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# PORT BY-LAW REGULATING THE MANAGEMENT AND COORDINATION OF PORT MARITIME TRAFFIC IN THE PORT OF BARCELONA. <sup>(1)</sup>

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## 1. GENERAL PROVISIONS

### 1.1. Purpose.

The purpose of this port By-law is to regulate the management of maritime traffic in the waters of the service area of the Port of Barcelona. This shall be achieved, on the one hand, by setting standards and general technical criteria governing the system of navigation in the port waters, providing general services, and management and control mechanisms to facilitate the proper planning and supervision of maritime operations; and on the other hand, by implementing ship's routing and reporting system in the approaches of the port to achieve a safer and more efficient port access traffic flows.

### 1.2. Competence and scope.

Barcelona Port Authority is responsible for the management and coordination of port maritime traffic in the service waters of the Port of Barcelona pursuant to Article 25 of the Revised Text of the Law on State Ports and the Merchant Marine, approved by Royal Legislative Decree 2/2011, of 5 September 2011 (TRLPEMM), and for providing the general service for the coordination and control of technical-nautical port services.

The service waters are defined in the Delimitation of Port Spaces and Uses of the Port of Barcelona approved by Ministerial Order FOM/1684/2016, of 20 October 2016.

This remains without prejudice to the fact that radio communications can be established in maritime areas beyond the service area solely for the purpose of preparing the necessary services to provide to vessels within port waters.

### 1.3. Port maritime traffic management and coordination service (Port VTS).

The port maritime traffic management and control service (Port Vessel Traffic Service) is a general service in accordance with Article 106(a) TRLPEMM. In the Port of Barcelona, this general service shall be provided continuously twenty-four (24) hours a day, every day of the year, from the specialized VTS centre of the port of Barcelona or from any centre that may replace it when necessary. The name identifier for radiotelephone communications, and to refer to the service in general, is '**Barcelona Port Control**'.

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*(1) All geographical positions refer to Datum WGS-84*



'**Barcelona Port Control**' shall provide an Information Service (INS) and a Traffic Organisation Service (TOS) as defined in International Maritime Organisation Resolution A.857 (20). To this end, and as far as operationally possible, it shall provide general supervision of the development of movements of all vessels in port waters, using the most appropriate means and technologies available in the control centre, always taking into account the limitations of the equipment installed.

Notwithstanding the foregoing, the ultimate responsibility for the safe navigation of ships or vessels falls to the Captain or Skipper on board the ship or vessel.

After hearing the Barcelona Pilots' Corporation and the Barcelona Maritime Administration, Barcelona Port Authority shall approve the techniques and procedures governing the actions of '**Barcelona Port Control**' in Navigation Assistance Service (NAS) in the event of hazardous situations or in response to a request for assistance within the port's service area.

Within the organisation of the Traffic Organisation Service (TOS), the port vessel traffic service shall, where appropriate, facilitate the approval of the initiation of the manoeuvre.

Likewise, in addition to receiving and transmitting communications of regulated procedures, '**Barcelona Port Control**' shall provide information and instructions when deemed necessary, although its recommendations and instructions should be governed by the 'result-oriented' principle, as a general rule leaving the details of their performance to the captain of the vessel or to the pilot assisting him.

In this connection, in its communications with the vessels related to the organisation of port maritime traffic, this service shall be coordinated with the port pilotage service in accordance with the provisions of this By-law and the General Instructions that the General Management of the Port may establish to that end.

#### 1.4. Coordination service and control of operations associated with technical-nautical port services.

The service for the coordination and control of operations associated with technical-nautical port services is a general service in accordance with Article 106(b) TRLPEMM.

In the Port of Barcelona, this general service shall be provided continuously twenty-four (24) hours a day, every day of the year, from the specialized VTS centre of the port of Barcelona or from any centre that may replace it when necessary. The identifier name for radiotelephone communications, and to refer to the service in general, is also '**Barcelona Port Control**'.

Barcelona Port Authority, taking into account the performance levels established in the particular specifications of each service, shall agree with the technical-nautical port service providers on the internal communication procedures with '**Barcelona Port Control**' required for proper coordination of the provision of these services in maritime operations.

#### 1.5. Special coordination with the pilotage service.

Any instructions concerning port maritime traffic that '**Barcelona Port Control**' needs to apply to ships and vessels shall be coordinated with the port pilotage service.

When a vessel has a pilot assigned to the service, the particular communications relating to the port's maritime traffic with that vessel shall be agreed with said pilot, with whom it shall be agreed how the vessel is to be informed. Any discrepancies from a maritime safety perspective shall be resolved in accordance with the procedure established in the General Pilotage Regulations.



## 1.6. Authorisation to enter the Port of Barcelona and assigning of anchorage positions and berthing areas.

Under Article 7 of Law 14/2014 of 24 July 2014 on Maritime Navigation, all ships and vessels intending to enter the Port of Barcelona, including for the purposes of anchoring - with the special cases that may be established for such cases - must be previously and duly authorised by Barcelona Port Authority, as follows:

- **Civil vessels.**

Authorisation for ships and vessels of 500 GT or over, including pleasure craft with an overall length of 45 metres or more, shall be processed using single window procedure (PIDE) regulated by Order FOM/1194/2011 of 29 November 2011, amended by Order FOM/1498/2014 of 1 August 2014. In this connection, and in accordance with that procedure, the appointment of an anchorage position and/or a berthing place means that port entry authorisations have been granted.

Pleasure and fishing craft under 500 GT that have agreed to dock with the concessionary managers of a marina, shipyard or special facility for pleasure or fishing vessels, shall be considered to have received sufficient authorisation to enter into port, unless Barcelona Port Authority or the Maritime Administration requires them expressly to obtain such authorisation or unless a specific ship or vessel refusal of access order has been issued. This remains without prejudice to compliance with the appropriate formalities for fishing vessels of third countries pursuant to Order ARM/2077/2010 of 27 July 2010.

All other civil ships and vessels not covered in the previous sections must apply for their entry authorisation from the technical services of Barcelona Port Authority, and to the extent feasible, shall endeavour to use the electronic data interchange system of the integrated single window procedure. The authorisation shall assign the corresponding berthing place.

- **Spanish Navy vessels, warships of foreign navies and other State vessels.**

Authorisation for Spanish Navy vessels and warships of foreign navies to call at port shall be regulated pursuant to Spanish Ministerial Order PRE/262/2010, of 5 February 2010.

The designation of the berthing and anchoring place of State vessels must be agreed with Barcelona Port Authority.

- **Vessels entering Barcelona port as a port of refuge or in need of assistance.**

A ship shall be considered in need of assistance when this is verified by the Maritime Administration (Article 9 of the Law of Maritime Navigation and Article 299 TRLPEMM).

The application of the provisions of this By-law to vessels making an unforeseen forced arrival or in need of assistance shall be assessed on a case-by-case basis, in accordance with any formalities and requirements that may be imposed by the Maritime Administration, and the circumstances that may arise.

- **Berth assignment and changes of position.**

Ships and vessels must adjust their berthing or anchoring place to the position assigned in their authorisation.



However, when, for duly justified reasons, the ship or vessel cannot exactly berth at the assigned position, it must inform '**Barcelona Port Control**' without delay in order to relay this information to Maritime Operations Department of Port Authority to take the necessary steps.

Likewise, once moored, vessels must not make any changes to their position in the dock without due approval from the Barcelona Port Control service.





## 2. REGULATION OF NAVIGATION IN BARCELONA PORT WATERS

### 2.1. General regulation of navigation in port waters.

The maritime areas of the waters of the port service area are divided as follows:

- Zone I, or confined waters, which includes the waters sheltered by the breakwaters, sectorised in accordance with the Local Sea Zones Terminology approved by the Board of Directors of Barcelona Port Authority in plenary session of 29 May 2013.
- Zone II, which covers the open waters of the service area, and includes the ship's routing system approved by this By-law (Traffic separation schemes and precautionary areas), anchorages, and open waters with no specific purpose.

In open waters with no specific purpose, in the maritime traffic organisation system regulated in this By-law, the rules of navigation and regulations for preventing collisions are the same as in non-port coastal waters of the maritime-terrestrial public domain.

To ensure the safe and proper management and supervision of navigation in access channels, precautionary areas, confined port waters and the anchorage, as well as for the necessary coordination of technical-nautical services, initiating port manoeuvres of certain vessels is submitted to prior approval from '**Barcelona Port Control**' in accordance with the following point.

The performance of nautical-sports activities in port waters by boats, small crafts and floating recreational devices shall be governed, as far as it does not contravene this By-law, by the Regulating By-law of the Exercise of Recreational and Pleasure Activities in the Port of Barcelona approved by the Board of Directors of Barcelona Port Authority in plenary session of 25 July 2007.

It is recommended that ships and vessels sailing in the vicinity of the Port of Barcelona but not intending to enter or anchor in the port anchorages should avoid crossing the access channels, precautionary areas and anchorages, remaining further to the east of the fairway buoys of the Port of Barcelona.

### 2.2. Approval of the start of the manoeuvre.

Before the starting of any nautical entry, departure or internal movement manoeuvre - including anchoring -, the following vessels must obtain the approval of the '**Barcelona Port Control**', port VTS, in accordance with the radio communication procedure established in this By-law:

- Ships and vessels of 500 GT and upwards or length over all longer than 45 metres;
- Ships and vessels under 500 GT and less than 45 metres in overall length but with special manoeuvring conditions, either inherent to the vessel's own propulsion and steering system or because their operating condition severely restricts their manoeuvrability;
- Ships and vessels, other than those tugs providing the port towage service, towing other vessels, ships and/or devices whose combined length of tugboat, tow and towed vessel is over 75 metres.

**Barcelona Port Control** shall check, where appropriate, that Barcelona Port Authority has issued a movement authorisation and verify that all the technical-nautical conditions are met for the appropriate approval. When deemed necessary, it may decide which port entrance is to be used by ships and vessels.



In light of the specific conditions that must be met to approve the start of the manoeuvre of vessels whose captains are granted with a Pilotage Exemption Certificate, a specific operational procedure has been established and adopted as an annex to this By-law (**Annex I**).

An appropriate approval and reporting system may be established for ships and vessels engaged in maritime construction works, port or commercial services, such as barge supplies to vessels or passenger tourist boats, as well as for other public administration services, in accordance with circumstances, and should, where necessary, guarantee the proper management and supervision of navigable port waters.

After hearing the Barcelona Maritime Administration Office, the technical services of Barcelona Port Authority shall draft the necessary operative procedures to respond to special situations not covered in this By-law, and regulate the response procedure for cases in which vessels request the manoeuvre approval with no previous authorisation to enter port.

### 2.3. Order of nautical port movements.

When it deems it appropriate, Barcelona Port Authority shall set the priority order in which concurrent nautical manoeuvres must be attended to in the Port of Barcelona, either in response to specific cases, or by assigning time slots to planned port movements, or establishing general priority criteria for certain traffic, types of vessels or manoeuvres. In the latter case, these formally approved general criteria may be incorporated as an annex to this By-law.

As a general criterion, the fact that the captain of a vessel is exempt from using the pilotage service shall not, in itself, alter the order of precedence that may correspond to him due to vessel type and/or arrival time. This notwithstanding the fact that '**Barcelona Port Control**' may take into consideration other present circumstances that could condition the exercise of the exemption in order to optimise maritime traffic management.

### 2.4. Port navigation areas for different types of vessels.

As a general rule, all ships and vessels which berth in docks located in the 'northern section', their entry or departure manoeuvres shall be conducted through the North port entrance. Likewise, entry or departure manoeuvres that involve berthing in docks located in the 'centre', 'south' and 'southwest' sections shall be conducted through the South port entrance.

Sailing under the 'Porta d'Europa' bridge is primarily oriented towards facilitating the mobility of small ships and vessels rendering port services, and those involved in duly authorised inner services. As a general criterion, the bridge shall be opened to facilitate the passage of ships and vessels only when this movement cannot be carried out safely in open waters; in such cases, specific approval must always be obtained from Barcelona Port Authority in accordance with the established procedure when the bridge needs to be opened.

Barring any exceptions established on a one-off or statutory basis, navigation by all pleasure craft and fishing vessels in Zone I of the Port of Barcelona's service waters is limited to the North area. This means the water surface stretching from the imaginary line of projection of the 'Porta d'Europa' bridge over the water surface towards the north, including those sheltered by the North entrance breakwater. Furthermore, except in duly justified cases, navigation should be direct and uninterrupted.

Notwithstanding this, access shall be permitted through the South area in case of *force majeure*, or in the event of priority safety considerations or to reduce or minimise a risk; in such cases, the affected vessels/ships must report without delay to '**Barcelona Port Control**'.



## 2.5. Steering and sailing rules in port waters.

The provisions established in the amended International Regulations for Preventing Collisions at Sea (COLREG 1972, BOE 9 July 1977) shall apply in all port waters, with the following specifications for the purpose of the conduct of ships and vessels in relation to the rules of steering and sailing:

- All port waters of Zone I, or confined waters, and those corresponding to 'precautionary areas' shall be considered as a 'narrow channel or fairway' in accordance with rule 9 of the International Regulation to Prevent Collisions at Sea.
- The external access channels shall be considered as traffic separation schemes in application of rule 10 of the COLREG.

Consequently, in waters considered as narrow channels or fairways, vessels less than 20 metres long, sailing ships and fishing vessels shall not impede the safe passage of the other vessels.

In addition, this obligation not to impede the safe passage of the remaining vessels manoeuvring in waters considered as narrow channels or fairways is extended to the following ships and vessels:

- Vessels with a gross tonnage under 500 GT.
- Port services ships and vessels.
- Local tourist passenger vessels and boats with a gross tonnage under 500 GT.
- Ships and vessels of internal port traffic in intra-port manoeuvres, including bunkering supply barges and works vessels, regardless of their tonnage.

In addition, given the distinctive configuration of the access to the channel of the North entrance from the entrance of the Marina Vela, and taking into account the type of vessels using that marina, a specific rule has been established for the behaviour of the ships and vessels passing through it. Thus, ships and vessels whose departure manoeuvre from the docks of the Marina Vela taking them into the channel of the North entrance shall conduct in a way that does not impede the safe transit of any ship or vessel sailing within that channel.

Notwithstanding this, any traffic management instructions sent from '**Barcelona Port Control**' shall prevail.

In certain cases, the use of sound signals may be totally or partially replaced by direct radio communications at the discretion of the pilots on board the vessels involved and/or '**Barcelona Port Control**'.

## 2.6. Port traffic lights.

Any port traffic lights that are installed shall, as far as possible, be in accordance with the international recommendations made by specialised international organisations, especially the International Association of Marine Aids to Navigation and Lighthouse Authorities - IALA.

Ships and vessels shall be obliged to respect the messages corresponding to port traffic lights, and may contact '**Barcelona Port Control**' in case of doubts concerning the application of a port traffic light.

## 2.7. Automatic identification system for ships and vessels.

All civil ships and vessels which must be equipped with an Automatic Identification System (AIS) in accordance with international or national regulations, and ships and vessels of the



port and inner commercial services that must be fitted with such equipment under local regulations, are to keep such systems in operation at all times while sailing and staying in port waters, even when anchored or moored, without prejudice to the exceptions made in that regulation.

When the AIS is not in operation, either due to a breakdown or as a duly authorised safety or security measure, such vessels must communicate this measure and the reasons why it was adopted to **'Barcelona Port Control'**, unless this further compromises safety or security.

## 2.8. Maritime security perimeter.

For security reasons, a maritime non-intrusion perimeter of fifteen (15) metres has been established around vessels moored or anchored in port waters. Ships and vessels in navigation should not enter this area except when overriding safety reasons or ships and vessels that are to provide services arranged with the vessel berthed or anchored (e.g. pilotage, towing, supplies, repairs, etc.).

## 2.9. Reducing waterways width.

No item or removable part of a vessel may protrude from the maximum length and beam, nor from the declared draught, when manoeuvring, without express authorisation. Exceptions to this rule are lifeboats placed in their stowage position, accommodation or pilots' ladders or other fixed installations of the vessel.

**'Barcelona Port Control'** must be informed when vessels are berthed and their cargo handling cranes or derricks or other movable elements are required to overhang the gunwale on the seaward side of the vessel, so that it is aware of this circumstance and can grant approval. When such protrusion exceeds the transversal distance more than 15 metres from the side of the vessel, the approval must be granted in advance as part of the port call application.

Likewise, cargo handling operations from the sea side of a vessel, such as lowering or hoisting smaller vessels, must be authorised in advance by Barcelona Port Authority.

Likewise, terminal cranes and loading arms and passenger boarding bridges (PBBs) must be in their stowed position until the vessel is moored safely and may be lowered or extended only when the vessel has given its consent; similarly, they should be properly stowed once the loading and/or unloading operations have been completed before the vessel begins its departure manoeuvre. Authorisation must be obtained from Barcelona Port Authority when the boom of a crane's terminal or other loading equipment needs to be lowered with no vessel docked, either for maintenance or other repair work.

## 2.10. Fishing and shellfishing activities.

For priority maritime safety reasons, all extractive fishing activity from a vessel, including the setting of fishing gears and shellfishing activities, whether professional or recreational, is prohibited in Zone I (confined) port waters, in the anchorages, in areas corresponding to the separation devices of the approach channels - including the separation areas between circulation routes - and in both precautionary areas.

## 2.11. Safe speed.

All ships and vessels must navigate at a safe speed in all the port waters of the Port of Barcelona as established in the International Regulation to Prevent Collisions at Sea (COLREG).



In this regard, this safe speed shall be assessed and determined taking into account the distance from other ships or vessels sailing nearby, vessels at anchor and those moored at the quays and basins where the manoeuvre is taking place.

Notwithstanding the foregoing and as a general rule of thumb, the effective navigation speed of ships and vessels in port waters shall not exceed the values indicated in Annex IV of this By-law or the minimum sailing speed, if greater.

In this connection, where the minimum sailing speed is expected to exceed the safe speed or the maximum admissible limit according to the previous paragraphs, vessels may be required to be assisted with the appropriate auxiliary means of assistance when such a measure could allow a lower minimum sailing speed.

Likewise, vessels must properly adjust their speed to facilitate the provision of port pilotage and towing services, in accordance with any indications given by the pilot or via '**Barcelona Port Control**'. Captains unable to continue sailing at the speed required to facilitate provision of the aforementioned services must give sufficient prior notice to allow appropriate measures to be taken.

Notwithstanding the previous paragraphs, Barcelona Port Authority's General Manager or the Local Maritime Administration Office may, in view of the corresponding risk assessment, use the appropriate decision or safety instruction to amend the determination of the maximum safe speed reference values to respond to specific cases or in certain areas or when temporary circumstances so require.

Vessels of the technical-nautical port services or public services may exceed the speed limits set forth here where required for service needs when following instructions from the pilot performing the manoeuvre, on an instruction from '**Barcelona Port Control**' or when involved in a public service or safety action, provided this excess speed is duly justified.

Finally, all the foregoing should be interpreted in the understanding that the speeds indicated here may also be surpassed when unforeseen circumstances require avoiding a collision or for minimising the consequences of an accident during the manoeuvre.

## 2.12. Provisions on Ship's Routeing in the Port of Barcelona.

A routeing system is established for organising maritime traffic in the Port of Barcelona consisting of two access channels, the 'South access channel' and the 'North access channel', both with traffic separation schemes, and two adjacent 'precautionary areas' that connect the inner end of each of these channels with their corresponding entrance. The purpose is to channel inbound and outbound traffic of large vessels in the two entrances, thereby avoiding them crossing the anchorage and also moving the waiting area and/or fairway further from the entrance, and thereby reducing the risks of crossing or head-on situations; furthermore, it sets the areas in which vessels must be especially cautious due to the confluence of traffic of different types of fleets.

The ship's routeing system is the same in both channels, and involves a traffic separation schemes for separating opposing traffic streams using a central separation line with the characteristics described below.

### 2.12.1. North access channel. Location, size and characteristics of the North channel.

The North access channel organises the traffic of inbound and outbound vessels through the North entrance as follows:

It consists of a traffic separation scheme with two traffic lanes for opposite traffic streams separated by a central separation line. The channel is rectangular in shape, 1.5 miles long and



5 cables wide, and is oriented to 305°/125° true. The southern side of the channel shall delimit the northern side of the East anchorage.

The outermost (eastern) point of the central separation line shall be marked with a fairway buoy named 'N' (*November*), located in:

**I = 41° 20'05 N**

**L = 002° 13'01 E**

This buoy shall be equipped with a RACON transponder that shall respond on radars using the signal 'N'.

Each traffic lane is assigned a single established flow traffic, with incoming traffic corresponding to the lane located to the north of the separation line and outgoing traffic to the south lane. Thus, vessels must leave the 'N' fairway buoy on the port side when coming in and going out.

Between the green light of the breakwater of the North entrance and the western end of the separation device, traffic in that half mile for vessels obliged to use the channel shall sail in a single direction (entry or exit).

The signalling of the North entrance is complemented by a lateral portside signal at:

**I = 41° 21'47 N**

**L = 002° 10'89 E**

and is signalling the 10-metre shelf.

### 2.12.2. South access channel. Location, size and characteristics of the South channel.

The South access channel organises the traffic of inbound and outbound vessels through the South entrance as follows:

It consists of traffic separation scheme with two traffic lanes for opposite traffic streams separated by a central separation line. The channel is almost rectangular, although it has a slightly trapezoidal shape on its eastern side. The orientation of the separation line and the western edge is 346°/166° true, however the eastern boundary is not exactly parallel and is slightly offset along 340°/160° true. Thus, at its inner base the channel has a width of 5 cables, with the larger outer base measuring 6.1 cables.

The length of the 1.2-mile separation line, with its southernmost end marked with a fairway buoy named 'S' (*Sierra*), located in:

**I = 41° 16,905' N**

**L = 002° 10,880' E**

This buoy shall be equipped with a RACON transponder that shall respond on radars using the signal 'B'.

Each traffic lane is assigned a single established traffic flow, with incoming traffic corresponding to the lane located to the east of the separation line and outgoing traffic to the west lane. Thus, vessels must leave the 'S' fairway buoy on the port side when coming in and going out.

### 2.12.3. The use of routing systems.

All vessels sailing through the North or South access channels of the Port of Barcelona shall follow the general direction of the traffic flow indicated for the corresponding traffic lane as



represented in the nautical publications by means of outlined arrows, unless expressly indicated otherwise by '**Barcelona Port Control**'.

When ships and vessels whose size allows them not to use the approach channels in accordance with provision 2.12.4. (below) have to cross traffic lanes, they are required to do so as nearly as practicable at right angles to the general direction of traffic flow.

Except where necessary to avoid immediate danger or when expressly authorised by '**Barcelona Port Control**', any vessel obliged to use the access channels shall enter or exit the traffic lanes at their ends and shall not cross the separation lines as they transit through them.

#### 2.12.4. Using access channels.

All ships and vessels with a gross tonnage of 500 GT and upwards or an overall length longer than 45 metres shall be obliged to use the approach channels to the Port of Barcelona, except:

- Rescue vessels involved in operations.
- Duly authorised service port traffic vessels.
- Vessels engaged in maritime works when a specific operating procedure has been approved for them.
- Incoming vessels from the anchorage or outgoing ones heading to the Port of Barcelona anchorage, when authorised by '**Barcelona Port Control**'.
- When there are causes of *force majeure*, or overriding safety considerations, or to reduce or minimize a risk.

#### 2.12.5. Precautionary areas.

Two areas called 'precautionary areas' are delimited in accordance with the definition of International Maritime Organisation Resolution A.572 (A), and connect the inner end of each access channel with its corresponding entrance. In such places, ships must navigate with particular caution since these areas bring together ships using the channels and other vessels that are not obliged to do this.

The North precautionary area is delimited by the following points:

Point 1.	I = 41° 20'72 N	L = 002° 11'16 E
Point 2.	I = 41° 21'13 N	L = 002° 11'56 E
Point 3.	I = 41° 21'47 N	L = 002° 10'90 E
Point 4.	I = 41° 21'47 N	L = 002° 11'08 E

The South precautionary area is delimited by the following points:

Point 1.	I = 41° 18'12 N	L = 002° 10'78 E
Point 2.	I = 41° 18'00 N	L = 002° 10'17 E
Point 3.	I = 41° 18'76 N	L = 002° 10'04 E
Point 4.	I = 41° 19'03 N	L = 002° 10'34 E



## 2.13. Pilotage limits. Pilot's boarding and disembarkation area.

### 2.13.1 Geographic limits for the provision of the pilotage service.

The following geographical limits are established in the Port of Barcelona for the provision of the port pilotage service pursuant to Article 7 of the General Regulations for Pilotage approved by Royal Decree 393/1996, all waters included in zones I and II defined in the DEUP, excluding anchorages and open waters not included in the ship's routing system.

### 2.13.2 Pilot's boarding areas.

For access through the North entrance, a boarding area in the inbound traffic lane of the North Channel is placed. This boarding area is half a mile long its middle reference point is located at a distance of 1 mile from the green light at the end of the 'Dique Norte', in this position:

**I = 41° 20'75 N**

**L = 002° 12'00 E**

For access through the South entrance, a boarding area in the inbound traffic lane of the South Channel is placed. This boarding area is half a mile long and its middle reference point is located at a distance of 1.4 miles from the green light at the prolongation of the 'Dique del Este', in this position:

**I = 41° 17,700' N**

**L = 002° 10,800 'E**

After hearing the Barcelona Pilots' Corporation and following a report from the Barcelona Local Maritime Administration Office, Barcelona Port Authority may approve an operating procedure to regulate cases in which weather conditions, or other circumstances, do not allow the safe boarding of the pilot in the vicinity of the established areas, while nautical manoeuvring is considered viable.

### 2.13.3 Pilot's disembarkation.

As a provision generally applicable for the Port of Barcelona, and in accordance with section (b) of Articles 2 and 7 of the General Regulations for Pilotage approved by Royal Decree 393/1996 of 1 March 1996, the following geographical limits are established for each of its entrances, up to which at least the advisory service must be provided by the pilot assisting the manoeuvre:

- In the South entrance, once the cylindrical tower of the green light placed in the ending of the breakwater of the 'Dique del Este' (*signal No. 29680.17*) is abaft the vessel's port beam.
- In the North entrance, once the cylindrical tower of the green light of the North entrance (*signal No. 30377.4*) lies abaft of the vessel's port beam.

Notwithstanding the above mentioned, after hearing the Barcelona Pilots' Corporation and following a report from the Barcelona Local Maritime Administration Office, Barcelona Port Authority may approve an operating procedure to regulate cases in which weather conditions do not allow safe disembarkation of the pilot. This operating procedure may establish disembarkation areas further inside the port waters provided that:



- This circumstance is indicated to the captain of the assisted vessel, and approval obtained; and
- In the case of the South entrance, such disembarkation does not take place before the vessel passes the second green light that marks the change of alignment of the 'Dique del Este' (*signal n° 29680.23*), which is the area in which the vessel sets course close to the orientation of the exit channel, and in the case of the North entrance, it does not take place before the Marina Vela entrance is abaft.

Likewise, Barcelona Port Authority may take into account other circumstances when drafting the operative procedure concerning disembarkation.

## 2.14. Anchorages. Geographical determination of anchorages.

The following water spaces in Zone II, or open port waters, are established as anchorages: the East and South anchorages.

### 2.14.1. East Anchorage.

This shall be limited by the lines that join the following geographical positions:

Point 1.	I = 41° 19'82 N	L = 002° 12'85 E
Point 2.	I = 41° 20'72 N	L = 002° 11'16 E
Point 3.	I = 41° 19'74 N	L = 002° 10'80 E
Point 4.	I = 41° 18'13 N	L = 002° 10'80 E
Point 5.	I = 41° 17'00 N	L = 002° 11'34 E
Point 6.	I = 41° 17'59 N	L = 002° 12'18 E

Points 1 and 6 shall be united by the two-mile arc centred on the green light of the ending of the 'Dique del Este' at:

I = 41° 19'06 N  
L = 002° 10'38 E

### 2.14.2. South Anchorage.

Point 1.	I = 41° 18'00 N	L = 002° 10'15 E
Point 2.	I = 41° 16'84 N	L = 002° 10'56 E
Point 3.	I = 41° 17'215 N	L = 002° 09'36 E

Points 2 and 3 shall be joined by the arc the centre of which lies in:

I = 41° 17'80 N  
L = 002° 10'39 E

### 2.14.3. Use of anchorages.

The Port of Barcelona's anchorages area mainly addressed to respond to the need for relatively short logistical and waiting times, associated to calls of vessels performing commercial port operations in the inner area of the Port of Barcelona.



The anchorage of vessels in the port devoted areas shall require the corresponding prior authorisation by Barcelona Port Authority.

In general, recreational and fishing vessels may anchor only in priority cases of maritime safety.

In this connection, when approved by Barcelona Port Authority's General Management, the conditions for the access and use of the anchorage and the system of stays shall be incorporated as an annex to this By-law.





## 3. MARITIME TRAFFIC RADIO-COMMUNICATIONS IN THE PORT OF BARCELONA

### 3.1. General principles.

Communications between vessels and the port VTS (**'Barcelona Port Control'**) shall generally be made primarily using VHF radiotelephone equipment, in particular using this service's main working channel.

Radio channel 14 VHF of the maritime mobile service is established in the Port of Barcelona as the main working channel for the maritime traffic management and control service. **'Barcelona Port Control'** shall listen to this working channel at all times.

While navigating or anchoring in port waters, any ship or vessel equipped with VHF radiotelephone communication equipment shall listen continuously to the **'Barcelona Port Control'** VHF working channel, without prejudice to the possibility of using channel 16 VHF at all times and the obligation to listening continually.

All communications broadcasted by the VHF working channels of the service must be relevant and as short as possible. In this regard, we underline the importance of using standard terminology for maritime communications, including *message makers*, in accordance with IMO Resolution A.918 (22) *'IMO Standard Marine Communication Phrases (SMPC)'*.

In addition to the Port's official languages (Spanish and Catalan), the working language for communications for the management and control of maritime traffic service with ships and vessels is English.

In addition to the regulated communications for the development of port traffic, ships and vessels must report any incidents while navigating in port service waters to **'Barcelona Port Control'**, as well as any relevant incidents that could affect maritime safety.

### 3.2. Radio communication procedure for entry, departure and berth shifting of vessels, including anchoring.

Annex II of this By-law approves the procedure regulating minimum radiotelephone communications to enable the efficient management and control of port maritime traffic, and the corresponding coordination of the provision of port services.

Ships and vessels that must follow this radio-communication procedure are the same that compulsory require prior approval to initiate the manoeuvre or oblige to use the access channels, in accordance with this By-law.

The procedure sets out a series of fixed communications for port manoeuvres for approach, entry, departure and shifting, including anchoring, which shall be considered as a notification when so decided. Failure to comply with these communications, particularly if combined with other circumstances, may constitute an infringement of port uses and may lead to non-approval of the start of the corresponding manoeuvre and/or loss of a manoeuvre slot when determined by the rules.

Likewise, if a vessel is unavailable to initiate the corresponding requested manoeuvre within the time it had communicated, either for technical or commercial reasons, in view of accompanying traffic conditions and the estimated delay, this could lead it to lose its slot and, when appropriate, the payment the tariffs of the port services that were allocated to assist the manoeuvre.



### 3.3. Radio-communication procedure for internal traffic, pleasure craft and fishing ships and vessels.

Ships and vessels that provide port or commercial services for internal traffic must be equipped with VHF radiotelephone equipment that allows them to listen on the '**Barcelona Port Control**' VHF work channel or channels, as well as to be able to listen on other channels as appropriate.

Barcelona Port Authority may approve the corresponding communications procedure for each internal traffic service, taking into account the type and particulars of these, as well as the characteristics of the ships and vessels providing it. These procedures, duly approved by Barcelona Port Authority's General Management, shall be incorporated as an annex to this By-law.

Likewise, when considered necessary due to the particular nature, intensity or danger presented by the activity (events, races, collective departure of vessels, etc.), Barcelona Port Authority may demand that ships and vessels that are not subject to the general radio-communication procedure also report to it. When any of these activities is performed regularly in the port, a specific procedure may be approved according to the previous section.





## 4. ADDITIONAL AND FINAL PROVISIONS

### 4.1. Restrictions on maritime operations due to adverse weather conditions.

#### 4.1.1. Visibility.

As a general rule, for safety reasons, no manoeuvre should be initiated with a visibility of less than half a mile.

Notwithstanding the foregoing, this restriction may be considered for some types of vessels, when certain circumstances come together; to this end, Barcelona Port Authority may draft an operational procedure listing these circumstances in order, after hearing the Maritime Administration and Barcelona Pilots' Corporation.

#### 4.1.2. Wind.

As this is a meteorological factor that does not affect all vessels equally, since it is necessary to evaluate different variables such as wind direction, the orientation of the quay and the type of vessel, it is established as a general rule that, after consulting the Barcelona Pilots' Corporation, '**Barcelona Port Control**' shall decide the feasibility of carrying out the manoeuvre in the following cases:

- With winds over 16 knots, for gas carriers, given their special characteristics.
- With winds of over 20 knots, for car carriers, given the air draught surface exposed to the wind.
- With winds of over 30 knots, in other cases.

For the purposes of determining the wind of this section, and generally for procedures or authorisations related to maritime operations conditioned by this meteorological element, unless otherwise stated, the definition in **Annex III** of this By-law shall apply

### 4.2. Closing the Port of Barcelona.

Once consulted the Local Office of Barcelona Maritime Administration, the General Manager of Barcelona Port Authority may order the port to be closed temporarily to vessel navigation, and take the suitable steps to publicise such decisions internationally.

All of this notwithstanding the powers of the Maritime Administration concerning the provisional proposal to prohibit navigation in the port and access channels, as well as the entry and departure of vessels under Article 8 of the Law of Maritime Navigation, and the adoption of the measures in cases of exceptionally unfavourable weather conditions provided in Article 18 of Royal Decree 210/2004 of 6 February 2004, amended by Royal Decree 1593/2010 of 26 November 2010.

### 4.3. Under Keel Clearance.

To be able to start their manoeuvre, every vessel and ship must have at least a specific keel clearance during the entire planned track in the port waters.

To this end, the technical services of Barcelona Port Authority, where appropriate, shall assign the quays, or part thereof, a value corresponding to the maximum allowable draught; these values shall be periodically reviewed as often as shall be decided. The criteria set out in



**Annex V** shall be used to determine these maximum allowable draughts in each quay and for determining the maximum allowable draught for navigation through channels and docks.

Likewise, when moored alongside to the quay or anchored, vessels shall remain afloat throughout their stay, except when they lie in specific dry docking facilities, and it shall be the vessel's responsibility to agree with the corresponding terminal operator when to start and sequence loading, unloading and/or ballasting operations in such a way as to guarantee compliance with this obligation at all times.

#### **4.4. System of penalties.**

Initiating any port manoeuvre (entry, departure or shifting) without obtaining the corresponding berthing authorisation from Barcelona Port Authority and/or the corresponding approval of the port traffic management service shall constitute an infringement of the use of the port and the activities provided in it, as shall failure to comply with instructions concerning maritime operations and any other behaviours that contravene the system of navigation of the port service waters in application of this By-law.

All of this notwithstanding the fact that any actions or omissions that endanger maritime safety and could constitute an infringement of maritime law may be referred to the Maritime Administration Local Office.

#### **4.5. First additional provision. Entry into force.**

This By-law shall enter into force twenty days after its approval by the Board of Directors of Barcelona Port Authority.

#### **4.6. Second additional provision. Delegation.**

The General Manager of Barcelona Port Authority may modify the technical criteria established in the annexes to this By-law once fulfilling the appropriate proceedings, including a mandatory report from the Barcelona Maritime Administration Local Office and after hearing the company providing the port pilotage service.

Likewise, the Barcelona Port Authority's General Management may incorporate as annexes to this By-law any operating procedures related to the management of port maritime traffic, as well as others setting down general criteria for the operation of the port maritime traffic management and coordination service, whose relevance does not require any change to the clauses of this By-law.

Moreover, the General Manager of Barcelona Port Authority is empowered to respond to any situations not covered in this By-law that may arise by approving an operating procedure or general instruction, after hearing the Maritime Administration Local Office when appropriate.

#### **4.7. Repealing provision.**

The entry into force of this By-law shall repeal the document 'Management of maritime traffic at the entrances to the Port of Barcelona', approved by agreement of the Board of Directors of Barcelona Port Authority in its plenary session held on 19 July 2006, as well as any other procedures and instructions that run counter to the terms of this document.



## Annex I

### OPERATIONAL PROCEDURE OF PORT VESSEL TRAFFIC SERVICE IN THE PORT OF BARCELONA - 'BARCELONA PORT CONTROL' - WHEN CAPTAIN'S VESSEL HOLD A PILOT EXEMPTION CERTIFICATE.

#### 1. OBJECTIVES.

The objectives pursued by this procedure are:

- To provide the port maritime traffic management and control service (**'Barcelona Port Control'**) with the technical guidelines and criteria to be followed when requesting approval to start the entry or departure manoeuvre of a vessel in the Port of Barcelona when the captain of a vessel intends to make use of a Pilot Exemption Certificate (PEC).
- To develop in greater detail the particulars with respect to the reporting procedure during the entrance and departure of vessels in the Port of Barcelona that should be applied to vessels whose captains hold a Pilot Exemption Certificate.

#### 2. PRIOR CONSIDERATIONS.

**'Barcelona Port Control'** is the general service for approving the start of the entry or departure manoeuvre of all vessels obliged to use the port's approach channels, as well as regulated internal traffic in the port (bunkering barges, etc.), whether or not the captain is exempt from the pilotage service.

**'Barcelona Port Control'** shall keep a database set up for this purpose, and updated according to information provided by the Local Maritime Administration Office, listing all Pilot Exemption Certificates in force in the Port of Barcelona granted by Maritime Administration. This database shall contain the name of the captain, the vessels for which they are exempt, the validity of such exemptions and any specific operational limitations that may result in the temporary or total suspension of the exemption.

#### 3. GENERAL PROCEDURE. COMMUNICATIONS.

- Any vessel whose captain intends to exercise the right to be exempted from the pilotage service must notify this fact in the mandatory 'notice of arrival' communication with **'Barcelona Port Control'** one hour before arrival at any of the fairway buoys or, in the mandatory 'one hour of departure' communication, one hour before the foreseen departure time, indicating the name of the exempt captain and the operating conditions of the vessel.
- When such a communication is received in **'Barcelona Port Control'**, in addition to the usual checks for all vessels, the service shall:
  - Check the records of the database of PECs provided by the Barcelona Maritime Administration Office in order to validate that the requesting Captain is granted with an updated PEC for the vessel and the assigned place of berthing.
  - Check at that time that neither the general conditions for the automatic suspension of pilotage exemptions, nor the specific weather conditions for that case, have been



surpassed, and also check that there are no limitations regarding occupation of berths. If all the conditions for the exemption are not met, the captain shall be informed of this fact, along with a warning that if this situation persists, they may opt to request pilot or wait until operational conditions are met which may carry out some delays in starting the manoeuvre.

- Summon the captain to perform the following communication in accordance with the established procedure in Annex II (2 or 4 miles/entry or 20 minutes/departure).
- When the planned 'port traffic' communication is made (2 miles from the south entrance and 4 miles from the north entrance before the buoy) or 'ready to sail' (20 minutes before departure), **'Barcelona Port Control'** shall:
  - Check again whether the static conditions for the exemption are maintained. If not, it shall communicate this to the captain requesting that he state whether he accepts the automatic suspension of the exemption or prefers to wait, if appropriate, to fulfil the circumstances for the exemption. In this latter case, this fact shall be recorded in the VTS logbook.
  - For vessels requesting to berth in port, this is the time at which the current state and foreseeable development of the port's maritime traffic shall be checked for the planned navigation areas to decide whether to approve the start of the manoeuvre in accordance with any decision-making support criteria that may have been approved for that exemption.
  - If approval to initiate the entry manoeuvre is granted, it shall provide all the information about the other manoeuvres underway or about to take place in the navigation area concerned.
  - For outgoing vessels, the captain shall be informed that he must communicate again just as the unberthing manoeuvre is about to start with the vessel moored single up and the linesmen on the dock assisting the vessel.
  - When appropriate, it shall coordinate the provision of the remaining technical-nautical port services. In cases where the captain has decided to delay the manoeuvre until the exemption conditions are met, service coordination shall be provided to such vessels only when this occurs.
- When the vessel communicates that it is about to initiate the unberthing and departure manoeuvre, **'Barcelona Port Control'** shall:
  - Check the current state and foreseeable development of the port's maritime traffic through the planned navigation zones to decide whether to approve the start of the manoeuvre in accordance with the decision support criteria approved for that exemption in particular in the procedure referred to under point 4. "Port maritime traffic".
  - Provide all the information about any remaining manoeuvres underway and/or about to be performed in the navigation area concerned.
- **'Barcelona Port Control'** shall note the name of the captain exempted from the pilotage service in the communications log. Likewise, the log shall record the circumstances for which the exemption is suspended or the reason for a delay in the start of the manoeuvre.
- Taking into account the technical limitations of its equipment, **'Barcelona Port Control'** shall carry out general supervision of the performance of the manoeuvres of vessels with captains having PECs, communicating as required and taking a proactive approach to update any new information/instructions as necessary.



- When the exercise of an PEC has been suspended and the captain has decided to wait for the corresponding limitation condition to cease, '**Barcelona Port Control**' shall follow up the limiting circumstances and inform the vessel when all the conditions for exercising the exemption are met.
- The captain of a vessel who has been informed of the suspension of their PEC due to some limiting condition and has decided to delay the start of the manoeuvre in expectation of this limitation being lifted, must keep a continuous listening watch on the '**Barcelona Port Control**' working channel to be notified of the lifting of that limitation.

#### 4. RESOLUTION OF DISCREPANCIES.

Any discrepancies that arise in the application of the conditions regulating the exemptions of the pilotage service must be forwarded to the Maritime Administration as the authority competent to resolve the requests for these exemptions.

Should the captain who requests the exemption disagree with the application being made by '**Barcelona Port Control**' of any of the conditions laid down for the exercise of the exemption pertaining to this procedure, if circumstances permit, the traffic operator shall notify this discrepancy to the Barcelona Maritime Administration for resolution.

#### 5. COMMUNICATION OF INCIDENTS.

Any relevant incident, be it an accident, discrepancy or serious breach, that is identified in the service, and which occurs during the manoeuvre of a vessel whose captain is using a PEC, shall be communicated immediately by '**Barcelona Port Control**' to the Barcelona CCS so that it may be made known to the Barcelona Maritime Administration Office, and to Barcelona Port Authority's Control Centre. Likewise, the Barcelona Maritime Administration Office shall be notified in writing as soon as possible, with Barcelona Port Authority of Barcelona copied into the message.

In this connection, a relevant incident is considered to have occurred when the captain of a vessel intends to exercise the exemption, or initiates the manoeuvre in an exempt manner, in discrepancy with the instructions provided by '**Barcelona Port Control**'.



## Annex II

### RADIO COMMUNICATION PROCEDURE FOR ENTRY, DEPARTURE AND SHIFTING OF VESSELS, INCLUDING ANCHORING.

*(For the sake of providing greater clarity and better coordination of the communications system, this procedure provides not only the necessary reports for the correct management, coordination and control of port maritime traffic, but also includes the communications and listening required by the Maritime Administration, via the Barcelona Maritime Rescue Coordination Centre (CCS Barcelona), during approach to the Port of Barcelona.)*

Except for justified cases of breakdown or other exceptional circumstances, all communications and listening attributed to the vessel established in this procedure shall be made on board and by the captain of the vessel or by a duly authorised crew member.

Listening on the VHF channels established in this procedure shall be understood without prejudice to the fact that while sailing, vessels obliged to do this must also listen on channel 16 VHF.

This procedure considers two situations:

#### 1. INBOUND VESSELS.

##### 1.1. 'Notice of arrival' communication.

Vessels calling at the Port of Barcelona shall contact the CCS Barcelona (**'Barcelona Tráfico'**), on channel 10 VHF, and **'Barcelona Port Control' (BPC)**, on channel 14 VHF, one hour before arrival at fairway (landfall) buoy 'S' (*Sierra*) or 'N' (*November*) depending on the entrance mouth to be used. Whenever made in a reasonable time frame, this report to **'Barcelona Port Control'** shall be considered to be a record of the expected time of arrival at the Port of Barcelona for the purposes of incorporation into maritime operations planning, and shall also inform whether the captain holds a pilot exemption certificate.

While approaching 2 miles to fairway buoy 'S' (*Sierra*) or, if entering through the North entrance mouth, 4 miles to buoy 'N' (*November*), the vessel shall maintain a continuous listening on channel 10 VHF, while it also recommended that, if other VHF radiotelephone equipment is available, channel 14 VHF should also be monitored.

In addition, channel 14 VHF must be used to inform **'Barcelona Port Control'** of any incident during the approach that represents a significant alteration of the estimated time of arrival at the corresponding buoy.

##### 1.2. 'Port Traffic' communication.

When they are 2 miles from buoy 'S' (*Sierra*) or, if entering via the North entrance, 4 miles from buoy 'N' (*November*), vessels shall communicate again to CCS Barcelona (**'Barcelona Tráfico'**) on channel 10 VHF, and to **'Barcelona Port Control'**, channel 14 VHF, to report 'port



traffic communication' and to obtain information on port traffic situation and, when appropriate, obtain approval to start the manoeuvre and information on the coordination of technical-nautical port services.

Once in contact with '**Barcelona Port Control**' on channel 14 VHF when vessels are within a 2-mile radius of buoy 'S' (*Sierra*) or 4 miles from buoy 'N' (*November*), they must keep a continuous listening watch on channel 14 VHF, and whenever possible also on channel 10 VHF., and the procedure is as follows:

- Vessels that must not initiate the entry manoeuvre.

When no berth is available or when for any other reason the vessel cannot begin the manoeuvre and must wait to enter the port, '**Barcelona Port Control**' will notify its captain of this, indicating the possibility, where applicable, of using the anchorage and/or other relevant instructions.

If the vessel decides to anchor, it shall inform '**Barcelona Port Control**' of this, and if this manoeuvre is viable, an anchorage area assigned by that VTS centre. Once the vessel has anchored, it shall inform both '**Barcelona Port Control**' and '**Barcelona Tráfico**'.

Unless they receive instructions to the contrary from '**Barcelona Port Control**', vessels that cannot initiate the entry manoeuvre due to traffic congestion shall remain in waiting, under suitable command and able to manoeuvre, beyond the 2-mile radius of buoy 'S' (*Sierra*) or 4 miles from buoy 'N' (*November*).

- Vessels that are to enter port with a pilot on board.

The vessel shall coordinate with '**Barcelona Port Control**' to lead to the pilot's established boarding area. Once on board, the pilot will inform '**Barcelona Port Control**'. From now onwards, the vessel will keep continuous listening on channel 14 VHF, for safer sailing through the port and to receive berthing instructions or any other information of interest to the vessel.

- Vessels that are to enter port whose captains hold a Pilot Exemption Certificate.

These vessels shall contact '**Barcelona Port Control**' via channel 14 VHF to obtain information on the internal traffic of the Port of Barcelona and coordinate their approach and technical-nautical services. They shall also report the VTS service as they 'pass the buoy' when they are abeam of buoy 'S' (*Sierra*) or 'N' (*November*), and shall keep listening on channel 14 VHF during the entire manoeuvre. The vessel shall inform '**Barcelona Port Control**' once the approach manoeuvre has been completed and once the first line has been cast, and also once the mooring operations are completed.

## 2. OUTBOUND OR SHIFTING VESSELS.

### 2.1. 'One hour departure' communication.

The vessel shall inform '**Barcelona Port Control**' of its estimated time of departure or change of berth on channel 14 VHF one hour in advance.



## 2.2. 'Ready to sail' communication.

In order to coordinate the corresponding port services and provide a more precise departure request time, the vessel's captain shall confirm, using this same channel, their departure or shifting time twenty minutes in advance. This communication has to be made only once the vessel is ready to sail with all matters relating to the crew, passengers and completion of the cargo and stowing and lashing operations fixed, with all necessary documents on board and all the corresponding administrative procedures finalised. The only matters that may remain pending are batten down hatches, preparing engines and the usual checks required to sail.

The vessel must inform if any incident has occurred that would involve a significant alteration of the estimated time of departure once the 'ready to sail' communication is already given.

In addition, if the captain of the vessel is authorised to cast off without a pilot on board (granted with a Pilot Exemption Certificate) or is going to leave the anchorage point without entering port, just before starting the manoeuvre they shall report '**Barcelona Port Control**' to obtain their approval, and coordination and information of port traffic service (**Annex I**).

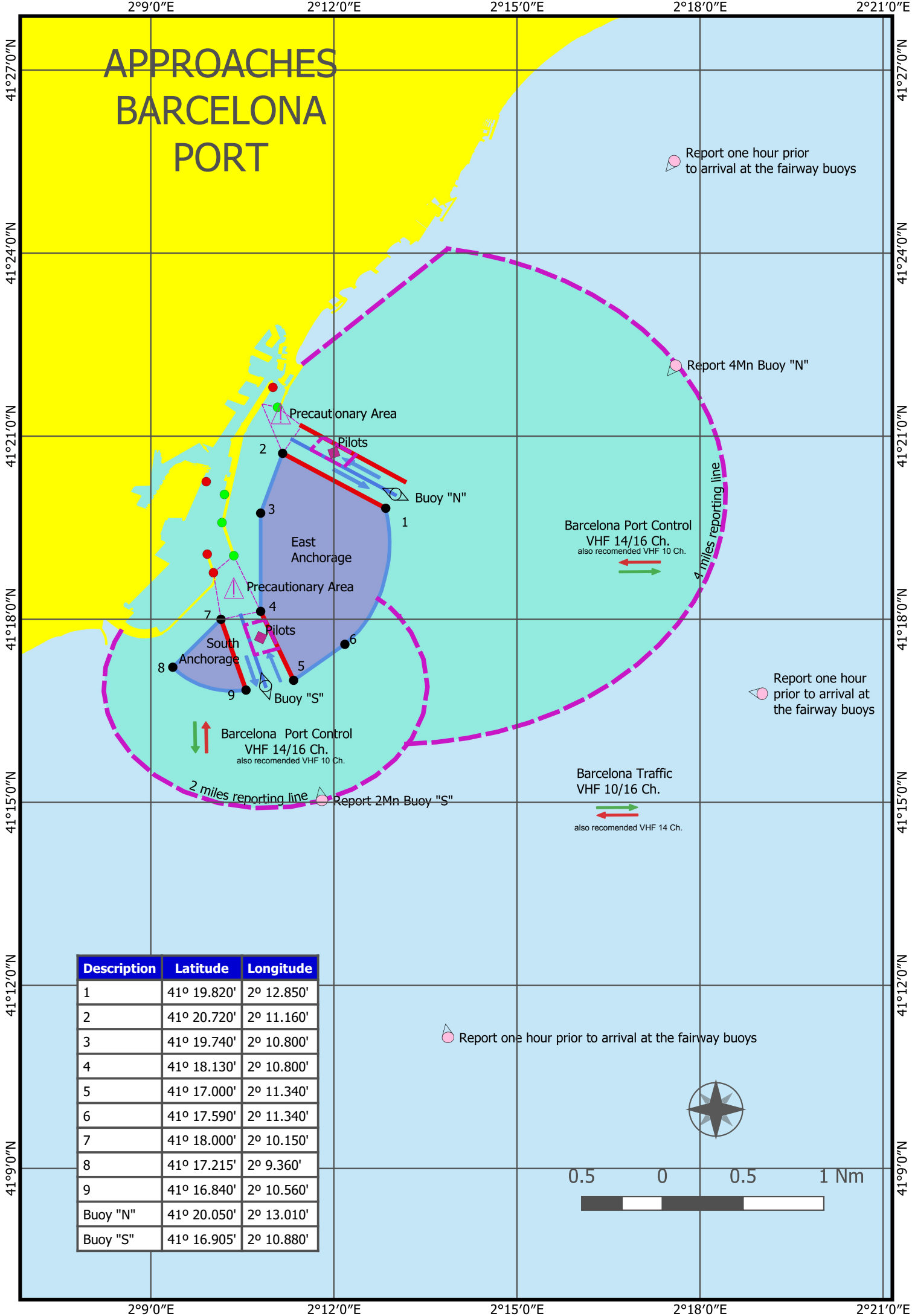
## 2.3. 'Passing fairway buoy' communication

All vessels undertaking departure manoeuvres shall continue to listen on channel 14 VHF until they have passed the corresponding fairway buoy, 'S' (*Sierra*) or 'N' (*November*), at which time they shall contact '**Barcelona Port Control**' and '**Barcelona Tráfico**' to enable the departure report and provide traffic information, continuing to listen to channel 10 VHF, '**Barcelona Tráfico**', from that time onwards, at least during the first hour of sailing.

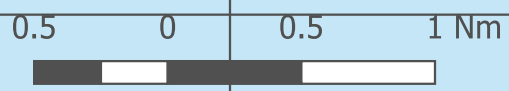
We recommend that outgoing vessels also listen on channel 14 VHF until they have moved more than 2 miles away from fairway buoy 'S' (*Sierra*) or 4 miles from fairway buoy 'N' (*November*).

Attached as an appendix to this **Annex II** is a graphic representation of the communications system indicating reporting and listening areas.

# APPROACHES BARCELONA PORT



Description	Latitude	Longitude
1	41° 19.820'	2° 12.850'
2	41° 20.720'	2° 11.160'
3	41° 19.740'	2° 10.800'
4	41° 18.130'	2° 10.800'
5	41° 17.000'	2° 11.340'
6	41° 17.590'	2° 11.340'
7	41° 18.000'	2° 10.150'
8	41° 17.215'	2° 9.360'
9	41° 16.840'	2° 10.560'
Buoy "N"	41° 20.050'	2° 13.010'
Buoy "S"	41° 16.905'	2° 10.880'





## ANNEX III

### WIND DETERMINATION CRITERIA IN THE PORT OF BARCELONA FOR MARITIME OPERATIONS

Certain maritime-port operations are often conditional upon wind conditions remaining below established threshold values. However, in most cases, there is no documented methodology as to how such values should be set.

This document sets out to clarify how such values should be determined for their general supplementary application in maritime operations.

Thus, unless not expressly stated otherwise, it shall be understood that the following criteria should be used to obtain the measurement of the wind values conditioning any maritime-port operation, procedure or regulation:

- When a wind threshold value is specified that set conditions on maritime-port operations, this value shall be understood to refer to the arithmetic average of all the intensities recorded in the previous half hour in the corresponding weather station of the Port Authority of Barcelona; likewise, that threshold value shall be considered to be exceeded as well when, during that half hour, there has been at least one maximum sustained gust exceeding that maximum established threshold value by more than 25%. A maximum sustained gust shall be obtained by the arithmetic mean of the intensities recorded in each minute.
- As a general rule, for maritime operations to be performed in the northern area of the port, the aforementioned values shall be measured in the anemometer installed in the 'Adossat' weather station located on the roundabout next to the "Porta d'Europa" bridge; for those in the southern area, it shall be the station located at the red light of the South Breakwater (Dique Sur).

The systems for reading the selected weather stations shall be programmed to present the data for average half-hourly wind and maximum sustained gust according to the established criteria, with the data being updated at least every five minutes.



## Annex IV

### MAXIMUM SAILING SPEED IN BARCELONA PORT WATERS (SPEED RESTRICTION).

The following reference limit values are established for sailing speeds in port waters in the following areas:

#### **1. Zone I, or inner area of the port waters.**

In the confined water areas (Zone I) of the Port of Barcelona, the maximum speed limit is set at six (6) knots, with the following exceptions:

- In the area including the channel of the North Entrance\*, in accordance with the Local Sea Zones Terminology approved by the Board of Directors of the Port Authority of Barcelona in plenary session of 29 May 2013, the maximum speed limit is set at eight (8) knots.
- At the South entrance, in the area of the main channel\* which would be delimited by the South entrance and abeam of the green lateral signal of the breakwater of the basin where operates the Maritime Service of the 'Guardia Civil', or up to two cables before the first docked vessel, whichever occurs first, the maximum speed limit is set at eight (8) knots.

These reference values shall apply to inbound, outbound and shifting manoeuvres, albeit with the particulars set out in the By-law.

#### **2. Zone II, or open sea area of the port waters.**

The following maximum speed limits are established in the outer approach channels and precautionary areas of both entrances:

- The speed of vessels calling at the Port of Barcelona, once they are abeam of the fairway buoys, must not exceed fifteen (15) knots, or twenty-five (25) knots for vessels classified as high-speed; these speeds must be gradually reduced in any case in order to respect the effective speed limits established for the inner port waters and to facilitate, when appropriate, the provision of port services for pilotage and towing.
- Vessels leaving the Port of Barcelona, once the port entrance has been passed, and when appropriate, once the Pilot has disembarked and the tow lines are released, can increase speed gradually until they reach a speed abeam of the buoy of a maximum of fifteen (15) knots, or twenty-five (25) knots for vessels classified as high-speed.

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\* A vessel shall be considered to be within a given maritime zone when the entire length of that vessel has entered the zone.





## Annex V

### UNDER KEEL CLEARANCE (UKC). DETERMINATION OF MAXIMUM ADMISSIBLE DRAUGHT.

Minimum under keel clearance means the minimum clearance available between the deepest point of the ship's hull, or the deepest part of the vessel, and the bottom, to guarantee the safety and control of the vessel's manoeuvrability.

This clearance includes the safety margins corresponding to the uncertain factors related to the vessel, the bottom and the water level, and in particular the following local aspects have been taken into account:

- Nature of muddy/sandy sea bed prevailing in the port.
- Accuracy and frequency in obtaining bathymetric data. In this connection, Barcelona Port Authority shall update the bathymetric data every six (6) months resulting from the precise measurements taken periodically, sending these data to the Pilots' Corporation of Barcelona and the Local Maritime Administration's Office.
- Knowledge of the port's maritime climate and reliability of the prediction and measurement of sea level.

Thus, and taking into account the speed limitation inherent to the vessel's manoeuvring area, the following applicable values are determined for the minimum under keel clearance in the waters of the Port of Barcelona under normal weather conditions:

#### **MINIMUM UNDER KEEL CLEARANCE. UKC.**

For the South section of the port (in accordance with the Local Sea Zones Terminology approved by the Board of Directors of the Port Authority of Barcelona in plenary session of 29 May 2013):

##### ➤ **Vessel sailing on the '*Canal Principal Bocana Sud*' area:**

The higher of the following values:

- 12% of the vessel's static draught.
- 1.2 metres.

##### ➤ **Vessel sailing on the '*Canal Principal del Dic de l'Est*' area:**

The higher of the following values:

- 9% of the vessel's static draught.
- 1.0 metre.





➤ **Vessel sailing on confined waters different to the previous zones (Zone I - rest of channels and docks):**

The higher of the following values:

- 6% of the vessel's static draught.
- 0.65 metres.

➤ **In the berthing area:**

The higher of the following values:

- 4.5% of the vessel's static draught.
- 0.45 metres.

For the North section of the port (in accordance with the Local Sea Zones Terminology approved by the Board of Directors of the Port Authority of Barcelona in plenary session of 29 May 2013):

➤ **Vessel sailing on the '*Canal de Bocana Nord*' area:**

The higher of the following values:

- 12% of the vessel's static draught.
- 1.2 metres.

➤ **Vessel sailing on the '*Paso de la Bocana Nord*' area:**

The higher of the following values:

- 9% of the vessel's static draught.
- 1.0 metre.

➤ **Vessel sailing on confined waters different to the previous zones (Zone I - rest of channels and docks):**

The higher of the following values:

- 6% of the vessel's static draught.
- 0.65 metres.

➤ **In the berthing area:**

The higher of the following values:

- 4.5% of the vessel's static draught.
- 0.45 metres.





## DETERMINING THE MAXIMUM ALLOWABLE DRAUGHT OF VESSELS IN PORT WATERS.

As a general rule, the maximum allowable draught for a vessel intending to dock at a given quay will result from applying the minimum clearances over the corresponding sea bottom areas in which the vessel is expected to sail during its entry or exit manoeuvre. All of the above, in relation to the bathymetric sounders of these zones, referenced to the zero of the recording tide-gauge (known as zero REDMAR) of the Port of Barcelona.

Additionally, in those exceptional circumstances where manoeuvres are considered that involve vessels with a draught over the established maximum, the technical services of Barcelona Port Authority may approve manoeuvres for vessels above the maximum draught when justified, after a specific risk assessment of each case and having heard the views of the Barcelona pilots.

In cases in which the shallow area or areas are small and are clearly located, the technical services of Barcelona Port Authority may avoid taking these into consideration for the calculation of the maximum allowable draught of the vessel, provided that it is agreed, after consulting the Port of Barcelona Pilots' Corporation, that the manoeuvre can avoid the approach to these areas, either generally or as a one-off under certain conditions.

In the case of vessels whose maximum draught on arrival is expected to be 13 metres or over, according to the agent's prior information, the vessel's Captain shall declare in writing, prior to arrival, the precise maximum draught of the vessel, to enable authorisation prior to the port call and the allocation of a berthing dock by Barcelona Port Authority.

