SECTOR 1

ENGLISH CHANNEL APPROACHES—SOUTH COAST OF ENGLAND—THE SCILLY ISLES TO START POINT

Plan.—This sector first describes the approaches and passage through the English Channel to Dover Strait. It then describes the Scilly Isles and the SW coast of England from Land's End to Start Point. The descriptive sequence is from W to E.

General Remarks

1.1 The water separating the coast of England from that of France is known in the United Kingdom as the English Channel, and in France as La Manche.

The English Channel is entered from the W between Ile Vierge (48˚38'N., 4˚34'W.) and Land's End (50˚04'N., 5˚43'W.). The sea area lying W and SW of the English Channel and extending to the edge of the continental shelf forms part of the Celtic Sea. The W and SW approaches to the English Channel pass through deep water and there are no navigational hazards.

Winds—Weather.—The climate of the English Channel is controlled to a large extent by the series of cyclonic disturbances that usually move toward the E or NE, generally passing N of the British Isles. In such cases, the English Channel is under the influence of a mild and moist SW or WSW jet stream.

At other times, different conditions occur mainly when an anticyclone appears and develops over northern Europe. Winds from E may persist for several days and blow in the channel.

In winter, weather to the E is bitter cold and it is often accompanied by strong winds, but in summer there is usually fine weather. Winds are very variable. The term "predominant wind" is of little significance in this area.

The main features are the westerlies that occur from December to January and from July to August. During both these periods, more than 50 per cent of the winds are from SSW to NNW, often from SW more than NW.

Easterlies are from NE to E and occur most frequently from October to November and from February to June. The frequency is highest in May. Winds from SE are the least frequent. February and November have the most uniform distribution of winds from all directions.

Winds are characterized as predominantly W over the Scilly Isles, unlike over the English Channel. There is a tendency for wind shifts from W to NW more so than from SW to W in summer, and to a lesser degree in January.

In the approaches to Southhampton and the Isle of Wight, winds often blow along The Solent and Spithead. Local variations are usually subordinate to the main stream which may sweep over much of the Isle of Wight. The island has not been observed to provide its own sea breeze.

The main breeze reaches force 3 or 4 on the coast and more over the water, then spreads out over the land. The land breeze blows on clear nights throughout the year and may be more marked in winter than in summer.

At the Bill of Portland, the sea breeze effect results in a strong tendency for winds from N to NE to veer toward E, and those from W to NW to back toward SW between 0700 and 1300. The fluctuation of land and sea breeze at The Bill of Portland is sometimes NE to WSW, the general direction is parallel with the coast. The tendency is very pronounced during the warmer months and it is particularly marked for the N and S directions.

This is a land and sea breeze effect reinforced by the configuration of the river mouth. The effect is substantially repeated in similar topographical situations, in particular at Plymouth.

Tides—Currents.—A series of Tidal Stream Atlases, which show the state of the currents on an hourly basis, are published by the United Kingdom Hydrographic Office for the English Channel and Dover Strait (NP 250 and NP 233).

Regulations—Reporting Systems.—The Ship Movement Reporting System (MAREP) is a voluntary reporting system and its objectives are to assist the mariner, to improve safety of navigation in the English Channel and Dover Strait, and to reduce the risk of pollution off the coasts of the United Kingdom and France in this area.

Vessels are requested to report to the appropriate shore station when approaching the following:

1. The TSS off Ile d'Ouessant.
2. The TSS off Casquets.
3. The TSS within the Dover Strait.

For further details of MAREP, see Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea.

The Dover Strait Reporting System (CALDOVREP) is a mandatory reporting system under SOLAS regulations which operates in a 65-mile stretch of the Dover Traffic Separation Scheme (TSS). In order to enhance safe navigation, shore based facilities at Gris Nez Traffic and Dover Coastguard monitor shipping movements and provide information pertaining to navigational hazards and weather conditions. For further details concerning CALDOVREP, see paragraph 6.4.

The CORSEN-OUESSANT Vessel Traffic Service (VTS) is a mandatory reporting system under SOLAS regulations which operates within a 40-mile circular area centered on Ile d'Ouessant. For further details of this VTS, see paragraph 3.1.

The Jobourg Vessel Traffic Service (VTS), known as MANCHEREP, is a mandatory reporting system under SOLAS regulations which operates in an area covering the Traffic Separation Scheme (TSS) off Les Casquets. For further details of this VTS, see paragraph 4.1.

Note.—Due to the CALDOVEP, CORSEN-OUESSANT, and MANCHEREP reporting systems being mandatory, vessels are advised that these systems take preference in those specific areas over the Ship Movement Report System (MAREP), which is voluntary.

Special regulations and reporting procedures apply to tankers transporting hydrocarbons and to vessels transporting dan-

gerous substances navigating in the approaches to the French coasts of the North Sea, the English Channel, and the Atlantic Ocean between the Belgian border and Spanish border. Such vessels preparing to pass through or stop within French Territorial Waters are required to send a message to the appropriate CROSS station giving their intended movements. In addition, such vessels must use the designated Mandatory Access Routes and Channels when approaching a port or roadstead.

For further details of these special procedures, see Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea.

An automatic ship identification and ship reporting system (AIRS) has been established to monitor the movements of vessels around the British Isles including the Dover Strait. The system utilizes the capability of the VHF DSC installations adopted for the Global Marine Distress and Safety System (GMDSS).

Signals.—International traffic signals displayed at the majority of ports described within this volume are, as follows:

1. Three red lights displayed vertically indicate that vessels shall not proceed.
2. Three red flashing lights displayed vertically indicate that there is an emergency and all vessels must stop or divert according to instructions.
3. Three green lights displayed vertically indicate that vessels may proceed in one-way traffic.
4. Three lights displayed vertically, the two upper lights being green and the lower one being white, indicate that vessels may proceed in two-way traffic.
5. Three lights displayed vertically, the upper and lower lights being green and the center light being white, indicate that vessels may proceed only when they have obtained specific instructions to do so.

Directions—Traffic Separation Schemes.—Within the area covered by this volume, Traffic Separation Schemes and Inshore Traffic Zones have been established in the following areas:

1. To the W and S of the Scilly Isles, and between those islands and the English coast.
2. To the NW of Ile d'Ouessant.
3. To the N of Casquets.
4. In Dover Strait.

All these Traffic Separation Schemes (TSS) are IMO-adopted and Rule 10 of The International Regulations for Preventing Collisions at Sea (72 COLREGS) applies.

Special provisions have been adopted by IMO for use in the TSS lying NW of Ile d'Ouessant. French national regulations govern navigation in the Inshore Traffic Zone of this scheme and certain channels off the NW coast of Bretagne.

For details of the IMO special provisions and French regulations, see paragraph 3.1.

For details of the TSS lying N of Casquets, see paragraph 4.1.

For details of the TSS lying within the Dover Strait, see paragraph 6.5 and paragraph 7.1.

Directions—Routes.—Vessels making a landfall SSW of Bishops Rock (49˚52'N., 6˚27'W.) and proceeding to Dover Strait should pass through the Traffic Separation Scheme (TSS) lying S of the Scilley Isles. They should then continue in a general E direction for about 135 miles and pass through the Off Casquets TSS (49˚43'N., 2˚22'W.).

Vessels making a landfall W of Bishops Rock (49˚52'N., 6˚27'W.) and intending to proceed N should pass through the TSS lying W of the Scilley Isles.

Vessels making a landfall WSW of Wolf Rock (49˚57'N., 5˚48'W.) and intending to proceed N should pass through the Off Land's End TSS lying E of the Scilley Isles between Seven Stones (50˚02'N., 6˚07'W.) and Longships, 14 miles E. For restrictions concerning this TSS, see Pub. 142, Sailing Directions (Enroute) Ireland and the West Coast of England.

Directions—Navigation.—The Netherlands Hydrographic Service publishes, in English, a Deep Draft Planning Guide covering the Deep Draft Route through Dover Strait to Europoort for vessels with drafts over 20.7m. However, the contents of the guide are not necessarily endorsed in every detail by the British authorities.

Vessels with drafts up to 22m, and up to 22.6m in favorable conditions, can use this Deep Draft Route. However, the recommended underkeel clearances should be taken into consideration.

For further details of the Deep Draft Routes within the Dover Strait and S part of the North Sea, see paragraph 6.5.

The United Kingdom Hydrographic Office publishes the Mariners' Routing Guide (chart 5500) which depicts routes through the English Channel, Dover Strait, and the S part of the North Sea as far as the entrance to Europoort. The guide also provides details concerning regulations, pilotage, and radio services.

The IMO has adopted a recommendation that all vessels navigating in the English Channel and Dover Strait should carry the latest edition of this guide or other equivalent publications.

The Channel Navigation Information Service (CNIS) is operated from Dover Strait Coast Guard and CROSSMA Griz Nez. It provides information by scheduled broadcasts or on request to vessels uncertain of their position on passage through the Dover Strait.

Approaching the English Channel

1.2 The continental shelf, which is approximately delineated by the 200m curve, lies more than 200 miles W of the SW coast of England. It may generally be recognized in calm weather by the numerous ripplings in its vicinity, and in boisterous weather by a turbulent sea and the sudden alteration in the color of the water from a dark blue to green.

Within the 200m curve, the shoaling is irregular due to the banks and ridges described below; however, in general the surroundings shoal gradually E, the depth on a line joining lle d'Ouessant and Bishop Rock being almost uniformly about 100m, decreasing a little within 20 miles of the Scilly Isles.

Approaching the English Channel from W, it is essential to use every opportunity to ascertain the vessel's position until a landfall is made. Although soundings will be of service, they give no exact determination of position as the inequalities in depths are generally too slight, with the exception of Hurd Deep (49˚30'N., 3˚30'W.). Careful consideration should be given to the effects of wind, currents, and tidal current in order to ensure keeping S of the Scilly Isles. Recent prevailing S and

SW winds, combined with the influence of surface drift and tidal current, almost always result in a N set.

In low visibility, vessels should not approach the Scilly Isles within a depth of 100m unless certain of their position.

When approaching Ile d'Ouessant, which is surrounded by dangers, vessels should guard against the danger of setting E. Caution is also needed when rounding this island, as the tidal currents are strong and the extent of their influence to seaward is undetermined.

In low visibility, Hurd Deep will indicate the approach to Casquets from NW and N. Approaching from the W, vessels can avoid the dangers off Casquets, Alderney, and Cap de la Hague by following Hurd Deep.

In navigating the English Channel it is important that the mariner be acquainted with the general system of winds, as well as with the incidence of poor visibility. To this must be added the caution that the wind has a considerable effect on the strength and direction of the tidal current, as well as on the range of the tides.

The tidal currents are strong in the central part of the English Channel, especially at spring tides in the area lying between Portland, Isle of Wight, and the Cotentin Peninsula; strong winds opposing the tidal current raise steep seas which can be hazardous for small vessels.

Numerous ports and anchorages where vessels may seek shelter are found on both the English and French coasts; however, apart from the harbors of Dartmouth and Tor Bay, there is little shelter during strong SW winds between Start Point (50˚13'N., 3˚40'W.) and The Bill of Portland, 50 miles ENE.

A series of ridges, all of which lie in a NE to SW direction, are located W and SW of the Scilly Isles (49˚52'N., 6˚20'W.), within the continental shelf. However, some of these ridges, although being of considerable length, are very narrow.

The positions given below indicate the approximate location of the least depth on the named banks. It is to be noted that other shallower depths of less than 90m exist in this incompletely surveyed area.

Great Sole Bank (49˚53'N., 9˚36'W.), with depths of 95 to 126m, lies about 30 miles within the W edge of the continental shelf and 140 miles W of the Scilly Isles.

Cockburn Bank (50˚01'N., 8˚45'W.), with a least depth of 93m, and **Jones Bank** (49˚53'N., 7˚58'W.), with a least depth of 71m, lie between Great Sole Bank and the Scilly Isles.

Another depth of 73m lies 35 miles WSW of Jones Bank.

Melville Knoll (49˚14'N., 8˚16'W.), with a least depth of 104m, lies about 35 miles SSW of Jones Bank.

Little Sole Bank (48˚27'N., 8˚53'W.) lies between the edge of the continental shelf and Ile d'Ouessand (48˚27'N., 5˚08'W.). It has a least depth of 115m and consists of fine sand.

Shamrock Knoll (48˚11'N., 7˚34'W.), with depths of 95 to 128m, and **Parsons Bank** (48˚25'N., 6˚32'W.) lie 50 miles W of Ile d'Ouessant. Over Parsons Bank and within about 10 miles of it, the depths decrease from 148 to 99m and then increase again to 131m.

Kaiser-i-hind Bank (48˚06'N., 6˚34'W.), with a least depth of 117m, lies about 15 miles S of Parsons Bank.

Between Parsons Bank and Ile d'Ouessant, the bottom is more even and there are depths of 100m or more lying up to within about 3.5 miles of the westernmost danger located of Ile d'Ouessant.

La Fosse d'Ouessant, a remarkable trench, lies about 5 miles NW of Ile d'Ouessant. It is about 1 mile wide and has depths of 118 to 190m.

The bottom of the W approaches to the English Channel appears to consist mainly of fine or coarse sand, a great deal of broken shell, and occasional patches of pebbles, gravel, and small stones. Mud may be found in places now and then. The sand is mostly white; although, in many places it is yellow, with black specks. The black specks are often found mixed both with the white and yellow sand; they are very fine, resembling fine cinder dust.

The greater proportion of yellow sand lies S of the parallel of 49˚30'N, and that of black specks N of that line. This distribution is very marked, especially between the meridians of 9˚40'W, and 7˚30'W.

Hurd Deep (49˚30'N., 3˚30'W.), with general depths of more than 90m, is 2 to 3 miles wide. It extends about 80 miles NE from a position located 38 miles N of Ile de Batz (48˚45'N., 4˚00'W.). In the NE part, lying about 9 miles NW of Casquets, the depths increase to about 170m. Although there are sudden variations in depths in various parts of the English Channel, there is none so marked as that of Hurd Deep.

Several fields of sand waves exist in the W part of the English Channel in deep water. The waves tend to run in a N to S direction. Two such fields are centered about 17 miles and 33 miles SE of Eddystone Light (50˚11'N., 4˚16'W.). Each field extends about 15 miles in a N to S direction and 10 miles in an E to W direction. A third field is centered about 30 miles SE of Start Point (50˚13'N., 3˚38'W.). It extends about 10 miles in a N to S direction and 12 miles in an E to W direction. Average amplitudes are from 1 to 2m, with a maximum amplitude of 5m, and average wavelengths are between 100 and 300m. Average amplitudes are from 5 to 15m with occasional sand waves exceeding heights of 20m. The average wavelengths are between 250 and 1,500m.

For information concernng fields of sandwaves in the Dover Strait, see paragraph 6.5.

Pilotage.—Pilotage is available at every port of any consequence on the British side of the English Channel and in the Channel Islands; relevant details are provided under the individual port descriptions. Mandatory pilotage for French ports is determined by the tonnage or length of a vessel, which is defined in the port description. Pilotage is obligatory for all vessels carrying hydrocarbons or dangerous substances.

Vessels inbound for ports in NW Europe, including the British Isles and The Baltic Sea, may embark deep-sea pilots before reaching the complex Traffic Separation Schemes and Deep Water Routes in the Dover Strait and the North Sea areas. Such pilots should be requested in advance through the various pilotage agencies based in the British Isles or other European countries.

Deep-sea pilots are normally embarked by prior arrangement off Brixham or Cherbourg for ports in NW Europe and The Baltic.

Caution.—British and French submarines exercise frequently in the English Channel and in its W approaches. The limits of submarine exercise areas are generally indicated on the charts.

Firing and bombing practices and other defense exercises take place within areas lying about 40 miles of the English coast.

Several former mine areas, within which sea bottom activities are prohibited, are situated in the English Channel.

Several explosive deposit zones, for use of vessels with suspicious devices, lie in French waters.

For further details of the above areas, See Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean, Baltic Sea, North Sea, and the Mediterranean Sea.

Disused explosives dumping ground areas lie at the E and W ends of Hurd Deep (49˚30'N., 3˚30'W.).

Transhipment of liquid cargo between tankers takes place regularly in Lyme Bay and in the NW part of Baie de la Seine. Vessels engaged in those operations may be at anchor, or otherwise unable to maneuver, and should be given a wide berth.

Crossing traffic in parts of the English Channel and Dover Strait increases the risk of collision in these areas. Extreme caution is advised.

High speed ferries may be encountered in the English Channel and Dover Strait.

Fishing vessels of various sizes and of different nationalities may be encountered throughout the English Channel and Dover Strait.

Drilling rigs may operate in the English Channel throughout the year. Buoys, barges, and other equipment associated with the rigs may be moored within 1.5 miles of them and should be given a wide berth.

Seismic and other survey vessels, operating in connection with oil and gas rigs, may be encountered throughout the English Channel.

The Scilly Isles

1.3 The **Scilly Isles** (49˚55'N., 6˚20'W.) comprise a group of isles and numerous above and below-water dangers that occupy a bank, about 5 miles wide, lying between 21 and 31 miles WSW of Land's End, the SW extremity of England.

The largest isles are concentrated in the NE part of the bank and the small isles, rocks, and hidden dangers intersperse, rather sporadically, the SW part of the bank.

Bishop Rock (49˚45'N., 6˚35'W.), the SW extremity of the Scilly Isles, is the northernmost of a small detached group of above-water rocks which are mostly awash at HW.

A main light, equipped with a racon, is shown from a conspicuous granite tower, 49m high, standing on the rock. The light tower is radar prominent and generally the first sighting made when approaching the English Channel from the W. The light is obscured on some bearings.

Pol Bank (49˚50'N., 6˚28'W.), with a least depth of 23m, constitutes the southernmost danger in the Scilly Isles area. It should be avoided by all vessels, especially in periods of heavy swell, when strong overfalls are formed.

St. Agnes lies close SW of St. Mary's; an old conspicuous lighthouse stands on its summit.

St. Martin's, fronted by rocks and islets, lies at the NE side of the group about 1.5 miles N of St. Mary's. A conspicuous beacon, 56m high, is situated on the easternmost and highest end of this isle.

Bishop Rock Light

Round Island (49˚59'N., 6˚19'W.), the northernmost isle of the group, is low and surrounded by rocks. A main light is shown from a prominent tower, 19m high, standing on its N side. The light is obscured on some bearings.

Round Island Light

1.4 **St. Mary's** (49˚55'N., 6˚19'W.), with its summit in the N part, is the largest and principal isle of the group.

Hugh Town (49˚55'N., 6˚19'W.) (World Port Index No. 35230), the main harbor and settlement, is situated on the neck of a peninsula at the SW end of this isle. St. Mary's Road, the most spacious anchorage, lies NW of St. Mary's and has depths of 10 to 16m. Crow Sound, lying NE of St. Mary's, provides good anchorage, in depths of 12 to 14m. It is easy to access, but should not be used during strong E winds. Crow Bar, a shallow bank, separates Crow Sound from St. Mary's Road.

St. Mary's Road, fronting Hugh Town, can be entered via several channels. St. Mary's Sound and Broad Sound are marked by buoys and the easiest to navigate. St. Mary's Sound should be used by vessels approaching from E or S. It has a least depth of 9.9m on the range line and is entered between Peninnis Head and Spanish Ledges, marked by a buoy, about

0.4 mile SW. Broad Sound should be used by vessels approaching from SW. It has a least depth of 15m at the center of the fairway and is entered between Bishop Rock and Flemings's Ledge, about 0.7 mile N. North Channel, the NW approach, is not marked. It has a least depth of 12.3m and presents little difficulty. Smith Sound is deep and very narrow. It is not marked and requires local knowledge.

St. Mary's Harbour at Hugh Town has a pier with depths of 2m alongside. There are facilities for small coasters, ferries, and pleasure craft.

Several radio masts and a conspicuous television tower stand on the NW side of St. Mary's and can be seen from a considerable distance in clear weather. A prominent coast guard station stands close S of the tower.

A light is shown from a framework tower with a cupola, 14m high, standing on Peninnis Head, at the SW side of St. Mary's. The Star Castle Hotel, a prominent building, stands on the N end of the peninsula at the SW side of the isle.

Peninnis Head (St. Mary's) Light

Pilotage.—Pilotage is compulsory for St. Mary's Road and all the waters within the Scilly Isles with the exception of fishing trawlers less than 47.5m in length, yachts less than 20m in length, and HM vessels. Vessels should send an ETA to the Harbormaster at St. Mary's at least 24 hours in advance. The harbor can be contacted by VHF. Amendments to the ETA of over 3 hours should be sent immediately. Pilots board between 1 and 2 miles S of Peninnis Head or the same distance W of Bishop Rock.

Regulations.—An IMO recommendation states that laden tankers over 10,000 grt using the Traffic Separation Scheme (TSS) lying between Land's End and the Isle of Scilly should keep at least 3 miles to seaward of Wolf Rock and should not use the scheme in restricted visibility or other adverse weather.

Laden tankers should avoid the areas between the inshore boundaries of each of the above schemes and the coasts of the Scilly Isles and the Cornwall Peninsula as these have been designated as Inshore Traffic Zones.

Vessels may pass between the TSS situated S of the Scilly Isles and the TSS situated NW of Ile d'Ouessant if it is considered safer to do so in the prevailing circumstances.

The recommended channel for large vessels leading between Seven Stones and Longships is approximately 12 miles wide, with a least depth of 34m, and passage is simple by day or by night in clear weather.

Laden tankers using the TSS lying between Land's End and the Isle of Scilly should report by VHF to Falmouth Coastguard Station at least 1 hour before ETA at the scheme and on final departure from the scheme. These vessels should provide the following information:

Designator	Information required
A	Name and call sign.
B	Date and GMT/UT time (6 figures).
C	Latitude (4 figures N/S) and Longitude (5 figures E/W).
D	True bearing and distance (miles) from landmark.
E	True course (3 figures).
F	Speed (knots and decimal 3 figures).
G	Last port of call.
I	Destination.
M	VHF channels monitored.
O	Draft (deepest in meters and centimeters).
P	Type and quantity of cargo.
Q	Any damage or deficiency.

Directions.—Traffic Separation Schemes (TSS), which may best be seen on the chart, are situated W of the Scilly Isles, S of the Scilly Isles, and between the Scilly Isles and the English coast. These schemes are IMO-adopted and Rule 10 of the Navigational Rules (72 COLREGS) applies.

Caution.—Many of the dangers in this area are steep-to and the soundings do not provide a warning of approach. In thick weather, the distinct differences (intervals and frequency) of the fog signals sounded by the adjacent aids should be carefully identified in order to avoid these dangers.

Exercise areas, in which ships and submarines carry out drills including firing practice, extend up to 40 miles S from the English coast as far as the meridian of 7°W.

A good lookout for submarines must be kept while passing through these waters.

In thick weather, vessels approaching the Scilly Isles from the W and SW should keep outside the 100m curve, (but should be aware of the existing TSS), which lies about 18 miles W, and 22 miles S of Bishop Rock.

An experimental area, about 1 square mile and in which several underwater obstructions exist, is located close off the NW side of the Scilly Isles.

1.5 **Seven Stones** (50°02'N., 6°07'W.), a large group of steep-to rocks, many of which dry, lies on a bank about 6.5 miles NE of the NE extremity of the Scilly Isles. In rough weather, the sea breaking on these rocks can be seen for a considerable distance, but vessels should never attempt to pass close to their position.

Seven Stones Lightfloat (50°04'N., 6°04'W.), equipped with a racon, is moored about 2 miles NE of the N part of the shoal.

When navigating between the Scilly Isles and Land's End, vessels should not pass between Seven Stones and this lightfloat.

Wolf Rock (49˚57'N., 5˚49'W.), a steep-to drying rock, is located about 8 miles SSW of Land's End and is awash at HWN. A main light, equipped with a racon, is shown from a prominent granite tower, 41m high, standing on the rock.

Wolf Rock Light

Land's End to Lizard Point

1.6 Land's End (50˚04'N., 5˚43'W.), the SW extremity of England, consists of a bold precipitous headland, 73m high, fronted by foul ground. It is radar conspicuous.

A church, with a prominent steeple, is situated 0.8 mile E of the headland and a coast guard station stands 0.5 mile NE.

Longships (50˚04'N., 5˚45'W.), a foul area with above and below-water rocks, lies about 1 mile W of Land's End with a narrow channel between. A main light is shown from a prominent granite tower, 35m high, standing on the tallest rock, at the W side of the area.

Longships Light

Carn Base, a rocky shoal with a depth of 9.9m, lies about 2 miles S of Longships, near the W edge of a bank. A heavy confused sea occurs on this bank during W gales, especially during W tidal currents.

Cape Cornwall, surmounted by a conspicuous disused mine chimney, is located 3.5 miles N of Land's End. A prominent television mast stands 1.8 miles NE of this cape.

Longships Rocks

For further information concerning the waters and landmarks N of Land's End, see Pub. 142, Sailing Directions (Enroute) Ireland and the West Coast of England.

1.7 Gwennap Head (50˚02'N., 5˚41'W.), the SW extremity of the Cornwall Peninsula, is a cliffy headland rising in places to heights over 60m. A coast guard station, from which storm signals are displayed, stands on this headland.

Runnel Stone, a shoal awash, lies about 0.8 mile S of Gwennap Head and is marked by a lighted buoy. Two beacons standing in line on the headland mark the position of this danger. The channel leading between the shoal and the headland is foul and should not be attempted without local knowledge.

The coast trending ENE from Gwennap Head remains cliffy and craggy with numerous small points and coves.

Tater-du Light (50˚03'N., 5˚35'W.), a main light, is shown from a prominent tower, 15m high, standing on the coast, 3.8 miles ENE of Gwennap Head. A church, with a conspicuous tower, is situated at St. Buryan, about 2 miles NW of the light.

Carn du, the E entrance point of Lamorna Cove, lies about 1 mile NE of Tater-du Light. Gull Rock, 24m high and precipitous, lies close off this point.

Caution.—Several submarine cables, which may best be seen on the chart, extend seaward from the vicinity of Porthcurno, about 1 mile ENE of Gwennap Head and from a bay located about 1 mile NNE of Land's End.

1.8 Mounts Bay (50˚04'N., 5˚26'W.) indents the coast between Runnel Stone and Lizard Point, 18 miles ESE. This bay should be avoided in the winter, or during SW gales. No attempt should be made to enter any of the harbors within the

bay, except Newlyn, when a ground swell is running or with onshore winds.

Penzance Bay (50˚06'N., 5˚30'W.) is located in the NW corner of Mounts Bay and entered between Carn du and Cudden Point, 5.5 miles NE. The best anchorages lie within this bay, but they should not be used with winds between SSW and SE.

St. Michael's Mount (50˚07'N., 5˚29'W.), a small conical island, is the best landmark in Penzance Bay. It is 80m high and surmounted by a castellated building with a conspicuous tower. This island bears a striking resemblance to the mount of similar name in Normandy, although much smaller, and is likewise connected to the shore by a drying ledge and causeway.

St. Clements Isle (50˚05'N., 5˚32'W.), about 8m high with an obelisk on its S end, lies 0.2 mile off the W shore of Penzance Bay, about 0.5 miles NNE of Carn du. This island provides shelter for the drying boat harbor of Mousehole which is located on the mainland, WNW of it.

Penzer Point, surmounted by a prominent building, and a conspicuous hotel are situated 0.8 mile and 0.3 mile, respectively, S of Mousehole. The cliffs near Penzer Point are 25m high and the land rises abruptly behind them.

Penlee Point is located 0.5 mile N of St. Clement's Isle and the cliffs here are 18m high. Low Lee and Carn Base, with depths of 1.5m and 1.8m, respectively, lie about 0.5 mile ENE and NNE of this point. Both are weed-covered rocks. Low Lee is marked by a lighted buoy.

A church, with a prominent tower, stands at Paul, 0.5 mile W of Penlee Point.

Newlyn (50˚06'N., 5˚33'W.) (World Port Index No. 35240) is situated on the W side of Penzance Bay, within a cove known as Gwavas Lake. This small port, formed by two piers, has a narrow entrance. It is used by coasters, fishing vessels, and pleasure craft.

Most of the harbor dries at LW, but the outer part, including the extremities of the piers, can be entered by small craft at any stage of the tide. There is about 920m of quayage with depths of 1.9 to 2.7m alongside. Small coasters up to 108m in length, with drafts up to 5.5m at HWS and 5.1m at HWN, can be handled. See Penzance for pilotage information.

A light is shown from a prominent metal tower, 10m high, standing on the head of the S pier.

1.9 Penzance (50˚07'N., 5˚32'W.) (World Port Index No. 35250) is situated in the NW part of Penzance Bay. This small port is used by coasters, fishing vessels, and pleasure craft. It is also the terminal of the ferry which runs to the Scilly Isles.

Winds—Weather.—Winds are generally from the N to NE in the morning and S to SW in the afternoon. During winter, numerous gales effect the bay area and no attempt should be made to enter during those from the S. Coastal fog is encountered mostly during the spring.

Tides—Currents.—Tides rise about 5.6m at springs and 4.4m at neaps.

Depths—Limitations.—The harbor, which consists of a tidal basin and a wet dock basin, is formed by two piers. The tidal basin mostly dries. A ferry berth, located near the head of the S pier, has a depth of 7.6m alongside at HW. The wet dock basin is entered through a gate, 15.3m wide. It usually has a depth of 4.3m, but at HWS there is a depth of 5.3m.

Vessels up to 92m in length, with drafts up to 5.6m at HWS and 4.2m at HWN, can be accommodated.

Aspect.—Gear Rock lies about 0.5 mile S of the harbor entrance and is marked by a lighted buoy. A light is shown from a tower, 9m high, standing on the head of the S breakwater. A church, with a prominent tower, stands close W of the wet dock basin. The dome of the market, situated 0.3 mile NW of the wet dock basin, is conspicuous from seaward.

Pilotage.—The harbor can be contacted by VHF from 0830 to 1730 weekdays and on all tides from 2 hours before to 1 hour after HW. Pilots are not available but the Harbor Master can provide navigational advice.

Newlyn can be contacted by VHF and provides information on vessel movements and general navigation matters in or near the harbors of Newlyn and Penzance. The harbor office hours are 0800 to 1700 weekdays and 0800 to 1200 Saturday.

Anchorage.—The best anchorage in Penzance Bay is in a depth of 15m, sand, about 0.5 mile SSE of Gear Rock. The anchorage should be used with caution in winter. Vessels can also anchor, in depths of 12 to 13m, about 0.9 mile ENE of the S pier at Newlyn; in a depth of 15m, about 0.7 mile E of the S pier at Newlyn; and in a depth of 7m, about 0.3 mile SE of the S pier at Newlyn.

Caution.—Vessels with drafts over 4m should contact the harbor or pilot prior to entry to ensure there is sufficient water.

1.10 Cudden Point (50˚06'N., 5˚26'W.) is located on the NE side of Mounts Bay, 2.2 miles ESE of St. Michael's Mount.

Iron Gates (50˚04'N., 5˚26'W.), a rocky shoal patch with a depth of 7.2m, lies on a bank which extends up to about 2 miles S of Cudden Point. Mountamopus, Carn Mallows, and Great Row, all shoal patches with depths of less than 5m, lie within about 1.7 miles N and E of Iron Gates. A channel, about 0.7 mile wide, leads between these dangers and Iron Gates. It is marked by a lighted buoy, but local knowledge is advised.

A conspicuous water tower stands at Saint Hilary, 1.4 miles N of Cudden Point. A church, with a prominent tower, is situated at Perranuthnoe, 1.2 miles NW of Cudden Point.

Porthleven (50˚05'N., 5˚19'W.), used only by fishing boats, is situated in the NE part of Mounts Bay. This small and shallow harbor is entered between the head of a pier and Deazle Rocks, about 90m W. The entrance is open to the SW and, when necessary, heavy timbers are placed across the inner harbor for protection.

The coast trends 1 mile SE from Porthleven to Loe Bar, a bar of shingle, and is low and sandy. From Loe Bar to Lizard Point, 8 miles SSE, the coast consists of cliffs, 15 to 75m high.

Mullion Island (50˚01'N., 5˚16'W.), 30m high and precipitous on its seaward side, lies about 0.2 mile offshore. It protects the drying boat harbor of Porth Mellin which is situated 0.3 mile NE. Landing on the island is prohibited.

Anchorage in E winds only can be obtained, in depths of 14 to 16m, about 0.8 mile NNW of Mullion Island.

The general trend of the coast from Porth Mellin is SSW for 0.8 mile to Predannack Head, a rocky and cliffy headland that rises sharply to a height of 61m.

Vradden, a drying rock, lies about 0.2 mile SW of Predannack Head and is steep-to on its seaward side.

A conspicuous hotel stands on the cliffs above a cove 1 mile N of Predannack Head and about 0.4 mile NE of Mullion Island.

The Boa (49˚58'N., 5˚17'W.), a rocky patch with a least depth of 11m, lies 1.5 miles offshore about 2 miles SSW of Predannack Head. It is known to break heavily in SW gales. The bottom is irregular in the vicinity of this shoal and strong tide rips usually occur.

Caution.—A submarine cable, which may best be seen on the chart, extends seaward from the vicinity of a cove located 1.3 miles N of Mullion Island.

Lizard Point to Falmouth

1.11 Lizard Point (49˚57'N., 5˚12'W.), the S extremity of the mainland of England, is a bold and precipitous promontory at which vessels generally make their landfall when proceeding into the channel from the SW. It is radar conspicuous.

A building with two prominent white octagonal towers, 19m high, stands about 0.5 mile E of the point. A main light is shown from the easternmost tower. It is obscured from N until WNW of the point.

Lizard Point Light

A conspicuous large hotel is situated at the head of a small bay, 0.4 mile NE of the light. Several dish-shaped antennas stand on Goonhilly Downs, 5 miles N of the light and are conspicuous from seaward.

A cluster of rocks, collectively known as The Stags, extends up to 0.5 mile S of Lizard Point, terminating in Men Hyr, a rock which dries 4m.

A tide race extends up to 2 miles S of these rocks and during SW gales, the sea in this area is short and heavy.

Spernan Shoals, several rocky patches with depths of 6.9 to 9.6m, lie up to 0.8 mile E of Bass Point, about 0.5 mile ENE of Lizard Point.

Vrogue Rock, with a depth of less than 1.8m, lies about 0.4 mile ESE of Bass Point, with depths of less than 10m close around. Craggen Rocks, with a least depth of 1.5m, lie nearly 0.5 mile offshore about 1 mile NNE of Bass Point.

Anchorage.—Anchorage in W winds is available to small vessels, in a depth of 11m, about 0.3 mile E of Balk Beacon, which is situated at Parn Vose Cove, 0.7 mile N of Bass Point.

Caution.—A submarine pipeline extends 0.3 mile E from a point on the shore located 0.5 mile N of Bass Point and its seaward end is marked by a buoy.

Several submarine cables, which may best be seen on the chart, extend seaward from the vicinity of Kennack Cove, about 3 miles NE of Lizard Point.

1.12 Black Head (50˚00'N., 5˚06'W.), a cliffy and steep headland, rises to a height of 70m about 4.8 miles NE of Lizard Point.

A hotel, situated on the heights above the shore, stands 0.8 mile NNE of Black Head and is conspicuous from the E.

Coverack Cove (50˚01'N., 5˚06'W.) is entered between Chynhalls Point and Lowland Point, 1.5 miles NE. The shore is fronted by drying rocks and ledges. The village of Coverack stands on Dolor Point, 0.4 mile N of Chynhalls Point. A pier extends NW from this point and is used by small craft which can take the ground at LW.

Anchorage is available to small vessels, in a depth of 9m, about 0.2 mile ENE of Dolor Point.

A small jetty is situated 0.3 mile N of Lowland Point. It is used by coasters up to 1,500 tons to load stone from the nearby quarries. The jetty dries at LW and a rock, which dries 1.5m, lies about 0.2 mile ESE of the head. The gantries on the jetty and the buildings standing behind it are prominent.

It is reported that the quarry operators keep a listening watch on VHF channels 16 and 19 whenever blasting is due to take place in order to warn vessels navigating close inshore.

Manacle Rocks (50˚03'N., 5˚02'W.), also known as The Manacles, lie up to 0.8 mile offshore E of Manacle Point, about 3.3 miles NNE of Black Head. Steep-to on their seaward edge, these drying and submerged rocks can be particularly dangerous in thick weather when rounding the coast for Falmouth. A lighted buoy is moored about 0.3 mile E of the outer rock.

The **Helford River** (50˚06'N., 5˚06'W.), entered about 3 miles NNW of The Manacles, is used only by yachts and pleasure craft. Numerous oyster beds lie in the river and adjoining creeks. Gillan Creek, a yachting center, is situated close within the river entrance, on the S side.

Vessels can anchor, in a depth of 12m, about 0.5 mile NNE of Nare Point, the S entrance point, sheltered from SW winds.

Several mooring buoys are situated SE and NE of the river entrance points and their positions are likely to be frequently changed.

Falmouth Bay (50˚08'N., 5˚04'W.) lies between the N entrance point of the Helford River and Pendennis Point, 2.5 miles NE. The coast consists of cliffs up to 15m high in the S part and is fronted by drying ledges in the N part.

Saint Anthony Head (50˚08'N., 5˚01'W.) forms the SW extremity of a headland. A main light is shown from a conspicuous white octagonal tower, 19m high, standing on the head.

Falmouth (50˚09'N., 5˚03'W.)

World Port Index No. 35290

1.13 Falmouth Harbour is centered between Saint Anthony Head and Pendennis Point, 1 mile W. There are extensive facilities for repairs and refuelling. The harbor extends N for about 4 miles with numerous coves and inlets. The main

facilities, available to ocean-going vessels, are situated on the E side of the town, NW of Pendennis Point.

Falmouth Docks from SE

Winds—Weather

During summer, the land and sea breeze effect is very pronounced with winds from the N in the morning and S in the afternoon. During winter, Falmouth experiences numerous gales, many of which are severe, but Lizard Point gives some protection from those from the SW.

Sea fog is most likely to occur in early spring during SW winds when moist air is driven over the cooler waters.

Land fog occurs most regularly in winter on calm clear nights, but it usually clears by early morning.

Tides—Currents

The tides rise about 5.2m at springs and 4.1m at neaps.

The tidal currents run generally in the direction of the channel. At the harbor entrance, they attain a rate of 1 knot at springs and about 0.5 knot at neaps. Off the Docks Basin, the rate rarely exceeds 0.5 knot.

Depths—Limitations

The approaches to Falmouth are deep, but Old Wall, a rocky shoal with a least depth of 6.4m, lies about 1.3 miles SSE of Saint Anthony Head and should be avoided, especially in periods of swell.

Black Rock, marked by a beacon, is a drying rock fringed by shoals lying in the entrance, about 0.4 mile ENE of Pendennis Point. This rock divides the entrance into two channels.

The main entrance channel passes E of Black Rock. It is wide and clear with a least depth of 11.3m. The channel passing W of Black Rock has a least depth of 5.4m and should only be used with local knowledge.

The fairway channel leading to Docks Basin and Inner Harbour has a least depth of 5.4m. A buoyed channel leads 1.3 miles NNW from the entrance to Carrick Road, the main anchorage area.

The port provides about 2,400m of total quayage. There are facilities for general cargo, fishing, and offshore exploration support vessels. In addition, there are extensive facilities for ship repairs. The principal berths are listed below.

Falmouth Berth Information		
Berth	**Depth**	**Length**
Eastern Breakwater	7.1m	259m
Western Breakwater	6.1m	172m
Northern Arm, S side	6.1m	198m
Northern Arm, N side	6.1m	209m
Queen's Jetty, N side	7.6m	189m
Queen's Jetty, S side	7.6m	152m
Empire Jetty, N side	5.8m	168m
Empire Jetty, S side	7.3m	122m
King's Jetty, N side	7.6m	192m
King's Jetty, S side	7.6m	183m
Duchy Wharf	8.1m	220m
County Wharf	9.1m	160m

The berth on the Eastern Breakwater is mostly used by tankers. Vessels up to a maximum length of 265m and a maximum draft of 8.4m, can be accommodated, subject to length.

There are lay-up berths in the River Fal for vessels, including oil rigs, up to 219m in length and 15m draft.

Mooring buoys are situated 500m NW of the Docks Basin. The maximum size of vessel normally permitted at either of these buoys, except by special permission, is 61m in length with a draft of 3.5m. Larger vessels can moor between the buoys.

There are three drydocks in the harbor. The largest is 259m long and 39.6m wide, with a depth of 11m over the sill at HWS. It can handle vessels up to 100,000 dwt.

Aspect

In addition to Saint Anthony Head Light, the port entrance may be easily identified by the conspicuous castle, radio mast, and coast guard station standing on Pendennis Point.

A prominent hotel is situated near the shore, 0.6 mile WNW of Pendennis Point. The Observatory Tower stands 1.2 miles WNW of Pendennis Point and is also prominent. The Eastern Breakwater is located 0.7 mile NW of Pendennis Point. It extends 0.2 mile NNE and is illuminated by floodlights.

St. Mawes Castle, standing on Castle Point 0.7 mile N of the entrance, is prominent. A conspicuous water tower is situated 0.9 mile NNE of this castle.

Black Rock is marked by a conspicuous, conical stone beacon, 13m high, and a lighted buoy is moored close E of it. Penarrow Point, located about 2 miles NNW of the entrance, is marked by a prominent elm tree and a pillar, 3m high. This point is not easily identified from outside the harbor.

Pilotage

Pilotage is compulsory for vessels, as follows:

1. All vessels over 75m in length.
2. All vessels carrying dangerous substances.
3. All vessels carrying more than 12 passengers unless otherwise exempted.
4. All vessels laying-up at the heavy duty mooring buoys in the River Fal or dry-docking in Falmouth Docks.
5. All vessels using tugs owned by Falmouth Towing Ltd.

The following are exempted from compulsory pilotage:

1. Private pleasure craft.
2. Vessels not carrying dangerous substances, which are obtaining shelter or awaiting instructions while anchored in the outer part of the pilotage area (Falmouth Bay) and not using any port facilities or services.
3. HM ships and foreign warships (with or without the use of tugs).

The pilotage area lies within a line extending between Black Head (50˚00'N., 5˚06'W.) and Dodman Point (50˚13'N., 4˚48'W.), 19 mile NE.

Pilots can be contacted by VHF and board about 3.5 miles S of Saint Anthony Head Light in the vicinity of Helston Lighted Buoy.

Vessels should send their request for pilotage through Land's End, Pendennis, or Start Point radio stations with an ETA 72 hours, 48 hours, 24 hours, and 12 hours in advance. Amendments may be sent up to 2 hours before the original ETA.

Regulations

All vessels anchoring within the pilotage area without a pilot should contact Falmouth Pilot Radio by VHF and report their arrival and anchorage position.

All vessels navigating or at anchor within the port limits must maintain a listening watch on VHF channel 16.

Vessels carrying dangerous or polluting substances are required to display the appropriate special signals by day and at night.

Commercial vessels at anchor in the river or outside the harbor should not immobilize their main engines without permission of the Harbormaster.

Anchorage

There is good anchorage with offshore winds outside the harbor, in depths of 13 to 20m, gravel and shell, about 1 mile SW of Saint Anthony Head. However, vessels must avoid the wrecks charted in the vicinity of the anchorage area. Within the harbor the usual anchorage for deep-draft vessels is in Carrick Road, in depths of 26 to 27m, coral and shells. Vessels over 203m in length usually anchor outside the harbor.

Caution

Transhipment of explosives is occasionally carried out at the anchorages.

Several dangerous wrecks lie in the approaches to the harbor and may best be seen on the chart.

Ferries may be encountered within the port.

A small circular foul area lies centered 3.3 miles ESE of Saint Anthony Head and may best be seen on the chart.

Spoil ground areas, the limits of which are shown on the chart, lie centered 4.5 miles SE of Saint Anthony Head and 0.7 mile WSW of Pendennis Head.

Numerous uncharted buoys used for yacht races may be moored in the vicinity of the harbor from March to September.

Falmouth to Plymouth

1.14 Dodman Point (50˚13'N., 4˚48'W.), a precipitous bluff, is 111m high. It has a steep E face and is surmounted by a prominent stone cross near the S extremity.

The Bellows, with a depth of 6.1m, and The Field, with a depth of 7m, are two rocky patches lying about 0.9 mile S and 0.8 mile SSE, respectively, of the point. The depths extending up to about 1 mile S of the point are very irregular and heavy overfalls are formed in bad weather in this area. It is advisable to stay at least 2 miles S of Dodman Point.

Nare Head, 78m high, is a bold headland located 4.8 miles WSW of Dodman Point. The Bizzies, a group of rocky patches, lies at the seaward extremity of a spit which extends about 1 mile offshore, 2.5 miles SW of the headland. Overfalls are formed in the vicinity of these patches.

Gull Rock, 38m high, is located about 0.6 mile E of Nare Head. The Whelps lies at the S end of a group of detached drying rocks extending 0.4 mile SSW from Gull Rock. Lath Rock, with a least depth of 2.1m, lies about 1 mile off the shore of Veryan Bay, 1.6 miles NE of Gull Rock.

The spire of the church standing in Gerrans, 2.5 miles SW of Nare Head, is conspicuous from seaward. A beacon, prominent from SW, is situated on a hill with an elevation of 102m standing about 1 mile N of Nare Head. It consists of a mound, 6m high, surmounted by a hut.

Chapel Point, located about 2.5 miles NNE of Dodman Point, is the S entrance point of Mevagissey Bay and is fronted by shoals.

Gwineas Rock, 8m high, lies on a detached shoal bank about 0.8 mile SSE of Chapel Point and is marked close SE by a lighted buoy.

Mevagissey (50˚16'N., 4˚47'W.), a small port, is situated in the SW part of Mevagissey Bay. It consists of an outer harbor and an inner harbor and is used by fishing vessels and pleasure craft. The entrance to the outer harbor is 50m wide and has a depth of 2.1m. The inner harbor dries. The harbors afford good shelter except in strong E winds. A light is shown from a prominent structure, 8m high, standing on the S pierhead. The port can be contacted by VHF during the day.

Anchorage is available within Mevagissey Bay, in depths of 10 to 20m, sand.

Black Head (50˚17'N., 4˚46'W.), the N entrance point of Mevagissey Bay, also forms the W entrance point of a large bight in the coast, of which Gribbin Head, about 3 miles ENE, forms the E entrance point. St. Austell Bay, located in the W part of the above bight, affords good temporary anchorage.

1.15 Charlestown Harbour (50˚20'N., 4˚45'W.) (World Port Index No. 35320) is located in the NW part of St. Austell Bay and is used by coasters and yachts. The harbor consists of

an outer tidal basin and an inner wet basin. The entrance to the outer basin is 13.7m wide and has depths of 4.3m at HWS and 3m at HWN. The outer basin dries at LWS. The entrance between the lock gates of the wet basin is 10.7m wide and has depths similar to the entrance of the outer basin. There are three berths. Vessels up to 1,050 dwt and 3.7m draft can be accommodated in the wet basin. Such vessels are limited to a length of 56m with a beam of 10m or a length of 58m with a beam of 9m.

A mooring buoy is located about 0.2 mile SSE of the harbor entrance. A red light is shown from a flagstaff at the N side of the entrance when the harbor is closed.

A conspicuous hotel stands at Crinnis, 0.8 mile ENE of the harbor, and a prominent building is situated 0.3 mile E of it.

Pilotage.—Pilotage is compulsory for all vessels over 37.5m in length except those exempt by law. The pilot normally boards in an arranged position up to 1 mile from the harbor entrance.

Pilots may be contacted by VHF. They are provided by the station at Fowey and are available 2 hours before to 1 hour after HW. See Fowey, in paragraph 1.17, for further information.

Anchorage.—Anchorage is available off the harbor, in depths of 2 to 6m, with good holding ground of firm sand.

1.16 Par Sands (50˚21'N., 4˚42'W.), at the head of Tywardreath Bay in the E part of the bight with St. Austell Bay, is a drying flat, the W part of which contains the small drying harbor of Par.

Par (50˚21'N., 4˚42'W.) (World Port Index No. 35330) is a small port used mainly by coasters. The harbor basin has three quays and is protected by a breakwater. It is tidal and vessels lie aground at LW. The entrance is 38m wide. Generally, vessels up to 130m in length, 13.5m beam, and 3.4m draft can be accommodated. Vessels with drafts up to 5.2m can be handled at HWS.

A lighted mooring buoy is located close ESE of the head of the breakwater. Puckey's Ground, an isolated shoal with a depth of 4.9m, lies in the approach, about 1 mile SW of the entrance. Several conspicuous chimneys stand close W of the harbor entrance.

Pilotage.—Pilotage is compulsory for all vessels over 37.5m in length except those exempt by law. The pilot will usually board in a position arranged with the vessel up to 1 mile from the harbor entrance. Pilots may be contacted by VHF. They are provided by the station at Fowey and are available 2 hours before to 1 hour after HW. See Fowey, in paragraph 1.17, for further information.

Anchorage.—Anchorage is available off the harbor. A recommended berth lies about 0.8 mile SSE of the entrance, in a depth of of 6m. Tywardreath Bay only affords anchorage in N or E winds; vessels should proceed to St. Austell Bay in the W part of the bight for shelter at other times.

Gribbin Head (50˚19'N., 4˚40'W.), with a conspicuous beacon tower, 26m high, standing on its E side, is bordered by numerous rocks which break heavily in bad weather. Cannis Rock, which dries, lies about 0.3 mile SE of the head and is marked by a lighted buoy.

Gribbin Head Beacon

Fowey Harbour (50˚19'N., 4˚39'W.)

World Port Index No. 35340

1.17 Fowey is a small harbor situated just within the entrance of the River Fowey, about 1.3 miles NE of Gribbin Head. It is a commercial port and an extensive yachting center. The entrance lies between St. Catherines Point, on the W side, and Punch Cross Rocks, about 0.2 mile ESE.

Tides—Currents.—The tides rise 5.5m at springs and 4.3m at neaps. The tidal currents in the river attain rates up to 1 knot on the flood and 1.5 knots on the ebb.

Depths—Limitations.—The fairway as far as Wiseman's Point, 1.5 miles above the entrance, has a least depth of 6.4m (1998). A swinging area, with a least depth of 4.3m, is situated opposite the town and close SW of Penleath Point. However, due to small craft moorings located in this vicinity, vessels swinging are limited to a length of 35m.

The main commercial loading facilities are situated on the W side of the river in the vicinity of Upper Cairn Point, about 1 mile above the entrance. There are five berths, 110 to 170m long, with depths of 6.7 to 8.5m alongside. Vessels up to 17,000 dwt, 164m in length, and 8.4m have been accommodated.

Several mooring buoys are located in the harbor. Cruise vessels up to 48,000 grt have been berthed at buoys in the lower section of the river.

Aspect.—The entrance can be easily identified by the comparatively high land on either side and also by Fowey Hall, a large mansion, and above it a large school, both just W of the town. St. Fimbarrus Church, in the town, and the ruins of a church tower, standing 0.2 mile E of Punch Cross Rocks, are also both conspicuous. A prominent white house is situated in Polruan, about 0.3 mile ESE of Punch Cross Rocks.

Fowey Light, a main light, is shown from a prominent octagonal tower, 6m high, standing close SW of St. Catherines Point. Whitehouse Point Light, with sectors indicating the entrance channel, is shown from a column, 4m high, standing 0.4 mile NE of St. Catherines Point. It can only be seen when in line with the harbor entrance. A prominent hotel is situated close W of this light.

Penleath Point is located on the E side of the river, 0.6 mile NE of Punch Cross Rocks, and surmounted by a conspicuous monument.

Pilotage.—Pilotage is compulsory for vessels over 37.5m in length and is available from 2 hours before to 1 hour after HW for Charlestown and Par. Pilots for Fowey are available from 2 hours before to 1 hour after the vessel's ETA.

Vessels should send an ETA and request for pilotage at least 24 hours in advance, confirming at least 6 hours prior to arrival. Pilots will generally board in a position arranged with the vessel up to 1 mile from the entrance of each harbor. However, pilots may board anywhere inside a line joining Pencarrow Head (50˚19'N., 4˚36'W.) and Cannis Lighted Buoy (50˚18'N., 4˚40'W.). The pilot vessels maintain a listening watch on VHF channel 9 when manned. Foreign warships and HM ships are exempt from pilotage.

Regulations.—Port regulations prohibit vessels from operating above Penleath Point without a pilot unless granted permission by the harbormaster.

Maximum speed over the ground within the harbor limits is enforced at 6 knots, and because of this and the narrowness of the channel, overtaking of vessels at night is prohibited.

Anchorage.—There is good anchorage outside the harbor, in depths of 14 to 16m, rock and gravel, about 0.5 mile SSE of Fowey Light. Vessels coming into this anchorage are cautioned not to close the W shore, where a rocky spit, with depths of less than 5m, extends up to 0.2 mile seaward of the light.

There is room for several small vessels to anchor on the SE side of the fairway between Polruan Point and Penleath Point, but they must remain clear of the swinging ground SW of the latter.

Caution.—Vessels are warned not to pass E of vessels layed-up on the E side of the fairway N of Penleath Point because they may be connected to the shore by breast ropes.

Salmon fishing takes place in the upper parts of the river.

A ferry transits the harbor between Polruan and Fowey.

1.18 Pencarrow Head (50˚19'N., 4˚36'W.), a cliffy headland which rises close inland to a height of 134m, is situated 1.8 miles E of Fowey Harbour and forms a good landmark from seaward.

Udder Rock, marked by a buoy close S, lies about 0.5 mile offshore, 1.5 miles ESE of Pencarrow Head. It should be given a wide berth. Shag Rock, marked with a white diamond, lies close offshore, N of this rock. The alignment of Shag Rock and a beacon, 5m high, standing on the mainland close NNE indicate the approximate position of Udder Rock.

Polperro, a small tidal harbor, lies at the head of a narrow inlet, 3.4 miles E of Pencarrow Head. It is used by fishing vessels and yachts. The entrance is about 10m wide. The harbor dries and has depths of 3.4m at HWS and 1.5m at HWN. This picturesque town is a tourist resort and filming site.

A light is shown from pillar, 3m high, standing on Spy House Point, close E of the harbor. A prominent monument is situated on Downend Point, 0.3 mile E of the light.

Caution.—A spoil ground area, which may best be seen on the chart, fronts the shore in the vicinity of Pencarrow Head.

A measured distance (1,852.9m), indicated by pairs of beacons, is situated in the vicinity of Hore Stone Point, 1.5 miles E of Polperro, and may best be seen on the chart.

1.19 St. Georges Island (Looe Island) (50˚20'N., 4˚27'W.), nearly connected to Hannafore Point about 0.5 mile N by low shelving rocks, is surrounded by dangers and shoals.

Vessels proceeding to Looe Harbour should round the island at a distance of at least 1.5 miles and then pass to the E, with Looe Light bearing not more than 313˚.

The Ranneys, which dry 4.6m, extends about 0.3 mile SE of St. Georges Island. Sherbeterry Rocks, with a least depth of 5.4m, extend up to about 2 miles S of the shore, 2.8 miles NE of St. Georges Island.

Knight Errant Patch, at the SE end of the shoals, has a depth of 6.2m and lies about 2.7 miles E of The Ranneys; a patch, with a least depth of 5m, lies near the SW end of the shoals.

Looe Harbour (50˚21'N., 4˚27'W.) lies at the mouth of the River Looe, about 0.5 mile N of Hannafore Point. This small drying harbor is used by fishing vessels and pleasure craft. It has depths of 4m at HWS and 3m at HWN. Vessels up to 16m in length and 2.9m draft can enter. A stone bridge spans the river about 0.4 mile above the entrance.

The roadstead off Looe affords good shelter from W winds and is exposed only to the S through E. The best anchorage is in depths of 7 to 13m, sand, between 0.5 and 1 mile SE of the river mouth.

Rame Head (50˚19'N., 4˚13'W.), at the W side of the entrance to Plymouth Sound, appears from seaward as a conical hill. Rising to a height of 102m close within, the headland, with an old chapel standing on its summit, is very prominent and clearly defines the position of the sound.

A prominent radio mast, 23m high, is situated 0.4 mile NE of Rame Head. A beacon stands at an elevation of 128m about 1.5 miles N of the head and is prominent from seaward.

Whitsand Bay lies W of Rame Head and is bordered by cliffs 30 to 75m high. Portwinkle, a small drying harbor, is situated 4.3 miles NW of Rame Head and is used by fishing boats.

Caution.—A submarine exercise area lies in the approaches to Looe Harbor and Whitsand Bay.

A spoil ground and disused explosive dumping area lies centered 1.5 miles W of Rame Head and may best be seen on the chart.

A small arms firing range is situated on the shore of Whitsand Bay, about 1.5 mile E of Portwinkle. Red lights and red flags are displayed from flagstaffs in its vicinity when firing is in progress.

1.20 Eddystone Rocks (50˚11'N., 4˚16'W.), lying 8 miles S of Rame Head, do not completely cover. They are fairly steep-to outside a radius of 0.3 mile, but vessels are recommended to give them a wide berth. A main light (Eddystone) is shown from a prominent granite tower, 49m high and surmounted by a helicopter platform, standing on the rocks. This tower is radar conspicuous. A racon is situated at the light.

Hand Deeps, located about 3.5 miles NW of Eddystone Rocks, consists of a group of rocky shoals with a least depth of 7m. In bad weather the position of this shoal area is indicated by a short breaking sea in its vicinity, and in good weather usually by tide rips.

Eddystone Light

Plymouth (50˚20'N., 4˚10'W.)

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1.21 The port of Plymouth is entered between Penlee Point and the island of Great Mew Stone, 3.2 miles ESE. The commercial facilities, including a ro-ro ferry terminal, are situated in the areas of Mill Bay Docks and Cattewater. HM Naval Base, Devonport, a large naval dockyard, is situated in the W part of the port. It stands on the E bank of an area known as Hamoaze.

Winds—Weather

During the summer and winter the sea breeze is primarily from the SW during the day, the land breezes at night shifting mostly from NW or W. Gales obtain the highest incidence during the months of December and January, possibly reaching 3 to 4 days a month, but in summer they are rare.

Fog occurs on the average of 2 to 4 days a month in the spring and fall, but haze with visibility reduced to 2 to 6 miles may occur about four times in as many days.

Tides—Currents

The tides rise about 5.5m at springs and about 4.4m at neaps.

The tidal currents in the narrow channels can be irregular. Strong S winds usually prolong the flood current and delay the ebb by about 15 minutes. Strong N winds usually prolong the ebb current and delay the flood by about 15 minutes. Freshets after heavy rain have the same effect as a strong N wind and long summer droughts can prolong the flood current up to 30 minutes.

The flood current sets through Western Channel toward Asia Pass, and through Eastern Channel toward Smeaton Pass at a velocity of 1.2 knots at springs. The ebb current sets outward from the passes toward the respective channels at the same rate.

The tidal currents in Drake Channel, the Narrows, and Hamoaze set generally in the direction of the channels, with a spring velocity of 2.5 knots in the Narrows and about 1.5 knots in Hamoaze.

Depths—Limitations

Penlee Point, dark and rocky, is located 1.5 miles ENE of Rame Head. Draystone, a shallow reef, fronts the SE side of this point and is marked by a lighted buoy.

Great Mew Stone (50˚18'N., 4˚06'W.) lies about 0.5 mile S of Wembury Point to which it is connected by a drying rocky reef. This island is 57m high, conical, and prominent.

Plymouth Sound, entered between the above point and island, has general depths of 26 to 5.5m. However, several shoal areas lie in the approach and may best be seen on the chart.

Plymouth Breakwater, about 0.8 mile long, is detached. This breakwater lies at the E side of the sound with its W end situated about 1.5 miles NE of Penlee Point.

The Knapp extends up to about 0.6 mile S from the W end of the breakwater. This shoal area has depths of 5 to 8m and is marked on the SW side by a lighted buoy.

Tinker, with a least depth of 3.3m, lies at the S end of a shoal area extending up to about 0.8 mile S from the E end of the breakwater. This shoal patch is marked by two lighted buoys.

Two approach channels, which may best be seen on the chart, lead through the sound to the port.

Eastern Channel lies between the E end of Plymouth Breakwater and Staddon Point, about 0.4 mile ENE. It is not recommended for use by small craft during strong W winds due to a dangerous sea. The least depth in the approach is 6.2m over a width of about 100m. However, vessels are recommended to maintain an underkeel clearance of at least 2m due to scend and inequalities of the rocky bottom.

Western Channel, the main approach channel, rounds the W end of Plymouth Breakwater. It is maintained at a dredged depth of 11m as far as a position about 0.5 mile NW of the E end of Plymouth Breakwater.

An entrance fairway, dredged to a depth of 8.6m, then leads NE and N from the inner end of Western Channel to the outer ends of Smeaton Pass, Asia Pass, and Cobbler Channel.

A recommended deep-water track, which may best be seen on the chart, leads through Western Channel, the entrance fairway, and Smeaton Pass. Its outer end lies about 0.8 mile SE of Penlee Point.

Cobbler Channel leads NE and E to the commercial berths of Cattewater and Sutton Harbour.

Smeaton Pass, with a least depth of 25m, and Asia Pass, with a least depth of 7.6m, lead NW between the shoals lying ENE of Drake's Island to Mill Bay Docks and the outer end of Drake's Channel.

The naval facilities along Hamoaze are accessible via Drake's Channel and The Narrows. Hamoaze is formed by the lower portion of the River Tamar. A railroad bridge and a road bridge, close N, span the river at the N end. They have vertical clearances of 30m and 35m, respectively.

Drake Channel is reported (1995) to have a least charted depth of 10.7m. Recommended tracks, which may best be seen on the chart, lead through the fairways to the Hamoaze.

Vessels intending to berth at the naval facilities are recommended to contact the local authorities for the latest information concerning depths, regulations, etc., prior to arrival.

The main berths at the E side of Hamoaze include Rubble Jetty, 130m long, with a depth of 10m alongside; and No. 1

Courtesy of M. J. Wilson, Brantag Inc, Wiltshire, UK

Plymouth

Jetty, 145m long, with a depth of 9.8m alongside. No. 5 Basin is the largest and deepest. It is maintained at depths of 9 to 9.5m and may best be seen on the chart. The seawall extending S of the entrance to this basin provides the deepest berths. There is 508m of total quayage with a depth of 11.9m alongside. Weston Mill Lake Jetty, close N of No. 5 Basin, provides 503m of quayage with depths of 8.5 to 9.2m alongside.

The largest drydock at the naval base is 242m long with a depth of 14.7m on the sill at HWS. Its length can be increased by 12m by using a caisson. The dock is entered from No. 5 Basin, which has a maximum entrance width of 37.7m at HWS.

Yonderberry Point oil jetty is situated at the W side of Hamoaze. It has a berthing head, 61m long, with a depth of 11.6m alongside.

Ernesettle Pier is situated at the NE end of Hamoaze, close N of the bridges. It provides a berth, 100m long, with a depth of 6.1m alongside.

An extensive marina fronts the NW entrance point of Stonehouse Pool, at the N side of the channel, at the N end of The Narrows.

Mill Bay Docks has a ro-ro ferry and cruise ship terminal situated at the W side of the outer basin. The inner basin is only used by small craft. A marina lies at the E side of the outer basin. There are two berths with depths up to 9m alongside. Vessels up to 200m in length and 8.5m draft can be accommodated.

Cobbler Channel is maintained at a dredged depth of 5.5m as far as the entrance to Sutton Harbour. The fairway in Cattlewater has a dredged depth of 5m (1995).

Sutton Harbor has a non-tidal basin, which is entered via a small lock with a width of 12m. It provides two quays, with depths of 3.5m alongside, for fishing vessels and facilities for small craft and yachts.

Victoria Wharves, on the NW side of Cattlewater, provide two berths, 145m and 103m long, with depths of 6.5m alongside. Vessels up to 5,000 dwt, 130m in length, and 7m draft can be handled at HW. Vessels are generally limited to a maximum beam of 15m.

Cattledown, on the N side of Cattlewater, provides facilities for general cargo, bulk, and tanker vessels. The berth is 216m long with a depths of 6.5 to 7.4m alongside (1995).

Aspect

A main light is shown from a prominent granite tower, 23m high, standing on the W end of Plymouth Breakwater. A lighted beacon is situated at the E end.

The entrance channels are indicated by directional sector lights and ranges which may best be seen on the chart.

An orange flashing light is shown from all principal directional lights when the main power supply at the port is interrupted. Special high intensity fog lights are shown on request from several positions within the harbor and sound.

Two special lighted buoys (OSR North and OSR South) are moored about 1.2 miles SSW of the W end of Plymouth Breakwater, at the E side of the recommended approach track.

Within the sound the coast extending N of Staddon Point, located 2 miles NNW of Great Mew Stone island, is formed by high, steep cliffs. Two conspicuous radio towers stand at elevations of 175m and 173m on Staddon Heights, 0.7 mile NE of Staddon Point.

Picklecombe Point is located 0.7 mile NW of the W end of Plymouth Breakwater. An old fort, which has been converted into a prominent block of apartments, stands on this point.

Drakes Island, prominent and cliffy, lies 1 mile NE of Picklecombe Point and is fronted by drying rocky ledges. A signal station is situated on this island.

Within the harbor Mountbatten Tower stands on a small peninsula, 1.3 miles N of Staddon Point. A short breakwater extends W from the W side of this peninsula.

A conspicuous silo, 61m high, stands at the W side of Mill Bay Docks outer basin. It is surmounted by a tower and a flagstaff. A prominent hotel and the conspicuous Civic Center building are situated 0.3 mile and 0.6 mile, respectively, NE of the entrance to this dock basin.

Ocean Court is a long, white block of apartments standing on the N side of the channel at the N end of The Narrows. It is prominent and fronted by an extensive marina.

Smeaton Tower, 28m high, stands on The Hoe, a park area, about 0.5 mile E of the entrance to Mill Bay Docks outer basin. This historic monument, a former lighthouse, is conspicuous and easily identified by its white and red bands. The tower was erected on Eddystone Rocks in 1759 and moved to its present location in 1882 when the foundation was discovered to be unsafe.

The Naval War Memorial consists of a stone column, 30m high, surmounted by a copper sphere. It stands about 200m N of Smeaton Tower and is prominent.

The city of Plymouth is radar conspicuous.

Pilotage

Pilotage is compulsory for the following vessels:

1. All vessels over 50m in length proceeding to or from an alongside berth or buoy berth within the port.
2. All vessels over 100m in length proceeding within the areas lying N of lines extending from Maker Point Light (50˚20.5'N., 4˚10.9'W.) to the West Breakwater Light and from the East Breakwater lighted beacon to Staddon Point (50˚20.2'N., 4˚07.6'W.).
3. All vessels over 125m in length proceeding to an anchorage in Cawsand Bay (50˚20'N., 4˚11'W.).
4. All vessels carrying hazardous, noxious, or polluting cargo proceeding to or from a berth in the port, including vessels not gas-free from a previous cargo.
5. All vessels over 150m in length proceeding N of a line extending from Penlee Point to Shag Stone.
6. All vessels over 50m in length not having navigational charts showing all numbered anchorages of Plymouth (1:12,500 or larger) on board.

Pilotage of the following vessels will be at the discretion of the Queen's Harbor Master Plymouth, using an Admiralty Pilot when required:

1. HM ships.
2. Government owned ships/auxiliaries and foreign warships/auxiliaries navigating in port for the purpose of securing to or departing an anchorage or Ministry of Defence owned berth, dock or mooring.
3. Any vessel enroute between the Sound and a Ministry of Defence owned berth, dock or mooring.

Pilots board vessels of 150m in length and less within 0.75 mile of the W entrance to the Sound and vessels over 150m in length in position 50˚18.5'N, 4˚10.5'W (about 0.9 mile SE of Penlee Point). The pilot vessel is black with orange upperworks.

The call sign for commercial pilots is "Plymouth Pilots" and the call sign for Ministry of Defence pilots, for the naval berths, is "Long Room Port Control."

All vessels over 25m in length must send an ETA to the "Long Room Port Control" at least 24 hours in advance of arrival or on leaving the last port, if later. The message should include name; nationality; draft; and berthing, anchorage, pilotage, or tug requirements.

Vessels carrying hydrocarbons or dangerous cargo must send an ETA at least 48 hours prior to arrival. The message must include a description, quantity or weight, and classification of the cargo.

All arriving vessels must contact "Long Room Port Control" when within VHF range to confirm pilotage requirements or report any serious defects.

Vessels are required to maintain a continuous VHF watch while underway or at anchor.

All vessels must report their position to "Long Room Port Control" when passing a line joining Penlee Point and Shag Stone (50˚19.0N., 4˚08.1W.) and attain permission to enter the sound. They must then report when passing Plymouth Breakwater and when berthed.

Commercial vessels should use VHF channel 16 or 4. Ministry of Defense vessels should use VHF channel 16, 8, 11,12, or 13.

The Devonport Dockyard and Hamoaze signal station, call sign "Flagstaff Port Control," may be contacted on VHF channels 13 and 73. This station controls movements of vessels N of The Narrows.

Reporting vessels will be advised of traffic movements in the approaches. Tidal and wind speed information is available on request. Information on fog conditions is available on VHF channel 13, 14, or 16 from "Longroom Port Control" or "Flagstaff" stations.

Vessels may obtain information on the Traffic Signals displayed at Drake's Island from "Longroom Port Control" or "Flagstaff" stations.

When the Port Control Traffic Light System displays no lights there are no restrictions in force unless notified on VHF channel 13, 14, or 16.

Regulations

Submarines frequently operate within the sound and the approaches with equipment extending up to 800m astern. Vessels should not pass within 200m of any submarine or cross astern within 800m. If in doubt, vessels should contact the submarine directly on VHF channel 13 or 16 to seek advice. If contact with the submarine cannot be established, vessels should call "Longroom Port Control."

The Dockyard Port of Plymouth is a naval port under the control of the Queen's Harbour Master. Special rules and regulations concerning navigation within the port are in force. Mariners are urged to consult the pilot for information on such regulations, and to obtain a copy on arrival.

A speed limit of 10 knots is in force N of latitude 50˚20'N (Plymouth Breakwater). A speed limit of 8 knots is in force E of a line joining Fisher's Nose and Mount Batten Breakwater. A speed limit of 8 knots is also in force within the bathing areas of Crawsand Bay, Firestone Bay, Tinside East, and Bovisand Bay.

When two power-driven vessels proceeding in opposite directions are about to meet one another in any narrow channel of the Dockyard Port, the power-driven vessel navigating against the tidal current shall give priority of passage through such narrow channel to the vessel navigating with the current.

When, within the limits of the Dockyard Port, power-driven vessels underway (including a tug with a tow) are about to turn round at night or by day, such vessels shall signify their intention by sounding five short blasts of the whistle in rapid succession, followed after a short interval, if turning to starboard, by one short blast, and if to port, by two short blasts. While turning, vessels shall repeat such signals for any approaching vessel. These sound signals are only to be used by vessels in sight of one another.

All vessels over 60m in length, shall, when leaving the Outer basin of Millbay Docks and prior to entering the main channel, sound one prolonged blast in order to warn other traffic of their movement in accordance with Rule 34 of the Collision Regulations.

Signals

Visual traffic signals to control the movement of all vessels over 20m in length, which are required to use or cross the charted recommended track for deep-draft vessels, are displayed by day and at night from a lattice mast at Drake's Island for vessels to seaward of a line extending S from Mutton Cove (outside Hamoaze). The signals are also displayed at the Flag Port Control Signal Station in the naval base for control of vessels within the Hamoaze.

When the signal lights are unlit, there are no restrictions unless broadcast by VHF.

The following signals are shown:

1. Three red flashing lights indicate a serious emergency. All traffic movements are suspended throughout the port unless specifically directed by "Longroom Port Control" of "Flagstaff Port Control".
2. One red light over two green lights, all occulting, indicate outgoing traffic only may proceed on the recommended track. Crossing vessels must request approval.
3. Two green lights over one red light, all occulting, indicate incoming traffic only may proceed on the recommended track. Crossing vessels must request approval.
4. Two green lights over one white light, all occulting, indicates vessels may proceed in either direction but shall give a wide berth to any Ministry of Defence vessels using the recommended track.

When any traffic light signal specified above is displayed, no vessel shall enter the main channel except in the direction indicated by that signal. Any vessel already in the channel and proceeding in a contrary directional must clear the channel. Vessels less than 20m in length may proceed in a contrary direction so long as they navigate with caution and do not impede the passage of a vessel for which the signal is being shown.

Wind strength warning lights are exhibited from the mast on Drake's Island by day when there is no traffic light signal in force. One white occulting light indicates wind at force 5 to 7; two white occulting lights disposed vertically indicate wind greater than force 7.

Anchorage

Anchorage can be obtained in Cawsand Bay to the W of the W end of Plymouth Breakwater. The roadstead is sheltered from all but SE winds and has depths 5.6 to 10.5m. The berths are numbered 11 to 17 and may best be seen on the chart.

An anchorage area for vessels with drafts of less than 7.5m lies close S of Drake's Island. The berths are numbered 3 to 5 and may best be seen on the chart. Another anchorage for these vessels, which may best be seen on the chart, lies E of the entrance channel and 0.3 mile S of Mount Batten Tower.

The quarantine anchorage lies in the S portion of Jenny Cliff Bay, about 0.7 mile S of Mount Batton Tower.

An anchorage area for vessels with drafts of 7.5m and over lies N of Plymouth Breakwater and on the NW side of the entrance channel. The berths are numbered 1, 2, 6, and 7 and may best be seen on the chart.

Anchorage berths, numbered 21 to 23, lie S of the W end of Plymouth Breakwater and may best be seen on the chart.

Four main mooring buoy berths are situated N of the breakwater and may best be seen on the chart. Buoy C, 0.4 mile ENE of the W end of the breakwater, has a maintained depth of 12m; Buoy D, 0.7 mile ENE of the W end of the breakwater, has a maintained depth of 11.6m; Buoy E, 0.8 mile NE of the W end of the breakwater, has a maintained depth of 9.7m; and Buoy F, 1.2 miles NE of the W end of the breakwater, has a maintained depth of 8.6m.

Special anchorage rules apply to vessels carrying hydrocarbons, hazardous liquid chemicals, and liquefied gases. Also to vessels in ballast but not gas-freed after carrying such cargo.

Directions

If approaching from seaward, vessels should pass about 3 miles E of Eddystone Light, and steer for the light on the W end of Plymouth Breakwater bearing N. When Maker Light (50˚20.5'N., 4˚10.9'W.) is in sight, steer for it on a bearing of 350˚; this course will bring the vessel to the pilot boarding ground.

Approaching from the W, pass about 1 mile S of Rame Head, with the summit of Great Mew Stone ahead bearing 080˚. When Plymouth Breakwater Light bears about 020˚, change course for the boarding ground, with Maker Light ahead bearing 350˚.

From the E, steer to pass not less than 1 mile offshore, with Rame Head bearing 290˚. When Maker Light bears 350˚, steer for it and the boarding ground.

From the boarding ground, follow the recommended track, which may best be seen on the chart. through Western Channel.

In certain portions of Hamoaze, light-draft and deep-draft recommended tracks have been established. Vessels should consult the pilot before selecting one of these tracks.

Caution

Strong tidal currents may be encountered within the narrow channels.

Submarine cables extend across the channels at several places within the harbor limits and may best be seen on the chart.

Diving training areas are situated within the port and may best be seen on the chart.

Small boat training by naval craft is carried out within an area lying on the SW side of Hamoaze. The area is marked by buoys and may best be seen on the chart.

Several small craft mooring areas and groups of mooring buoys are situated within the port and may best be seen on the chart.

Local ferries cross the channel in a number of places within the port and may best be seen on the chart.

Degaussing ranges are situated within the port limits and may best be seen on the chart.

Several prohibited anchorage areas lie within the port and may best be seen on the chart.

Submarines may be frequently encountered in the sound and the approaches (see Signals).

High speed craft may be encountered in the approaches to the sound.

A navy shore establishment, HMS Cambridge, situated in the vicinity of Wembury Point (50˚19'N., 4˚06'W.), occasionally conducts gunnery training. The firing area extends up to 13 miles seaward between the bearings of 130˚ and 210˚, and 12.5 miles between the bearing of 210˚ and 245˚. When the range is operational, information may be obtained on VHF channel 16 from "Wembury Range."

Warships and auxiliary vessels, carrying out training exercises, may be encountered in the approaches and N of the breakwater. Such vessels may not follow the customary traffic patterns.

Warships frequently enter the port via both channels to transfer personnel to and from support craft. These transfers are usually carried out 0730 to 0830, Monday to Friday except in August, in the vicinity of C, D, and E mooring buoy berths. Information regarding these operations may be requested from "Longroom Port Control."

Plymouth to Start Point

1.22 Yealm Head (50˚18'N., 4˚04'W.), located 1.2 miles E of Great Mew Stone, is the W extremity of a hilly peninsula. It forms the E entrance point of Wembury Bay and the S side of the mouth to the Yealm River.

Wembury Bay, with irregular depth of less than 15m, is used by small craft as an anchorage. The Yealm River, a yachting center, has a bar which dries.

The coast E of Yealm Head is craggy and reef strewn, with numerous dangers lying within the 20m curve. Stoke Point, located 2 miles E of Yealm Head, is the SE extremity of the above peninsula. Conspicuous cliffs stand about 0.5 mile NNE of this point.

Bigbury Bay lies between Stoke Point and Bolt Tail, 6.5 miles ESE. The mouth of the Erme River, located near the head of the bay, can be identified by clumps of trees just within the W entrance point. The river dries and can only be entered by small craft with local knowledge.

Wells Rock, with a depth of 1.2m, lies about 0.5 mile S of the E entrance point of the river.

The River Avon, used only by small craft, enters the bay 2.3 miles NNW of Bolt Tail. Burgh Island, 47m high, lies close off the N entrance point of the river. It is connected to the shore by a drying sandy neck and a small ruined chapel stands on the summit. A church, with a conspicuous spire, stands at Bigbury, 1.8 miles NE of the island.

Thurlestone Rock, 10m high and resembling the hull of a stranded vessel, lies close offshore, 1 mile N of Bolt Tail.

From a distance the coast in this vicinity appears as a line of even topped hills backed by the irregular mountainous outline of Dartmoor Hills, which rise to heights of over 500m, about 10 miles inland.

Bolt Tail (50˚14'N., 3˚52'W.) rises to a height of 87m about 0.3 mile within its extremity and is prominent from seaward.

Anchorage, according to draft, can be taken by small vessels in Hope Cove, on the N side of the point. It is only safe in offshore winds and local knowledge is required.

East Rutts (50˚13'N., 3˚59'W.), a steep-to isolated shoal, lies about 4.5 miles WSW of Bolt Tail and has a least depth of 8.9m. Two special lighted buoys (NGS West and NGS East) are moored about 2.3 miles S of the shoal.

Caution.—A spoil ground area. the limits of which may best be seen on the chart, lies 3.4 miles SSW of Stoke Point.

A continuous area of sandwaves, about 9 miles wide, lies with its centerline extending between 4.5 and 16.5 miles S of East Rutts.

The sand waves in this area attain an average height of 2 to 3m with isolated peaks of 5m. The distance between crests varies from 100m to 300m. The waves usually form in a N to S direction.

1.23 Bolt Head (50˚13'N., 3˚47'W.), a prominent headland, is located 3.8 miles SE of Bolt Tail. The coast between consists of a prominent succession of dark rugged cliffs rising abruptly to a height of about 120m. Large vessels are recommended to keep at least 1.5 miles off this part of the coast.

Several prominent radio masts, each 50m high, stand at an elevation of 180m near the coast, about 2.5 miles NW of Bolt Head. A fairly conspicuous notch in the cliffs exists about 0.8 mile SE of the masts.

A coast guard station stands on Bolt Head and a conspicuous radio tower is situated about 1 mile NNW of it. The headland is fronted by two small islands, known as The Mewstones.

Salcombe Harbour (50˚14'N., 3˚46'W.) (World Port Index No. 35380), approached between Bolt Head and Prawle Point, 2.5 miles E, is a small, well-sheltered inlet. The harbor is primarily an extensive yachting center. Vessels up to 30m in length and 5.5m draft can enter at HW. The entrance is obstructed by a bar with a least depth of 1m. A heavy sea breaks on this bar during S gales.

A range and a directional light indicate the channel across the bar; however, local knowledge is recommended. The harbor can be contacted on VHF channel 14 by day. Anchorage is available within the harbor, in depths of 5 to 8m. Anchorage is also available outside the bar, in a depth of 11m.

The town of Salcombe stands along the W side of the harbor. A ferry crosses the river between the town and Portlemouth, on the E bank. Local pilots may be obtained from Plymouth.

Start Point (50˚13'N., 3˚38'W.), described in paragraph 2.2, is located 3.3 miles ENE of Prawle Point.