).

01 5.5.6.3. Anse du Martray

07 Anse du Martray (46° 11.0' N — 1° 27.7' W) barely cuts into the coast between the Pointe de Chanchardon rocky plateau, to the W, and the Pointe de la Couarde rocky plateau, to the E. Vessels find an anchorage relatively sheltered from winds from the N sector in 1 to 1.5 m of water, around 1500 m from the shore, which is lined with a beach. The N limit of this anchorage is made up of the bearings of 295° of the Ars-en-Ré bell tower and 085° of the La Couarde-sur-Mer bell tower.

- 13 White mooring buoys for leisure vessels are anchored in 2 to 2.5 m of water, 1.2 M NNE of the Chanchardon lighthouse. These anchorages are more exposed than the aforementioned anchorage.
- 19 Vessels access it by setting course either to the N by leaving the lighthouse around 700 m to the W, or on a bearing of 310° on the Ars-en-Ré bell tower. Least depths of 0.6 m are located between these two possible approach axes. By keeping the bearing of the lighthouse between 185° and 210° during the approach, vessels avoid the rocky plateaux that border the entrance. The tidal currents noticeably head parallel to the coast and their speeds are around 1.5 to 2 knots at springs.
- 01 5.5.6.4. N coast of Île d'Oléron
- 07 The coast is made up of wooded dunes between Pointe de Chassiron (view 5.5.6.4.A.), the NW end of Île d'Oléron, and Pointe des Saumonards (45° 59.4' N 1° 14.5' W).

[photo]

Lighthouse Semaphore

Pointe de Chassiron

Antioche lighthouse

5.5.6.4.A. – Pointe de Chassiron and Rocher d'Antioche lighthouse, to the SW (2008).

The main landmarks are: the **Pointe de Chassiron** lighthouse (view 5.5.6.4.B.), a tower (46 m) with white and black bands, with the semaphore, a white house with a yellow roof surmounted by a white tower near a microwave tower bearing air obstruction lights and, 1.3 M farther NNE, standing off the coast, the Rocher d'Antioche lighthouse, a N cardinal tower (27 m).

[photo]

5.5.6.4.B. - Pointe de Chassiron lighthouse and semaphore, to the NE (2008).

31 1.5 M ENE of Pointe des Saumonards, vessels notice Fort Boyard (view 5.5.6.4.C.) with the huge silhouette, situated on the W edge of Passage de l'Est between Île d'Aix and Banc de la Longue and Banc du Boyard.

37

[photo]

5.5.6.4.C. - Fort Boyard (2008).

The ports and the anchorages in this area, especially Saint-Denis-d'Oléron and the Port of Le Douhet, are described in section 5.9.6., dedicated to Île d'Oléron.

01 5.5.6.5. Mainland coast

07 To the E of La Rochelle-Pallice, when vessels are on the leading line on a bearing of 059° of the La Rochelle lighthouses, in the town of La Rochelle, mariners see, from N to S: the cathedral with its bell tower without a spire, the pointed bell tower of Notre-Dame, the pointed tower of the Lanterne (Tour des Quatre Sergents), the square tower of Saint-Nicolas, the lighthouses and, farther to the right, the tower of the station. A microwave tower (76 m) bearing air obstruction lights is situated 2 M E of the town.

01 5.6. PORTS OF LA ROCHELLE

- 07 Chart 7413.
- 13 ENC FR502270.

01 5.6.1. GENERAL INFORMATION

- 07 The La Rochelle port complex is divided between three areas:
 - the grand port maritime de La Rochelle (GPMLR), established near the Île de Ré bridge, is both a commercial port and a fishing port;
 - 3.5 M farther E, the La Rochelle-Ville marina;
 - -0.8 M SW of La Rochelle, the port of Les Minimes, one of the largest marinas in France.

01 5.6.1.1. Signal station

- 07 Port signal mast at the end of Digue Ouest of the Chef-de-Baie basin (Nouvelle Jetée Sud).
- 01 5.6.1.2. Rescue station
- 07 At the port of Les Minimes (46° 08.7' N 1° 10.1' W).

01 5.6.1.3. Tidal currents and water level

- O7 See the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].
- 13 In strong winds from the NW, the tidal current entering Pertuis Breton overcomes the current that enters through Pertuis d'Antioche, in such a way that in the La Pallice roadstead, the flood current heads to the S instead of to the N. The speed of the flood current increases in winds from SE to W by S. The speed of the ebb current increases in winds from NW to E by N.
- With regard to the *Tide tables* forecasts, the water levels are higher in winds from the S sector and lower in those from the N sector. Off Pointe des Minimes and Pointe de Chef-de-Baie, the currents, which head to the ENE on the flood and WNW on the ebb, do not exceed 0.6 knots at springs.

01 5.6.2. AREAS

01 5.6.2.1. Spoil ground

07 A spoil ground extends for 0.5 M SE of the "Lavardin" tower (46° 08.1' N — 1° 14.5' W) and is marked by two E and S cardinal buoys; the bottoms there are variable and vessels may encounter uncovering spoils or spoils awash. Navigation is dangerous in this area.

01 5.6.2.2. Explosives temporary dumping ground

07 See section 5.5.2.1.

01 5.6.3. PILOTAGE AND HOLDING AREAS

- 01 5.6.3.1. Pilotage obligation. Advance notice. Boarding place
- 07 See section 5.4.3.

01 5.6.3.2. Holding anchorage

- Vessels that are not subject to the regulations contained in section 5.6.4.2. and that have not received specific instructions can anchor S of the "Roche du Sud" W cardinal light buoy (46° 06.4' N 1° 15.2' W), leaving the entrances to the ports clear. Before anchoring, they contact the La Rochelle-Charente pilotage station on VHF channel 16 or VHF channel 12.
- 01 5.6.3.3. Holding area for vessels transporting oil or dangerous substances
- 07 These vessels must anchor in the holding area within an area limited by latitudes 46° 05.4' and 46° 03' N and by longitudes 1° 17' and 1° 13' W (§ 5.6.4.2.).
- 01 5.6.4. ACCESS
- 07 Vessels heading for La Rochelle-Pallice or making for the anchorage areas or holding areas must contact "La Pallice Port" on VHF channel 12, 2 hours in advance to confirm their ETA.
- 01 5.6.4.1. Directions
- Pertuis d'Antioche allows vessels to reach Rade de La Pallice in deep water. The entrance through Pertuis Breton only has a least depth of 2.6 m. Vessels approach by following the two leading lines marked on the chart successively. After having left the "Chauveau" S cardinal light buoy to the NW and the "Roche du Sud" W cardinal light buoy to the E, the route passes between **Plateau de Chauveau** and **Plateau du Lavardin**, which bears an isolated danger mark lighted tower (21 m) (view 5.6.4.1.). 0.6 M SW of the Môle d'Escale, the wreck "Marie-Anne" is marked by an E cardinal light buoy.

13

[photo]

5.6.4.1. - Le Lavardin beacon tower, to the NE (2008).

- 19 After landfall (§ 5.5.3.), the entrance to Pertuis d'Antioche by day poses no particular difficulties. The final approach towards Rade de La Pallice, after having left the "Chauveau" buoy to the W, involves following the leading lights on a bearing of 014° of the stopover mole.
- By night, set course on a bearing of 075° on the Chauveau light until the Chassiron light is on a bearing of 165°; then set course on a bearing of 090° to leave the "Chauveau" buoy to the N and follow the axis on a bearing of 014° of the Môle d'Escale direction light.

- 01 5.6.4.2. Regulations. Access track to La Rochelle-Pallice and to the ports of the Charente, compulsory for vessels with a gross tonnage greater than 3000, transporting oil or dangerous substances
- 07 Decree 2006/69 of 30 August 2006 of the Maritime Prefect of the Second Region (§ 7.4.2.) [extracts].
- 13 3. Access channels. Access to La Rochelle-Pallice and to the ports of the Charente, S of the latitude of the N tip of Île d'Aix, is via a channel subject to pilotage obligations.
- 19 4. Semaphore affected: Chassiron.
- 25 A wreck, covered with 11.2 m of water, is situated in the SW part of the holding area, at the W limit of the defined approach channel for the ports of the Charente.

01 5.6.4.3. Regulations

- 07 Interprefectoral Decree 2002/48 of 27 June 2002 of the Maritime Prefect of the Atlantic and of 8 July 2002 of the Prefect of Charente-Maritime
- 13 The regulations indicated hereinafter are applicable within the administrative limits of the port of La Rochelle-Pallice and the fishing port of Chef-de-Baie, in the access channel to the port of La Rochelle-Pallice and in the anchorage areas.
- 19 MOVEMENT OF LARGE VESSELS. Vessels restricted by their draught must bear the lights and marks provided for by rule 28 of the *International Regulations for Preventing Collisions at Sea of 1972*. Vessels with a deadweight tonnage of more than 15,000 may also bear these lights and marks.
- 25 CROSSING AND OVERTAKING MANOEUVRES. Crossing and overtaking must be carried out at a reduced speed.
- 31 NAVIGATION OF SMALL VESSELS. Small vessels and in particular fishing vessels less than 30 m long, leisure craft and wind surfing craft must keep away from the route of commercial vessels passing through the channel. Vessels less than 12 m long must not transit in the channel.
- 37 VESSELS TRANSPORTING OIL OR DANGEROUS SUBSTANCES. These vessels must, in addition to applying the regulations relevant to them (§ 5.6.4.2.), keep their radar and radio (VHF) equipment and manoeuvring apparatus in good working order.

01 5.6.5. PORT OF LA ROCHELLE-PALLICE

- 07 The La Rochelle-Pallice port complex (view 5.6.5.) is established opposite the E end of Île de Ré. It extends to the S of the bridge connecting the island to the mainland and comprises:
 - Môle d'Escale, which bears the old maritime station and warehouses, situated between Île de Ré and Pointe Saint-Marc, to which it is connected by the long "Viaduc Président Christian Morch" jetty, equipped with a railway track and a road;
 - the Môle Nord, a long grain quay oriented to the SW in the extension of Quai Modéré Lombard;
 - Quai Anse Saint-Marc, in the process of being fitted out as a cargo terminal;
 - Bassin Chef-de-Baie, which vessels access in the outer harbour via the passage open to the NW between the head of the new S jetty and the end of Môle Nord;
 - the non-tidal basin and its lock;
 - finally, the Chef-de-Baie fishing port, to the S.

[photo]

Non-tidal basin Outer harbour

Bassin Chef-de-Baie

Fishing port

Môle d'Escale

5.6.5. – La Rochelle-Pallice. General view, to the ENE (2008).

- Môle d'Escale and its oil pier, which extends it to the S, accommodate vessels 280 m long in 10.5 to 16 m of water. The grain quay, 300 m long, is in 14 m of water. Quai Modéré Lombard is 350 m long in 9 m of water. The outer harbour is dredged to a depth of 3.5 m.
- 25 The W part of Bassin Chef-de-Baie is in 9 m of water. There is a quay installed along a trench 240 m long in 14 m of water. There are 9.5 m of water at the ro-ro berth established at the E end of this quay.
- 31 The non-tidal basin can accommodate vessels with a draught of 8 to 9 m, depending on the tide.
- Finally, the Chef-de-Baie fishing port comprises two parts, one in 5 m of water and the other in 3.5 m of water.

01 5.6.5.1. Directions for entry. Signals

- 07 DIRECTIONS FOR ENTRY. In general, the flood current heading N is no longer felt as soon as the vessel passes to the N of Nouvelle Jetée Sud. The ebb current heads S.
- 13 The axis of the lock of the non-tidal basin is shown by the leading lights on a bearing of 085° of two red lights installed on the old submarine base situated at the E end of the basin.
- 19 ENTRY AND DEPARTURE SIGNALS. These international system light signals are displayed on a mast installed at the head of Nouvelle Jetée Sud.
- 25 In order to enter or depart from the port, as well as before any movement inside the port, vessels should contact the harbour master's office (call sign La Pallice port) on VHF channel 12.
- 31 Entry or departure may also be requested by four long blasts on the whistle.

01 5.6.5.2. Môle d'Escale

- Môle d'Escale (view 5.6.5.2.) is shaped like a trapezium and is oriented noticeably N-S, corresponding, more or less, to the direction of the current; it is marked at its end by a S cardinal light¹⁰.
- 13 Its W side, which is 381 m long, comprises a bed 50 m wide and 14 m deep (moles nos. 5 and 6). Mole no. 5 can accommodate vessels 250 m long and 45 m wide with a draught of 12 m, and mole no. 6 can accommodate vessels 130 m long and 45 m wide with a draught of 11 m.
- 19 Its E side is 542 m long. It includes:
 - to the S (moles nos. 2 and 3) a bed 40 m wide in a depth of 12 m that can accommodate vessels 260 m long and 35 m wide with a draught of 11.5 m;
 - to the N (mole no. 1) a bed 30 m wide dug out to a depth of 10.5 m over a length of 280 m, at which vessels 28 m wide with a draught of 9.5 m can berth on free-standing piles.
- 25 Vessels 175 m long and 30 m wide with a draught of 8.5 m can berth in a bed 200 m long on the NW face of Môle d'Escale (mole no. 7).

¹⁰ Translator's note: There seems to be a word missing here.

[photo]

Môle d'Escale

Oil terminal

5.6.5.2. - La Rochelle-Pallice. Môle d'Escale, to the N (2008).

- 37 OIL PIER. A pier around 400 m long, the S end of which bears a light, forms an extension to Môle d'Escale to the S.
- 43 On the W side, the "APWE" berth comprises a bed 350 m long, 55 m wide and 16 m deep. Vessels 260 m long (minimum length 120 m), 42 m wide, with a draught of 14 m, a deadweight tonnage of 120,000 or a displacement tonnage of 150,000 can berth here.
- 49 On the E side, the "APES" berth comprises a bed 300 m long, 50 m wide and 12 m deep. Vessels 210 m long (minimum length 100 m), 32 m wide, with a draught of 12 m, a deadweight tonnage of 45,000 or a displacement tonnage of 55,000 can berth here.
- 55 EQUIPMENT. Two 100 t travelling cranes; four 12 t cranes on Quai Est; two 33 t cranes on Quai Ouest; on the terreplein, a 5000 m² boathouse to the N and another of 7600 m² to the S; railway tracks.

01 5.6.5.3. Bassin Chef-de-Baie

- 07 The Nouvelle Jetée Sud of Bassin Chef-de-Baie (view 5.6.5.3.) bears a light and the port traffic signal mast. The end of the grain quay (or Môle Nord) also bears a light. The entrance passage to Bassin Chef-de-Baie and the access passage to the outer harbour opens out over 300 m between these two ends. The area of water that extends up to 300 m E of this passage constitutes the turning area. The latter, dug out to a depth of 9 m, is accessible for vessels with a draught of 8.5 m. The E limit of this area is marked by two W and S cardinal light buoys that mark the foul bottoms.
- 13 There is a 430 m-long quay occupied by berths "CB01" and "CB02" to the S of the basin. It can accommodate vessels with a draught of 12.5 m in a bed 45 m wide, dug out to 14 m. The "CB03" berth, 134 m long, with a bed 45 m wide with a depth of 9.5 m below chart datum, is located on the extension of the two previous berths. Its E part is equipped with a ro-ro floating platform, which can accommodate ro-ro vessels with a draught of 8.5 m. The platform allows "C2 120 t" abnormal loads to be loaded (17.5 t per axle) in a special procedure.

19 There is a significant backwash in the basin in winds from the NW.

25

[photo]

Non-tidal basin

Outer harbour

Bassin Chef-de-Baie

5.6.5.3. - La Rochelle-Pallice. Bassin Chef-de-Baie, outer harbour and non-tidal basin, to the ENE (2008).

31 EQUIPMENT. – Two 35 t cranes; two 45 t cranes; one 60 t travelling crane.

01 5.6.5.4. Outer harbour

- 07 The outer harbour (view 5.6.5.3.) extends to the NE of Bassin Chef-de-Baie, between Quai Modéré Lombard to the NW and the S jetty; there is a light on the end of the latter. The E part of the outer harbour has been cleared of rocks to 5 m below chart datum. It is dredged regularly to maintain the depth at 3.50 m (4 m on the axis of the lock).
- 13 The E end of Quai Modéré Lombard (berth AP02) can accommodate, in a bed 170 m long and 30 m wide, which is dredged to 9 m, sand carriers and storage tankers (with the exception of oil tankers) 165 m long and 27 m wide with a draught of 7.5 m.
- The central part of Quai Modéré Lombard (berth AP01) can accommodate, in a bed 220 m long and 35 m wide, which is dredged to 9 m, grain carriers 200 m long and 30 m wide with a draught of 8.5 m.
- The W end of Quai Modéré Lombard (berth AP00) can accommodate, in a bed 300 m long and 45 m wide, dredged to 14 m, grain carriers 280 m long and 40 m wide with a draught of 12.5 m.
- 31 The S jetty can only be berthed at over a length of 70 m in its E part, at the mouth of the old covered lock. It is occupied by GIE Dragage vessels and the Lights and Beacons Service vessels. The central part is reserved for military craft. A sand carrier berth occupies the W part.
- 37 The space between Quai Modéré Lombard and the entrance lock to the non-tidal basin is occupied by the service port which shelters state vessels, and vessels of the pilotage, boatage and towing services.
- 43 EQUIPMENT. At Quai Modéré Lombard: a 1000 t/hour loading device to the W and a 450 t/hour loading device to the E.
- NON-TIDAL BASIN ENTRANCE LOCK. A lock 165 m long, 22 m wide and 5 m deep allows vessels 165 m long and 21.3 m wide to enter with the gates open, and vessels 135 m long and 21.3 m wide to enter the lock with two tugs.
- 55 The gates are open from 2 hours before to 1 hour after high water.
- Upon their request and except for any unforeseen difficulties for which the harbour master shall be the sole judge, vessels may enter the lock:
 - by day, at any time for entry and departure. The request should be made: at least 1 hour before the time of entry into the lock for the periods from 0800 to 1200 and from 1400 to 1800; before 1000, for the period from 1200 to 1400;
 - by night, vessels may depart at any time provided that the request is made before 1700.
- The entry time is set so that the vessel is berthed at the arranged time in order to begin its commercial operations. It will not be allowed to pass through the lock if entry during the gate opening period allows this condition to be fulfilled¹¹.

Translator's note: *sic*. This is what the French text reads, however it should possibly read "if entry during the gate opening period does not allow this condition to be fulfilled".

01 5.6.5.5. Non-tidal basin

- 07 The non-tidal basin (view 5.6.5.3.) forms a rectangular area of water 201 m wide and 565 m long in its N part and 500 m long in its S part. Its E part is divided into two unequal docks by a groyne (Quai de l'Entrepôt), which is 194 m long.
- 13 The non-tidal basin can accommodate vessels with a draught of 8 to 9 m depending on the tidal coefficients. Depending on their draught, vessels are more or less kept away from the quays by rafts.
- Berths 1 to 4 of Quai Carnot (to the N), as well as berths 9, 10 and 11 of Quai Bouquet de la Grye (to the S) are used for the transport of goods. Quai Camaret (to the W) is reserved for naval repairs. The groyne can accommodate vessels stopping over and has a berth for receiving phosphoric acid.
- 25 FACILITIES AND EQUIPMENT. Two dry graving docks and a 300 t lift are located in the SW corner. Two 35 t cranes; six 12 t cranes; one 60 t travelling crane.

01 5.6.5.6. Chef-de-Baie fishing port

07 The fishing port is situated outside the port.

13

[photo]

5.6.5.6. - Chef-de-Baie fishing port, to the E (2008).

- 19 It is protected by two dykes made up of loose boulders that form a passage 70 m wide to the W; it comprises:
 - a N area, in 3.5 m of water, equipped with five pontoons between 96 and 102 m long established parallel to the W dyke and connected, to the N, to the Chef-de-Baie terreplein (boulevard Vladimir Morch), numbered 1 to 4, from W to E; the first one to the W is not numbered. There is a 14 m quay at the E end of this basin and to the SE of the former there is a 58 m slipway. To the S of the slipway, there is a pontoon bearing two diesel oil berths for coastal vessels;
 - a central area, in 5 m of water, equipped with three fixed piers, 105 m long and oriented WSW from the shore; they are numbered 5 to 7 from N to S. The end of pier no. 5 bears a diesel oil berth for deep-sea vessels;
 - a SE area, also in 5 m of water, which comprises an unloading quay 109 m long connecting back up to Digue Sud. Four groynes 27 to 42 m long, which can be berthed at and are named A, B, C and D from N to S, extend from this quay. The end of groyne D bears the fishing port direction light.

01 5.6.5.7. Repairs. Towing

- 07 Four tugs with a traction of 30 t in service; three boating launches of 150, 170 and 220 HP.
- 13 A naval repair workshop containing a 300 t boat hoist. Two dry graving docks, one 176 m long and 22 m wide, the other 107 m long and 14 m wide (Annex I, section 7.1).

01 5.6.5.8. Supplies

- 07 Fresh provisions at La Pallice and La Rochelle. Drinking water (fairly hard) available from taps on the quays.
- 13 Liquid fuels and oils at all quays via tanker lorries, and diesel oil at a set berth at the Chef-de-Baie fishing port.
- 01 **5.6.5.9. Information**
- 07 Department of Charente-Maritime (17); commune of La Rochelle (§ 5.6.6.8.).
- Harbour master's offices: Quai Nord du sas, Terre-Plein de l'Écluse, BP 2042, La Rochelle Cedex; tel: +33 (0)5.46.00.56.30; fax: +33 (0)5.46.00.56.22; email: lp.port@equipement.gouv.fr
- 19 Chef-de-Baie fishing harbour master's office: tel: +33 (0)5.46.00.39.10.
- La Rochelle-Charente pilotage station: rue du Dahomey (N quay of the lock), BP 2086, 17010 La Rochelle Cedex 01; tel: +33 (0)5.46.42.63.05; fax: +33 (0)5.46.42.26.96; email: info@larochelle-charentepilot.com
- 31 Customs: tel: +33 (0)5.46.41.25.20.
- 37 Maritime affairs: at La Rochelle (§ 5.6.6.8.).
- 43 La Rochelle "Boluda" towing: rue du Dahomey, BP 2031, 17009 La Rochelle Cedex; tel: +33 (0)5.46.42.63.60.

01 5.6.6. PORT OF LA ROCHELLE-VILLE

07 The port of La Rochelle-Ville (view 5.6.6.) is made up of three basins entirely reserved for leisure and the activities of passenger vessels. Stopovers are not authorised during the "Le Grand Pavois" boat show.

13

[photo]

5.6.6. – La Rochelle-ville, to the ENE (2008).

01 5.6.6.1. Outer anchorages

- 07 Vessels waiting to enter La Rochelle can anchor, sheltered from winds from N to SE by E, to the ESE of Pointe de Chef-de-Baie and to the N of the entrance leading line, in 1.3 to 1.7 m of water over a muddy bottom of very good holding. However, this anchorage is exposed to the swell from the SW.
- 01 5.6.6.2. Channel. Access
- 07 The channel is 35 m wide, 0.5 m deep (theoretical value), and is lined on either side by mudbanks uncovering 1.5 to 2 m. It silts up constantly, but given that the maximum amount of silting up per year is 0.5 m, dredging always allows vessels with a draught equal to the height of the water given by the Tide Tables, minus 0.3 m, to be admitted. It is dredged every year between Tour Richelieu and the port of La Rochelle-Ville, over a width of at least 20 m. Vessels must take particular care during the dredging period.
- A W cardinal light buoy is anchored in position 249° at a distance of 0.8 M from Pointe des Minimes. The "Phare du Bout du Monde", an octagonal structure on stilts (15 m), with a sector light lies off the latter headland and replicates the Îles des États lighthouse, to the E of Cap Horn (view 5.6.6.2.).

19

[photo]

5.6.6.2. - Phare du Bout du Monde.

- A pair of lateral light buoys, forming a gate, is anchored either side of the channel, at the limit of the intensified sector of the front light of the leading line on a bearing of 59°. It marks both the entrance to the port and the administrative management limit of the La Rochelle marina.
- The axis of the channel is shown, by day and by night, by the leading line on a bearing of 059° of the two lighthouses: octagonal, white with a green top for the rear (23 m) and cylindrical with red and white bands and a red top for the front (14 m). The channel is marked by the "Tour Richelieu", octagonal, red (17 m), lit, then 200 m farther on by the "M" W cardinal buoy marking the entrance to the Les Minimes marina, and then by port lateral buoys.
- 37 0.2 M SW of the Port-Neuf dyke (46° 09.1' N 1° 11.1' W), a S cardinal beacon marks the end of the sewage works waste water outfall pipe.
- The channel leads to the La Rochelle-Ville outer harbour, from which vessels access:
 - to the E, the large non-tidal basin, reserved as a priority for leisure vessels from 14 to 60 m, known as Bassin Extérieur;
 - to the NNE, to the grounding basin and from here to the small non-tidal basin known as Bassin Intérieur.

- 49 DIRECTIONS. Vessels must follow the leading line exactly. If vessels ground in the channel, they would risk causing very serious damage and anchoring there is prohibited. Vessels must navigate with care and at a lower speed in the vicinity of the entrance to the port of Les Minimes (maximum 5 knots in the channel and 3 knots in the basins).
- 55 REGULATIONS. See section 5.6.4.3.
- 61 SIGNALS. Authorisation for entry and departure are given via VHF (publication *Radio communications* for monitoring traffic and pilotage).

01 5.6.6.3. Outer harbour

- 07 Its area of water, at the end of the access channel, extends from the entrances to the basins up to 300 m SW of them.
- 13 Its NW bank is bordered by a very large launching slipway (70 m x 85 m) that descends to the bottoms uncovering 0.8 m, at the foot of Tour de la Lanterne (or Tour des Quatre Sergents), with a pointed roof. On the same bank, between the slipway and Tour de la Chaîne, which is round and very large, there is the landing pontoon for vessels providing a connection to the islands. It is marked by a light by night.
- 19 On the other bank, a small mole limits, to the WSW, the manoeuvring space for vessels arriving at the entrance to Bassin Extérieur. A landing pontoon, reserved for passing vessels, is lit at night and is situated half-way between the mole and the basin.

01 5.6.6.4. Bassin Extérieur

- 07 This non-tidal basin (old Bassin des Chalutiers) is used primarily by leisure vessels with a length of 14 to 60 m. The height of the water allows vessels with a maximum draught of 5 m to remain afloat. The bottom is 0.9 m below chart datum. The basin comprises two right-angled docks. The N dock, opposite the entrance, is reserved for visitors and nautical events. Vessels belonging to the maritime museum and the 150 t hoist lifting area are located to the S of the S dock. A pedestrian footbridge spans the dock.
- 13 LOCK. It is 16 m wide and a bascule bridge crosses it. The gates are open from 2 hours before to 45 minutes after high water, by day and by night. Except in exceptional circumstances, the bridge is lifted to allow vessels to pass at 0200 HW, 0030 HW and + 0030 HW. Access to the basin must be requested from the Les Minimes harbour master's office (§ 5.6.7.) by VHF or by telephone, the day before it is required.

01 5.6.6.5. Grounding basin (Vieux Port)

- 07 Vessels access this grounding basin by passing between Tour de la Chaîne and Tour Saint-Nicolas. It is bordered to the NW by the Cours des Dames, to the N by Quai Duperré and to the NE by Quai de Carénage. A sluicing aqueduct flows out at the corner of the two latter quays.
- 13 The depth at the centre of the basin is 1.5 m. It is 0 m in the entrance passage. At the N end, the bottom uncovers 1.7 m up to around 40 m from Quai Duperré. Along the S half of Quai de Carénage, the bottoms uncover between 0.4 and 1 m. The basin dries 1 m in the SE corner.
- 19 There are five pontoons, in 1.3 m of water, laid out perpendicularly to the Cours des Dames. The reception is located on the second of these pontoons after the entrance. Near the entrance and on the same bank, there is a small pontoon used by the port shuttle (Sea bus).

01 5.6.6.6. Bassin Intérieur

- 07 This non-tidal basin (Bassin des Yachts) opens out on the E side of the grounding basin. It is reserved for leisure vessels less than 15 m long. The theoretical value of the bottom is 0.7 m above chart datum. The height of the water above the bottom is at least 4 m. It is equipped with five pontoons. There is a harbour master's office (for all the basins) installed at the entrance to Bassin Intérieur.
- 13 LOCK. A mobile footbridge crosses the lock, which is 12 m wide. The gate is open from 0200 HW to + 0030 HW by day and by night (by night upon request made to the La Rochelle-Vieux Harbour master's office before 1800).

01 5.6.6.7. Equipment. Resources

- 07 The main equipment and services provided are as follows: 300 berths, 60 of which are for vessels in transit; maximum length from 12 m to 90 m, depending on the basin, draught from 1 m to 5 m depending on the basin; water and electricity at the pontoons; sanitary facilities; public roads service; recovery of black water; 150 t lift; building and repair yards.
- 01 5.6.6.8. Town
- 07 Department of Charente-Maritime (17); prefecture: 80,100 inhabitants (171,200 for the town).
- 13 INFORMATION.
- 19 Marina harbour master's office: rue de l'Armide (at the entrance to Bassin Intérieur); tel: +33 (0)5.46.41.32.05; VHF: channel 9; email: vieuxport@portlarochelle.com
- 25 Pilotage: see section 5.6.5.9.
- 31 Customs: 10 Quai Duperré; tel: +33 (0)5.46.41.25.20.
- Maritime affairs: rue du Quai de Marans, 17021 La Rochelle cedex; tel: +33 (0)5.46.28.07.07; fax: +33 (0)5.46.28.07.00; vessel safety centre: tel: +33 (0)5.46.28.07.17; fax: +33 (0)5.46.28.07.01.
- 43 Maritime police: Quai de Marans; tel: +33 (0)5.46.28.07.22.
- 49 Saint-Louis hospital: Centre Hospitalier, rue Docteur Schweitzer; tel: +33 (0)5.46.45.50.50.
- 55 Mariners: avenue du Général de Gaulle (near the station); tel: +33 (0)5.46.41.26.24.
- 61 Town hall: tel: +33 (0)5.46.51.51.51.
- 67 CONNECTIONS. Road links towards Niort (60 km away) and Rochefort (30 km away). Railway station. La Rochelle-Laleu airport (6 km).
- Maritime links with Île de Ré, Île d'Aix and Île d'Oléron; Sea bus: shuttle between the La Rochelle-Ville grounding basin and the port of Les Minimes, operating from 1000 to 2200.

01 5.6.7. PORT OF LES MINIMES

- 07 Chart 7413.
- 13 ENC FR402080, FR402090, FR502270 and FR502271.
- 19 The port of Les Minimes (46° 08.8' N 1° 10.1' W) [view 5.6.7.] is the largest marina on the Atlantic coast. It is established to the S of the access channel to the port of La Rochelle-Ville.

[photo]

Tour Richelieu

5.6.7. - Port of Les Minimes, to the SE (2008).

01 5.6.7.1. Channel. Access

- 77 The port is situated S of the access channel to La Rochelle-Ville (§ 5.6.6.2.) that vessels leave less than 200 m E of Tour Richelieu in order to enter the route to the SE of the entrance passage. This fork is marked by the "M" W cardinal buoy. The channel, 180 m long and 0.5 m deep, which leads to this fork in the passage, is marked by the "M 2" and "M 4" port lateral buoys. The entrance passage, around 80 m wide, runs close to Digue Ouest (Digue du Lazaret) and runs away from the other dyke (Digue du Bout Blanc or Digue du Chenal). The heads of these two structures each bear a light.
- 13 It is recommended that vessels navigate at a lower speed in the vicinity of Tour Richelieu and in the access channel to the port. There are a lot of vessels in transit here in the summer season.

01 5.6.7.2. Port

- 07 The port is divided into two parts, E and W, by a central terreplein where the harbour master's office (a square tower surmounted by an imposing lookout station), the nautical centre, a sailing school and a boat park are located. A wide launching slipway descending in the direction of the passage occupies the N corner of this terreplein. The reception is located on a pontoon, with catwalks, running along the W side of the terreplein and extending it to the N.
- 13 Bassin du Lazaret, equipped with pontoons "1" to "15" (three are reserved for visitors and three others for professionals) providing 1500 berths, extends to the W.
- 19 To the E, Bassin du Bout Blanc, under the dyke of the same name, is equipped with pontoons 19 to 29 connected to the dyke and providing 800 berths. Bassin Marillac extends to the S of Bassin du Bout Blanc and comprises pontoons 30 to 46 connected to the E bank. This basin provides 1000 berths.
- 25 The depths in these basins are less than 1 m.
- 31 A grounding quay with a slipway, on a bottom uncovering 1 m, occupies the NE corner of the port.
- 37 0.5 M W of Tour Richelieu, a cove is cut fairly deeply into the N coast of the roadstead opposite the city of Port Neuf. An anchorage area on deadmen, managed by the Les Minimes harbour master's office, provides 65 berths that are accessible at half tide. On the W side of the cove, an extensive terreplein bearing the large warehouses and cylindrical tanks of a factory is extended to the SE by a slipway. 300 m NE of the latter, a small concrete mole extends from the shore towards the S. The shelter is mediocre in fresh winds from SW to

E by S, despite the protection provided by the groyne that extends the slipway. Stopovers are not authorised during the Le Grand Pavois boat show.

01 5.6.7.3. Equipment. Resources. Information

- 07 The main equipment and services provided are as follows: 3300 berths, of which 300 are for vessels in transit; maximum length 15 m, draught 2 m; water and electricity at the pontoons and on the quays in the Bout Blanc technical area; sanitary facilities; fuel; public road service.
- 13 Three launching slipways, one of which has a scrubbing area; grounding grid; recovery of black water; 10 and 50 t mobile lifts on the E bank to the N of pontoon 30; two 2.5 t fixed cranes; one 30 t travelling crane; building and repair yards (hull, engine, electronics) in the Bout Blanc technical area; all nautical equipment shops.
- Restaurants, hotels and numerous shops near the quays; a sea bus shuttle connects the port with the port of La Rochelle-Ville (§ 5.6.6.8.).
- 25 INFORMATION. Department of Charente-Maritime (17); the port is situated in the town of La Rochelle (§ 5.6.6.8.).
- Harbour master's office: reception by day and night; tel: +33 (0)5.46.44.41.20; fax: +33 (0)5.46.44.36.49; VHF: channel 9 (permanent watch); email: capitainerie@portlarochelle.com
- 37 CONNECTIONS. See section 5.6.6.8.

01 5.7. FROM POINTE DES MINIMES TO THE MOUTH OF THE CHARENTE

- 02 Charts 7404, 7405, 7413 and 7415.
- 13 ENC FR402080 and FR402090.

01 5.7.1. GENERAL INFORMATION

07 Between La Rochelle and Île d'Aix, the coast is low-lying and has for the most part muddy outcrops extending off it, which make navigation tricky near land.

01 5.7.1.1. Rescue station

07 Île d'Aix (46° 00.5' N — 1° 10.4' W).

01 5.7.1.2. Tidal currents

07 See the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].

01 5.7.2. AREAS

01 5.7.2.1. Submarine pipelines and cables

- 07 Pipelines and cables connect Île d'Aix to the mainland, in the approaches to Pointe de l'Aiguille. There are, in particular, power cables buried between this headland and Pointe Saint-Catherine (S tip of Île d'Aix). Their routes, not marked on the chart, pass S of the Fort d'Énet islet (Decree 01/94 of 11 January 1994 of the Maritime Prefect of the Atlantic).
- 13 A regulated area, marked on the charts, in which anchoring, dredging and trawling are prohibited, provides protection to these pipelines and cables.

01 5.7.2.2. Submerged munitions

07 A rectangular area in which munitions are submerged is centred 1 M E of Pointe de Coudepont (Île d'Aix). The "Fouras" W cardinal buoy is anchored within this area, the limits of which are marked on the charts.

01 5.7.2.3. Explosives temporary dumping ground

07 See section 5.5.2.1.

01 5.7.2.4. Marine farms

07 See section 5.5.2.2.

01 5.7.3. DANGERS AND BEACONAGE

- 2.1 M NNW of the Île d'Aix lighthouse, an isolated danger buoy marks a dangerous wreck to the W. Respectively 0.7 M SE and 1 M ESE of **Pointe de Coudepont** (Île d'Aix), the "La Fumée" W cardinal buoy and the "Fouras" W cardinal buoy mark the rocky overhang that stands off Pointe de l'Aiguille. The "Fouras" buoy is anchored on the N limit of the area protecting the submarine pipelines and cables connecting Île d'Aix to the mainland (§ 5.7.2.1.).
- 13 For the dangers at the entrance to the Charente, see section 5.8.4. and for the dangers of Le Coureau d'Oléron, see section 5.9.3.1.

01 5.7.4. COAST, LANDMARKS AND ANCHORAGES

- 01 5.7.4.1. Mainland coast
- 07 The main landmarks at La Rochelle have been described in section 5.5.6.5.
- 13 Between La Rochelle and Fouras, 10 M farther to the SSE, the coast is very low-lying and often misty and the landmarks are not very visible. Mariners notice several water towers and, 6 M S of La Rochelle-Ville, the town and port of Châtelaillon-Plage. This port is described in section 5.7.4.2.
- 19 1 M off the beach, a yellow buoy marks the end of a long submarine pipeline. 1.2 M farther S, a W cardinal perch marks the uncovering rocks of Pointe de Châtelaillon.
- The small **port of Les Boucholeurs** (view 5.7.4.1.A.) is established 0.5 M S of Châtelaillon-Plage. It is formed of a concrete mole around 300 m long, oriented to the SSW, and a free-standing groyne made of loose boulders to the SE, which shelter a grounding area reserved for oyster farmers. The inner quay of the mole, equipped with several ladders, can be berthed at and the berths there are clear over a muddy bottom uncovering 2.5 to 3 m. A launching slipway is established at the root and an unloading slipway is next to it near the head.

31

[photo]

5.7.4.1.A. – Port of Les Boucholeurs, to the N (2008).

Farther S, Pointe de l'Aiguille (Pointe de la Fumée) [view 5.7.4.1.B.], which is very narrow, separates Baie d'Yves from the mouth of the Charente. Port Nord de Fouras and Port Sud de Fouras are established on either side of this headland. They are described in sections 5.7.4.3. and 5.7.4.4.

[photo]

Port Sud de Fouras

Port Nord de Fouras

Port of La Fumée

5.7.4.1.B. – Pointe de l'Aiguille, to the SE.

The port of La Fumée, a small dry harbour used primarily by launches providing a link to Île d'Aix, is located at the end of Pointe de l'Aiguille, on the N side. It is protected to the W by a jetty, the head of which bears a N cardinal beacon. A wide slipway is attached to the jetty, on the E side. Its NE corner is marked by a starboard lateral light perch. The muddy bottoms uncover 1 m at the head and 5 m at the root of the slipway, at which vessels can berth and from which passenger vessels depart.

An anchorage, managed by the commune of Fouras (§ 5.7.4.3.) and comprising around sixty mooring buoys, extends to the ENE of the jetty on bottoms uncovering 1 m. Several buoys are reserved for vessels in transit. The shelter is mediocre, whatever the wind direction.

Mariners see Fort d'Énet (view 5.7.4.1.C.) 1 M W of Pointe de l'Aiguille; it is semicircular and is connected to the headland at low water.

67

[photo]

5.7.4.1.C. - Fort d'Énet, to the SE (2008).

73 At Fouras mariners notice, in particular, the narrow spire of the bell tower, the large Tour Carré and the lighthouse on the end of the jetty of Port Sud.

01 5.7.4.2. Port of Châtelaillon-Plage

07 4 M NE of Île d'Aix, the port of Châtelaillon-Plage (46° 03.6' N — 1° 05.7' W) [view 5.7.4.2.] is a grounding area for leisure vessels that is protected to the NNW and W by an angled jetty made of loose boulders and

to the SSW by a free-standing breakwater, which is also made of loose boulders. The head of the dyke bears a port lateral beacon and the NW end of the breakwater bears a starboard lateral beacon. The passage, around 40 m wide, opens out to the SW between these two ends. Inside, the flat and muddy bottoms uncover 2.5 to 3 m. Three pontoons (around 20 berths) are installed perpendicular to the dyke between the root and the first bend. There is a large launching slipway established in the corner of this bend.

13 Vessels approach this port, which is accessible from around 1 hour before to 1 hour after high water, preferably from the NW. A rocky causeway and oyster farms extend up to 1.5 M WSW of the entrance; the end of this causeway bears a W cardinal beacon, 400 m WNW of which Le Cornard uncovers 0.2 m. Vessels can set course on a bearing of 104° on the leading line of the beacon on the dyke by the water tower situated 750 m beyond this beacon.

19

[photo]

5.7.4.2. – Châtelaillon-Plage, to the SSE (2008).

- 25 INFORMATION. Department of Charente-Maritime (17); 5750 inhabitants. The port is managed by the commune.
- 31 Town hall: tel: +33 (0)5.46.30.18.18.

01 5.7.4.3. Port Nord de Fouras

- 07 Port Nord de Fouras (45° 59.8' N 1° 05.8' W) [view 5.7.4.3.], a small shelter port used by several trawlers, is situated 1 M SE of Pointe de l'Aiguille, on the N coast of the peninsula. It is delimited to the SE by a mole, the end of which bears a starboard lateral beacon, and on which a small angled jetty, the head of which bears a sector light on a white pylon with a green top (7 m), is rooted towards the N.
- 13 These structures form a small basin with quays at which vessels can berth, on bottoms that uncover 4 m. A pontoon with catwalks extends the mole and can accommodate around 20 craft, on a bottom uncovering 3.5 m.
- An extensive grounding area extends to the E of the mole. There are almost 200 mooring buoys anchored in the vicinity of the port, over a muddy bottom uncovering 2.5 to 3 m. Several buoys and certain facilities (toilets, sanitary facilities, drawing up of vessels onto land) have been made available to visitors by the association of users.

[photo]

5.7.4.3. – Port Nord de Fouras, to the SW (2008).

- 31 INFORMATION. Department of Charente-Maritime (17); 3920 inhabitants.
- 37 Town hall: tel: +33 (0)5.46.84.60.11.
- 43 Association of users: tel: +33 (0)5.46.84.63.63.
- 49 CONNECTIONS. The commune of Fouras is 5 km from the trunk road, La Rochelle (30 km), Rochefort (15 km). Bus to the Rochefort railway station.
- 55 La Rochelle-Laleu airport (35 km) and Rochefort-Saint-Agnant airfield (17 km).
- 61 Shuttles connecting the port of La Fumée (§ 5.7.4.1.) with Île d'Aix.

01 5.7.4.4. Port Sud de Fouras

- 07 Port Sud de Fouras (45° 59.0' N 1° 05.7' W) [view 5.7.4.4.], a small dry harbour, is situated S of the town of Fouras, 1.6 M SE of Pointe de l'Aiguille. Established in Anse de la Coue, it is protected to the W by a jetty, the head of which bears a sector light on a white tripod with a red top (5 m).
- 13 The soft muddy bottom, which uncovers 4 to 4.6 m along this jetty at which vessels can berth, provides good berths. Two pontoons are installed to the E, parallel to the jetty, on a bed that is dug out, every two or three years, to 3 m above chart datum.
- ACCESS. By day, coming from the Île d'Aix roadstead (§ 5.7.4.5.) or Fosse d'Énet, vessels follow the leading line on a bearing of 115° of the white square towers with red tops (9 m and 23 m) for entry into the Charente (leading line known as Soumard) until mariners recognise the entrance to the port on a bearing of around 15° to the right of the leading line of the Fouras bell tower by La Tour Carrée, a very large keep surmounted by a flagpole, situated 0.2 M NNW of the head of the jetty. Coming from Le Coureau d'Oléron (§ 5.9.3.1.), mariners can, in good visibility, use the same landmarks of Fouras to locate the supports of the two leading lights on a bearing of 042.5° of Passe aux Filles, which passes over bottoms uncovering 3.2 m to the W of Île Madame (§ 5.8.4.1.). This leading line is not easy to make out.
- 25 By night, vessels follow the leading lights on a bearing of 115° for entry into the Charente, then take the one, on a bearing of 042.5°, of the lights of Passes aux Filles.
- 31 Entry into the cove is only possible around 4 hours after low water. Vessels can enter the bed between 2 hours before and 2 hours after high water at neaps. In heavy weather and at high water, the waves pass over the parapet of the jetty and make anchorage very uncomfortable.

[photo]

5.7.4.4. - Port Sud de Fouras, to the N (2008)

- EQUIPMENT. 80 berths; water and electricity at the pontoons; sanitary facilities; launching slipway at the E end of the terreplein to which the pontoons are connected; due to silting up, this slipway is only barely useable by tenders; 2.2 t crane.
- 49 INFORMATION. CONNECTIONS. See also section 5.7.4.3.
- 55 Harbour master's office: tel: +33 (0)5.46.84.23.10.
- 01 5.7.4.5. Île d'Aix
- 07 On Île d'Aix (view 5.7.4.5.), mariners notice: in the N part, Fort Liédot; in the S part, the grey tower of the old semaphore, the lighthouse made up of two white towers with red tops (17 m) [the E-most of which bears a light, the other the screen of the red sector of the light] and Fort de la Rade. Between Île d'Aix and Île d'Oléron, Fort Boyard (46° 00.0' N 1° 12.8' W) [view 5.5.6.4.C.] is conspicuous.

[photo]

Pointe de Coudepont

Anse du Saillant

Jetée Barbotin

Pointe Sainte-Catherine

5.7.4.5. – Île d'Aix, to the NNE (2008).

- 19 Rade de l'Île d'Aix (46° 00.5' N 1° 11.5' W) extends from SW to SE of Île d'Aix, between Banc Boyard to the SW and **Plateau des Palles** to the SSE. This holding anchorage for entering the Charente is poorly sheltered from the sea and winds from the W and NW create a very choppy sea on the ebb current.
- DIRECTIONS. By night. Arriving from the NW, set course on the Île d'Aix light without entering its red sector (103° 118°) while the vessel is located in the red sector (342° 057°) of the Chauveau light. When the latter light changes colour on a bearing of 342°, set course on a bearing of 158° with the stern on the Chauveau light to pass through the red sector of the Île d'Aix light as far as the leading line on a bearing of 115° of the lights for entry into the Charente.
- 31 ANCHORAGE. Vessels anchor either side of the leading line for entry into the Charente in 7 to 12 m of water over a muddy bottom of excellent holding. A recommended anchorage is located N of the leading line, in the vicinity of the bearing of the old semaphore seen between the two towers of the Île d'Aix lighthouse. Due to old obstructions, it is advisable that vessels do not anchor in the S end of the roadstead between Banc Boyard and Plateau des Palles.
- 37 SLIPWAYS AND PORT. **Pointe Sainte-Catherine** (view 5.7.4.5.), the S end of the island, is extended towards the SE by Jetée Barbotin, the end of which bears a light. Leisure vessels can berth at the head of this jetty, however an extended stay is prohibited because connecting vessels use the structure; an unloading slip is attached to the jetty, near the root, on the E side.
- 43 A second slipway known as "Cale Napoléon" is situated around 150 m to the N, on the E side of the island off the ramparts of Fort de la Rade. Vessels access this second slipway, only the N side of which can be berthed at, via a channel 40 m wide that is marked by starboard lateral beacons with reflecting film.
- The indentation in the coast immediately N of the second slipway constitutes the port. It is bordered to the SW by a quay, at the foot of which vessels can ground with care.
- LEISURE ANCHORAGES. Three white buoys, marked "PL40", "PL41" and "PL42", are anchored for leisure vessels, in 2 m of water, around 0.3 M N of **Pointe de Coudepont**.
- 61 Similar buoys ("PL43" to "PL46") are anchored off the W coast around 0.3 M NW of the lighthouse, as well as 0.3 M SE of Pointe Sainte-Catherine ("PL47" to "PL51"), all in 2 m of water.
- All of Anse du Saillant, which cuts into the E coast of the island, largely dries over a soft muddy bottom. Around 100 deadmen are anchored S of this cove, in the E and SE of the port. Off the cove, marine farming beds extend up to the limit of the uncovering bottoms (§ 5.5.2.2.). A submarine power cable marked by the "Aix SE" special mark buoy crosses the S part of the cove.
- 73 INFORMATION. Department of Charente-Maritime (17); 200 inhabitants.

79 Town hall: tel: +33 (0)5.46.84.66.09.

01 5.8. CHARENTE MARITIME

- 07 Chart 7415.
- 13 ENC FR502271 and FR502273.

01 5.8.1. GENERAL INFORMATION

- 07 The maritime part of the Charente extends as far as upstream of the port of Rochefort, situated around 15 M from the Île d'Aix roadstead (§ 5.7.4.5.), then in its river part towards the port of Tonnay-Charente, situated 3 M upstream of Rochefort. The Charente is accessible, up to the latter port, for vessels up to 120 m long and the admissible draught of which is calculated in relation to the height of the tide at La Rochelle + 1.2 m, within the maximum limit of 6.5 m. Vessels with a vertical clearance that does not exceed 3.5 m may navigate up the river as far as Saintes, around 105 km from the mouth.
- 13 Posts and old wrecks line the banks. Numerous craft stop near the channel and on its edges. Consequently, it is advisable that vessels remain in the middle of the river.

01 5.8.1.1. Rescue stations

07 See section 5.7.1.1.

01 5.8.1.2. Tidal currents

- 07 The speed of the currents in the river is generally around 2 knots. It can, however, reach 4 knots in narrow passages such as Traverse de l'Avant-Garde, immediately downstream of Rochefort, and in the old naval port of Rochefort.
- 13 At Rochefort, the flood current begins at neaps 1 hour 30 minutes and at springs 1 hour after low water. The ebb current, on average 30 minutes after high water. The waters of the Charente increase the strength and duration of the ebb current.

01 5.8.1.3. Prohibited anchorage areas

07 See section 5.8.3. (Regulations).

01 5.8.1.4. Explosives temporary dumping ground

07 See section 5.5.2.1.

01 5.8.2. PILOTAGE

01 5.8.2.1. Charente pilotage

Pilotage is provided by the La Rochelle-Charente pilotage station, the offices of which are at La Rochelle (§ 5.6.5.9.).

01 5.8.2.2. Pilotage obligation

- 07 Pilotage is compulsory for all vessels over 45 m long heading for the ports of the Charente, within an area limited to the N by the latitude of the N tip of Île d'Aix, to the W by the longitude of the W tip of Île d'Aix, to the S by the latitude of the Château d'Oléron and to the E by the Tonnay-Charente bridge.
- Movements within the Rochefort non-tidal basin and simple movements are excluded from the pilotage obligation.

01 5.8.2.3. Procedure

- 07 Vessels must report their arrival at least 18 hours before their ETA at the "Chauveau" buoy or at the latest when they leave the previous stopover port. They must also, where relevant, report any change to their ETA by more than 1 hour at least 4 hours in advance; they must also confirm their ETA 2 hours prior to arrival at the "Chauveau" buoy.
- 13 The pilot, coming from La Pallice, boards (and disembarks) 1 M S of the "Chauveau" buoy. For the holding area, see section 5.6.3.2. For the pilot cruising vessel call sign, radio frequencies and details of the procedures, consult the publication *Radio communications for monitoring traffic and pilotage*.

61 5.8.3. REGULATIONS. VESSELS TRANSPORTING OIL OR DANGEROUS SUBSTANCES, THE GROSS TONNAGE OF WHICH IS GREATER THAN 3000

07 Decree 2006/69 of 30 August 2006 of the Maritime Prefect of the Second Region (§ 7.4.2.).

01 5.8.3.1. Navigation in Charente Maritime

- 07 Extracts from the Decree of 17 March 2005 of the Prefect of Charente-Maritime.
- 13 The International Regulations for Preventing Collisions at Sea are applicable in the waters of the Charente.
- 19 The surface speed is limited to 12 knots, except in the approaches to the Soubise and Port-Neuf anchorage areas where it is limited to 10 knots. By night, navigation using sails and navigation by non-motorised craft are prohibited.
- 25 Commercial vessels must favour navigation by day. Navigation in foggy weather is prohibited, when the banks are not sufficiently visible.
- Vessels subject to the obligation to take a pilot on board and passenger vessels must report their movements to the Rochefort/Tonnay-Charente commercial harbour master's office (§ 5.8.6.4.).
- 37 Vessels equipped with VHF should keep a watch on channel 12.
- 43 Crossing and overtaking must not be done in the bends in the river.
- 49 Anchorage using the anchor is prohibited:
 - within the administrative limits of the ports of Rochefort, Tonnay-Charente and Port-des-Barques;
 - in the navigation channel;
 - at the mouth, in the 100 m downstream of the line connecting the front light of Port-des-Barques to the centre of the Fort La Pointe (protection of a submarine cable).
- Any vessel anchored or grounded in the river must inform the Rochefort/Tonnay-Charente commercial harbour master's office (§ 5.8.6.4.) of its position.
- It is prohibited to throw, drop or scatter any product or any substance of any kind in the ports and waters of the Charente, including domestic waste water produced on board vessels.
- PASSAGE UNDER THE TRANSPORTER BRIDGE (45° 55.0' N 0° 57.6' W). Safety piers have been installed downstream and upstream of the bridge, on the right bank, respectively at Soubise (45° 55.7' N 1° 00.1' W) and at the Rochefort naval shipyard (45° 55.9' N 0° 57.1' W), to accommodate vessels in the event that the gondola comes to a halt above the river.
- Vessels must contact the operator of the gondola by telephone (§ 5.8.6.4.) or on VHF channel 12, in good time, to be able to berth at these piers in the event of difficulties. This contact must be made:
 - by vessels less than 90 m long and with a draught of less than 5 m, at the time the vessel passes level with the safety piers;
 - by vessels with a length equal to or greater than 90 m and a draught equal to or greater than 5 m, at the time the vessel passes level with the Rochefort commercial port or that of Port-Neuf (45° 57.0' N 0° 59.8' W).

- 01 5.8.4. MOUTH AND COURSE OF THE CHARENTE
- 07 Chart 7415.
- 13 ENC FR502271 and FR502273.
- Navigation in the Charente is possible by day and by night. It is subject to regulations, the main provisions of which are given in section 5.8.3.1.
- 25 The conditions for heading down river are the same as for heading up river; the draught is limited by the height of the water at the entrance to the river. Vessels most often head down river on the flood in order to pass through the exit at around high water. For Tonnay-Charente, there are two hours to go up river and three hours to go down river.
- 31 Vessels heading for Rochefort and Tonnay-Charente or making for the anchorage or holding areas must contact "La Pallice-Port" on VHF channel 12, 2 hours in advance in order to confirm their ETA.

[photo]

Rear landmark

Les Barques

5.8.4. – Mouth of the Charente.

01 5.8.4.1. Mouth of the Charente

- 07 The mouth of the Charente lies between Pointe de l'Aiguille, to the NE, and Île Madame, to the SE. The landmarks of Pointe de l'Aiguille and Fouras, on the right bank, were described in section 5.7.4.1. Mariners see, 1.5 M SE of Fouras and always on the right bank, the **Soumard** lighthouses, white square towers with red tops (9 and 23 m) [view 5.8.4.2.A.], the extension of which passes, 3.5 M farther on, through the left side of the Rochefort-Soubise hangars, which are clearly visible.
- 13 On the left bank, mariners notice **Île Madame** (view 5.8.4.1.), the fort of which is surmounted by a flat structure with a white roof. The island is attached by a causeway to **Pointe de Piédemont**, to the SE of which mariners notice the **Moëze** bell tower. A plateau of uncovering rocks stands off it to the NE; the plateau crosses **Passe aux Filles**, which is used around high water by local fishing vessels. The leading line on a bearing of 042.5° of two light beacons installed in Port Sud de Fouras (§ 5.7.4.4.) provides the axis of this passage, which should only be used by mariners with good knowledge of the area.
- 19 There are numerous marine farm exploitations along the banks.

[photo]

La Charente

5.8.4.1. – Mouth of the Charente. Île Madame, to the NNW (2008).

01 5.8.4.2. Channel and beaconage

07 The access channel to the Charente begins to the W of Île d'Aix and to the N of Fort Boyard. The first leading line, on a bearing of 115°, is formed by the Soumard lighthouses (view 5.8.4.2.A.); it passes between the dangers lying off Pointe de l'Aiguille, to the N, and Plateau des Palles lying off Île Madame, to the S. This plateau is marked by the "Les Palles" N cardinal light buoy. There is a lateral beaconage system from this buoy onwards.

13

[photo]

5.8.4.2.A. – Leading line on a bearing of 115°, open to the right.

- An area 4.5 M long and 0.3 M wide, centred on the leading line on a bearing of 115°, was the subject of systematic obstruction research using a lateral sounder in 1982, from the point situated in position 295° at a distance of 6.5 M from the front leading light. It constitutes a recommended track for entering the Charente
- The least depth is 0.8 m level with the "Sablière" buoy, which is the first starboard lateral buoy in the channel. The bottom there is made of very soft mud. There are no significant variations in depth in the channel. The bottoms are muddy.
- 31 The second leading light, on a bearing of 134.5° (view 5.8.4.2.B.) leads to Port-des-Barques. It is made up of two reinforced sector lights on two white square beacon towers (6 and 16 m), the rear one of which has a black top and a black band. Upstream of these leading lights, vessels are guided by a succession of leading lines formed of beacons bearing, two by two, the same letters from T to A. There are five lights laid out on the banks of the Charente that complete the beaconage in the approaches to Rochefort.
- 37 The river upstream of Rochefort is not marked. It is deep and it is sufficient to remain in the middle. The bottoms are made of mud, except in several places.

[photo]

Rear

Front

5.8.4.2.B. – Leading line on a bearing of 134.5°, open to the left.

- 49 1.5 M upstream of Rochefort, a high voltage power line crosses the Charente. Its height in relation to the highest high water level is 35 m.
- 01 5.8.4.3. Martrou bridges
- Around 1.5 M downstream of Rochefort, near Martrou, a viaduct, Pont de Martrou (45° 55.0' N 0° 57.9' W) [view 5.8.4.3.A.] spans the Charente, under which the passage is 95 m wide, giving a vertical clearance of 32.5 m in the centre and 30 m on the sides. The navigable passage, 40 m wide, is marked by lights and marks by day.

13

[photo]

5.8.4.3.A. – The Charente. Pont de Martrou, to the E (2008).

- 19 Pilots indicate the measures to be taken in the event that vessels meet each other in the vicinity of the viaduct.
- 25 0.1 M upstream of the viaduct, the remains of the lifting bridge, which are made up of the bases of the old piles, marked by lights, leave a passage 90 m wide.
- 400 m upstream of the viaduct, the transporter bridge (view 5.8.4.3.B.), in service in the summer period, allows a vertical clearance of 45 m. Vessels must contact the operator of the gondola before passing under this bridge (§ 5.8.3.1.).

[photo]

5.8.4.3.B. – The Charente. Transporter bridge with gondola.

- 01 5.8.5. PORTS AND ANCHORAGES
- 07 Chart 7415.
- 13 ENC FR502271 and FR502273.
- Anchorages on buoys are organised along the two banks of the Charente, at the limit of the navigable channel. The areas are marked by special mark light buoys and are mentioned on the chart.

01 5.8.5.1. Port-des-Barques

07 Off Port-des-Barques (45° 57.2' N — 1° 04.6' W) [view 5.8.5.1.], a village on the left bank of the entrance to the Charente, a stockade perpendicular to the bank extends up to the limit of the uncovering bottoms. Its NW end bears a starboard lateral mark light. 1600 m upstream of this jetty, in the E part of the marine farms, a starboard lateral beacon marks the end of a slipway.

13

[photo]

5.8.5.1. - Port-des-Barques, to the S (2008).

19 The leading lights on a bearing of 134.5° (§ 5.8.4.2.) lead to the port.

- 25 Small fishing vessels ground on the firm sandbar on the inner side of the jetty, but the structure, which is not very tall, does not provide much protection in fresh winds from the W and no protection at all in winds from the NE. Trawlers remain at anchor on the edge of the channel, in 2 to 3 m of water.
- 31 INFORMATION. Department of Charente-Maritime (17); 1560 inhabitants.

01 5.8.5.2. Saint-Nazaire-sur-Charente. Les Fontaines

07 1.1 M upstream of the Port-des-Barques jetty, at the place known as Les Fontaines (45° 57.2' N — 1° 03.2' W) [view 5.8.5.2.A.], a small fort situated on the S edge of the channel is connected to the bank by a footbridge and off which stands a pontoon 33 m long that can accommodate leisure vessels.

13

[photo]

5.8.5.2.A. – Les Fontaines, to the E.

- 19 The pontoon and anchorages on deadmen, which remain accessible at low water, are exposed to some fairly strong currents.
- 25 INFORMATION. Department of Charente-Maritime (17); commune of Saint-Nazaire-sur-Charente (860 inhabitants) the centre of which is situated 1.7 km to the S.
- 31 1 M upstream of Les Fontaines, Fort Lupin (view 5.8.5.2.B.) constitutes a conspicuous landmark for vessels navigating up the Charente.

37

[photo]

5.8.5.2.B. - The Charente. Fort Lupin, to the NNW (2008).

43 Town hall: tel: +33 (0)5.46.84.81.01.

01 5.8.5.3. Rochefort-Port-Neuf

07 The Port-Neuf nautical base (45° 57.0' N — 0° 59.8' W), situated 0.9 M upstream of the Vergeroux fort, provides leisure vessels with a 60 m-long L-shaped pier on the right bank and two stopping areas on the

left and right banks. 40 m-long launching slipway. The facilities are managed by the Rochefort sailing club.

01 5.8.5.4. Soubise

- 07 An air base is installed on the right bank, opposite the town of Soubise (45° 55.7' N 1° 00.4' W). Large red antennas are visible there. There is a pier bearing a light, and a slipway to the NW of the base.
- 300 m upstream of Soubise (view 5.8.5.4.), on the right bank, four sheet-pile dolphins, connected to the bank by footbridges, allow vessels to berth and stay there for a moment, in particular in the event of problems with the operation of the Martrou transporter bridge (§ 5.8.3.1.). The downstream dolphin bears a light.
- On the other bank, off Soubise, there is a concrete pier, which is partially demolished and connected to a slipway; vessels are not permitted to land, due to silting up in the approaches. However, landing is possible at a 60 m-long L-shaped pontoon, connected to the bank by a footbridge, situated slightly upstream of the concrete pier.
- Anchorages on buoys are organised on the edge of the channel, on the left bank, upstream of the L-shaped pier.

31

[photo]

5.8.5.4. – Soubise, to the SE (2008).

01 5.8.5.5. Rochefort

07 This port is the subject of section 5.8.6.

01 5.8.5.6. Tonnay-Charente

- 07 The bottoms are maintained naturally. Only the swinging bed is dredged every two years.
- 13 PORT. The port of Tonnay-Charente (45° 56.6' N 0° 53.5' W) [view 5.8.5.6.], accessible to vessels 115 m long, comprises the piers or stockades established on the right bank. The admissible draught is calculated in relation to the height of the tide at La Rochelle + 1.2 m, within the maximum limit of 6.5 m.
- 19 The maritime port is limited upstream by the suspension bridge, the deck of which is 22 m above the highest high water level.

[photo]

5.8.5.6. – Tonnay-Charente, to the NE (2008).

- 31 RESOURCES. Vessels can replenish their water supplies at pier no. 2 and at the private SICA pier. Liquid fuels can be supplied via tanker-lorries at La Rochelle.
- 37 There are three self-propelled cranes at pier no. 2, of which two are 4 t and one is 6 t.
- 43 INFORMATION. Department of Charente-Maritime (17); 6860 inhabitants.
- 49 Harbour master's office: tel: +33 (0)5.46.88.70.67 (with possible forwarding to the Rochefort harbour master's office).

01 **5.8.6. ROCHEFORT**

- 07 Chart 7415.
- 13 ENC FR502271 and FR502273.
- 19 The port of Rochefort (45° 57' N 0° 57' W) [view 5.8.6.] is established around 10 M upstream of Port-des-Barques. The administrative area of the port is limited, downstream, by the longitude 1° 00.1 W (Canal de Charras) and, upstream, by the longitude 0° 56.4' W (Canal de Fichemore). The port comprises a river berth and three non-tidal basins (nos. 1, 2 and 3).
- Basin no. 1 (or Bassin la Pérouse) and basin no. 2 (or Bassin Bougainville) are equipped to accommodate leisure vessels. The large basin no. 3 constitutes the commercial port.
- Vessels access basin no. 1 via a single lock and from the latter to basin no. 2 via a canal that is spanned by a lifting road bridge. Another lock, 500 m farther N, leads to basin no. 3.
- 37 See instructions for approaching the port in section 5.8.4.

[photo]

Commercial port

Marina

5.8.6. - Rochefort. General view, to the N (2008).

01 5.8.6.1. River berths

CORDERIE ROYALE PIER. – The Corderie Royale pier is made up of a 90 m-long pontoon installed on the right bank of the Charente, around 150 m downstream of the entrance to basin no. 1. It can accommodate leisure vessels stopping over and vessels under 100 t in transit and carrying passengers. Berthing at this pontoon is subject to authorisation by the harbour master's office for a maximum period of 24 hours and the mooring of vessels side by side is prohibited. In addition, vessels moored at this pontoon must get under way when cargo vessels pass through the Charente.

01 5.8.6.2. Marina: basins nos. 1 and 2

- 77 The sound of the access lock to basin no. 1 is 65 m long and 7.5 m wide with a sill 1.5 m above chart datum. A swing bridge for pedestrians crosses the sound at its end on the basin side. The lock is open, for 30 minutes, at high water at Rochefort between 0600 and 2200 from 15 April to 15 September and between 0700 and 2200, upon request at the marina harbour master's office (VHF channel 9), throughout the rest of the year.
- 13 The two basins (view 5.8.6.2.) are equipped with pontoons and catwalks and are dredged to a theoretical height of 2 m above chart datum. In practice, the admissible draught is 2.5 m.
- 19 LEISURE FACILITIES. The main equipment and services provided are as follows: 320 berths, of which around 30 are for vessels in transit; maximum length 20 m; width 7 m; draught 2.5 m; water and electricity at the pontoons; sanitary services; hoisting up to 30 t; slipway (150 m upstream of the lock of basin no. 3); scrubbing station; workshops.

[photo]

5.8.6.2. - Rochefort. Marina, to the NW (2008).

01 5.8.6.3. Commercial port: basin no. 3

- 07 The commercial port (view 5.8.6.3.) can accommodate vessels 120 m long and 16.5 m wide. The admissible draught is calculated in relation to the height of the tide at La Rochelle + 1.2 m, within the limit of 6.5 m. Vessels moor along the quays surrounding the basin.
- 13 The basin is dredged once per year to 2 m below chart datum. It silts up very quickly to such an extent that the depths vary between 2 m to 0 m between two dredgings. Various obstructions (anchorage lines, metal and concrete debris, etc.) are buried in the mud below the dredging depth.
- 19 Access is through a lock 100 m long, 18 m wide and with a sill 2.70 m below chart datum, which can be reduced to 2 m at the end of winter due to silting up. Vessels over 93 m long and vessels transporting dangerous substances pass through the lock with all gates open in a slot of 1 hour 30 minutes around high water. A swing bridge crosses the lock on the entrance side.
- 25 SIGNALS. A port traffic signal mast is located to the right of the entrance to the lock.
- 31 DIRECTIONS. Vessels must reduce their speed as much as possible in the river, between the Corderie Royale pier and the lock, in order to avoid incidents when vessels are leaving the basins, and to limit the backwash against the lock gates.
- 37 Large vessels normally move at slack water. If the manoeuvre cannot be carried out at this time, vessels should endeavour not to manoeuvre in the river with the current to stern. Vessels must therefore depart before the end of the flood current.
- The lock is oriented diagonally in relation to the river bed and allows vessels to enter directly without turning. Vessels over 100 m long should arrive at the start of the ebb current.
- Vessels may enter the lock, at the request of shipping agents, from 3 hours 30 minutes before to 4 hours after high water at La Rochelle, depending on the tidal coefficient.
- The use of line throwing guns is prohibited in the basin.

[photo]

Tonnay-Charente

5.8.6.3. - Rochefort. Commercial port, to the NW (2008).

- 67 EQUIPMENT. RESOURCES. Water taps on the quays (hard water). Liquid fuels may be supplied through tanker-lorries at La Rochelle. Seven self-propelled cranes of 10 to 40 t. A scrubbing grid and a small slipway upstream of the entrance to the basin.
- 73 The old dry graving dock situated 100 m downstream of the entrance to the basin is back in service for the construction of small units. Dimensions: Length 95 m, width 12 m. The entrance sill to this structure is 1.72 m above chart datum.
- 01 5.8.6.4. Town
- 07 Department of Charente-Maritime (17); sub-prefecture; 27,550 inhabitants.
- 13 INFORMATION.
- Harbour master's office: avenue de la Libération (nearby to the SW of the entrance to basin no. 3); tel: +33 (0)5.46.99.44.93; email: capitainerie.rochefort@cg17.fr
- 25 Customs: 2 avenue Charles de Gaulle; tel: +33 (0)5.46.99.03.90.
- 31 Maritime police: 5 place de la Galissonnière; tel: +33 (0)5.46.87.74.85; fax: +33 (0)5.46.87.74.89.
- 37 Marina harbour master's office: Quai Lemoigne de Sévigny; tel: +33 (0)5.46.83.99.96; fax: +33 (0)5.46.99.80.56; VHF: channel 9 (working hours).
- 43 Maritime affairs: at La Rochelle (§ 5.6.6.8.).
- 49 Transporter bridge: mobile: +33 (0)6.79.43.41.36.
- 55 CONNECTIONS. The port of Rochefort is connected to La Rochelle (30 km away) by an express road and is situated 38 km from the A10 motorway (Paris-Bordeaux).
- 61 Railway station. Rochefort-Saint-Agnant airfield (9 km away).

01 5.9. COUREAU D'OLÉRON AND ÎLE D'OLÉRON

- 07 Charts 7405, 7414 and 7415.
- 13 The passage between Île d'Oléron and the mainland is known as Coureau d'Oléron (§ 5.9.3.1.); it extends between Grande Rade des Trousses, to the N, and Pertuis de Maumusson (§ 5.9.3.2.), to the S.

01 5.9.1. GENERAL INFORMATION

- 01 5.9.1.1. Signal station
- 07 Pointe de Chassiron (Île d'Oléron), lookout station (46° 02.8' N 1° 24.6' W) [§ 1.4.7.2.].
- 01 **5.9.1.2.** Rescue stations
- 07 Île d'Aix (46° 00.5' N 1° 10.5' W); La Cotinière (Île d'Oléron) [45° 54.8' N 1° 19.6' W].
- 01 5.9.1.3. Tides and currents
- O7 See the atlas Courants de marée de la côte Ouest de France, de Saint-Nazaire à Royan [Tidal currents of the West Coast of France, from Saint-Nazaire to Royan].
- 13 See also the indications and the chart tables. The heights of the water can vary significantly with the wind. They can increase to reach around 1 m in strong winds blowing in the direction of the current.
- 19 The currents in Coureau d'Oléron enter and depart from the N and from the S. They meet at around Château-d'Oléron. To the N of this area, the flood current heads SE and its speed can exceed 3 knots if the wind blows in the same direction; the ebb current heads NNW. To the S of this area, the currents "enter" on the flood and "depart" on the ebb, and their speed is around 2 knots.
- 25 In Pertuis de Maumusson, the currents can reach 5 knots under the influence of strong winds.
- 01 5.9.1.4. Pilotage
- 07 There is no pilot. Mariners who do not know the channels should contact local pilots.

01 **5.9.2. AREAS**

- 01 5.9.2.1. Submarine cables
- 07 APPROACHES TO VIADUC D'OLÉRON. Disused submarine cables connect Pointe d'Ors (Île d'Oléron) to Pointe du Chapus. It is advisable that vessels do not anchor, dredge or trawl in the approaches to these cables, which could cause snags.
- 13 APPROACHES TO PERTUIS DE MAUMUSSON. A telecommunications cable, which is marked on the chart, connects Île d'Oléron to the mainland, around 1 M E of Pertuis de Maumusson. It is protected by an area in which dredging, trawling and anchoring are prohibited (Decree 79/95 of 5 December 1995 of the Maritime Prefect of the Atlantic).
- 01 5.9.2.2. Fort Boyard regulated area
- 07 See section 5.5.2.3.
- 01 5.9.2.3. Marine farms
- 07 See also section 5.5.2.2.
- 13 A marine farm area, marked by a N cardinal light buoy and a W cardinal passive buoy, is established in the middle of Anse de la Maleconche.

- 19 A concession for farming mussels on lines, 0.6 M long, 0.15 M wide and oriented NW-SE, is centred on position 270° at a distance of 1.6 M from Fort Boyard. This area, marked on the chart, is marked by two N and E cardinal light buoys, and contains floating obstructions.
- 01 5.9.2.4. Explosives temporary dumping ground
- 07 For the temporary dumping ground for dangerous or suspect devices caught by fishing nets or fishing equipment, see section 5.5.2.1. (Pertuis d'Antioche) or section 6.2.2.1. (Mouth of the Gironde).
- 01 5.9.2.5. Nature reserve
- 07 The largest part of Coureau d'Oléron is classed as a nature reserve (§ 1.6.5.) or a special bird sanctuary. Activities there are regulated.
- 01 5.9.3. CHANNELS
- 07 Charts 7405, 7414 and 7415.
- 13 ENC FR502271 and FR502272.
- 01 5.9.3.1. Coureau d'Oléron
- 07 The channels of Coureau d'Oléron are used a lot by fishing vessels. The main channel, or E channel, rounds **Banc Lamouroux** to the E. It is marked and allows vessels to pass in the middle of uncovering sand and mudbanks in at least 0.4 m of water.
- 13 The W channel is a secondary channel that passes W of Banc Lamouroux. Coming from the NNW, vessels take the leading line on a bearing of 156.5° of the Marennes bell tower by the black "Charret" beacon with a white circular topmark. The "Lamouroux" W cardinal buoy, which marks the NW end of the bank, is anchored more or less on the leading line.
- Coureau d'Oléron is crossed by Viaduc d'Oléron, 3 km long, which connects Pointe de Sinche, on the mainland, to Pointe d'Ors, on Île d'Oléron. Two laterally marked channels pass under the viaduct, Chenal d'Ors to the W, and the main channel to the E. The latter is 60 m wide and passes at the place where the height of the viaduct above the highest high water is 15.1 m. The beaconage of each channel is made up of two pairs of rectangular visibility boards, which are lit by night, fixed onto the balustrades of the viaduct. Each pair, one visible to the N, and the other visible to the S, comprises a red rectangle on a white base 12 to port, and a green triangle on a white base 13 to starboard.
- 25 BEACONAGE. The conventional direction of the lateral beaconage in the main channel of Coureau d'Oléron is oriented from S to N. In the E channel of Banc Lamouroux, vessels must, however, pass to the W of the "Brouage" port lateral light buoy. Mariners should not be surprised to leave this buoy to starboard by navigating to the N, because it is the **Chenal de Brouage** entrance port lateral buoy leading to the port of the same name (§ 5.9.4.2.). Certain dangers are marked by the cardinal system marks. Thus, in the W channel of Banc Lamouroux, **Rocher Juliar** bears an E cardinal lighted beacon tower (21 m).
- 31 Between Banc Lamouroux and Viaduc d'Oléron, the channel is divided into two branches by **Banc d'Agnas**. The "Agnas" E cardinal buoy is anchored 0.25 M NE of the N end of this bank, and the "Martin" cylindrical preferred channel mark buoy to starboard is anchored at the S end. On the W edge of the W branch, the **La Mortanne** uncovering rocks are marked by two port lateral beacons (Grande Mortanne Nord and Mortanne milieu [middle]) then, farther S, by a S cardinal beacon. The "Craze" starboard lateral buoy is anchored on the E edge of the other branch.
- ANCHORAGES. The main anchorages in the channel, which are marked on the chart, are as follows:

 the **Grande Mortanne** anchorage (45° 53.2' N 1° 09.0' W): it is situated E of Château-d'Oléron, halfway between the "Grande Mortanne Nord" port lateral beacon and the "Charret" beacon, vessels anchor in depths of 2 to 4 m;

¹² Translator's note: The French is "fond", which could also be "background".

¹³ Translator's note: The French is "fond", which could also be "background".

- the **Pointeau anchorage** (45° 49.7' N 1° 10.5' W): 1.7 M S of Fort du Chapus, vessels can anchor on the E edge of **Banc de Trompe-Sot**, in a trench more than 5 m deep, between the "Trompe-Sot" port lateral buoy and a black beacon:
- the **Bry** anchorage (45° 48.8' N 1° 12.9' W): it is situated in the channel of the same name around 1.1 M from Pointe de Gatseau, at the old lifeboat slipway. White buoys intended for the mooring of leisure vessels are anchored there.
- 43 All of these anchorages are narrow and are only suitable for vessels less than 50 m long. The assistance of a local pilot is necessary for vessels wishing to anchor on the axis of the trenches.

01 5.9.3.2. Pertuis de Maumusson

- 07 Its entrance lies between **Pointe de Gatseau** on Île d'Oléron and **Pointe d'Arvert** (Pointe **Espagnole**) on the mainland. **Banc de Gatseau** and **Banc des Mattes**, off which a bar formed by a sandbank that is variable in depth and position extends, respectively lie off these two headlands to the SW. The swell from out to sea breaks directly onto the banks at the entrance, forming an extensive area of breakers that make access to the channel very dangerous in bad weather from the W.
- 13 DIRECTIONS. BEACONAGE. In fresh winds from the W, the best time to cross the bar is within the hour before high water. Coming from the W, mariners will recognise the "Att. Maumusson" safe water mark landfall light buoy and will guide themselves using the beaconage, which is adjusted in spring every year, and also by using the position of the breakers.

[photo]

5.9.3.2. – Pertuis de Maumusson, to the ENE.

- The entrance gate to the channel is situated between the "La Barre" starboard lateral buoy and the "Tabouret" port lateral buoy; next come the "Mattes" starboard lateral buoy and the "Gatseau" port lateral buoy.
- 31 1.8 M NE of the latter buoy, the W tip of **Banc Auger** is marked by the "Galon d'Or" safe water mark buoy, which vessels leave to the S if they set course towards Coureau d'Oléron (**Chenal de Bry**) or to the N if they set course towards the Seudre (**Chenal de la Garrigue**) [§ 5.9.5.1.].

19

01 5.9.4. FROM ÎLE MADAME TO THE MOUTH OF THE SEUDRE.

01 5.9.4.1. Coast and landmarks

- Outside Château-d'Oléron (§ 5.9.6.3.), the main landmarks are situated on the mainland, which are Fort Louvois du Chapus, or Fort du Chapus (45° 51.4' N 1° 10.5' W) [view 5.9.4.3.A.], the Marennes bell tower, which is large and pointed and appears above the trees 3.5 M SE of the fort. In the N part of Coureau d'Oléron (§ 5.9.3:1.), the "Juliar" E cardinal lighted beacon tower marks the rock of the same name.
- In the S part, the viaduct connecting the island to the mainland is visible from a good distance. To the S of the latter, the bridge that crosses the mouth of the Seudre is also a good landmark. The Coubre state forest extends on the S coast of Pertuis de Maumusson and to the E of the former, the **Gardour d'Arvert landmark**, a grey metal pyramidal pylon with a T-shaped topmark with white and black vertical stripes, 20 m high and with its summit at an altitude of 77 m, stands 1.6 M SE of Pointe d'Arvert.

01 5.9.4.2. Brouage

- 07 A channel 2500 m long and very narrow and shallow leads, in the middle of large areas of soft mud, to Brouage (45° 52.2' N 1° 04.0' W) situated on the mainland 3.5 M ENE of Fort du Chapus. Its entrance is marked by the "Brouage" port lateral light buoy. A port lateral perch is installed 0.7 M farther E.
- 13 The port is partially silted up. It is used by oyster farmers and leisure vessels that berth at short wooden pontoons installed on both banks, thus reducing the width to less than 10 m.

01 5.9.4.3. Le Chapus

07 Le Chapus (45° 51.4' N — 1° 10.2' W) [view 5.9.4.3.A.], an oyster-farming port that is also used by a small number of trawlers and fishing-leisure vessels, is located on the N side of Pointe du Chapus. A winding channel, marked by starboard perches and yellow beacons at the end of the slipways, allows vessels to access the port at low water neaps.

13

[photo]

5.9.4.3.A. – Fort Louvois. Le Chapus, to the E (2008).

The port is closed off on the W side by a jetty on the E side of which there is a slipway, at the end of which the bottom uncovers 0.5 m. On the N side, the port is sheltered by a free-standing breakwater, the W end of which

is extended towards the SW and on the E side by a jetty oriented to the NE. Between these two structures, the passage, 19 m wide, has a footbridge over it, under which the vertical clearance is 8.25 m above chart datum. A double slipway attached to the quay wall and a boarding slipway on the W side where the bottom uncovers 2.5 m are established in the port.

25 RESOURCES. – Provisions and water. Small building yard.

BAIE DE LA GROGNASSE (view 5.9.4.3.B.). – Baie de la Grognasse is located S of Pointe du Chapus and of the long concrete stockade connecting the latter to the landing stage of the old ferry providing a connection to Île d'Oléron. This bay is a grounding area, on muddy bottoms uncovering 3 to 4 m, which is used very often by oyster-farming vessels. Its entrance is scattered with oyster farms and shelter against dominant winds from the W is mediocre.

37

[photo]

Baie de la Grognasse

Fort Louvois

Old Pointe d'Ors landing stage

5.9.4.3.B. – Baie de la Grognasse and its approaches, to the SE.

- 01 5.9.5. THE SEUDRE
- 07 Chart 7414.
- 13 ENC FR502270.
- 19 The Seudre (view 5.9.5.) flows out into the S part of Coureau d'Oléron (§ 5.9.3.1.). The coastal part of the Seudre extends over a distance of 23 km from its mouth and is spanned by a viaduct, as far as the Ribérou lock 2 km downstream of Saujon. Around 30 channels flow out at this point and supply large saltmarshes. The currents reach 3 knots.

25

[photo]

5.9.5. – The Seudre, to the SE (2008).

01 5.9.5.1. Access

- 07 The central part of the mouth is obstructed by **Banc Barat**, which is connected to the N to **Banc Bourgeois** and to the WNW to **Banc de la Goëlette**; Banc Barat is also extended to the W by Petit Barat. Between these central banks, which are all uncovering, and the uncovering bottoms that line the coast, two channels lead to the entrance under the André Dulin viaduct that connects the right bank to **Pointe du Mus-de-Loup** (45° 47.8' N 1° 08.5' W) [vertical clearance 18 m].
- Chenal de la Soumaille, to the N of Banc Barat, has a least depth of 0.4 m, but vessels coming from Coureau d'Oléron (§ 5.9:3.1.), that is to say from the N, passing between Banc Bourgeois and Banc de la Goëlette over bottoms uncovering around 1 m, cannot access it. Vessels thus round the "Soumaille-NW" W cardinal buoy, which marks the entrance to the channel, to the W. Beaconage is then provided by the "Soumaille-SE" port lateral buoy and the "Jéac" port lateral perch. This perch is installed on the SW edge of the La Beurette and Jéac banks. Finally, around 800 m downstream of the viaduct, the "Saut-de-Barat" E cardinal buoy marks both the SE end of Banc Barat and the junction of Chenal de la Soumaille with the channel that rounds the bank to the SW.
- 19 Chenal de la Garrigue allows vessels to join the entrance to the Seudre when coming from Pertuis de Maumusson. Its least depth is 1.7 m. The entrance is marked to the S of Banc Auger by the "Auger Sud" port lateral buoy, but vessels coming from Coureau d'Oléron can join this channel between the "Auger Est" and "Barat" port lateral buoys, by using the passage 0.5 m deep between Petit Barat and Banc Auger.
- The axis of the channel is shown by the leading line on a bearing of 067.5° of the Marennes landmark (rectangular wall surmounted by a white gable, situated on the coast to the W of the town) by the "Barat" beacon (white minor post surmounted by a circular metal topmark with a red square). This leading line takes vessels very close to **Banc Pertuis**, therefore it is best for it to open up to the left from the "Barat" buoy.
- Upstream of the "Barat" beacon, the passage between Banc Barat and the uncovering bottoms that lie off **Pointe aux Herbes** is narrow. Vessels navigate on sight by using the marks of the passage under the viaduct and with the aim of passing fairly close and to the S of the "Saut-de-Barat" buoy. Two buoys and a special mark beacon 0.5 and 0.7 M WNW of this buoy mark the outer limit of the **Ronce-les-Bains** anchorage area.
- 37 The passage under the viaduct is situated between piles 6 and 7 (counted from Pointe du Mus-de-Loup). These piles bear a white board with a green triangle and a red rectangle respectively. A light is placed on the span between these piles. Piles 5, 8 and 9 bear a white board. The same marks are used on the upstream side of the viaduct, on the same piles.
- Deadmen, marked by buoys of various colours, are reserved for fishing or shellfish-farming vessels, from the viaduct as far as Éguille-sur-Seudre, around 9 M upstream.
- 49 ANCHORAGES. Vessels can anchor in 7 to 10 m of water, over a muddy bottom, halfway between the two banks from Pointe du Mus-de-Loup to Chenal de la Tremblade (or Chenal de l'Atelier).
- DISEMBARKATION POINT. On the right bank, 0.8 M upstream of the viaduct and just upstream of where Chenal de Marennes flows out, the short tidal channel of La Cayenne includes two large slipways, which are separated by a small quay. Several fishing vessels find refuge in the tidal channel itself, however, as at the quay, berths for vessels in transit are rare.

01 5.9.5.2. Marennes

- 07 The port of Marennes (45° 48.9' N 1° 06.8' W) [view 5.9.5.2.] is connected to the right bank of the Seudre by a canal, or **Chenal de Marennes**, 2800 m long and 25 m wide in the main water area and 15 m wide at the inner end. This width is considerably reduced in practice due to the presence of numerous fishing and oyster-farming vessels that moor at the wooden piers, the two banks of which are jagged. The bottom of the canal uncovers 2.2 m.
- 13 The canal, the entrance to which is marked by a port lateral beacon, leads to a lock 8 m wide. Two quays to the S of the lock allow vessels to berth while waiting for the gates to open. The gates open automatically from 1 hour before to 1 hour after high water in tidal coefficients of between 50 and 80, and from 2 hours before to 2 hours after in coefficients over 80. The gates do not open in coefficients of less than 50 (the times can also vary for safety reasons depending on weather conditions).

- 19 The lock provides access, to the N, to a dock where the Seudre canal flows into the Charente. There are two pontoons there in 2.5 m of water. To the N of this dock, on the extension to Chenal de Marennes, a long and narrow basin, the banks of which are connected to small pontoons, ends in a wider basin equipped with two pontoons with catwalks, in 2.5 m of water.
- 25 An aerial power line leaving a vertical clearance of 16 m crosses the dock immediately N of where the Seudre canal flows into the Charente and the pontoons of this dock.
- 31 Vessels in transit must request a berth from the harbour master's office, which is located on the SE wall of the lock.

[photo]

5.9.5.2. - Marennes, to the N (2008).

- EQUIPMENT. The main equipment and services provided are as follows: 185 berths, 65 of which are in the non-tidal basin; around 10 berths for vessels in transit; maximum length 13 m, draught 2 m; water and electricity at the pontoons; sanitary facilities; 6 t crane; slipway; grounding grid at La Cayenne; building and repair yards (wood, aluminium, plastic); mechanics workshops; chandleries.
- 49 INFORMATION. Department of Charente-Maritime (17); 4770 inhabitants.
- 55 Harbour master's office: near the lock: avenue des Martyrs de la Résistance; tel: +33 (0)5.46.85.02.68.
- 61 Maritime affairs: 3 rue Maréchal Foch; tel: +33 (0)5.46.85.64.24; fax: +33 (0)5.46.85.14.40.
- 67 Customs: at La Rochelle.
- 73 CONNECTIONS. Road links: Rochefort 26 km away; buses to the railway station of this town. Rochefort-Saint Agnant airfield (20 km).

01 5.9.5.3. La Tremblade

07 On the left bank of the Seudre, 1.3 M upstream of the viaduct, **Chenal de la Tremblade** (45° 46.1' N—1° 08.1' W) [view 5.9.5.3.] or **Chenal de l'Atelier**, which is straight, 1900 m long and 23 m wide in the main area of water, leads to the port of La Tremblade. This channel, which has aerial power lines crossing over it (vertical clearance 15.2 m), is lined with numerous piers, at the foot of which vessels ground on soft mud bottoms. An L-shaped stockade, several pontoons and a slipway are situated at the entrance to the channel, on the left bank.

[photo]

5.9.5.3. - La Tremblade, to the SW (2008).

- At the end of the channel, a loop forms the port itself. The port is equipped with a quay, with a slipway, on the NE bank of this loop. The berths along the quay dry 3 m on a muddy bottom. There are hardly any berths for leisure vessels in transit.
- 25 EQUIPMENT. Water, electricity and fuel at the quay; 5 t crane; small naval building yard; chandleries and sail loft.
- 31 INFORMATION. Department of Charente-Maritime (17); 4700 inhabitants.
- 37 Harbour master's office: tel: +33 (0)5.46.76.47.97.
- 43 Maritime affairs: at Marennes.
- 49 Customs: at Château d'Oléron; tel: +33 (0)5.46.47.62.53.
- 55 CONNECTIONS. See Marennes (§ 5.9.5.2.), a port to which the port of Tremblade is connected by road (8 km) [viaduct at the mouth of the Seudre]. To the S, Royan is located 23 km away. Royan-Médis airfield 27 km away.

01 5.9.6. ÎLE D'OLÉRON

- 07 Charts 7405 and 7414.
- 13 ENC FR402080, FR402090, FR502271 and FR502272.

01 5.9.6.1. Foreword and recommendation to coastal mariners

- 07 Île d'Oléron is described from its S tip, by following the coast in an anti-clockwise direction.
- 13 The island is low-lying and covered with dunes planted with pine trees. The highest (32 m) are those of Saint-Trojan-les-Bains in the S part of the island.
- 19 Coastal mariners must take care not to damage the fish locks. There are around 14 of these installations, which are all marked by a perch, on the coasts of Île d'Oléron. Eight spread out on the

- three coastal fronts to the N of latitude 46° 00.5' N and the others on the W coast between latitudes 45° 52.5' and 45° 58.5' N, mainly to the N of La Cotinière. The fish locks are described in section 5.5.2.2.
- 25 There are numerous marine farming exploitations along the E coast, particularly oyster farms and "bouchots" [mussel pilings] established on uncovering bottoms.
- 01 5.9.6.2. Coast, landmarks and anchorages
- 06 The coast lapped by Coureau d'Oléron (§ 5.9.3.1.) is relatively devoid of landmarks. Mariners notice, however, 1.3 M NE of Pointe de Gatseau, the Lannelongue water tower and, 1.5 M farther NE, the Rade de Saint-Trojan anchorage area buoys.
- 11 To the E of this roadstead, on the edge of Coureau d'Oléron, the "Sable d'Ade" preferred channel mark beacon to starboard and the "Rocher d'Ade" port lateral beacon constitute the N markers of the two possible entrances to join Chenal de Saint-Trojan. This channel is marked by withies planted in the mud.
- The small oyster-farming port of **Saint-Trojan-les-Bains** (45° 50.8' N 1° 12.4' W) [view 5.9.6.2.A.] is made up of a narrow canal between rip-rap ending with a small quay at which vessels can berth. The muddy bottoms here uncover around 4 m. At the mouth of the tidal channel, the N bank bears a light on a grey electric post (9 m).

[photo]

5.9.6.2.A. – Île d'Oléron. Saint-Trojan-les-Bains, to the SW.

- 26 1 M farther N, the Oléron viaduct ends at **Pointe d'Ors**. A starboard lateral beacon, installed around 250 m SW of the passage under the viaduct (§ 5.9.3.1.), marks the entrance to **Chenal d'Ors** that allows vessels to travel up the tidal channel, marked by six starboard lateral perches, for around 1 M, as far as **La Chevalerie**. The river constitutes a long and narrow shelter used by oyster-farming vessels and local leisure vessels. It is difficult to remain in the anchorage on the bed of the tidal channel without obstructing traffic. Vessels can ground on the gentle and silted-up slopes on the NE shore. Disembarkation at low water is difficult.
- 31 On the N side of Pointe d'Ors, away from the viaduct, the old ferry landing stage is dangerous if used, due to the presence of concrete blocks between its end piles. It is, however, possible to moor at it with care in 3 m of water, when waiting for the tide to enter Chenal d'Ors under the viaduct. 250 M NW of the landing stage, a port lateral beacon marks the end of a submersible causeway.
- 36 0.9 M N of the viaduct, mariners notice the fortifications and the bell tower of Château-d'Oléron. This port is described in section 5.9.6.3.
- 3.5 M farther N, a tidal channel shelters **Port d'Arceau**. This small oyster-farming port is formed by quays bordering the two banks of the tidal channel. It is not very suitable for stopovers by leisure vessels. Its access, through

sandbanks and mudbanks uncovering at least 3 m, is difficult. A passage between these banks, in 0 m of water, opens out in the vicinity of the "Sablière d'Arceau" E cardinal buoy, around 2 M E of Pointe d'Arceau. A main channel mark perch to starboard marks the fork of the **Arceau** channel and the Baudissière channel, and withies planted in the mud mark the channels.

2.5 M N of Pointe d'Arceau, the long Boyardville jetty bears a light on a white tripod with a red top (7 m)

at its head. This port is described in section 5.9.6.4.

Grande Rade des Trousses and the Pointe des Saumonards anchorage area, which can be recognised by its white buoys, extend to the E and N of Boyardville. They are both described in section 5.9.6.5.

- 1.5 M ENE of Pointe des Saumonards, that is more or less halfway between this headland and Île d'Aix, mariners see Fort Boyard (view 5.5.6.4.C.), with its huge silhouette. A maintenance platform, which stands off the SW side of the fort, is marked by a W cardinal mark light. 0.4 and 0.8 M N of the headland, two E and N cardinal light buoys mark a marine farm area comprising floating obstructions. 1.5 M farther NW, at the opening of Anse de la Maleconche, a N cardinal light buoy and a W cardinal buoy mark a marine farm exploitation (§ 5.9.2.3.).
- The soft contour of Pointe des Saumonards marks the direction of the coast to the NW towards Pointe de Chassiron, the N end of the island. The landmarks on this part of the coast are described in section 5.5.6.4. The port of Le Douhet and the port of Saint-Denis-d'Oléron are described respectively in sections 5.9.6.6. and 5.9.6.7.
- To the S of Pointe de Chassiron, the coast is firstly rocky, then low-lying and sandy in the approaches to Pertuis de Maumusson. To the SE of the headland, in the middle of the island, mariners make out the Saint-Pierre-d'Oléron bell tower, a white octagonal tower resembling a lighthouse. On the coast, mariners see the port of La Cotinière with its jetty, its lighthouse, a white tower with a red top (11 m), and the old lifeboat shelter. Several water towers and the bell tower of the La Cotinière chapel, more than 30 m high, are visible from out to sea. The port of La Cotinière is described in section 5.9.6.8.
- 1.5 M farther SE, a break in the rocky offshore bar allows vessels to enter the small **Anse de la Perroche** (view 5.9.6.2.B). It is a suitable shelter at low water, in 1 to 2 m of water, off a beach. There is a lot less protection when the rocks bordering the area are covered. Anchorage is untenable in fresh onshore winds. Vessels access, by day only, by following the leading line on a bearing of 027.5° of two beacons, wooden posts surmounted by a black triangular topmark (front) and a black rectangular topmark (rear).

Three white buoys, marked "PL", are anchored to allow leisure vessels to moor, in 2 m of water, 0.5 M

from land and 300 m W of the approach leading line.

81

[photo]

5,9.6.2.B. - Anse de la Perroche, to the SE (2008).

01 5.9.6.3. Château-d'Oléron

07 Château d'Oléron (45° 52.9' N — 1° 11.3' W) [view 5.9.6.3.], which is an oyster-farming port, has also developed a small leisure capacity, essentially for the benefit of local users. It comprises an outer harbour and a scouring basin. Vessels access it through a channel, the axis of which on a bearing of 318.5° is shown by a

leading line of two lights, the supports of which, white towers with red tops (3 and 20 m), can be used as landmarks by day. The entrance to the channel is marked by the "Grande Mortanne Sud" S cardinal beacon, which vessels leave around 10 m N when entering. The channel, cut into the rocky uncovering bank of **Grande Mortanne**, and into the mud, is maintained at 0.8 m above chart datum. It is 10 m wide.

13 It is recommended that leisure vessels in transit only use this port at neaps, as there is a lot of oyster-farming vessel traffic at springs.

19

[photo]

5.9.6.3. - Château-d'Oléron, to the NW (2008).

- OUTER HARBOUR. The outer harbour, the entrance to which is 10 m wide, is lined with vertical quays. The NE part comprises two piers parallel to the NE quay. Two slipways, the slopes of which face each other, are attached to the SW quay. The muddy berths, along the quay, dry 1.6 m. A small dock extending the outer harbour to the N constitutes a scrubbing area.
- 31 BASSIN. This is connected to the outer harbour by a lock 10 m wide, the sill of which is 2 m above chart datum. There are 72 berths spread over three pontoons. This basin is rarely closed.
- 37 RESOURCES. EQUIPMENT. Water; petrol and diesel oil; 2.5 t crane; slip dock; building yards and chandleries; wooden hull and marine engine repairs.
- 43 INFORMATION. Department of Charente-Maritime (17); 3600 inhabitants.
- 49 Harbour master's office: 1 rue Jules Hay; tel: +33 (0)5.46.75.53.00.
- 55 Customs: tel: +33 (0)5.46.47.62.53.

01 5.9.6.4. Boyardville (La Perrotine)

- Of Situated 1.5 M S of Pointe des Saumonards, the port of Boyardville (45° 58.2' N 1° 13.9' W) is established in the channelled mouth of the Sorine (Chenal de la Perrotine), the right bank of which is bordered by a masonry jetty that extends up to 500 m offshore and the left bank of which is bordered by submersible loose boulders, shorter and slightly angled and bearing an unmarked spar. The head of the jetty bears a light, a white tower with a red top (7 m).
- 11 The port itself, which is reserved for professionals, occupies both banks of the canal up to the bridge that crosses the latter 1300 m upstream of the head of the jetty. It dries entirely at low water. Vessels berth at small pontoons connected to the quays by footbridges.
- 750 m upstream of the head of the jetty, the left bank opens out onto the lock providing access to the non-tidal basin. The latter is equipped to accommodate leisure vessels on pontoons and catwalks.
- ACCESS (view 5.9.6.4.A.). From the "La Perrotine" starboard lateral buoy anchored 0.4 M ENE of the jetty, vessels set course on the head of the jetty. A sandbank moves constantly between the jetty and the buoy

- and can make access tricky, particularly in rough seas or in strong winds from the NE to E sector, which generate a swell breaking onto the bank. The current can reach 1 to 2 knots and heads NW on the flood and SE on the ebb.
- 26 0.3 M N of the Pointe de La Perrotine lighthouse, four white conical buoys, marked "PL28", "PL29", "PL30" and "PL31", are anchored in 2 m of water to allow waiting vessels to moor.
- 31 From the head, vessels must navigate fairly close to the jetty to follow the channel that dries 2.5 m. For vessels with a draught of 1.5 m, the channel is accessible from half tide. The currents can reach 3 knots in the channel at half tide. The ebb lasts longer than the flood.

[photo]

5.9.6.4.A. – Île d'Oléron. Boyardville. Access to the SW (2008).

- The non-tidal basin lock gates open automatically for around 5 hours per tide when there is 2.1 m of water on the sill. A fixed red light indicates that the gates are closed or are moving and that passage is prohibited in both directions. The gates are open from 0200 HW to + 0200 HW with a tidal coefficient of 50, and from 0220 HW to + 0220 HW with a tidal coefficient of 75. The lock opening hours vary depending on the wind direction and atmospheric pressure. Mariners are therefore advised to obtain information in advance from the harbour master's office (VHF channel 9). A grounding bar, which can also be used by waiting vessels, extends opposite the harbour master's office on the left bank of the La Perrotine channel.
- PORT (view 5.9.6.4.B.). It mainly comprises four piers from 30 to 40 m situated on the edge of the left bank upstream of the non-tidal basin lock and at the foot of which vessels ground on a muddy bottom. There are two docks on the same bank, but downstream of the lock. The one farthest downstream is equipped with a wide launching slipway and the other is a grounding area on a slightly sloping sandy bottom.
- There are several short piers on the right bank; the verge does not facilitate grounding all along this bank. A pontoon bearing a fuel station is located almost opposite the lock.
- NON-TIDAL BASIN (view 5.9.6.4.B.). This basin is more or less rectangular (175 m x 70 m) and extends from the lock to the SW, parallel to the canal. It is equipped with five pontoons, with catwalks, connected to the SE riprap. The SW half of the side opposite this riprap is bordered by an 80 m quay, at which vessels can berth. The quay immediately to the right of the entrance, at which vessels can also berth, accommodates visitors.
- A launching slipway is established on the S corner. The harbour master's office is situated in the middle of the terreplein that separates the basin from the channel.

[photo]

5.9.6.4.B. – Île d'Oléron. Boyardville. The port, to the SW (2008).

- 71 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 250 berths, of which 35 are for vessels in transit; maximum length 14 m (17 m when notice is given to the harbour master's office 48 hours in advance), draught 2.5 m; water and electricity at the pontoons; sanitary facilities; fuel; 10 t private crane; slipways and scrubbing grid.
- 76 INFORMATION. Department of Charente-Maritime (17); commune of Saint-Georges-d'Oléron (3340 inhabitants).
- Harbour master's office: tel: +33 (0)5.46.47.23.71; VHF: channel 9 (working hours: 0730 2130 in season); email: port-plaisance-boyardville@wanadoo.fr.
- 86 Maritime Affairs: La Criée, port of La Cotinière, Saint-Pierre d'Oléron; tel: +33 (0)5.46.36.57.69.
- 91 Customs: Château d'Oléron; tel: +33 (0)5.46.47.62.53.

01 5.9.6.5. Grande Rade des Trousses anchorages

- 07 The Grande Rade des Trousses anchorages (47° 58' N 1° 12' W) at **Pointe des Saumonards** (45° 59.4' N 1° 14.5' W) are sheltered from onshore winds and swell by the La Longe and Le Boyard banks; however, fresh winds from the NW cause choppy seas to rise up against the ebb that impede craft and small leisure vessels.
- 13 Vessels access this area by coming from the NW, either through Passage de l'Ouest, to the S and SW of the aforementioned banks, or through Passage de l'Est, Rade de l'Île d'Aix (§ 5.7.4.5.) then Passage du Sud. The latter passage leaves **Plateau des Palles** to the E and the **Roches du Sud-Est**, covered with 2.8 m of water, to the W. Vessels enter the passage by keeping the towers of the Île d'Aix lighthouse to stern on bearings of between 000° and 005°. **Basse de la Rade**, covered with 4.9 m of water, is located between Le Boyard and the Roches du Sud-Est. The "Longe Boyard S" S cardinal buoy, anchored 800 m S of this least depth and nearby to the W of a wreck, is the N limit of Grande Rade des Trousses.
- 19 ANCHORAGES. Due to the presence of old obstructions, it is advisable that vessels do not anchor or fish with towed gear in Passage de l'Ouest.
- Four white buoys (marked from S to N "PL56", "PL57", "PL58" and "PL59") are anchored in 2 m of water to allow waiting leisure vessels to moor, 1500 m SE of Pointe des Saumonards.
- 31 In Grande Rade des Trousses and in Rade de la Perrotine, situated immediately É of Pointe de Boyardville, vessels anchor either side of the latitude of this headland in 8 to 12 m of water, over a muddy bottom of excellent holding.

01 5.9.6.6. Port of Le Douhet

06 This Le Douhet marina (46° 00.1' N — 1° 19.2' W) [view 5.9.6.6.], situated in Anse de la Maleconche 3 M WNW of Pointe des Saumonards, is a basin with a sill established on the right bank of the mouth of a channelled stream.

- 11 The access channel is subject to significant silting up, which can change its route and its depth. Navigation here in winter is often limited.
- 16 This port is well sheltered from dominant winds.

[photo]

5.9.6.6. – Île d'Oléron. Port of Le Douhet, to the WSW (2008).

- 26 OUTER ANCHORAGE. Anse de la Maleconche provides small vessels with an anchorage over a muddy bottom, where sand and shells alternate with several rocky plateaux. Vessels should watch out for the mussel farming area situated in the middle of the cove.
- 31 Three white conical holding buoys marked "Douhet 1", "Douhet 2" and "Douhet 3" are anchored 0.7 M E of the port.
- ACCESS. The channel, which dries 1.1 m, is oriented SSE then WSW around 300 m from the entrance passage to the port. It is marked by lateral mark buoys equipped with retroreflective film, the number and position of which can vary. The entrance passage is located between two groynes made of loose boulders, the ends of which are marked by lateral mark beacons. The S groyne is submersible.
- With a tidal coefficient of 70, vessels with a draught of 1.5 m can use the channel towards the entrance to the port from + 0230 LW. A starboard lateral beacon marks a rocky head uncovering 3.7 m around 300 m N of the entrance to the port. In order to reach the entrance channel, set course on a bearing of 265° from the N cardinal light buoy situated N of Anse de la Maleconche.
- 46 A perch and a tide scale mark the height of the water on the sill.
- PORT. The basin is divided into two parts, NW and SE, by a concrete groyne. The sill of the complex is formed by a wall, the top of which uncovers 2.9 m to the NW and 1.8 m to the SE. Vessels the draught of which does not exceed 1 m in the NW part and 2 m in the SE part remain afloat.
- The left bank of the course of the river is bordered by a quay at which vessels can berth, to the right of which the bottom uncovers 3 m. A slipway sloping down in a downstream direction is attached to the NE end of the quay. The bottom uncovers 2.7 m at its foot. At the inner end of the port, the stream is closed off by sluices that control its flow.
- 61 RESOURCES. EQUIPMENT. The main equipment and services provided are as follows: 360 berths, of which 30 are for vessels in transit; maximum length 14 m; draught 2.2 m; water and electricity at the pontoons; sanitary facilities; launching slipway; scrubbing station and grounding grid.
- 66 INFORMATION. Department of Charente-Maritime (17); commune of Saint-Georges-d'Oléron (3340 inhabitants), the town of which is 2.5 km S of the port.

- 71 Harbour master's office: tel: +33 (0)5.46.76.71.13; VHF: channel 9 (working hours: in season, from 0800 to 2200 daily); email: port-plaisance-dudouhet@wanadoo.fr
- 76 Maritime Affairs: La Criée, Port of La Cotinière, Saint-Pierre d'Oléron; tel: +33 (0)5.46.36.57.69.
- 81 Customs: Château d'Oléron; tel: +33 (0)5.46.47.62.53.

01 5.9.6.7. Saint-Denis-d'Oléron

- 97 Saint-Denis-d'Oléron (46° 02.1' N 1° 22.1' W) [view 5.9.6.7.], a marina situated on the NE coast of the island 2 M SSE of Rocher Antioche, is made up of a basin with a sill cut into the rocky plateau that stands a good distance off this part of the coast.
- 13 The port is protected by two dykes stabilised by loose boulders: a short and wide Digue Sud, the head of which bears a light, and a Digue Est, the end of which is angled towards the SE and bears a sector light. The passage around 50 m wide on a sill uncovering 1.5 m opens out to the S between these two structures. A tide scale is installed on the W side.
- 19 Sandbanks may form at the entrance to the port, particularly at the end of Digue Est, therefore it is advisable that vessels do not navigate close to the head.

25

[photo]

5.9.6.7. - Saint-Denis-d'Oléron, to the NNW (2008).

- 31 ACCESS. By night, vessels set course on a bearing of 205° on the direction light established 0.6 M SSE of the entrance to the port until they come towards the entrance in the white sector on a bearing of 277° 292° of the light on Digue Est. By day, vessels set course on a bearing of 230° on the Saint-Denis-d'Oléron bell tower, then on a bearing of 205° on the direction light support, a white minor post with platform (10 m), and finally on a bearing of 285° on the head of Digue Est.
- Three white buoys for the mooring of waiting leisure vessels, marked "PL32", "PL33" and "PL34", are anchored in 2 m of water 700 m NE of the entrance to the port, on the W edge of the axis of the direction light. The final approach towards the entrance to the port is marked by a starboard lateral mark beacon then a port lateral mark beacon.
- PORT. The port is well sheltered in all weather. All the mooring posts are on pontoons and catwalks, in 1.5 to 3.5 m of water. Pontoon A (first long pontoon to the left of the entrance) is reserved for visitors. The small pontoon installed at the end of Digue Sud bears the fuel station, in 2.5 m of water.

- 49 EQUIPMENT. RESOURCES. The main equipment and services provided are as follows: 750 berths, of which 60 are for vessels in transit; maximum length 16 m, draught 2.5 m; 95 buoys distributed between 3 anchorage areas (from 1 May to 30 September) for vessels 6.5 m¹⁴ maximum; water and electricity at the pontoons; sanitary facilities; road system¹⁵ (waste separation, recovery of used oils, black water); fuel; 14 t lift; three launching slipways; repair yards.
- 55 INFORMATION. Department of Charente-Maritime (17); 1250 inhabitants.
- Harbour master's office: tel: +33 (0)5.46.47.97.97; fax: +33 (0)5.46.75.72.99; VHF: channel 9 (working hours: in season from 0800 to 2200 daily); email: port.stdenis@wanadoo.fr.
- 67 Maritime Affairs: La Criée, Port of La Cotinière, Saint-Pierre d'Oléron; tel: +33 (0)5.46.36.57.69.
- 73 Customs: Château d'Oléron; tel: +33 (0)5.46.47.62.53.

01 5.9.6.8. La Cotinière

19

- 07 La Cotinière (45° 54.7' N 1° 19.6' W) [view 5.9.6.8.], the only port on the W coast of Île d'Oléron, is reserved for fishing. Leisure vessels are only admitted in the event of *force majeure* or if bad weather is approaching. Its basin, divided into two parts by Épi du Colombier, dries 0.5 m. It is protected to the W by Grande Jetée and to the E and S by an extensive terreplein and Jetée Sud.
- 13 Grande Jetée is extended to the S by a concrete groyne, which is itself extended by loose boulders angled to the SSE; the end of the latter bears a light. A light is also installed on the heads of Épi du Colombier and Jetée Sud as well as on the connection between Grande Jetée and its groyne.

[photo]

5.9.6.8. – Île d'Oléron. La Cotinière, to the N (2008).

- 25 ACCESS. A direction light, a white column with a white rectangular topmark with a black edge (6 m), on a leading line on a bearing of 047.5° with a day mark, pyramidal pylon with white and black horizontal bands, shows the approach axis. Vessels leave this axis in order to then follow the leading line on a bearing of 339.5° of two lights installed, one on the groyne made of loose boulders, and the other near the NW corner of the port.
- A starboard lateral beacon, 100 m SE of the light on the end of the groyne made of loose boulders, marks the entrance to the access channel to the basin. This channel, oriented more or less to the N and 25 m wide, is dredged to a depth of 0 to 0.5 m. It must be noted that by night, fishermen use the leading line on an approximate bearing of 010° of two orangey yellow public lights, one situated on Épi du Colombier and the other one landward of the NW pontoons.

¹⁴ Translator's note: No further information is given in the source text.

¹⁵ Translator's note: This is what the French reads, however it does not seem to make sense in the context.

- Despite the protection provided by the angled end of the groyne made of loose boulders, entry is tricky in winds and swell from the WSW. At springs, the currents reach 2.5 knots and head NW on the flood and E on the ebb.
- 43 PORT. EQUIPMENT. RESOURCES. Three pontoons occupy each of the two parts of the basin. Epi du Colombier and the inner sides of the jetties are fitted with quays at which vessels can berth. Épi du Colombier bears the imposing old lifeboat shelter; the boat has been replaced by a launch that stays at one of the pontoons; this groyne also houses the ice factory and the harbour master's office.
- The port is equipped with five launching slipways and a 160 t boat hoist (in the SE corner); 3 t crane at Épi du Colombier; water replenishment; petrol, diesel oil and oils on Grande Jetée; small repairs possible.
- 55 INFORMATION. Department of Charente-Maritime (17); commune of Saint-Pierre-d'Oléron (6030 inhabitants).
- 61 Harbour master's office: Épi du Colombier; tel: +33 (0)5.46.47.25.61.
- 67 Maritime affairs: La Criée; tel: +33 (0)5.46.36.57.69.