



Information for Masters and PEC Holders 2016

OPS017 v5



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Introduction

This Information for Shipmasters booklet is produced to aid the mariner in preparing and conducting the safe transit of his ship through the Harwich Haven Authority's area. The various rules and operational guidelines are reproduced here so that the mariner can have access to them in one publication. The mariner should be aware that these rules and guidelines are subject to changes which will be advised by Local Notices to Mariners, Port Information Notices and Harwich VTS. Details of changes can also be obtained by reference to the Authority's website, www.hha.co.uk.

Mariners bound to the ports of Felixstowe, Harwich International Port, Ipswich, Harwich Navyard, and Mistley are recommended to read the relevant port information guides.

British Admiralty charts covering the Harwich VTS area are: 1183, 1594, 2052, 2693, and 1491.

Harwich Haven Authority

Harwich Haven Authority (HHA) is a public trust Harbour and Pilotage authority, with local legislative powers provided by public statute. The Authority is responsible for the navigational safety and traffic regulation of all vessels bound to and from the Haven Ports of Felixstowe, Harwich International, Harwich Navyard, Ipswich, and Mistley.

All regulated vessels arriving at or sailing from the Haven Ports, or on passage through the Harwich Seaward Area, must report to Harwich Vessel Traffic Service (VTS). The Reporting Procedures are set out in Appendix 2 of the General Directions For Navigation 2016.

The Authority provides a Pilotage Service for all vessels visiting the Haven Ports or anchorages. In addition, it provides Pilot boarding or landing services at the Sunk Pilot Station for the Port of London, Medway, Brightlingsea and River Crouch/Creeksea. Mariners approaching or entering the Sunk Precautionary Areas marked on current Admiralty charts are subject to Sunk VTS Rules approved by the U.K. Maritime and Coastguard Agency, who are the competent authority. Mariners are cautioned that the Sunk Pilot Station is considered a high-risk traffic area.

Harwich Haven Authority Harbour Master

The Harbour Master has statutory powers to regulate commercial and leisure vessels within the HHA Area of Jurisdiction. He is responsible for enforcing local Byelaws and General Directions, and can issue a Special Direction to the master of any ship within his jurisdiction for the purposes of Navigational Safety or Traffic Regulation. (Harwich Harbour Act, 1974 – Section 33). The powers of the Harbour Master are also delegated to specifically authorised Deputies and Assistants, including Harwich VTS Officers.

1. Pilotage exemption certificate requirements
 - 1.1. Issue of pilotage exemption certificates
 - 1.1.1. Any vessel subject to compulsory pilotage as laid down in the Pilotage Directions 2016 must be in the charge of an Authorised Pilot or an authorised holder of a valid Pilotage Exemption Certificate (PEC) when navigating within the Haven Ports Pilotage Area (“the Compulsory Area”).
 - 1.1.2. Bona fide Masters and Deck Officers of ships may apply for and be issued with Pilotage Exemption Certificates for the Compulsory Area, or for specified parts of the Area, subject to qualification both by examination and experience in the appropriate parts of that Area.
 - 1.1.3. There are two classes of Exemption Certificates, and each may include one or more of the PEC areas.
2. Pilotage exemption certificate – areas
 - 2.1. Exemption Certificates may be granted for one or more of the following areas:
 - 2.1.1. Area “F”: Felixstowe and as far up the River Orwell as the Felixstowe berths continue.
 - 2.1.2. Area “H”: Harwich including all berths between Harwich Navyard and Trinity Pier.
 - 2.1.3. Area “P”: Parkeston, including all berths at H.I.P and Parkeston anchorage.
 - 2.1.4. Area “I”: River Orwell / Ipswich from Harwich Harbour up the River Orwell to, and including, the berths at Ipswich.
 - 2.1.5. Area “M”: Mistley Quay and as far up the River Stour, as commercial navigation is possible.
3. Pilotage exemption certificate minimum tripping requirements for examination and revalidation
 - 3.1. Examination
 - 3.1.1. Qualification Passages shall be undertaken under the supervision of a qualified PEC Holder or Pilot.
 - 3.1.2. Practical Assessments must be undertaken under the supervision of a qualified Pilot.
 - 3.1.3. At least 2 qualifying or assessment should be at night.
 - 3.1.4. At least 1 of the assessment trips should be undertaken under Blind Pilotage conditions.
 - 3.1.5. PEC Applicants must complete the training induction and Harwich VTS familiarisation visit prior to undertaking qualifying passages.
 - 3.1.6. The number of required passages for the initial issue and/or renewal of a PEC may be increased at the discretion of the Harwich Haven Authority (Pilotage Authority), for any vessel if the nature of her physical configuration, or of her cargo, dictates the need for greater experience and/or expertise.

- 3.1.7. With regard to completing the required number of passages for renewal of a PEC, the Master and Deck Officers qualify for a piloted passage provided they are on the bridge of their ship for the duration of a passage through the Pilotage Area detailed on their respective PECs, irrespective of which of them is undertaking the pilotage act.

3.2. Tripping requirements

Area	LOA		Type	Application - passages within the last 12 months.						Revalidation – passages in last 12 months	
	Min	Max		Class	In	Out	Tug	VTS	Total	Total	Inter-view
F, H, I, M, P	50	100	Non Hazardous	B	2	2	1	1	10	4	Yes
P, F, H, M	50	120	All	A	2	2	1	1	12	12	Yes
F, H, P	120	150	All	A	2	2	1	1	24	12	Yes
F, H, P	150	999	Cargo Ro-Ro (Frequent callers)	A	2	2	1	1	24	12	Yes
I	100	120	All	A	2	2	1	1	20	12	Yes
I	120	140	All	A	2	2	1	1	24	12	Yes
I	140	150	All	A	2	2	1	1	30	12	Yes
I	50	100	Passenger Vessels	B	2	2	1	1	20	4	Yes
F, H, I, M, P	50	100	Dredger	B	1	1	-	1	8	4	Yes
F, H, I, M, P	100	999	Dredger	A	1	1	-	1	12	6	Yes
F, H, I, M, P	0	50	Nominated Hazardous	B	2	2	-	1	8	4	Yes

4. Classes of exemption certificates

4.1. Class A

- 4.1.1. Applies to vessels of over 100 metres in length overall and to Nominated Hazardous vessels between 50 metres and 100 metres in length overall.

- 4.1.2. For initial issue the applicant will need to be successful in an examination covering the areas for which he has applied and the detailed requirements which are laid out in the syllabus for examination. Prior to the examination, the applicant must have completed the minimum number of single trips through the area(s) for which he is being examined and have completed the required number of assessment trips, one of which shall be conducted under Blind Pilotage conditions, Harwich VTS and towage familiarisation visits are to be undertaken.

4.2. Class B

- 4.2.1. Applies to vessels of between 50 metres and 100 metres in length overall, but not Nominated Hazardous vessels, unless formal confirmation is received that the vessel has non-hazardous cargo and is certificated gas free on board at the time or unless the vessel is under 50m in length.
- 4.2.2. For initial issue the applicant will need to be successful in an examination covering the areas for which he has applied and the requirements laid out in the syllabus for examination. Prior to examination the applicant must have completed the minimum number of single trips through the area(s) for which he is being examined, together with the required minimum number of assessment trips, Harwich VTS visit and towage familiarisation visits are to be undertaken.

4.3. Nominated Hazardous Vessels Endorsement Restriction

- 4.3.1. Class B Pilotage Exemption Certificates are not valid for Nominated Hazardous Vessels carrying hazardous cargoes (as listed below) unless the vessel is under 50m in length.
 - 4.3.1.1. Liquefied Gas Carrier

A liquefied gas carrier constructed or adapted for the carriage of liquefied gas in bulk.
 - 4.3.1.2. Tanker

A vessel constructed or adapted for carriage of liquid bulk dangerous cargoes with flammable or toxic properties
 - 4.3.1.3. Explosive Vessel

A vessel carrying explosive substances classified as Class 1.1, 1.2 or 1.3 in the IMDG Code of which the cumulative net explosive quantity exceeds 50 tonnes.
 - 4.3.1.4. EPC-UK Vessel

A vessel carrying explosive substances classified as Class 1.1, 1.2 or 1.3 in the IMDG Code to or from the EPC-UK jetty.
 - 4.3.1.5. Any other vessel, which the Harbour Master considers, should be classed as a nominated hazardous vessel due to the particular nature of her cargo.

4.3.2. Dredging Endorsement Restriction

4.3.2.1. Class A and B Pilotage Exemption Certificates with a dredging endorsement are only valid for vessels defined as dredger

4.3.2.2. Dredger means any vessel, whether self-propelled or not which is engaged in dredging, excavating, raising, pumping, eroding or dispersing silt, sand, clay, stone, rock, or any other material.

5. Obligations and requirements of PEC holders

- 5.1. Each Pilotage Exemption Certificate granted to any Master or Deck Officer shall be endorsed with the name and description of every vessel, which he/she is, authorised to pilot and any endorsement restrictions.
- 5.2. The holder of a Pilotage Exemption Certificate shall not allow any other person to have possession of his/her Pilotage Exemption Certificate for the improper use thereof.
- 5.3. The holder of a Pilotage Exemption Certificate who observes any alteration that may affect the safety of navigation in the area of exemption shall immediately inform Harwich Haven Authority and/or Ipswich Port Authority.
- 5.4. The holder of a Pilotage Exemption Certificate having conduct of a vessel which has touched the ground, or has been in collision with any other ship or any fixed or floating object in the area of exemption shall report the occurrence immediately and send a written report of the circumstances to Harwich Haven Authority within thirty days.
- 5.5. The holder of a Pilotage Exemption Certificate shall, in obedience to a summons by Harwich Haven Authority, attend to answer any complaint or charge which may be made against him/her for misconduct. This includes any non-compliance with the General Directions of Navigation or in respect of any marine casualty which may have occurred whilst in charge of his/her vessel in the area of exemption.
- 5.6. A Pilotage Exemption Certificate shall remain in force for one year but may be renewed annually pursuant to Section 8(5) of the Pilotage Act 1987.
- 5.7. A Pilotage Exemption Certificate shall not be renewed unless the holder has made sufficient visits as determined by the Authority to the exemption areas stated on the certificate during the previous twelve months, holds a valid marine qualification applicable to his/her rank and medical certificate and satisfied the Authority as to the holder's continued knowledge with regard to any changes in navigation or regulations for the exempted areas held and the holder has attended a renewal interview. PEC Holder will be required to undertake an assessment trip by an authorised pilot at intervals not exceeding 5 years.

6. PEC training and examination

Masters or Deck Officers of vessels applying for a Pilot Exemption Certificate for the compulsory area or any specified part thereof, shall follow the training and examination schedule as detailed in this section:

6.1. PEC application induction

PEC Applicants, shall, on submission of PEC Application, attend Harwich Haven Authority to undertake:

6.1.1. Induction into PEC Training and Examination Schedule

6.1.2. Harwich VTS familiarisation visit

6.2. PEC examination

PEC Applicants shall maintain a training record log, itemising tripping records, assessment passages and familiarisation visits. Shall have undertaken study in all aspects of the syllabus and ensure preparation prior to examination. The applicant for such a Certificate shall satisfy the Authority as to:

6.2.1. Current professional qualifications

6.2.2. Current Medical Certificate

6.2.3. Completion of PEC Training Record Log

6.2.4. Completion of the induction, minimum tripping, assessments and familiarisation required

6.2.5. Adequate knowledge (as required) of all Local, National and International Regulations applicable to the Authority's Area.

6.2.6. Adequate detailed knowledge (as required) of the Authority's Area

6.2.7. Adequate competence of pilotage/shiphandling

6.2.8. Adequate command of the English language

6.2.9. Submission of the vessel's inward/outward Passage Plan

6.3. PEC training record log

6.3.1. Applicants must enter all qualifying passages in the training record log as evidence of the minimum tripping requirements, pilot assessments and familiarisation visits.

6.3.2. Each qualifying passage entry must include the date, where the passage was from and to, whether a night or day passage and the tidal, weather and traffic conditions at the time of the passage.

6.3.3. The supervising Licensed PEC or Pilot for that passage must sign each entry (including license number).

6.3.4. A PEC Assessment form completed by the Pilot or tug skipper must be provided for each assessment passage and tug familiarisation visit.

6.4. Blind pilotage passage

6.4.1. One of the Pilot assessment passages must be completed under blind pilotage conditions.

6.4.2. Applicants must ensure that sufficient practice of these techniques is undertaken during the qualifying passages prior to assessment.

6.4.3. It is reliant on the applicants to fully participate, in order to achieve a benefit from simulated blind pilotage passages.

6.5. Pilot assessments

6.5.1. Pilot assessments will only be undertaken if the assessing pilot considers the vessel and conditions suitable at the time.

6.6. Syllabus for PEC - Class A

Applicants for Pilotage Exemption Certificates Class A will be expected to:

6.6.1. Module 1 – Regulations

Demonstrate a working knowledge of the following:

6.6.1.1. Limits of the Compulsory Area of the specified part thereof, for which application is being made.

6.6.1.2. General Navigation within the Authority's Area.

6.6.1.3. International Regulations for Preventions Collisions at Sea.

6.6.1.4. International Association of Lighthouse Authorities (IALA) Maritime Buoyage (System A).

6.6.1.5. General Directions and Byelaws.

6.6.1.6. Communications procedures.

6.6.1.7. Local Notices to Mariners.

6.6.1.8. Marine Guidance Notices issued by the MCA relating to Pilotage.

6.6.2. Module 2 – Compulsory area

6.6.2.1. Demonstrate a detailed knowledge of the following:

6.6.2.2. The names and characteristics of buoys, beacons, and other navigational aids.

6.6.2.3. The names of channels, fairways, reaches, points, headlands and shoals in the Area.

6.6.2.4. Approximate width of navigation channels and fairways.

6.6.2.5. The bearing and distance from one buoy to another on each side of the channel.

6.6.2.6. The fairway courses and distances in the Area.

- 6.6.2.7. Depths of water throughout the Area, particularly at buoys and other navigational marks; the use of sounding equipment and anticipated under-keel clearances; charted depths at all berths.
- 6.6.2.8. The set, rate, rise and duration of the tides and the use of tide tables.
- 6.6.2.9. Clearing marks for shoals and points visually by day or night and by radar.
- 6.6.2.10. Significant radar pattern of aids to navigation.
- 6.6.2.11. The names of the anchorages, their positions, use and limitations.
- 6.6.2.12. Channels and fairways available in an emergency.
- 6.6.2.13. Limitations, restrictions and likely handling characteristics of other ships using the harbour.
- 6.6.2.14. VHF channels and communications procedures;
- 6.6.2.15. Special local signals such as tidal, weather and traffic signals, and lock entrance procedures.
- 6.6.2.16. Local emergency plans and procedures.
- 6.6.2.17. Any other relevant information at the discretion of the Examiners.

6.6.3. Module 3 – Pilotage

Demonstrate practical knowledge of the following:

- 6.6.3.1. Ship-handling characteristics of own ship.
- 6.6.3.2. Vessel Traffic Service types (Information, Organisation).
- 6.6.3.3. Operating with tugs, communications and precautions.
- 6.6.3.4. Critical areas of navigation, escape depths and contingency planning.
- 6.6.3.5. General traffic movement and patterns to the various berths and wharves.
- 6.6.3.6. Manoeuvring problems associated with vessels berthing and unberthing.
- 6.6.3.7. Navigational Assistance Service.
- 6.6.3.8. Passage Plans and VTS Sailing Plans.

6.7. Syllabus for PEC – Class B

Applicants for Pilotage Exemption Certificates Class B will be expected to:

6.7.1. Module 1 – Regulations

Demonstrate a general competence in the following:

- 6.7.1.1. Principal General Directions for Navigation.
- 6.7.1.2. International Regulations for Preventing Collisions at Sea.

6.7.2. Module 2 – Compulsory area

Demonstrate a general competence in the following:

- 6.7.2.1. VHF working channels, services and general communications procedures.
- 6.7.2.2. Services provided by Harwich VTS.
- 6.7.2.3. Relevant local Notices to Mariners.
- 6.7.2.4. Principal channels, berths and anchorage's with working depths, local geographical features, general direction of tidal streams and range of tide.
- 6.7.2.5. Courses and distances along principal routes used by the vessel.
- 6.7.2.6. Buoy patterns, especially on radar, principal lighted buoys with characteristics.
- 6.7.2.7. Emergency Procedures.

6.7.3. Module 3 – Pilotage

Demonstrate practical knowledge of the following:

- 6.7.3.1. Ship-handling characteristics of own ship.
- 6.7.3.2. Passage Plans and VTS Sailing Plans.
- 6.7.3.3. Traffic patterns to and from Haven ports.
- 6.7.3.4. Operating with tugs - precautions, communications, etc.
- 6.7.3.5. Vessel Traffic Service types (Information, Organisation).
- 6.7.3.6. Navigational Assistance Service.

6.8. Examination notes

- 6.8.1. Ensure good knowledge of Byelaws, General Directions, Pilotage Directions and Local Notices to Mariners.
- 6.8.2. Pilotage should be prepared both inwards and outwards, referring to both port and starboard side of the route in the following format:

Buoy name, colour, shape, light characteristic, course and distance to next waypoint.

e.g. "From HA Buoy, a red and white buoy, isophase 5 seconds, course 260°, distance 2.2 miles, to No. 1 Buoy, a yellow buoy with flashing yellow light 2.5 seconds, fitted with a racon (T), then course"
- 6.8.3. Ensure a good knowledge of the tugs that are available in the harbour and how you would use them.
- 6.8.4. Ensure a good knowledge of depths outside the channel that can be used by your vessel if it is necessary to leave the channel in an emergency

- 6.8.5. Ensure a good general knowledge of the area, particularly concerning the points at which vessels may join your track and their reporting points.
- 6.8.6. All examinations will be conducted in the English language, with particular attention being given to the need for applicants to clearly understand, and be understood, in relevant communications procedures.
- 6.8.7. The examinations shall be held under the same conditions as examinations for Pilots' Authorisations and be dependent on the availability of the examination panel.
- 6.8.8. If an applicant fails to pass the examination, the applicant will be referred for a period determined by the examination panel.

6.9. Fees

The charges for examination and administrative procedures associated with the issue and renewal of PECs shall be subject to annual review and published in the Authority's Schedule of Conservancy Dues and Pilotage Charges.

7. Renewal of PECs

- 7.1. A Pilotage Exemption Certificate shall only be renewed on submission of a current medical certificate, evidence of the required revalidation passages and attendance at an annual interview.
- 7.2. In instances where the renewal criteria has not been achieved the Harwich Haven Authority (Pilotage Authority) may require additional Pilot assessment or re-examination depending on the circumstances.
- 7.3. Applications for renewal of a PEC must be made on Form HHA.PEC.008.
- 7.4. Completed forms must reach HHA at least two weeks prior to the renewal date.
- 7.5. Late application may result in the PEC being suspended.

8. Additions to pilot exemption certificates and changes to vessel characteristics

- 8.1. The addition of a new PEC Area to a PEC will require the PEC Holder to undertake the tripping and assessments requirements and examination for that area, depending on existing experience and areas currently held.
- 8.2. The addition of vessels or change of vessel's characteristics to a PEC will require the PEC Holders to undertake pilotage assessment depending on vessel types and class to satisfy competence for that class of vessel.
- 8.3. The HHA Harbour Master or his Deputy having satisfied himself that the applicant has met all PEC pre-requisites, will issue or renew a Pilotage Exemption Certificate.
- 8.4. If suspension or revocation becomes necessary, the Harbour Master or his Deputy will make that decision.

9. Appeals

9.1. Process

- 9.1.1. The Pilotage Act 1987 provides a right for an applicant to make representation in the event of a refusal to grant, renew or alter a PEC and in the event of a suspension or revocation of a PEC.
- 9.1.2. In the event of a refusal to grant an initial PEC the Harbour Master will inform the applicant of the reason(s). The applicant may then make representation to the Chief Executive Officer. The Chief Executive Officer will meet with the Harbour Master to discuss the representation and decide whether to uphold the rejection or grant the PEC.
- 9.1.3. If, having received a renewal application, the Harbour Master is not satisfied that the PEC holder continues to satisfy the criteria laid down for possession of a PEC he will suspend or revoke the PEC and inform the holder of the reason(s). The holder will be given a month in which to make representation to the Chief Executive Officer.
- 9.1.4. The PEC will remain valid until representation is made and considered by the Chief Executive Officer or for one month if no representation is made within that period.
- 9.1.5. If no renewal application is received from a PEC holder the PEC will be cancelled automatically on the renewal date. The Harbour Master will inform the holder accordingly and advise him/her of the right to make representation, within one month, for consideration by the Chief Executive Officer.
- 9.1.6. In all cases the decision of the Chief Executive Officer will be final.

10. Harwich vessel traffic services (Harwich VTS)

Harwich Vessel Traffic Service (Harwich VTS) is operated from Harwich Operations Centre on a continuous 24-hour basis to provide a safe and efficient regime for vessel traffic, and protection for the environment. Harwich Operations Centre also provides the co-ordination and communications centre for the Haven Ports Pilotage Service, and the pilot boarding and landing activities at the Haven (Inner) Pilot Station and the Sunk (Outer) Pilot Station.

Harwich VTS is Designated by the MCA and operated in accordance with International and UK legislation.

Harwich VTS provides Traffic Organisation and Navigational Assistance Services with the authority of the Harbour Master. Failure, without good cause, to obey an instruction given by Harwich VTS with the purpose of preserving marine safety, may constitute an offence.

10.1. Harwich VTS area

The Harwich VTS Area is that of the Harwich Haven Authority's area of jurisdiction encompassing "the harbour" and "the Harwich seaward area" as described in the Harwich Harbour Act 1974 as amended and marked on BA chart 2052 and the chartlet provided in the Pilotage Directions 2016.

10.2. Appointment of Authority

Harwich Haven Authority is the Competent Authority for the Harwich VTS area responsible for marine safety, including environmental safety, and efficiency of vessel traffic and the protection of the environment.

Harwich Haven Authority is the VTS Authority for Harwich VTS responsible for the management, operation and co-ordination of the VTS, inter-action with participating vessels and the safe and effective provision of the service.

Harwich VTS is operated in accordance with the Authority's operational procedures, national and international laws and conventions:

10.2.1. IMO Resolution A.857(20)

10.2.2. IALA Recommendation V103

10.2.3. MGN 401 and 434

10.3. VTS Details

- 10.3.1. **Call:** Harwich VTS
- 10.3.2. **MMSI:** 002320025
- 10.3.3. **Location:** Harwich Operations Centre
- 10.3.4. **Telephone:** +44(0)1255 243000
- 10.3.5. **Fax:** +44(0)1255 507177
- 10.3.6. **E-mail:** harwich.vts@hha.co.uk
- 10.3.7. **Website:** www.hha.co.uk
- 10.3.8. **Frequency:** Ch 71, 09, 11, 20
- 10.3.9. **Hours:** H24
- 10.3.10. **Times:** All times should be given in local time

11. VTS rules

The General Directions for Navigation 2016 together with the various ship and port procedures are the VTS Rules for the Harwich VTS Area, these are reproduced in this guide and are to be obeyed by all vessels.

12. VTS services

Harwich VTS provides 3 services-

12.1. Traffic information service

Harwich VTS provides traffic information, in support of the vessel's own port passage plan, to ensure that essential information becomes available in time for on-board navigational decision making.

Traffic information shall consist of the following elements:

12.1.1. Vessel Traffic: Identity, position, intentions and/or destination.

12.1.2. VTS Area: Navigational warnings, Port operations, any other relevant information.

12.1.3. VTS Environment: Weather, tide, visibility.

12.2. Traffic organisation service

Traffic Organisation Service means a service provided by Harwich VTS to prevent the development of dangerous maritime traffic situations, and to provide for the safe and efficient movement of vessel traffic within the Authority's area.

Traffic Organisation will be undertaken when deemed necessary by Harwich VTS to ensure the safe and efficient movement of vessels within the Authority's area.

12.2.1. Traffic instructions

The Master of every vessel shall comply with traffic instructions issued by Harwich VTS. Such instructions will be result orientated only. It shall be a defence to the Master of a vessel not to comply if he has reasonable grounds for supposing that compliance with the Instruction would be likely to imperil his vessel, or that in the circumstances compliance was impracticable. When Harwich VTS issues instructions to vessels, these instructions will be result orientated only, leaving the details of the execution, such as course steered or engine manoeuvres to be executed, to the Master or Pilot on board the vessel.

12.3. Navigation Assistance Service

Navigational Assistance Service by means of VHF radio and radar information will be made available by Harwich VTS when deemed necessary to ensure the safety of navigation and protection of the environment within the Authority's area. A Requested Navigational Assistance Service may also be supplied in specific circumstances such as adverse weather, restricted visibility, variation from standard pilotage or emergency.

Harwich VTS provides two types of Navigational Assistance depending on circumstances and conditions.

12.3.1. Observed Navigational Assistance means a service provided by Harwich VTS of factual navigational information to assist the onboard decision making process, when deemed necessary to ensure the safety of navigation and protection of the environment within the Authority's area.

12.3.2. Requested Navigational Assistance is the supply of Navigational Information and Advice to a specific vessel in defined circumstances and conditions provided by a qualified Designated Officer (Class 1 Haven Pilot/Duty Officer) working as a member of the Harwich VTS team.

12.3.3. Supply of Navigational Assistance is provided to aid the decision making of those conning the vessel and does not relieve the Master from his responsibility for the navigation of his vessel.

12.4. Restricted visibility regulations

When visibility is restricted to 5 cables or less in any part of the Harwich Haven Authority's area, the following regulations are to be followed: -

12.4.1. One way traffic flow

Following an Information Warning Broadcast on VHF 71 made by Harwich VTS stating that Restricted Visibility One-Way Traffic Regulations are in operation, The Master of every regulated vessel shall comply with a one-way traffic flow in the navigable channels West of a line through the Platters buoy and the Pitching Ground buoy.

12.4.2. VHF discipline

Harwich VTS (which is responsible for VHF discipline at all times) will exercise particular vigilance concerning VHF discipline during Restricted Visibility Regulations.

Vessels alongside shall exercise extreme caution when communicating with a vessel underway.

12.4.3. Vessel speed

Harwich VTS shall monitor that all vessels are proceeding at a safe speed in the prevailing circumstances and conditions.

12.4.4. Vessel separation

Every regulated vessel underway in a navigable channel shall not overtake or close within 5 cables of another vessel in the same direction.

12.4.5. Movement of vessels

No vessel shall leave her berth, anchorage or mooring or navigate within the Authority's area without permission from Harwich VTS.

12.4.6. Yacht track

Vessels of suitable draft may use the two-way Recommended Track for Yachts with the permission of Harwich VTS, as an escape route from the main channel.

12.4.7. Non-operational radar

Except as expressly permitted by the Harbour Master, any regulated vessel which is not fitted with radar equipment in satisfactory working order will not be permitted to navigate through the Authority's Area in conditions of restricted visibility. Vessels must be directed to the outer anchorages or to remain alongside if Harwich VTS has reason to believe that they may not be equipped to transit the harbour safely.

12.4.8. Nominated hazardous vessels

The Harbour Master may restrict or forbid the movement of Nominated Hazardous Vessels.

12.5. Vessels with equipment or navigational problems

In any circumstances, where it is detected a vessel may cause risk to the safety of navigation or environment within the Authority's area, the Duty Officer must be informed immediately. The Duty Officer has a duty under section 10 of the Harwich Harbour act 1974 to take whatever action necessary in the circumstances and conditions to ensure the safety of navigation and protection of the environment.

12.5.1. Any Navigational Assistance provided to vessels with equipment failure or navigational problems will be limited to placing the vessel in a stable situation, e.g. in a safe anchorage clear of channels.

12.5.2. If Navigational Assistance is being given to a vessel in difficulty without a Pilot or PEC holder on board the Duty Officer is to dispatch a Pilot to the vessel as quickly as possible.

12.6. Navigational assistance warning message

12.6.1. Harwich VTS shall provide a Navigational Assistance Warning Message to any vessel appearing to be standing into danger and supply navigational information required to place the vessel in safety.

12.6.2. The Master of every vessel on receiving a warning or navigational information from Harwich VTS shall confirm his vessel's position, course and speed in relation to the warning or information given.

12.7. Navigational information

12.7.1. Navigational information should include only factual information such as courses and speeds over the ground, vessel position in latitude/longitude or relative to a fairway axis, bearing and distance to navigational marks. To indicate that the information is factual and provided by the VTS equipment, all information shall be prefixed "according to our equipment".

12.7.2. On detection of a vessel varying from her passage plan or recognised route, Harwich VTS shall provide navigational information (vessel's position, course and speed over the ground) to the vessel and confirm the vessel's intentions.

12.8. Procedure for providing requested navigational assistance

Requested Navigational Assistance means a service provided by Harwich VTS of navigational information and advice as part of the on-board decision making process, when requested in defined circumstances and conditions.

Requested Navigational Assistance may also be provided under any circumstance or condition where the Duty Officer considers it necessary to fulfill the Authority's duties under section 10 of the Harwich Harbour act 1974 to ensure the safety of navigation and protection of the environment.

12.8.1. Any navigational advice provided shall be prefixed "Advice".

12.8.2. Circumstances for providing Requested Navigational Assistance.

12.8.2.1. Adverse weather (Definition Guidelines)

Boarding and landing is suspended at the Sunk Pilot Station and vessels which would normally use that pilot station are requesting to board or land at the Haven pilot station instead.

12.8.2.2. During periods of reduced visibility (Definition Guidelines)

Any condition in which visibility is restricted to less than 0.5 nautical miles in any part of the Authority's Area.

12.8.2.3. Variation to standard pilotage procedures (Definition Guidelines)

Boarding and Landing is suspended at the Sunk and Haven Pilot Stations and the pilotage service is operating on an individual basis at an inner position dictated by the prevailing circumstances and conditions.

12.8.2.4. Emergency or other situations (Definition Guidelines)

In the event of a major marine, environmental, security incident or other situation, the Duty Officer requires the additional support of a Haven Pilot.

12.8.3. Conditions for providing Requested Navigational Assistance

12.8.3.1. In reduced visibility a request will normally only be considered if a Pilot or PEC Holder is on board.

12.8.3.2. The suitability of the vessel including its type, draft and traffic conditions are to be agreed by the Duty Officer, Designated Officer and vessel's Master.

12.8.3.3. Additional conditions if no Pilot or PEC Holder is on board:

12.8.3.4. The Master is to have good command of English.

12.8.3.5. The Vessel is to confirm that adequate up to date charts are on board and that all navigation equipment is functioning correctly.

12.8.3.6. The Vessel is to confirm that there are sufficient and suitably positioned VHF sets on bridge along with radar(s).

12.8.4. Procedures for providing Requested Navigational Assistance

12.8.4.1. Only one vessel may be assisted by a Harwich VTS Designated Officer at any given time.

12.8.4.2. An exclusive VHF channel will be assigned by Harwich VTS (normally VHF Ch 20)

12.8.4.3. Harwich VTS shall record and broadcast on VHF channel 71 that a vessel is being provided with navigational assistance on the assigned VHF Channel.

12.8.4.4. No other stations shall be allowed to use the assigned VHF Channel.

- 12.8.4.5. Calls to the assisted vessel on channel 71 should be avoided.
 - 12.8.4.6. The progress of the assisted vessel shall be reported by Harwich VTS at appropriate intervals.
 - 12.8.4.7. During towage operations the assisted vessel and Designated Officer may change to an exclusive tug VHF channel.
 - 12.8.4.8. The Designated Officer must use the call sign HARWICHNAV in all communications during Navigational Assistance, observe VHF discipline and prefix all assistance with the name of the vessel being addressed, even though only one vessel is being advised. This is to eliminate the possibility that another vessel could construe the advice as applicable to her.
 - 12.8.4.9. Harwich VTS shall record and broadcast on channel 71 that the navigational assistance on an assigned VHF Channel is finished.
- 12.8.5. Information exchange between assisted vessel and the Harwich VTS Designated Officer.

Prior to providing navigational assistance the Designated Officer shall confirm the vessel's route intentions and information required by the assisted vessel.

12.8.6. Commencement and termination message

Harwich VTS must inform the assisted vessel on commencement of navigational assistance and on termination of navigational assistance.

Example:

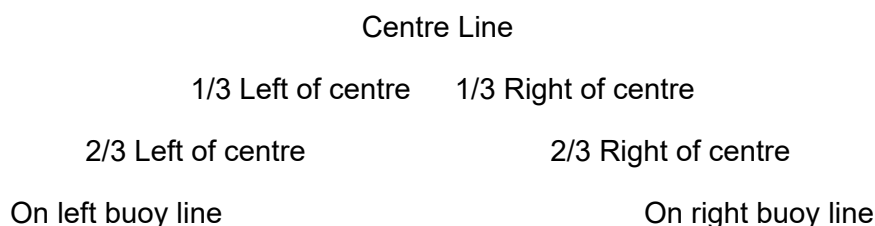
"MV Nonsuch this is Harwich VTS. HARWICHNAV is commencing navigational assistance to MV Nonsuch at 1030hrs. All navigational information is from VTS radar equipment. Navigational assistance is to be deemed terminated if any communications failure occurs." Over.

Example:

"MV Nonsuch this is HARWICHNAV. Navigational assistance to MV Nonsuch is terminated at 1230hrs." Over.

12.8.7. Positional guidance

- 12.8.7.1. The assisted vessel's position shall be given relative to the centre line of the channel. LEFT or RIGHT only.



- 12.8.7.2. The assisted vessel's track tendency shall be given relative to the intended course over the ground such as:

Holding steady track

Tending to drift left

Tending to drift right

- 12.8.7.3. The assisted vessel's direction of travel if required shall be given as the track over the ground:

Example:

"Vessel is making good 200°T over the ground"

"The vessel needs to make good 205°T over the ground"

- 12.8.7.4. The assisted vessel shall be given the bearing and distance to selected points, e.g. buoys/beacons.

- 12.8.7.5. Any other information as requested e.g. transits, clearing bearings.

12.8.8. Warning of serious situation or trend

If a potentially serious situation is developing, early warning of a dangerous trend is essential. Use the message marker "WARNING" to prefix messages about a serious or dangerous situation.

Example:

"WARNING. *Nonsuch, you are on left buoyline, one cable from No. 5 Buoy*"

12.8.9. Critical navigational areas

Harwich VTS should ensure a clear transit to assisted vessels in critical navigational areas such as the North Shelf, Beach End and Shipwash turns.

12.8.10. Off-berth position

Assistance as far as the off-berth position may be given if, in the judgement of the on board Pilot or PEC holder, such assistance would enhance the assisted passage of the vessel.

13. Reporting

The ship reporting requirements are contained in the appendix 2 of the General Directions for Navigation and should be followed by all regulated vessels (vessels greater than 50 tons, ferry-boat, or water taxi bearing fee-paying passengers)

The main VHF frequency for Harwich VTS is Ch. 71 (short range). The main pilotage working frequency is Ch. 9 (long range).

14. Communications

All VHF radio communications within the Authority's area shall be factual, as brief as possible and given in accordance with standard radio communication procedures and the SMCP.

In order to facilitate shore to ship and ship to shore communications message markers should be used to increase the probability of the purpose of the message being properly understood.

Harwich Haven Authority requires its staff to be aware of the use of all these message markers, and requires that the following message markers be used to increase the effectiveness and urgency of VHF communications as required.

14.1. Message markers

14.1.1. Information: prefix "INFORMATION"

This indicates that the following message is restricted to observed facts, situations etc. This marker is preferably used for navigational and traffic information, etc. Information is to assist the on board decision making process.

Example:

"INFORMATION. *The dredger "Westminster Giant" is operating in the area close to the East of the S. Shelf Buoy with moorings projecting into the fairway."*

14.1.2. Intention: prefix "INTENTION"

This indicates that the following message informs others about immediate navigational action intended to be taken. This marker is logically restricted to messages announcing navigational actions by the vessel sending this message.

Example:

"Harwich VTS This is Motor Vessel Nonesuch INTENTION I will reduce my speed."
Over.

14.1.3. Advice: prefix "ADVICE"

This indicates that the following message implies the intention of the sender to influence others by a recommendation. The decision whether to follow the ADVICE still stays with the recipient. ADVICE does not necessarily have to be followed but should be considered very carefully.

Example:

"ADVICE. *Motor Vessel Nonesuch, the Large Container Vessel 'LCV Europa', has passed the No. 1 Buoy inward bound and will be taking her tugs at the Rolling Ground. Remain seaward of 7 and 8 buoys until LCV Europa clear of Beach End Buoy".* Over.

14.1.4. Instruction: prefix "INSTRUCTION"

This indicates that the following message implies the intention of the sender to influence the intention of others by a regulation. This means that the sender, eg. a

VTSS, must have the full authority to send such a message. The recipient has to follow this legally binding message unless she/he has contradictory safety reasons which then have to be reported to the sender.

Example:

“INSTRUCTION. The large Container Vessel ‘LCV Europa’, is experiencing some difficulty swinging in the fairway off your berth, remain alongside until a further instruction is passed.” Over.

14.1.5. Warning: prefix “WARNING.”

This indicates that the following message implies the intention of the sender to inform others about danger. This means that any recipient of a WARNING should pay immediate attention to the danger mentioned and confirm the vessel’s position, course and speed in relation to the warning. Consequences are up to the recipient.

Example

“WARNING, ‘Prospero’, according to our equipment you are heading towards shallow water”. Over.

14.2. VHF use

14.2.1. The call sign for the Harwich Vessel Traffic Service is **HARWICH VTS**.

14.2.2. Call signs must be used for all communications.

14.2.3. The call sign for Harwich Navigational Assistance is **HARWICHNAV**. The call sign must be used for all communications when Navigational Assistance is provided.

14.2.4. VTS shall minimise requests to vessels whilst underway, to change frequency from the designated VTS channel to discuss routine or other matters. It must be borne in mind that such action may distract a vessel from its duty to monitor the VTS channel.

14.2.5. Inter-ship communications which include navigational intentions must be transmitted on the VTS channel for general interception.

14.3. VHF Frequencies

Harwich VTS	Channel 71 (see 14.3.1)
Navigational Assistance Service	Channel 20 (see 14.3.2)
Haven Ports Pilotage Service	Channel 09
Haven Pilot Launches Haven Station	Channel 71/72
Sunk Station	Channel 14 (see 14.3.3)
Tug working channels	Channel 12
	Channel 10 (see 14.3.4)
	Channel 74 (see 14.3.5)

Ports (mooring gangs) Felixstowe	Channel 74
HIP	Channel 13 (see 14.3.6)
Navigational Broadcasts	Channel 11
ONS	Channel 68
London VTS	Channel 69
Colchester/River Colne	Channel 68
Sunk VTS	Channel 14

14.3.1. Every regulated vessel shall maintain a continuous listening watch on channel 71 when underway or anchored in the Authority's area.

14.3.2. Channel 20 is used for dedicated Navigational Assistance Service.

14.3.3. Channel 06 may be used for boarding/landing operations.

14.3.4. Channel 10 is the oil pollution channel. All vessel shall keep clear of this channel when oil pollution operations are in progress.

14.3.5. Channel should only be used for towage operations in cases of high traffic.

14.3.6. Channel VHF 13 may be used for vessels berthing at Harwich International Port with tugs.

14.4. Marine emergency:

In the event of a major incident details will be broadcast with the message marker **Harwich Marine Incident**.

14.4.1. In the event of an **incident** all vessels should maintain current communication watch, minimize all VHF radio traffic and be ready for vessel traffic instructions.

14.4.2. Any vessel requiring **emergency assistance** within the Harwich VTS area should contact Harwich VTS on VHF Channel 71.

14.5. Information broadcasts

14.5.1. Navigational

Navigational Information Broadcasts are made by Harwich VTS on VHF Channel 11 at 0415 and 1615. Prior to this transmission on VHF Channel 11, Harwich VTS announce on VHF Channels 71 and 16 that a broadcast will be made on VHF Channel 11. During periods of major works or operations the frequency of the broadcasts will be increased, with broadcasts at **0415, 1015, 1615, 2215**.

14.5.2. Reduced Visibility

Reduced Visibility Information broadcasts are made by Harwich VTS on Channel 71 when the Reduced Visibility Regulations are in operation, and advising on the

availability of Navigational Assistance, and pilot advice. A further broadcast will be made when normal traffic procedures are resumed.

14.5.3. Emergency Broadcast

Emergency Broadcasts are made by Harwich VTS on VHF Channel 71 in the event of a major marine, environmental, security incident or on suspension of any VTS services, advising of any areas designated as a Navigation Exclusion Zone and any communication restrictions or changes.

15. Pilotage service

The details of the Haven Pilotage Service are contained in the Harwich Haven Authority Pilotage Directions 2016.

Pilotage is compulsory for all vessels over 50m and for nominated hazardous vessels less than 50m in length, except HM ships and vessels whose bonafide master or deck officer holds a valid pilotage exemption certificate for the vessel and area.

15.1. Procedures

15.1.1. Vessels Inward Bound

15.1.1.1. Vessels should send ETA at least 8hrs in advance or on leaving last port if later, stating the following:

15.1.1.1.1. Vessel name

15.1.1.1.2. IMO number

15.1.1.1.3. Last port

15.1.1.1.4. Destination

15.1.1.1.5. Draft

15.1.1.1.6. Number of persons on board

15.1.1.1.7. ISPS level

15.1.1.1.8. Pilot required or PEC number

15.1.1.1.9. Eta at Sunk or Haven Pilot Station

15.1.1.1.10. For Ultra Large Container Vessels (exceeding 310m LOA)
- calculated lateral windage area including any deck cargo

15.1.1.1.11. Any known defects.

15.1.1.2. Vessels must confirm ETA 2hrs prior to arrival or as soon as practicable when within VHF range.

15.1.2. Vessels Outward Bound or Shifting Berth

15.1.2.1. Vessels must send ETD at least 2hrs (ETD will not be accepted more than 3hrs prior to departure, unless cargo finished and awaiting tide or other special reason).

15.1.2.2. Vessels must give 30 minutes' confirmation of ETD.

16. Pilot boarding stations

The normal pilot boarding and landing positions are:

16.1. Sunk Pilot Station

Call: Sunk Pilots

Frequency: Channel 09

Pilot Boarding: 3.5 nautical miles east of Inner Sunk Light Vessel in position:
51°51'.5N; 1°40'.5E.

16.1.1. Station provides pilotage for Harwich, Felixstowe, Ipswich and Mistley.

16.1.2. Station provides pilotage service for the Port of London Authority and Medway Ports for vessels bound to and from River Thames and River Medway, also for Rivers Crouch and Colne by arrangement.

16.1.3. Communication at the Sunk Pilot Station will be conducted by Sunk Pilots on VHF Channel 14.

16.1.4. Masters should be aware that the Sunk Pilot Station is within the SUNK VTS AREA operated by the MCA from Dover. Accordingly, they must comply with the Sunk VTS rules at all times. Below is an extract from those rules concerning pilotage operations.

16.1.5. Vessels requiring a Sunk pilot shall:

16.1.5.1. Approach the Pilot Station from the Sunk Outer Precautionary Area unless already in the Sunk Deep water anchorage.

16.1.5.2. Comply with boarding turn order if issued by Sunk VTS.

16.1.5.3. Avoid waiting in the vicinity of the Sunk pilot station.

16.1.5.4. Undertake pilot boarding operations eastward of the "Storm" buoy (51° 52.4'N; 1° 38.2'E) unless otherwise informed by Sunk VTS.

16.1.5.5. Maintain a continuous listening watch on VHF channel 14 when engaged in pilot boarding operations. VHF channel 06 may be used for dedicated communication with the pilot launch during pilot transfer only.

16.1.6. Vessels requiring to land a Sunk pilot shall:

16.1.6.1. Undertake pilot landing operations eastward of the "Storm" buoy (51° 52.4'N; 1° 38.2'E) unless otherwise informed by Sunk VTS.

- 16.1.6.2. Maintain a continuous listening watch on VHF channel 14 when engaged in pilot landing operations. VHF channel 06 may be used for dedicated communication with the pilot launch during pilot transfer only.

16.2. Haven pilot station

Call: Haven Pilots

Frequency: Channel 09, 71

Pilot Boarding: 2 nautical miles ENE of Harwich Approach Buoy in position:

51°57'.0N; 1°34'.0E.

16.2.1. Station provides pilotage for Harwich, Felixstowe, Ipswich and Mistley.

16.2.2. Should only be used by vessels under 180m in length overall.

16.2.3. Communication at the Haven Pilot Station will be conducted by Harwich VTS on VHF Channel 71.

16.3. Notification by vessels carrying, loading or discharging dangerous substances

Reference should be made to General Direction for Navigation number 24

17. Anchorages

17.1. Designated Anchorages

Every regulated vessel which intends to anchor shall notify Harwich VTS of the proposed position in which it is intended to anchor the vessel. This notice must be given in sufficient time to enable Harwich VTS to direct the vessel in an alternative anchorage if required.

Every regulated vessel shall ensure the vessel is anchored within the limits of designated anchorage areas.

All parameters for designated anchorages are guidelines only. Duty Officers have discretion to vary these guidelines taking into account tide, weather, length of stay and the general circumstances or permit larger vessels to anchor for operational reasons.

Vessels carrying hazardous goods may only anchor in the Bawdsey Anchorage or the Sunk anchorages outside the Harwich area of jurisdiction.

17.1.1. Parkeston Anchorage

Recommended Maximum length 85.0 metres

Recommended Maximum draft 5.0 metres

17.1.2. Bawdsey Anchorage (Hazardous Anchorage)

Recommended Maximum length 180.0 metres

Recommended Maximum draft 9.0 metres

17.1.3. Cork Anchorage

Recommended Maximum length 140.0 metres

Recommended Maximum draft 5.5 metres

17.1.4. Platters Anchorage

Under 8m Maximum draft:

Recommended Maximum length 225 metres

Up to 9m Maximum draft:

Recommended Maximum length 170 metres

Suitable for short term stay, and emergency use only.

17.1.5. Erwarnton Anchorage

Recommended Maximum length 85 metres

Recommended Maximum draft 5.0 metres

17.2. Other Anchorages

17.2.1. Sunk Deep Water (SDW)

Recommended for vessels over 240m LOA or drafts greater than 10.5m.

17.2.2. Sunk Inner (SI)

Recommended for vessels under 240m LOA or drafts less than 10.5m.

17.3. Areas requiring extra caution

There are certain areas within which the mariner should exercise additional caution in his navigation. Those identified as having an elevated risk are:

17.3.1. The North Shipwash area where outbound traffic encounters inbound traffic from the north and especially from the east.

17.3.2. The Sunk Pilot Station where vessels are boarding and landing pilots to or from Felixstowe and the Thames.

17.3.3. The South Shipwash area where large vessels are turning into the Deepwater Channel to Felixstowe.

17.3.4. The Haven Pilot Station at the HA buoy where vessels are not only boarding or landing pilots, but also converging and crossing from the north and south. Lighter draft vessels should use the North and South channels whenever possible to avoid impeding large deep drafted vessels, and only cross the Deepwater channel when it is safe to do so.

17.3.5. The whole area is popular with pleasure craft, especially in the summer months. There is a dedicated small craft fairway provided for these pleasure craft, which runs from

the Cork Sand Beacon into the Harbour south and west of the main navigation channels. There are two recommended crossing points where small craft cross the Deepwater Channels. One is at the Pitching Ground/Platters buoys, while the other is at the Guard buoy at the entrance to the River Stour. These areas must be transited with caution.

17.3.6. There is a weekend Yacht Patrol boat provided during the summer months to help prevent small craft impeding the passage of large vessels within the harbour itself.

17.3.7. Mariners must be aware that large vessels berthing at Felixstowe may block the Harbour whilst swinging and may take some time to complete the swing, and may then have to back along the harbour to/from the northerly berths using tugs. This is especially relevant to vessels on passage to or from Ipswich.

18. Vessel speed in Harwich Harbour and seaward approaches

18.1. The Master of every vessel shall at all times proceed at a safe speed so that the vessel can take proper and effective action to avoid collision and comply with Harwich VTS and be stopped within a distance appropriate to the prevailing circumstances and conditions.

18.2. Except with the permission of the Harbour Master (which may be given specifically or generally) the Master of every vessel navigating in the Harwich Traffic System shall comply with vessel maximum speed limits, "over the ground".

18.3. The Maximum Speed Limits are: -

Designated Area	Maximum Speed
The North, South and Deep Water Channels between a line extended on a North/South axis through the charted position of No 1 Channel Buoy; and a line drawn between the charted positions of the Platters and Pitching Ground Buoys.	17 knots over the ground
The Deep Water Channel between a line drawn between the charted positions of the Platters and Pitching Ground Buoys; and a line drawn between the charted positions of the Cliff Foot and North West Beach Buoys.	12 knots over the ground
From a line extended through the charted positions of the Cliff Foot and North West Beach Buoys and including the limits of the Harbour, except the area designated as the yacht mooring pontoons.	8 knots over the ground
Abeam of the yacht mooring pontoons and fishing berths at Halfpenny pier.	5 knots over the ground

19. Towage

Tugs are ordered through Harwich VTS. For information on current tugs in port visit www.hha.co.uk.

19.1. Towage requirements

- 19.1.1. Requests for towage services should be made to Harwich VTS on VHF Channel 71.
- 19.1.2. Towage assistance required by vessels will be determined by the Pilot/PEC/Master, based on the current circumstances and conditions, handling characteristics of the vessel, windage allowance, and specific requirements.
- 19.1.3. On all occasions, but particularly in strong wind conditions, the Pilot/PEC/Master must ensure that adequate resources are available to berth or un-berth the vessel safely.
- 19.1.4. If, for any reason, agreement is not reached between the Master and Pilot as to the number of tugs to be allocated for the current circumstances and conditions, the Pilot will inform Harwich VTS who will instruct the vessel to anchor or remain alongside until agreement is reached.

19.2. Tug availability

The Master of every vessel must ensure that on all occasions adequate towage resources are available for the safe control of the vessel during manoeuvring, berthing or unberthing in the prevailing circumstances and conditions with regard to the handling characteristics of the vessel, windage allowance and any other specific requirements.

19.3. Towage in reduced visibility

In the event of reduced visibility, the following procedures are to be followed:

- 19.3.1. Harwich VTS will contact the duty tug to confirm towage availability and methods in the current circumstances and conditions. In conditions of severely restricted visibility, towage operations may be suspended.
- 19.3.2. In the event of any changes to the circumstances and conditions Harwich VTS must reaffirm the towage availability and methods available with the duty tug.

19.4. Ship handling with tugs

19.4.1. Safety precautions

- 19.4.1.1. **Do** order the tug as early as possible.
- 19.4.1.2. **Do** give clear instructions to the Tug Master.
- 19.4.1.3. **Do** listen to any advice offered by the Tug Master.
- 19.4.1.4. **Do** advise the Tug Master prior to each stage of the manoeuvre.
- 19.4.1.5. **Do** advise the tug prior to all engine movements.
- 19.4.1.6. **Do** give the Tug Master time to react
- 19.4.1.7. **Do** advise the Tug Master of any areas of the vessel on which he cannot push.
- 19.4.1.8. **Do** lower the tug's rope when letting go.

19.4.1.9. **Do not** make the tug fast against the advice of the Tug Master.

19.4.1.10. **Do not** manoeuvre the vessel without advising the tug.

19.4.1.11. **Do not** use excessive speed with the tug made fast.

19.4.1.12. **Do not** drop the tug's rope into the water.

19.4.1.13. **Do not** let go of the tug without advising the Tug Master.

19.4.2. Safety precaution when letting go

19.4.2.1. When lowering the towline from ship to tug, follow this important instruction:

19.4.2.2. Wrap messenger around bits and lower gently until main towline reaches the deck of the tug.

19.5. Working with tugs

19.5.1. Making fast

19.5.1.1. All crew to wear full protective clothing

19.5.1.2. No rings, bracelets or anything which might catch to be worn

19.5.1.3. Crew to be properly briefed and clear signals agreed

19.5.1.4. Establish clear communications

19.5.1.5. Area to be clear of hydraulic leaks

19.5.1.6. Ensure all equipment is in good order

19.5.1.7. Throw heaving lines into clear area, not directly at tug-crew

19.6. Under tow

19.6.1. Stand away from tow rope in place of safety

19.6.2. Whenever possible, use panama lead in preference to roller leads

19.6.3. Place eye of tow rope under horn of inboard bitt

19.6.4. Letting go

19.6.4.1. Be aware that the tow may release without warning

19.6.4.2. Release towline only after the weight has been eased and when ordered to do so

19.6.4.3. Tow must always be released in a controlled way by means of a messenger rope

19.6.4.4. Ensure that messenger rope has adequate turns to control it

19.6.4.5. One crew member guides tail of messenger, remainder stand clear

19.7. Tug Working Frequencies

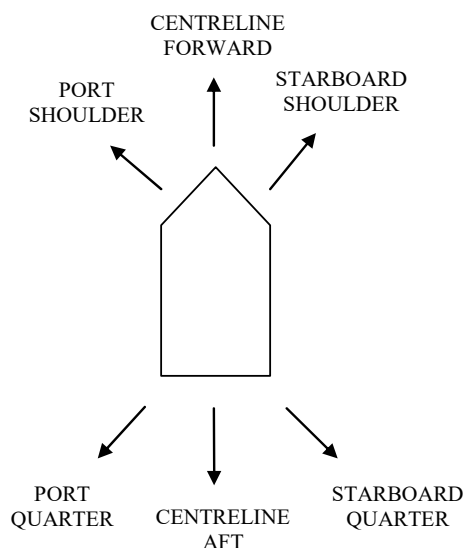
Principal tug working frequencies are VHF Channel 12 and Channel 10. Vessels should inform Harwich VTS on Channel 71 which tug channel they are working. If, due to a high volume of tug traffic Channels 12 and 10 are unavailable, then Channel 74 may be used but it should be remembered that this is Felixstowe Dock Tower's vessel working frequency.

Channel 13 is to be used when berthing at Harwich International Port.

19.7.1. Positioning

The positioning of tugs will depend on various conditions and circumstances, such as ship type, quay space etc., and as such Masters must allow adequate time for discussion on positioning with the tug's Skipper prior to any towage operation.

To ensure clarification of tug positions the following terms should be used:



19.7.2. Tug Names

The tug name must prefix any towage order given.

19.7.3. Towage Operations

During towage operations the following terms should be used:

19.7.3.1. **PUSH** If the tug is required to push the vessel

19.7.3.2. **PULL** If the tug is required to pull the vessel

19.7.3.3. **CHECK** A short pull by the tug to slow a vessel's approach to the quay etc. e.g. "Melton 25% check please"

19.7.3.4. **POWER** Expressed as a percentage indicating the Amount of push or pull effect required by the Tug e.g. "Melton 50% pull please"

19.7.4. Ipswich Vessels

The following rules apply to all vessels using ABP Ipswich Port Limited and are set out to remove ambiguity and to provide guidance to the Ipswich Tug operators.

Vessel type	Tug requirement
Vessels over 150 metres	3 tugs to swing, 2 tugs to sail or arrive
136-149.99 metres	2 tugs to swing, 1-2 tugs to sail or arrive
130 or Over - 135.99 metres	Without bow thruster, 2 tugs to swing, 1 tug to sail or arrive
130 or Over - 135.99 metres	With bow thruster, 1 tug to swing.
120-129.99 metres	1 tug to swing
Below 120 metres	At Master's/Pilot's discretion
Backing out of the Wet Dock	2 tugs
Vessels swinging from Ro-Ro 1 with tankers on the Liquid Bulk Tank Farm Terminal (formerly VOPAK)	1 tug in attendance if the wind exceeds 25 knots (as recorded by ONS)
Vessels over 130 metres on maximum draft for the tide of 8 metres or over arriving or sailing	2 tugs arriving or sailing
Ipswichmax Ferries	1 tug for arrival and departure if wind is a sustained 20kts (as recorded by ONS)

These are the minimum tugs required by the Port of Ipswich but this criteria does not remove the right of a ship's Master/Pilot or the Ipswich Harbour Master to increase the tug requirement, should conditions or vessel's circumstances demand otherwise.

Vessels of 145 metres in length or over with drafts of 7.5 metres or over will berth starboard side alongside if operationally possible.

19.7.5. Shifting Berth at the Port of Ipswich

When a vessel is required to shift berth and the vessel can always remain attached to the quay with one or more ropes, there is no requirement to take a Pilot or tug(s). The Master can, if required, request a Pilot and tug(s) via Orwell Navigation Service or Agent.

- 19.7.5.1. If a vessel is required to shift berth and all ropes will be let go, and the wind speed is 20kts or greater, the Master must consult with the duty ONS operator and discuss the possibility of taking a pilot and tug(s)
- 19.7.5.2. If a vessel is required to shift berth and all ropes will be let go, and the wind speed is 25 kts or greater. It will be compulsory to take a pilot. Tug(s) may also be required depending on vessel length/manoeuvrability/weather conditions.

Vessels should always put safety first and be aware that the turning circle can be reduced by the presence of vessels on the West Bank or tanker berths.

One Ipswich tug is available at 60 minutes notice subject to availability. A second tug requires 2 hours' notice subject to availability.

20. Security

20.1. Vessels

Vessels must exchange security information directly with the vessels Port of destination. Vessels must also report their security level to the Authority in conjunction with Dangerous Goods reporting. The vessels security level must be entered in the MIS for every vessel entering the Authority's area.

20.2. Arrival Confirmation

Harwich Operations Centre must confirm the current security level on initial contact prior to entering the Authority's area. This confirmation must be passed to the Port of destination.

20.3. Berth Confirmation

No vessel is to be committed to entry without berth confirmation from the Port of destination. Ports when confirming the vessels berth do so as an acknowledgement that security information and procedures are in place for that vessel.

20.4. Change of Security Level

Any vessel within the Authority's area must inform Harwich VTS of any change to the vessels security level. Harwich VTS will immediately forward this information to the Port of destination.

20.5. Declaration of Security

Where any variance between Port and vessel security level or confirmed security levels exists that port may require a Declaration of Security (DOS) to be made by the vessel. Harwich Operations Centre must confirm the vessels acceptance to undertake a DOS.

20.6. ISPS Certification

Any vessel without a current ISPS certificate must be reported to the MCA. Harwich VTS should email details of the vessel to zone11@hmcg.gov.uk

20.7. ISPS Non Compliance

Any vessel without a current ISPS certificate or declared security level shall be prohibited from entering the Authority's area without written confirmation from the Port of destination that the Port facility will accept the vessel.

21. Port procedures

To ensure the safe movement of vessels and to prevent congestion caused by the delay to a vessel sailing, the following port procedures have been adopted by Harwich VTS. Masters are to follow these rules unless specifically given permission by Harwich VTS to proceed inward in order to prevent congestion at the pilot stations.

21.1. Felixstowe

21.1.1. Felixstowe Berth Exchange Procedures

- 21.1.1.1. Any inward vessel over 260 metres LOA, 11.0m draft, must not proceed inward past the South Shipwash Buoy until the outward exchange vessel has completed cargo operations and is booming up its' gantries. It is important, for the avoidance of any doubt, that this information is given directly to the inward vessel by Harwich VTS who will then give the inward vessel clearance to proceed.
- 21.1.1.2. No vessel must proceed inward past the Harwich Approach Buoy until the outward exchange vessel has completed cargo operations and is booming up its gantries. It is important, for the avoidance of any doubt, that this information is given directly to the inward vessel by Harwich VTS who will then give the inward vessel clearance to proceed.
- 21.1.1.3. Any inward vessel within the Cork Anchorage area must not leave the anchorage area until the outward exchange vessel has completed cargo operations and is booming up its' gantries. It is important, for the avoidance of any doubt, that this information is given directly to the inward vessel by Harwich VTS who will then give the inward vessel clearance to proceed.

21.1.2. Container Crane Booms – Minimum Clearance

Vessels berthing or unberthing must ensure the vessel does not pass within 30 metres of the outboard extremity of any container crane boom which is partly or completely lowered.

21.1.3. Waterline Operations

In any instances where vessels request permission to undertake waterline operations for maintenance or emergency practice, Felixstowe Dock Tower must be contacted prior to permission being granted.

21.1.4. Communications

The Felixstowe Berthing Master's Office can be contacted on VHF Ch 74.

21.2. Harwich International Port

21.2.1. Harwich Channel

The Harwich Channel from the Guard/Shotley Spit Buoys to a line just West of the PQ1 berth has been cleared to 9m.

21.2.2. HIP Underkeel Clearance

The allowance for underkeel clearance for all vessels in the approaches to HIP in the Harwich Channel is to be 10% of the vessel's draft, with a minimum of one metre.

21.2.3. Oil Tanker Berth

Operational characteristics – PQ6 berth:

Maximum length: 150.0m

Maximum draft: 7.5m

Maximum registered carrying capacity: 10,000 MT

Minimum manifold height: 1.5m (At lowest tide)

Maximum manifold height: 8.8m (At highest tide)

21.2.4. Tankers over 140m LOA at PQ6 Berth

21.2.4.1. All tankers over 140m LOA are required to berth starboard side to.

21.2.4.2. If, for any circumstances or conditions, the vessel cannot berth starboard side to, the reason and expected delay until circumstances permit starboard berthing must be relayed to Harwich International Port (HIP).

21.2.4.3. The maximum permitted draft for tankers at PQ6 berth is 7.5m at all states of tide.

21.2.4.4. All tankers over 140m LOA must submit an "Acceptance of Tanker" notification with HIP prior to the vessel acceptance.

21.2.4.5. HIP will forward a vessel berthing plan (regular vessels only) or a tanker arrival plan to Harwich VTS.

21.2.4.6. Harwich VTS shall confirm the availability of the HIP mooring boat with regard to prevailing circumstances and conditions. HIP must inform VTS of any vessel characteristics beyond that stated. Due allowance should be made for height of tide in circumstances of vessel draft.

21.2.5. Communications

All mooring gangs at Harwich International Port are now equipped with VHF radios working on VHF Channel 13.

Pilots should communicate with the mooring gang on VHF Channel 13 when they have passed the Guard Buoy to discuss berthing requirements.

Prior to the vessel being committed to the berth it is advised that communication with the mooring gang is established.

21.2.6. Waterline Operations

In any instances where vessels request permission to undertake waterline operations for maintenance or emergency practice, Harwich International Port must be contacted prior to permission being granted.

21.3. Ipswich

This section is produced as a guide only and masters should consult the ABP Port Information publications and Byelaws.

21.3.1. Communication

Orwell Navigation Service (ONS)

(situated at the Lock Head, Ipswich IP3 0DP)

Telephone: 01473 211066 (24 Hours)

Emergency Only: 01473 217751

VHF: Channel 68

Fax: 01473 230915

E-mail: onsipswich@abports.co.uk

21.3.2. Ipswich Underkeel Clearance for River Orwell

All vessels transiting the River Orwell should ensure that a minimum underkeel clearance of 0.5m or 10% whichever is greater is maintained at all times.

21.3.3. Vessels to be Navigated with Care and Caution

21.3.3.1. No person shall navigate a vessel without care and caution or at a speed or in a manner which, having regard to all the circumstances, endangers the safety of or causes injury or damage, either directly or indirectly to any person or any other vessel, buoy, mooring, river bank or other property, or which interferes with the navigation, manoeuvring, loading or discharge of any vessel.

21.3.3.2. The speed of vessels must be reduced to the minimum consistent with safe navigation and the avoidance of any unsafe wash effect when passing yacht moorings at Pin Mill, Woolverstone and other places, or other vessels moored, or dredgers operating, or works of repair, maintenance or construction in progress.

21.3.3.3. All vessels navigating within ABP Ipswich Authority's area do so at the sole risk of the Master and Owners thereof, who shall be responsible and liable for the safety and security of their vessel and for any damage done to the property of the Authority and other persons.

21.3.3.4. The maximum speed for vessels under 50T GRT shall be deemed to be 6 knots.

21.3.4. Passing and/or Overtaking Vessels

21.3.4.1. Masters and Pilots shall cause vessels to navigate on their proper side of the channel so that each may pass on the port side of the other.

21.3.4.2. Navigational Restrictions

21.3.4.2.1. Vessels 90M or more LOA

A vessel 90M or more LOA MUST NOT PASS or OVERTAKE another vessel of 90M LOA or more in the RIVER ORWELL between the Butt buoy and the Port of Ipswich.

21.3.4.2.2. Petroleum Tankers and Chemical Tankers with Hazardous Cargo.

These vessels may navigate at any time (subject to the above and to tidal constraint if appropriate) provided that -

Between one hour after sunset to one hour before sunrise there is no opposing traffic on the River above the Butt buoy, the size or draft of which would present a potential hazard.

Weather and visibility conditions are of a standard acceptable to the master and the pilot concerned.

21.3.5. Inward Bound Vessels

21.3.5.1. Masters and/or pilots of inward bound vessels MUST ascertain the position of any outward bound vessel and communicate with it to agree a passing position. The inward bound vessel must ensure ONS is made aware of this agreement. Communication is to be maintained between vessels to ensure the agreed passing point is achieved.

21.3.5.2. **Passing Positions** Vessels are to ensure the passing manoeuvre is not conducted on channel turn points but is carried out in the straight sections of the channel.

21.3.5.3. **Poor Visibility Procedures** When the visibility in the River Orwell is reported to be less than 5 cables one-way traffic in the river must be instigated whenever possible.

When the visibility in the harbour and/or the River Orwell is 2 cables or less, commercial vessels arriving or wishing to depart the port will be informed of the visibility and advised that transit of the harbour and/or river is advisable.

21.3.6. Outward Bound Vessels

The master and/or pilot of outward bound vessels MUST ascertain the position of any commercial vessels in the Channel from the Orwell Navigation Service, prior to leaving the berth and liaise, if necessary, with any inward bound vessel.

21.3.7. Vessels Passing Felixstowe Trinity 6 and 7 berths

All vessels bound to or from the River Orwell shall proceed at the minimum speed possible conducive with safe navigation when passing Felixstowe Trinity 6 and 7

berths and shall avoid passing any other vessel bound to or from the River Orwell between the Babergh buoy and the College buoy.

21.3.8. Vessels Swinging

21.3.8.1. All Vessels

21.3.8.1.1. ABP Ipswich tug rules must be adhered to.

21.3.8.1.2. In conditions when wind speed is more than 25 knots any action regarding vessel characteristics, tugs and location of berthed vessels must be agreed between the vessel's Master, Pilot and ONS.

21.3.9. Swinging Areas

The two main swinging areas are off RoRo1 & West Bank North, and RoRo2.

21.3.9.1. Vessels Over 120m LOA

21.3.9.1.1. When swinging off RoRo1, Cliff Quay tanker berths (bollards 1-8) or RoRo1 & West Bank North berth must be clear of berthed vessels.

21.3.9.1.2. When swinging off RoRo2, Cliff Quay berths (bollards 8-16) or RoRo2 must be clear of berthed vessels.

21.3.9.2. Vessels Over 136m LOA

For vessels over 136m LOA both sides of the turning area must be clear.

When swinging off RoRo1, Cliff Quay tanker berths (bollards 1 to 8) and the RoRo1 and the West Bank North must be clear of berthed vessels.

When Swinging off RoRo2, Cliff Quay berths (bollards 8 to 16) and the RoRo2 must be clear of berthed vessels.

21.4. ABP Ipswich – Locks Entrance and Wet Dock

ABP Ipswich have confirmed the following parameters for vessels entering the Lock or Wet Dock at the Port of Ipswich:

Length of vessel able to lock: 82.0 metres

Beam of vessel able to lock: 13.8 metres

Maximum draft allowed: 5.50 metres

21.4.1. The above sizes allow for a safety margin and are not the actual maximum size of the lock.

21.4.2. The draft is subject to the beam/draft ratio to allow for the shape of the lock pit (see table).

21.4.3. A vessel may enter or exit the Wet dock provided that the draft does not exceed the tide by more than 1.5 metres.

21.4.4. The maximum length of vessel allowed to swing in the Wet Dock is 40 metres.

21.4.5. Longer vessels with a suitable beam and draft may enter so long as either the entering or the exit is made stern first with two tugs. The two-tug rule will only be relaxed if both Master and Pilot request an alternative arrangement.

21.4.6. Draft for Vessel to enter Lock

To calculate the maximum draft for a vessel for a given beam to proceed into the Lock with a safe clearance, the following amount should be added to the actual height of the tide above chart datum at the time of entering.

Vessel Beam (metres)	Maximum Draft (height of tide + metres)
12.0	2.09
12.1	2.03
12.2	1.97
12.3	1.91
12.4	1.86
12.5	1.81
12.6	1.76
12.7	1.72
12.8	1.67
12.9	1.63
13.0	1.59
13.1	1.56
13.2	1.52
13.3	1.49
13.4	1.46
13.5	1.43
13.6	1.40
13.7	1.37
13.8	1.34

21.4.7. Position Reporting

21.4.7.1. A Master shall report to the Orwell Navigation Service on VHF Channels 68 on entering the River, at the following positions:

- 21.4.7.1.1. passing Fagbury Buoy
- 21.4.7.1.2. passing No 4 buoy
- 21.4.7.1.3. passing Cathouse
- 21.4.7.1.4. passing No 9 buoy
- 21.4.7.1.5. when secure on berth
- 21.4.7.2. If any vessel is in a damaged condition which renders such vessel in any way un-seaworthy or inhibits the vessel's ability to manoeuvre, full particulars of the damage shall be reported to the ONS prior to arrival or departure at the Port of Ipswich.
- 21.4.7.3. The Harbour Master on receiving a report from a Master of a vessel may give directions to the Master of such vessel under powers in that behalf given by Section 59(2) of the Ipswich Dock Act 1971.
- 21.4.7.4. On leaving the Port, at the following positions:
 - 21.4.7.4.1. prior to leaving the berth
 - 21.4.7.4.2. on clearing berth and proceeding
 - 21.4.7.4.3. passing No 9 buoy
 - 21.4.7.4.4. passing Cathouse buoy
 - 21.4.7.4.5. passing No 4 buoy
 - 21.4.7.4.6. passing No 2 buoy
 - 21.4.7.4.7. immediately before leaving the Port and transferring to Harwich Haven control
- 21.4.7.5. While navigating within the Port, the Master of a vessel shall at all times maintain a listening watch on VHF Channel 68 or as directed by Orwell Navigation Service.
- 21.4.7.6. If such vessel is not fitted with VHF radio-telephone or is fitted with one which is not operational at the time of entry into the Port or departure from a berth therein, on arrival at a berth owned or occupied by ABP Port of Ipswich, prior to leaving a berth in the Port and before moving from one berth to another, the Master of such vessel shall report to the Orwell Navigation Service in person or by telephone.

21.5. Harwich Navyard

21.5.1. Guidelines for Berthing Large Ships – Navyard No.5

- 21.5.1.1. Vessel is not to be delayed in boarding or on her final approach to the berth. If necessary, other vessels such as ferries from/to HIP will be held back to ensure the Navyard vessel makes her tidal window.

- 21.5.1.2. The ship should preferably be at the Guard Buoy no later than 45 minutes before HW Harwich.
- 21.5.1.3. The mooring gang foreman at Navyard will have a VHF radio, listening on Ch.71. He will be able to provide information on the state of the tide at the entrance. If there is any sign that the tide has started to ebb, the approach should be aborted.
- 21.5.1.4. The Pilot/PEC/Master is to consider whether a stern tug is desirable. If he deems a tug is necessary, he should take one.

21.5.2. Berth Notification

No vessel is to berth at Harwich Navyard without prior confirmation from Harwich Dock Company.

Harwich VTS must ensure that berth allocation for vessels bound to Harwich Navyard has been received from Harwich Dock Company.

Any vessel bound for Harwich Navyard without berth confirmation must not proceed until allocation has been clarified with Harwich Dock Company.

21.5.3. Waterline Operations

In any instances where vessels request permission to undertake waterline operations for maintenance or emergency practice, Harwich Dock Company must be contacted prior to permission being granted.

21.6. Mistley

At the time of printing, the minimum depth in the approaches to Mistley Quay is 0.8m, but as this is subject to change, reference should always be made to Harwich VTS who will have the latest information on the ruling depths.

21.6.1. Operating Procedures for vessels visiting Mistley Quay

To ensure adequate time for passage planning, all vessels exceeding 85 metres, or those calculated to have less than 0.25 metres underkeel clearance, will be notified to Harwich VTS at least three days prior to arrival.

21.6.2. Inward Vessels

In order to ensure the optimum operational performance at Mistley Quay, all inbound vessels, if circumstances and conditions permit, must be swung to berth head out.

If, due to circumstances and conditions it is not possible to berth an inward vessel head out, the circumstances must be reported to Harwich VTS with any tug requirement envisaged for departure. Harwich VTS must forward any towage requirements of an expected departure to Mistley Quay at the earliest opportunity to ensure they are informed of the additional visit costs.

21.6.3. Waterline Operations

In any instances where vessels request permission to undertake waterline operations for maintenance or emergency practice, Mistley Quay must be contacted prior to permission being granted.

22. Ship procedures

22.1. Ship definitions

22.1.1. Ultra Large Vessels

Means any vessel whose length overall exceeds 310 metres.

22.1.2. Large Vessels

Means any vessel the overall length of which exceeds 260 metres but less than 310 metres length overall.

22.1.3. Large Ipswich Vessels

Large Ipswich vessel means vessels over 140 metres LOA up to a maximum of 155 metres LOA.

The maximum size of vessel accepted for passage is 155 metres LOA.

22.1.4. Passenger Vessels

Passenger vessel means a vessel equipped and certificated for the carriage of more than 200 passengers.

22.1.5. Nominated Hazardous Vessels

Nominated Hazardous Vessel means every vessel which is:

- 22.1.5.1. a vessel, over 50 metres in length carrying liquid bulk dangerous cargoes with flammable or toxic properties or has non-gas free cargo spaces;
- 22.1.5.2. a vessel carrying liquefied gas in bulk or has non-gas free cargo spaces;
- 22.1.5.3. a vessel carrying explosive substances classified as Class 1.1, 1.2 or 1.3 in the IMDG Code, of which the cumulative net explosive quantity exceeds 50 tonnes;
- 22.1.5.4. a vessel carrying explosive substances classified as Class 1.1, 1.2 or 1.3 in the IMDG Code to or from the EPC-UK Jetty; or
- 22.1.5.5. any other vessel which the Harbour Master considers should be classed as a nominated hazardous vessel due to the particular nature of her cargo.
- 22.1.5.6. any other vessel which the Harbour Master considers should be classed as a nominated hazardous vessel due to the particular nature of her cargo.

A vessel shall not be considered a Nominated Hazardous Vessel with regard to these procedures in instances where the Authority holds documented evidence that the vessel is not carrying hazardous cargo and is certificated as gas free.

22.1.6. Dredgers

Dredger means any vessel, whether self-propelled or not which is engaged in dredging, excavating, raising, pumping, eroding or dispersing silt, sand, clay, stone, rock, or any other material.

22.1.7. High Speed Craft

High Speed Craft means a vessel which operational service speed exceeds 35 knots. Prior to the operation of any such service from the Haven Ports the Harbour Master will consider all aspects of safety and environmental issues and implement any constraints on its operation as may be required.

22.2. Movement of Nominated Hazardous Vessels

See General Direction number 18.

22.2.1. Additional Procedures for EPC-UK Vessels

All vessels carrying explosive products to the EPC-UK Plant at Great Oakley are classified as Nominated Hazardous Vessels.

The following additional procedures apply to EPC-UK Vessels:

- 22.2.1.1. The passage between the Pye End Buoy and Great Oakley is to be undertaken in daylight.
- 22.2.1.2. Vessels must maintain a half mile safety zone from any passenger vessel.
- 22.2.1.3. Vessels should be kept clear of the Main Channel and routed via the North or South Channels.
- 22.2.1.4. Arriving and departing vessels are to take a Pilot when loaded, except in the case of (v) below or if there is an authorised PEC holder on board.
- 22.2.1.5. Vessels arriving from the South not subject to compulsory pilotage may proceed without a Pilot, providing the vessel is routed via the Medusa Channel to the Pye End Buoy and then Westward to Great Oakley.

The following procedure applies to all vessels:-

All departing vessels carrying explosive products bound to the North and crossing the Main Channel are to embark a Pilot, unless the Master or Deck Officer hold a valid PEC.

22.3. Ultra Large Vessels

22.3.1. Port Entry

No Ultra Large Vessel is to be committed to port entry unless she has a ready berth available at the time of passing the Haven Buoy inwards. This is the last position at which the ship can safely abort her inward passage.

22.3.2. Berth Availability

22.3.2.1. Harwich VTS will check and ensure the vessel's berth is clear before the ship reaches the Haven Buoy. Any ship previously on the berth is to be slipped and proceeding by that time. The pilot on the Ultra Large Vessel is to be positively informed that the berth is clear.

22.3.2.2. If the berth is not yet clear, the Pilot is to abort the inward passage. He may, at his option, hold in the Lower Shipway or main Channel area, (depending on vessel's draft, weather, tide and traffic conditions), or return to anchor if a long delay is expected.

22.3.2.3. The area bounded to the north by a line from the Harwich Approach Buoy to the West Shipwash Buoy; to the eastward by the Shipwash Bank; and to the southward by the Deep Water Channel is designated as a Holding or Turning Area for Large or Ultra Large Vessels. Masters must not anchor or manoeuvre so as to impede any Large or Ultra Large Vessels which are compelled by circumstances to make use of this area. Harwich VTS will warn shipping if the use of this area becomes necessary. (Pilotage boarding or landing operations at the Haven Pilot Station will move further northwards or westwards if a Large or Ultra Large Vessel is in the Holding Area.)

22.3.3. Ultra Large Vessel Passing

Passing of other Large or Ultra Large Vessels, is to take place in parallel sections of the main Channel seawards of the Beach End. Recommended passing area is seawards of the Platters Buoy. Other vessels are not restricted in passing other than at the Beach End as prescribed in 'Navigating The Beach End' section 22.3.4.

22.3.4. Navigating the Beach End

Ultra Large Vessels of less than 395m shall not be impeded by any other vessel within an agreed transit area around the Beach End Turn. In normal circumstances, vessels under 120m LOA will be considered not to restrict Ultra Large Vessels of less than 395m (but in all cases vessels must be in agreement).

In addition to the operational procedures in place for the transit and berthing of ultra large container vessels of between 310 and 395m, the transit of Ultra Large Vessels greater than 395m shall not be impeded by any other vessel between No. 5 and No 6 Buoys to the berth, both Inwards and outwards.

22.4. Ipswich – Vessels over 150m

22.4.1. Ipswich Maximum Sized Vessels - Conditions of Operation

- 22.4.1.1. Vessels in excess of 155 metres length (other than those currently being handled) will not be accepted under any conditions. The following conditions are to be complied with:
- 22.4.1.2. The pilotage act is accepted on a voluntary basis.
- 22.4.1.3. The Pilot is to be stood down prior to the pilotage act to allow for planning time and communication with ONS and VTS.
- 22.4.1.4. The passage is to be made in daylight only.
- 22.4.1.5. The vessel must be accompanied up river by two tugs and must have a third (Ipswich) tug available to assist when swinging.
- 22.4.1.6. The weather conditions must be considered suitable by the designated Pilot. If not suitable the vessel will remain moored until conditions are such.
- 22.4.1.7. The vessel may only swing if the area between tanker berth and bollard 7 on the East Bank and bollards 1 to 9 on West Bank Terminals are kept totally clear of other vessels during the swinging operation. If the designated area is not clear the vessel must be berthed head in and swung when conditions are met.
- 22.4.1.8. A minimum UKC of 1.0m is to be achieved throughout the passage.
- 22.4.1.9. In summer months if large numbers of leisure craft are present a patrol launch should precede the vessel during the river passage.

22.5. Fishing Vessels

22.5.1. Fishing Vessels Code of Practice

See Appendix 1 of the General Directions for Navigation 2016

22.6. Bunkering Procedures

22.6.1. Application

These procedures cover SHIP to SHIP transfer operations alongside berths at the Port of Felixstowe, Harwich International Port, and Harwich Navyard, Mistley Quay and Trinity House Berths.

Bunker transfers between road tankers and vessels are the responsibility of the individual ports and berth operators, who will monitor the process. (The Authority may make random checks on such operations under its duty of care required by the Dangerous Substances in Harbour Areas Regulations, 1987).

22.6.2. Notification

Approval of port/berth operator must be confirmed prior to notification. Vessels delivering bunkers must be approved by HHA.

Notification to request to Bunker (HHA.OPS.010) must be emailed or faxed to the Harwich VTS.

E-mail: hha.vts@hha.co.uk

Fax: +44(0) 1255 507177

Notification of commencement of Bunkering, completion of Bunkering must be made to Harwich VTS on VHF channel 71.

Notification of any incident must be made to Harwich VTS on VHF Channel 71.

22.6.3. Bunkering Conditions

Masters of vessels receiving bunkers, and Masters of bunkering barges/tankers, are advised that all bunkering operations within the jurisdiction of Harwich Haven Authority must be carried out in accordance with the Authority's Bunkering Conditions. The conditions are also reproduced in full on the back of the Notice of Intention to Bunker Form.

22.6.3.1. Prior approval must be obtained from the port/berth operator.

22.6.3.2. The HHA "Request to Bunker" form is to be completed on each occasion by the Master of the bunker barge/tanker, and sent or faxed to Harwich VTS not less than three hours or more than 96 hours before the transfer begins.

22.6.3.3. Before any transfer of bunkers takes place, the Master or responsible Officer on each vessel must ensure that:

22.6.3.3.1. Scuppers are properly sealed, adequate drip trays are in position under bunker hose connections, and all precautions have been taken to avoid overside discharge.

22.6.3.3.2. The bunker hose joints and connections to ship's manifold are soundly made; the bunker hose is of adequate length, properly supported, and without any visible defect.

22.6.3.3.3. An agreed system of communications has been established between bunker/tanker and the ship, and provision has been made to continually monitor the operation.

22.6.3.3.4. The bunker barge/tanker must have adequate fendering and both vessels must be securely moored.

22.6.3.3.5. The Master/Officer in charge of the receiving vessel must contact Harwich VTS before bunker transfer begins, confirming that all appropriate checks and precautions have

been made. (Both vessels must remain in radio contact with Harwich VTS throughout the transfer).

- 22.6.3.3.6. If spillage or accident occurs during bunker transfer, the operation must be stopped and Harwich VTS informed immediately.
- 22.6.3.3.7. The Master of the bunker barge/tanker must inform Harwich VTS when the operation has been safely completed and all hoses and other gear disconnected.
- 22.6.3.3.8. Transfer of bunkers will only be permitted if weather and other conditions are considered suitable. The Harbour Master of Harwich Haven Authority may, at his discretion, order the cessation of the operation and this order must be complied with immediately.
- 22.6.3.3.9. The Harwich Haven Authority cannot accept any responsibility or liability for any cancellation; curtailment or delay of the bunker operation for any reasons whatsoever.
- 22.6.3.3.10. The Harbour Master or a designated Officer of the Authority may board the vessels to inspect the bunker transfer arrangements at any time.
- 22.6.3.3.11. Vessels must comply at all times with the provisions of the Dangerous Substances in Harbour Area Regulations, 1987 and must exhibit the warning signals required by Section 8, namely:

By day: A red flag (International Code Flag "B")

By night: An all-round red light, visible 2 miles
- 22.6.3.3.12. Only approved contractors may carry out bunker operations. All non-approved contractors must register with HHA at least 7 days prior to carrying out any bunker operations.
- 22.6.3.3.13. Harwich Haven Authority reserves the right to amend or vary all or any of these Conditions from time to time.

22.6.4. Approved Bunkering Contractors

Companies intending to provide ship-to-ship bunkering services within HHA jurisdiction will be required to pre-register with HHA as approved bunkering contractors. The registration process will require the Bunkering Contractor to provide HHA with documentation as specified on www.hha.co.uk

22.7. Environmental Waste Management

The Merchant Shipping (Port Waste Reception Facilities) Regulations 1997 require all ports, harbours, terminals, installations, marinas, piers and jetties in the UK to produce a plan to Government on how they plan their port waste reception facilities.

All five Haven Ports, the Harwich Haven Authority, and the principal marinas in our area have made individual waste management plans.

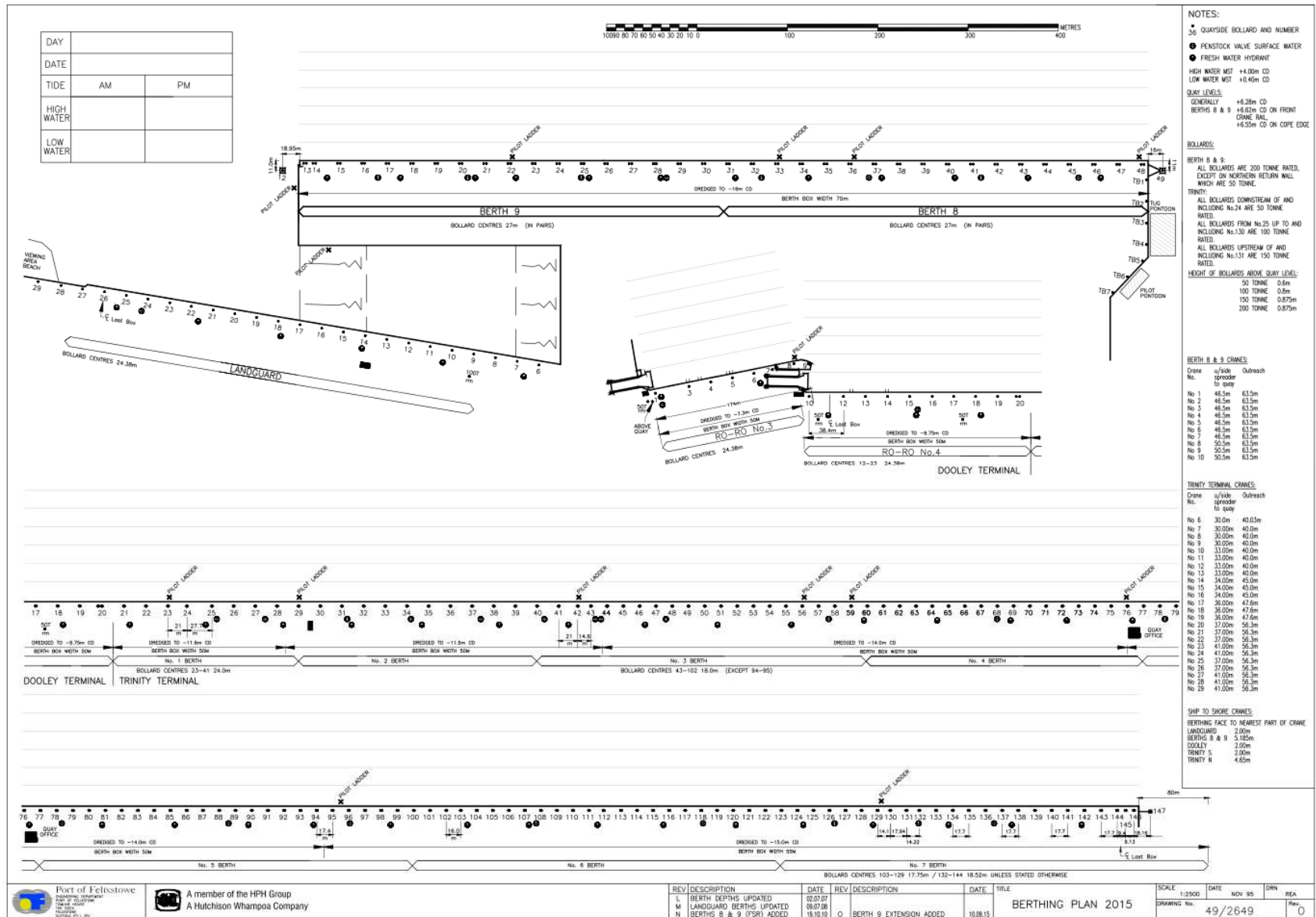
Requests from ships, ship's agents, etc. for information on local waste disposal facilities should be directed to the management of the port or terminal where the ship is berthed or about to berth.

In the case of HHA, we have no commercial cargo or lay-by berths. Our responsibility is confined to the following:

- 22.7.1. Waste management for our own harbour and pilotage craft. (Provided by refuse bins and waste oil tank at Navigation House).
- 22.7.2. Waste facilities for fishermen or yachtsmen using our facilities at Halfpenny Pier.
- 22.7.3. Waste disposal services for ships using long-term anchorages or moorings in the River Stour. (Provided at ship's cost by skip hire from waste disposal company via Felixarc Marine.)

All personnel are reminded that no rubbish may be dropped overboard, or engine room bilges containing oil be pumped out in coastal waters.

23. Appendix I – Felixstowe berth plans



24. Appendix II – Felixstowe berthing details

24.1. Tidal data

24.1.1. MHWS: 4.0m

24.1.2. MHWN: 3.4m

24.1.3. MLWN: 1.1m

24.1.4. MLWS: 0.4m

24.2. Quay levels

24.2.1. Generally: +6.28mCD

24.2.2. Felixstowe 8&9: +6.62mCD on front crane rail, +6.55mCD on cope edge

24.3. Height of bollards above quay level

24.3.1. 50 tonne: 0.6m

24.3.2. 100 tonne: 0.8m

24.3.3. 150 tonne: 0.875m

24.3.4. 200 tonne: 0.875m

24.4. Bollard rating:

24.4.1. Trinity (downstream of and including No. 24): 50 tonne

24.4.2. Trinity (No. 25 up to and including No. 130): 100 tonne

24.4.3. Trinity (upstream of and including No. 131): 150 tonne

24.4.4. Felixstowe 8&9: 200 tonne, except northern return wall which are 50 tonne

24.5. Trinity terminal cranes:

Crane No:	Spreader to quay	Outreach
No. 6	30.0m	40.03m
No. 7	30.31m	40.0m
No. 8	30.31m	40.0m
No. 10	33.31m	40.0m
No. 11	33.31m	40.0m
No. 12	33.31m	40.0m
No. 13	33.31m	40.0m
No. 14	34.0m	45.0m
No. 15	34.0m	45.0m
No. 16	34.0m	45.0m

Crane No:	Spreader to quay	Outreach
No. 17	36.0m	47.6m
No. 18	36.0m	47.6m
No. 19	36.0m	47.6m
No. 20	37.0m	56.3m
No. 21	37.0m	56.3m
No. 22	37.0m	56.3m
No. 23	41.0m	56.3m
No. 24	41.0m	56.3m
No. 25	37.0m	56.3m
No. 26	37.0m	56.3m
No. 27	41.0m	56.3m
No. 28	41.0m	56.3m
No. 29	41.0m	56.3m

24.6. Felixstowe 8&9 cranes:

Crane No:	Spreader to quay	Outreach
No. 1	46.5m	63.5m
No. 2	46.5m	63.5m
No. 3	46.5m	63.5m
No. 4	46.5m	63.5m
No. 5	46.5m	63.5m
No. 6	46.5m	63.5m
No. 7	46.5m	63.5m
No. 8	49.5m	63.5m
No. 9	49.5m	63.5m
No. 10	49.5m	63.5m

24.7. Ship to shore cranes (berthing face to nearest part of crane):

24.7.1. Trinity south: 2.00m

24.7.2. Trinity north: 4.65m

24.7.3. Berths 8&9: 5.185m



26. Appendix IV – Buoyage

Name	Latitude	Longitude	Type	Colour	Light
West Fort Massac Buoy	51 53.362 N	01 32.449 E	West Cardinal	YBY	VQ(9)10s
East Fort Massac Beacon	51 53.361 N	01 32.771 E	East Cardinal Beacon	BYB	VQ(3)5s
South Bawdsey Buoy	51 57.226 N	01 30.215 E	South Cardinal	YB	Q(6)+LFI.15sWhis
Mid Bawdsey Buoy	51 58.880 N	01 33.593 E	Conical	G	Fl(3)G.10s
Roughs Tower	51 53.712 N	01 28.841 E	TWR		Fl.5
N.W. Roughs Tower Buoy	51 53.813 N	01 28.771 E	West Cardinal	YBY	VQ(9)10s
S.E. Roughs Tower Buoy	51 53.610 N	01 29.060 E	East Cardinal	BYB	Q(3)10s
North Shipwash Buoy	52 01.730 N	01 38.272 E	North Cardinal	BY	Q.Whis
East Shipwash Buoy	51 57.079 N	01 37.890 E	East Cardinal	BYB	VQ(3)5s
North West Shipwash Buoy	51 58.980 N	01 37.012 E	Can	R	Fl.R.5s
West Shipwash	51 57.130 N	01 35.892 E	Can	R	Fl(2)R.10s
Cutler Buoy	51 58.530 N	01 27.500 E	Conical	G	Q.G
Outer Ridge	51 54.880 N	01 20.424 E	Can	R	Blind
Pye End Buoy	51 55.030 N	01 17.894 E	Spherical	RW	LFI.10s
Stone Banks	51 53.190 N	01 19.224 E	Can Topmark Buoy	R	Fl.R.5s
Medusa Buoy	51 51.230 N	01 20.355 E	Conical Topmark	G	Fl.G.5s
South Cork Buoy	51 51.331 N	01 24.094 E	South Cardinal	YB	Q(6)+LFI.15s
South Shipwash Buoy	51 52.713 N	01 33.972 E	South Cardinal	YB	Q(6)+LFI.15s
South Shipwash (Dup)	51 52.760 N	01 34.070 E	South Cardinal	YB	Q(6)+LFI.15s
South Threshold Buoy	51 52.206 N	01 33.140 E	Pillar Cross Top Mark	Y	Fl(4)Y.10s
Walker Buoy	51 53.791 N	01 33.903 E	West Cardinal	YBY	Q(9)15s
North Threshold	51 54.496 N	01 33.484 E	Pillar Cross Top Mark	Y	Fl.Y.5s
South West Shipwash Buoy	51 54.750 N	01 34.213 E	Pillar Cross Top Mark	Y	Fl.Y.2.5s
Haven Buoy	51 55.764 N	01 32.574 E	Safe Water Buoy	RW	Mo(A)5s
Harwich Approach Buoy	51 56.756 N	01 30.665 E	Safe Water Buoy	RW	Iso.5s

Cross Buoy	51 56.235 N	01 30.481 E	Pillar Cross Top Mark	Y	Fl(3)Y.10s
Rough Buoy	51 55.190 N	01 31.003 E	North Cardinal	BY	VQ
Washington Buoy	51 56.522 N	01 26.595 E	Conical	G	Q.G
No. 1 Buoy	51 56.130 N	01 27.059 E	Conical	Y	Fl.Y.2.5s
No. 2 Buoy	51 55.913 N	01 27.322 E	Can	Y	Fl(2)Y.10s
Felixstowe Ledge Buoy	51 56.304 N	01 23.720 E	Conical	G	Fl(3)G.10s
No. 3 Buoy	51 56.047 N	01 25.534 E	Conical	Y	Fl(3)Y.10s
No. 4 Buoy	51 55.831 N	01 25.835 E	Can	Y	Fl(4)Y.10s
Cork Sand Yacht Beacon	51 55.218 N	01 25.200 E	North Cardinal Beacon	BY	VQ.2M
Cork Sand Beacon	51 55.515 N	01 25.423 E	Can Beacon	R	Fl(3)R.10s
No. 5 Buoy	51 55.962 N	01 24.011 E	Conical	Y	Fl(5)Y.10s
No. 6 Buoy	51 55.747 N	01 24.349 E	Can	Y	Fl(2)Y.6s
Wadgate Ledge Beacon	51 56.160 N	01 21.987 E	Conical Beacon	G	Fl(4)G.15s
No. 7 Buoy	51 55.877 N	01 22.487 E	Conical	Y	Fl(3)Y.7s
No. 8 Buoy	51 55.666 N	01 22.860 E	Can	Y	Fl.Y.2.5s
Platters Buoy	51 55.644 N	01 20.968 E	South Cardinal	YB	Q(6)+LFl.15s
Pitching Ground Buoy	51 55.434 N	01 21.048 E	Can	R	Fl(4)R.15s
Rolling Ground Buoy	51 55.548 N	01 19.752 E	Conical	G	Q.G
Inner Ridge Buoy	51 55.387 N	01 20.203 E	Can	R	Q.R
Deane Buoy	51 55.373 N	01 19.275 E	Can	R	LFl.R.6s
Beach End Buoy	51 55.618 N	01 19.209 E	Conical	G	Fl(2)G.5s
Landguard Buoy	51 55.450 N	01 18.839 E	North Cardinal	BY	Q
Cliff Foot Buoy	51 55.715 N	01 18.538 E	Can	R	Fl.R.5s
North West Beach Buoy	51 55.887 N	01 18.868 E	Conical	G	Fl(3)G.10sBell
Fort Buoy	51 56.207 N	01 18.868 E	Conical	G	Fl(4)G.15s
South Shelf Buoy	51 56.161 N	01 18.513 E	Can	R	Fl(2)R.5s
North Shelf Buoy	51 56.470 N	01 18.492 E	Can	R	Q.R
Grisle Buoy	51 56.889 N	01 18.273 E	Can	R	Fl.R.2.5s
Guard Buoy	51 57.075 N	01 17.859 E	Can	R	Fl.R.5sBell
Shotley Spit Buoy	51 57.222 N	01 17.706 E	South Cardinal	YB	Q(6)+LFl.15s
College Buoy	51 57.548 N	01 17.332 E	Can	R	Fl(2)R.10s

Pepys Buoy	51 57.743 N	01 16.895 E	Can	R	Fl(4)R.15s
Bristol Buoy	51 57.051 N	01 16.222 E	Conical	G	Fl(2)G.5s
Ganges Buoy	51 57.098 N	01 17.032 E	Conical	G	Fl.G.5s
Ramsey Buoy	51 57.029 N	01 14.165 E	Conical	G	LFl.G.10s
Parkeston Buoy	51 57.089 N	01 15.336 E	Conical	G	Fl(3)G.10s
H S S Beacon	51 56.941 N	01 15.239 E	North Cardinal Beacon	BY	Q
Fagbury Buoy	51 57.999 N	01 16.778 E	Conical	G	Fl.G.2.5s
Harwich Shelf	51 56.840 N	01 18.070 E	East Cardinal	BYB	Q(3)10s
Babergh	51 57.867 N	01 16.753 E	Can	R	Fl.R.2.5s
Bathside	51 56.929 N	01 15.894 E	Can	R	Fl(2)R.5s