UK Hydrographic Office

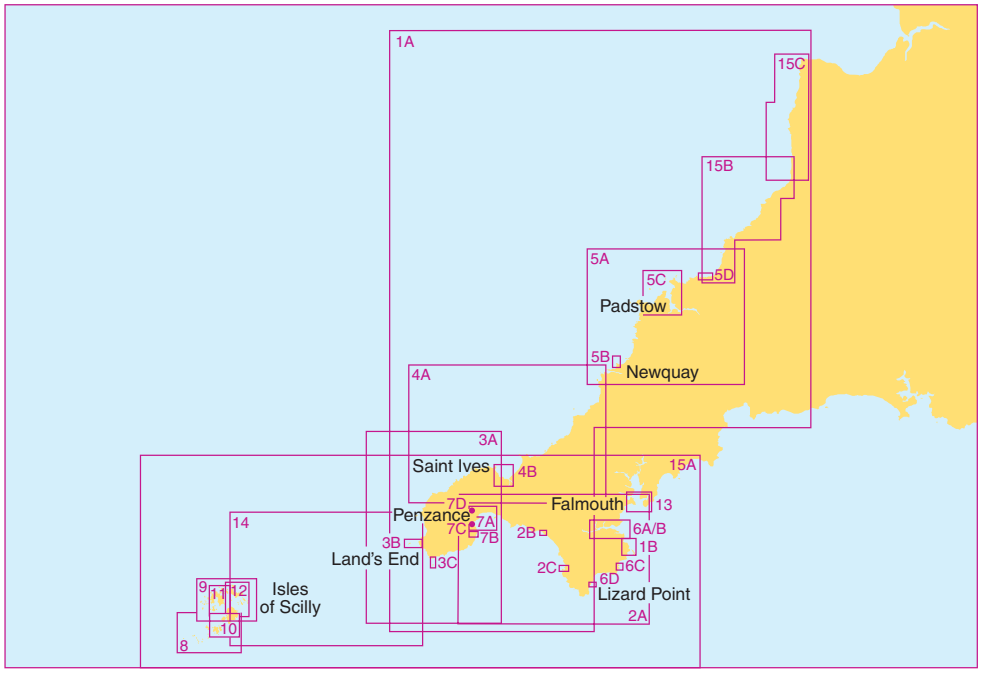
# 5603

Updated to February 2024

Version 1.0

# Falmouth to Hartland Point

## Coverage Diagram




| 5603 | Chart Title | Natural Scale 1: |
|---|---|---|
| 1A | Lizard Point to Hartland Point | 200,000 |
| 1B | Porthallow to Porthoustock | 15,000 |
| 2A | Falmouth to Penzance | 75,000 |
| 2B | Porthleven | 5,000 |
| 2C | Mullion Cove | 5,000 |
| 3A | Penzance to Saint Ives | 75,000 |
| 3B | Longships | 15,000 |
| 3C | Runnel Stone | 15,000 |
| 4A | Pendeen to Penhale Point | 75,000 |
| 4B | Saint Ives | 25,000 |
| 5A | Newquay to Padstow | 75,000 |
| 5B | Newquay | 12,500 |
| 5C | Padstow | 25,000 |
| 5D | Port Isaac | 25,000 |
| 6 | Plans on the South Coast of Cornwall | |
| 6A | Helford River | 12,500 |
| 6B | Helford River - Continuation to Gweek | 12,500 |

| 5603 | Chart Title | Natural Scale 1: |
|---|---|---|
| 6C | Coverack | 15,000 |
| 6D | Cadgwith | 15,000 |
| 7A | Penzance Bay | 12,500 |
| 7B | Mousehole | 5,000 |
| 7C | Newlyn | 5,000 |
| 7D | Penzance | 5,000 |
| 8 | Isles of Scilly - Southern Part | 25,000 |
| 9 | Isles of Scilly - Northern Part | 25,000 |
| 10 | Isles of Scilly - Saint Agnes to Saint Mary's Pool | 12,500 |
| 11 | Isles of Scilly - Saint Mary's Pool to Tresco | 12,500 |
| 12 | Isles of Scilly - Saint Martin's & the Eastern Isles | 12,500 |
| 13A | Falmouth Harbour | 12,500 |
| 13B | Upper Reaches of the Percuil River | 12,500 |
| 13C | Penryn Harbour | 12,500 |
| 14 | Land's End to Isles of Scilly | 75,000 |
| 15 | Falmouth to Isles of Scilly & Port Isaac to Hartland Point | |
| 15A | Falmouth to Isles of Scilly | 325,000 |
| 15B | Port Isaac to Bude Bay | 75,000 |
| 15C | Bude Bay to Hartland Point | 75,000 |

# Notes

**Positions** are referred to the WGS84 compatible datum, European Terrestrial Reference System 1989 Datum.
**Depths** are in metres and are reduced to Chart Datum, which is approximately the level of Lowest Astronomical Tide.
**Heights** are in metres. Underlined figures are drying heights above Chart Datum. Overhead clearance heights are above Highest Astronomical Tide. All other heights are above Mean High Water Springs.
**Navigational marks:** IALA Maritime Buoyage System-Region A (Red to port)

## DATUM

All the charts are referred to WGS84 . Any positions taken from GPS (referred to WGS84) or from ADMIRALTY Notices to Mariners (referred to ETRS89) can be plotted directly on all charts.

## CHART ACCURACY (ISLES OF SCILLY)

Owing to the age and quality of the source information, some detail on this chart may not be positioned accurately. Particular caution is advised when navigating in the vicinity of dangers, even when using an electronic positioning system such as GPS.

## MARINE FARMS

Marine farms exist within the area of these charts. They may not all be shown individually and their positions may change frequently. Marine farms may be marked by lit or unlit buoys or beacons. Mariners are advised to avoid these structures and their associated moorings.

## OVERHEAD CABLES

Overhead cables may conduct high voltages; contact with, or proximity to these poses extreme danger. Sufficient clearance must be allowed.

## SUBMARINE CABLES AND PIPELINES

Mariners should not anchor, trawl or engage in seabed operations in the vicinity of submarine cables and pipelines. Submarine cables support national infrastructure; damage to them may affect critical services and can result in serious consequences, as well as creating a potential hazard to mariners. Wilful or neglectful damage to a cable may result in legal action. Pipelines are not always buried and their presence may significantly reduce the charted depth. They may also span seabed undulations and cause fishing gear to become irrecoverably snagged, putting a vessel in severe danger.

## HISTORIC AND MILITARY WRECKS

The sites of historic and military wrecks are protected from unauthorised interference.

## FIRING PRACTICE AREAS

No restrictions are placed on the right to transit the firing practice areas at any time. The firing practice areas are operated using a clear range procedure: exercises and firing only take place when the areas are considered to be clear of all shipping.

## LADEN TANKERS

Laden tankers over 10,000 gt using the Traffic Separation Scheme off Land's End, between Seven Stones and Longships, should keep at least 3 nautical miles to seaward of Wolf Rock and should not use the scheme in restricted visibility or other adverse weather. For reporting procedures, see ADMIRALTY List of Radio Signals.

## OYSTER AND MUSSEL BEDS

Oyster and mussel beds may be marked by lit or unlit buoys or beacons. Vessels should avoid grounding in these areas.

## VESSEL REPORTING

For details of the Falmouth Local Port Service and the Land’s End TSS reporting System, see ADMIRALTY List of Radio Signals.

# HM Coastguard Services and Safety Information

VHF MARITIME RADIO

Coastguard Maritime Rescue Co-ordination Centres are on constant watch on Channel 16 - the distress, safety and calling channel. Initial calls should normally be on Ch 16.

FALMOUTH COASTGUARD (MRCC)
Tel: +44 (0) 1326 317575
MMSI: 002320014
e-mail: zone23@hmcg.gov.uk (FAO Falmouth Coastguard)

MILFORD HAVEN (MRCC)
Tel: +44 (0) 1646 690909
MMSI: 002320017
e-mail: zone23@hmcg.gov.uk (FAO Milford Haven Coastguard)

# Distress and Safety Communication

## Distress - Urgency

A Distress or Urgency message has absolute priority.
Make a call on VHF Channel 16 and give the following essential information:
**Distress** Call **MAYDAY MAYDAY MAYDAY**

- Name and Call Sign and MMSI number Position
- Nature of Distress
- Type of assistance required
- Type of boat - number of crew - intentions

**Urgency** (eg. if you break down in bad weather or a crewman requires medical attention)
Call **PANPAN PANPAN PANPAN** and give:

- Name and Call Sign and MMSI number Position
- Nature of Distress
- Type of assistance required
- Type of boat - number of crew - intentions

## Other Distress Signals

Other recognised signals are:

- Red flares (parachute, multi stars or hand held) Orange smoke signal
- The flag signal NC
- The morse signal SOS ... --- ... by light
- An article of clothing on an oar
- Slowly and repeatedly raising and lowering outstretched arms
- A square flag with anything resembling a ball above or below it
- Continuous sounding of a siren or whistle will also be recognised, or smoke and flames from the vessel
- The carriage of an Emergency Position Indicating Radio Beacon (406 EPIRB) will improve your chances of being located if conventional means fail. 406 EPIRBs are detected by satellite, in addition to aircraft, and transmitted to a Coastguard Maritime Rescue Co-ordination Centre.

**THE USE OF MOBILE TELEPHONES IN DISTRESS AND SAFETY COMMUNICATIONS**

The use of mobile telephones in the marine environent offshore is now well established, with users in all areas of the commercial, fishing and leisure communities.

Incidents have occured where vessels requiring assistance from rescue services have used the inland emergency service, or alternatively telephoned direct to request assistance. (e.g. Lifeboat services). This procedure through a mobile telephone is strongly discouraged.

Use of mobile telephones by-passes the existing dedicated well-established international marine distress communications systems.

Mobile telephone coverage offshore is limited and does not afford the same extensive safety coverage as VHF Channel 16. Consequently a greater risk exists of communications difficulties or even a complete breakdown if an accident should occur at the edge of a cell coverage area.

Subsequent on-scene communications would be restricted and delayed if mobile telephone communications were exclusively maintained throughout. There is always a risk that elements of vital information could be lost or misinterpreted by the introduction of further relay links in the communication chain. Mobile telephones are also highly susceptible to failure due to water ingress.

It is not possible to communicate direct to another vessel able to render assistance unless that vessel is also fitted with a mobile telephone and the telephone number is known. Requests for assistance cannot be monitored by other vessels in a position to render assistance.
Valuable time would be lost whilst the relevent Coastguard Rescue Coordination Centre receives and then re-broadcasts the information to all ships on the appropriate distress channel(s).

**In the interests of Safety Of Life At Sea (SOLAS), owners of vessels are urged to carry MARINE communications equipment onboard and to use this medium as the primary means of Distress and Safety communications.**

# Product Specifications

PRODUCT USAGE CAUTION

This product is specifically designed, in conjunction with other charts and publications, as an aid to the navigation of leisure craft and locally regulated workboats and fishing vessels and therefore should be used by competent (preferably qualified) maritime navigators. Although this product contains the best information available at the time of publication, the user should navigate with caution, particularly in areas of shallow or confined waters where the depth of water is likely to change due to local conditions. The information provided in this product comes from the latest source information held and is updated by Notice to Mariners upon receipt of new information critical to safe navigation. To help maintain this product for all users, users are asked to notify the United Kingdom Hydrographic Office of any differences found between what is depicted and actual conditions encountered.

KEEPING THIS CHART UPDATED

Updates for the charts are published using the Notices to Mariners Service on the ADMIRALTY Notices to Mariners page found on our website at admiralty.co.uk/msi. All updates for the latest edition of the chart are listed and can be quickly and easily downloaded. All the charts are derived from standard ADMIRALTY charts. No updates are applied to the charts by the United Kingdom Hydrographic Office or its agents after printing. For those who do not have internet access, please contact Tel. 01823 484444 for assistance.

TIDAL STREAMS

Full details of the tidal streams in the area covered by this folio are given in ADMIRALTY Tidal Stream Atlases NP255 Falmouth to Padstow, including Isles of Scilly and NP 256 Irish Sea and Bristol Channel.

PROVIDE UPDATED INFORMATION

To help maintain this product users are asked to notify the United Kingdom Hydrographic Office of any differences found between what is depicted and actual conditions encountered. Users can do this by submitting a Hydrographic Note form, found on our website admiralty.co.uk/msi or by downloading our H-Note App. The H-Note App is freely available to download on Android and iOS devices. For more information please see here:

IMPROVEMENTS TO THIS PRODUCT

ADMIRALTY Small Craft Charts are designed for use on leisure craft and locally regulated workboats and fishing vessels, where the smaller format charts fit more conveniently into the limited space available. Users with specific suggestions for the improvement of this product or ideas for the expansion of the series are requested to forward their comments to:

Customer Services, The UK Hydrographic Office,
Admiralty Way, Taunton. +44(0)1823 484444

E-mail customerservices@ukho.gov.uk

To view all ADMIRALTY Products and services, visit admiralty.co.uk

Published by the UK Hydrographic Office, Admiralty Way, Taunton, United Kingdom 25th November 2021
T: +44 (0)1823 484444 Find out more at **admiralty.co.uk**

## 5603_1A

**Tidal Streams referred to HW at MILFORD HAVEN**

| Hours | Geographical Position | A 49°58'5 N 5 48'6W | | B 50°26'1 N 5 22'7W | | C 50°50'0 N 5 30'1W | | D 51°00'4 N 5 31'8W | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | 311 | 1·7 0·8 | | 0·0 0·0 | 195 | 0·3 0·1 | 199 | 0·5 0·2 | −6 |
| Before High Water 5 | | 327 | 2·2 1·1 | 033 | 0·5 0·2 | 090 | 0·3 0·1 | 132 | 0·5 0·2 | −5 |
| Before High Water 4 | | 336 | 2·0 1·0 | 036 | 1·1 0·5 | 067 | 0·8 0·4 | 092 | 0·8 0·3 | −4 |
| Before High Water 3 | | 352 | 1·6 0·8 | 043 | 1·2 0·6 | 065 | 1·1 0·5 | 074 | 1·0 0·4 | −3 |
| Before High Water 2 | | 023 | 1·1 0·5 | 048 | 1·1 0·5 | 059 | 1·2 0·6 | 063 | 1·1 0·5 | −2 |
| Before High Water 1 | | 088 | 1·0 0·5 | 058 | 0·7 0·3 | 050 | 1·0 0·5 | 050 | 0·9 0·4 | −1 |
| High Water | Rates at spring tides (knots) | 113 | 1·4 0·7 | 126 | 0·3 0·1 | 023 | 0·6 0·3 | 028 | 0·6 0·2 | 0 |
| After High Water 1 | Rates at neap tides (knots) | 124 | 1·8 0·9 | 200 | 0·4 0·2 | 279 | 0·3 0·1 | 323 | 0·4 0·2 | +1 |
| After High Water 2 | | 137 | 1·9 0·9 | 225 | 1·0 0·5 | 239 | 0·7 0·3 | 278 | 0·7 0·3 | +2 |
| After High Water 3 | | 166 | 1·8 0·9 | 231 | 1·2 0·6 | 235 | 1·0 0·5 | 263 | 1·0 0·4 | +3 |
| After High Water 4 | | 195 | 2·0 1·0 | 233 | 1·1 0·5 | 235 | 1·2 0·6 | 252 | 1·0 0·4 | +4 |
| After High Water 5 | | 232 | 1·6 0·8 | 239 | 0·7 0·3 | 235 | 1·0 0·5 | 240 | 1·0 0·4 | +5 |
| After High Water 6 | | 286 | 1·4 0·7 | 237 | 0·2 0·1 | 235 | 0·5 0·2 | 216 | 0·6 0·3 | +6 |

## 5603_2A

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Geographical Position | | A 50°08'5 N 5 01·6W | | B 50°02'4 N 5 02·4W | | C 50°01'5 N 5 27·7W | |
|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | −6 | 339 | 0·2 0·1 | 201 | 1·0 0·5 | 280 | 0·9 0·5 |
| Before High Water 5 | | −5 | 005 | 0·6 0·3 | 309 | 0·1 0·0 | 290 | 0·6 0·3 |
| Before High Water 4 | | −4 | 022 | 0·9 0·4 | 006 | 1·0 0·5 | 329 | 0·3 0·2 |
| Before High Water 3 | | −3 | 023 | 0·6 0·3 | 011 | 1·4 0·7 | 049 | 0·4 0·2 |
| Before High Water 2 | | −2 | 022 | 0·4 0·2 | 015 | 1·5 0·8 | 065 | 0·6 0·3 |
| Before High Water 1 | | −1 | 036 | 0·2 0·1 | 022 | 1·5 0·7 | 082 | 0·8 0·4 |
| High Water | Rates at spring tides (knots) | 0 | | 0·0 0·0 | 028 | 1·2 0·6 | 097 | 0·8 0·4 |
| After High Water 1 | Rates at neap tides (knots) | +1 | 217 | 0·3 0·1 | 030 | 0·5 0·2 | 107 | 0·7 0·3 |
| After High Water 2 | | +2 | 213 | 0·5 0·2 | 202 | 0·4 0·2 | 124 | 0·4 0·2 |
| After High Water 3 | | +3 | 207 | 0·7 0·3 | 196 | 1·2 0·6 | 201 | 0·3 0·2 |
| After High Water 4 | | +4 | 190 | 0·8 0·4 | 195 | 1·7 0·9 | 234 | 0·6 0·3 |
| After High Water 5 | | +5 | 180 | 0·5 0·2 | 197 | 1·6 0·8 | 263 | 0·8 0·4 |
| After High Water 6 | | +6 | 276 | 0·1 0·0 | 202 | 1·2 0·6 | 278 | 0·9 0·5 |

## 5603_3A

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Geographical Position | | A 49°58'5 N 5 48·6W | | B 49°59'0 N 5 33·1W | | C 50°00'2 N 5 46·7W | | D 50°07'2 N 5 49·6W | |
|---|---|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | −6 | 311 | 1·7 0·8 | 272 | 0·9 0·3 | 316 | 2·2 1·0 | 332 | 0·4 0·2 |
| Before High Water 5 | | −5 | 327 | 2·2 1·1 | 277 | 1·1 0·4 | 324 | 2·2 1·0 | 002 | 1·5 0·7 |
| Before High Water 4 | | −4 | 336 | 2·0 1·0 | 286 | 1·0 0·4 | 331 | 1·7 0·8 | 009 | 2·4 1·2 |
| Before High Water 3 | | −3 | 352 | 1·6 0·8 | 295 | 0·7 0·3 | 344 | 1·3 0·6 | 010 | 2·5 1·2 |
| Before High Water 2 | | −2 | 023 | 1·1 0·5 | 335 | 0·3 0·1 | 019 | 0·7 0·3 | 009 | 1·6 0·8 |
| Before High Water 1 | | −1 | 088 | 1·0 0·5 | 071 | 0·4 0·2 | 091 | 0·7 0·3 | 031 | 1·1 0·5 |
| High Water | Rates at spring tides (knots) | 0 | 113 | 1·4 0·7 | 086 | 0·8 0·3 | 118 | 1·5 0·7 | 123 | 0·6 0·3 |
| After High Water 1 | Rates at neap tides (knots) | +1 | 124 | 1·8 0·9 | 094 | 1·0 0·4 | 127 | 2·3 1·1 | 168 | 1·7 0·8 |
| After High Water 2 | | +2 | 137 | 1·9 0·9 | 101 | 1·0 0·4 | 146 | 2·5 1·2 | 181 | 2·5 1·2 |
| After High Water 3 | | +3 | 166 | 1·8 0·9 | 108 | 0·7 0·3 | 166 | 2·1 1·0 | 194 | 2·5 1·3 |
| After High Water 4 | | +4 | 195 | 2·0 1·0 | 132 | 0·3 0·1 | 200 | 1·3 0·6 | 210 | 2·1 1·0 |
| After High Water 5 | | +5 | 232 | 1·6 0·8 | 244 | 0·3 0·1 | 288 | 0·9 0·4 | 223 | 1·1 0·6 |
| After High Water 6 | | +6 | 286 | 1·4 0·7 | 268 | 0·7 0·3 | 313 | 1·8 0·9 | 295 | 0·4 0·2 |

## 5603_4A

**Tidal Streams referred to HW at MILFORD HAVEN**

| Hours | Geographical Position | | A 50°21'9 N 5 14·1W | |
|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | −6 | 109 | 0·1 0·0 |
| Before High Water 5 | | −5 | 046 | 0·5 0·2 |
| Before High Water 4 | | −4 | 038 | 0·9 0·4 |
| Before High Water 3 | | −3 | 033 | 0·9 0·4 |
| Before High Water 2 | | −2 | 031 | 0·8 0·4 |
| Before High Water 1 | | −1 | 027 | 0·3 0·2 |
| High Water | Rates at spring tides (knots) | 0 | 202 | 0·2 0·1 |
| After High Water 1 | Rates at neap tides (knots) | +1 | 227 | 0·4 0·2 |
| After High Water 2 | | +2 | 230 | 0·8 0·4 |
| After High Water 3 | | +3 | 228 | 0·9 0·4 |
| After High Water 4 | | +4 | 216 | 0·8 0·4 |
| After High Water 5 | | +5 | 196 | 0·4 0·2 |
| After High Water 6 | | +6 | 148 | 0·1 0·1 |

## 5603_5A & 5C

**Tidal Streams referred to HW at MILFORD HAVEN**

| Hours | Geographical Position | | A 50°34'5 N 4 57·7W | |
|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | −6 | 047 | 0·5 0·3 |
| Before High Water 5 | | −5 | 052 | 0·7 0·4 |
| Before High Water 4 | | −4 | 061 | 0·8 0·5 |
| Before High Water 3 | | −3 | 071 | 0·7 0·4 |
| Before High Water 2 | | −2 | 080 | 0·5 0·3 |
| Before High Water 1 | | −1 | 090 | 0·2 0·1 |
| High Water | Rates at spring tides (knots) | 0 | 243 | 0·9 0·6 |
| After High Water 1 | Rates at neap tides (knots) | +1 | 234 | 1·1 0·7 |
| After High Water 2 | | +2 | 232 | 0·9 0·5 |
| After High Water 3 | | +3 | 240 | 0·5 0·3 |
| After High Water 4 | | +4 | 302 | 0·2 0·1 |
| After High Water 5 | | +5 | 016 | 0·3 0·2 |
| After High Water 6 | | +6 | 041 | 0·4 0·3 |

## 5603_8

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Geographical Position | | A 49°54'1 N 6 19·1W | | B 49°54'7 N 6 22·2W | |
|---|---|---|---|---|---|---|
| Before High Water 6 | Directions of streams (degrees) | −6 | 300 | 0·4 0·2 | 320 | 0·4 0·2 |
| Before High Water 5 | | −5 | 020 | 0·1 0·0 | 042 | 0·3 0·1 |
| Before High Water 4 | | −4 | 109 | 0·7 0·3 | 097 | 0·6 0·3 |
| Before High Water 3 | | −3 | 110 | 1·2 0·5 | 116 | 1·0 0·4 |
| Before High Water 2 | | −2 | 111 | 1·5 0·7 | 121 | 0·8 0·4 |
| Before High Water 1 | | −1 | 111 | 1·6 0·7 | 125 | 0·7 0·3 |
| High Water | Rates at spring tides (knots) | 0 | 111 | 1·7 0·8 | 161 | 0·2 0·1 |
| After High Water 1 | Rates at neap tides (knots) | +1 | 125 | 1·5 0·7 | 224 | 1·0 0·4 |
| After High Water 2 | | +2 | 190 | 0·1 0·0 | 233 | 1·1 0·5 |
| After High Water 3 | | +3 | 275 | 1·3 0·6 | 241 | 1·2 0·5 |
| After High Water 4 | | +4 | 272 | 1·7 0·8 | 262 | 1·5 0·7 |
| After High Water 5 | | +5 | 265 | 1·0 0·4 | 262 | 1·2 0·5 |
| After High Water 6 | | +6 | 292 | 0·7 0·3 | 296 | 0·5 0·2 |

## 5603_9

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Directions of streams (degrees) | Rates at spring tides (knots) | Rates at neap tides (knots) | A 49°54′7 N 6 22·1W | | B 49°55′8 N 6 13·3W | |
|---|---|---|---|---|---|---|---|
| Before High Water 6 | | | | | | | |
| Before High Water 5 | | | | | | | |
| Before High Water 4 | | | | | | | |
| Before High Water 3 | | | | | | | |
| Before High Water 2 | | | | | | | |
| Before High Water 1 | | | | | | | |
| High Water | | | | | | | |
| After High Water 1 | | | | | | | |
| After High Water 2 | | | | | | | |
| After High Water 3 | | | | | | | |
| After High Water 4 | | | | | | | |
| After High Water 5 | | | | | | | |
| After High Water 6 | | | | | | | |
| −6 | 320 | 0·4 | 0·2 | 007 | 0·9 | 0·4 | |
| −5 | 042 | 0·3 | 0·1 | 011 | 1·1 | 0·5 | |
| −4 | 097 | 0·6 | 0·3 | 017 | 1·6 | 0·8 | |
| −3 | 116 | 1·0 | 0·4 | 022 | 1·7 | 0·8 | |
| −2 | 121 | 0·8 | 0·4 | 027 | 1·4 | 0·7 | |
| −1 | 125 | 0·7 | 0·3 | 035 | 0·9 | 0·4 | |
| 0 | 161 | 0·2 | 0·1 | 110 | 0·2 | 0·1 | |
| +1 | 224 | 1·0 | 0·4 | 201 | 2·0 | 0·9 | |
| +2 | 233 | 1·1 | 0·5 | 188 | 2·9 | 1·4 | |
| +3 | 241 | 1·2 | 0·5 | 202 | 2·2 | 1·0 | |
| +4 | 262 | 1·5 | 0·7 | 227 | 1·1 | 0·5 | |
| +5 | 262 | 1·2 | 0·5 | 326 | 0·4 | 0·2 | |
| +6 | 296 | 0·5 | 0·2 | 000 | 0·7 | 0·3 | |

## 5603_10

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Directions of streams (degrees) | Rates at spring tides (knots) | Rates at neap tides (knots) | A 49°54′14N 6°19′06W | |
|---|---|---|---|---|---|
| Before High Water 6 | | | | | |
| Before High Water 5 | | | | | |
| Before High Water 4 | | | | | |
| Before High Water 3 | | | | | |
| Before High Water 2 | | | | | |
| Before High Water 1 | | | | | |
| High Water | | | | | |
| After High Water 1 | | | | | |
| After High Water 2 | | | | | |
| After High Water 3 | | | | | |
| After High Water 4 | | | | | |
| After High Water 5 | | | | | |
| After High Water 6 | | | | | |
| −6 | 300 | 0·4 | 0·2 | | |
| −5 | 020 | 0·1 | 0·0 | | |
| −4 | 109 | 0·7 | 0·3 | | |
| −3 | 110 | 1·2 | 0·5 | | |
| −2 | 111 | 1·5 | 0·7 | | |
| −1 | 111 | 1·6 | 0·7 | | |
| 0 | 111 | 1·7 | 0·8 | | |
| +1 | 125 | 1·5 | 0·7 | | |
| +2 | 190 | 0·1 | 0·0 | | |
| +3 | 275 | 1·3 | 0·6 | | |
| +4 | 272 | 1·7 | 0·8 | | |
| +5 | 265 | 1·0 | 0·4 | | |
| +6 | 292 | 0·7 | 0·3 | | |

## 5603_13A

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Directions of streams (degrees) | Rates at spring tides (knots) | Rates at neap tides (knots) | A 50°08′54 N 5 01·56W | | B 50°09′44 N 5 02·76W | | C 50°10′04 N 5 02·36W | |
|---|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | | | | | | | | | |
| Before High Water 5 | | | | | | | | | |
| Before High Water 4 | | | | | | | | | |
| Before High Water 3 | | | | | | | | | |
| Before High Water 2 | | | | | | | | | |
| Before High Water 1 | | | | | | | | | |
| High Water | | | | | | | | | |
| After High Water 1 | | | | | | | | | |
| After High Water 2 | | | | | | | | | |
| After High Water 3 | | | | | | | | | |
| After High Water 4 | | | | | | | | | |
| After High Water 5 | | | | | | | | | |
| After High Water 6 | | | | | | | | | |
| −6 | 339 | 0·2 | 0·1 | 180 | 0·2 | 0·1 | 358 | 0·2 | 0·1 |
| −5 | 005 | 0·6 | 0·3 | 300 | 0·2 | 0·1 | 011 | 0·4 | 0·2 |
| −4 | 022 | 0·9 | 0·4 | 300 | 0·3 | 0·2 | 016 | 0·5 | 0·2 |
| −3 | 023 | 0·6 | 0·3 | 300 | 0·5 | 0·2 | 034 | 0·3 | 0·1 |
| −2 | 022 | 0·4 | 0·2 | 300 | 0·3 | 0·2 | 032 | 0·2 | 0·1 |
| −1 | 036 | 0·2 | 0·1 | 300 | 0·2 | 0·1 | 034 | 0·1 | 0·0 |
| 0 | | 0·0 | 0·0 | 180 | 0·2 | 0·1 | | 0·0 | 0·0 |
| +1 | 217 | 0·3 | 0·1 | 175 | 0·5 | 0·3 | 196 | 0·3 | 0·1 |
| +2 | 213 | 0·5 | 0·2 | 175 | 0·6 | 0·3 | 196 | 0·4 | 0·2 |
| +3 | 207 | 0·7 | 0·3 | 170 | 0·6 | 0·3 | 197 | 0·4 | 0·2 |
| +4 | 190 | 0·8 | 0·4 | 160 | 0·5 | 0·2 | 189 | 0·2 | 0·1 |
| +5 | 180 | 0·5 | 0·2 | 160 | 0·4 | 0·2 | 248 | 0·2 | 0·1 |
| +6 | 276 | 0·1 | 0·0 | 160 | 0·1 | 0·0 | 328 | 0·1 | 0·0 |

## 5603_14

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

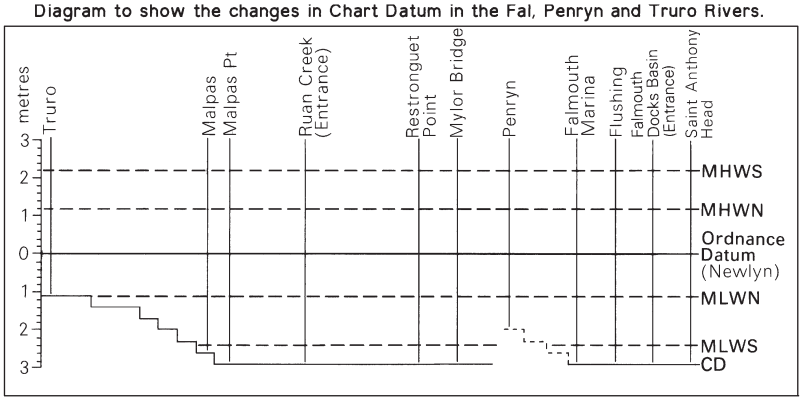
| Hours | Directions of streams (degrees) | Rates at spring tides (knots) | Rates at neap tides (knots) | A 50°03′5 N 6 04·6 W | | B 50°00′2 N 5 46·7 W | | C 49°59′3 N 6 12·3 W | | D 49°58′5 N 5 48·6 W | | E 49°57′0 N 6 05·9 W | | F 49°55′8 N 6 13·4 W | | G 49°53′0 N 5 55·0 W | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | | | | 307 | 0·8 | 0·4 | 316 | 2·2 | 1·0 | 322 | 1·1 | 0·5 | 311 | 1·7 | 0·8 | 278 | 0·9 | 0·5 | 007 | 0·9 | 0·4 | 300 | 1·0 | 0·5 |
| Before High Water 5 | | | | 344 | 1·1 | 0·5 | 324 | 2·2 | 1·0 | 336 | 1·4 | 0·7 | 327 | 2·2 | 1·1 | 336 | 1·2 | 0·6 | 011 | 1·1 | 0·5 | 337 | 1·1 | 0·5 |
| Before High Water 4 | | | | 005 | 1·4 | 0·7 | 331 | 1·7 | 0·8 | 348 | 1·6 | 0·8 | 336 | 2·0 | 1·0 | 357 | 1·6 | 0·8 | 017 | 1·6 | 0·8 | 004 | 1·1 | 0·5 |
| Before High Water 3 | | | | 019 | 1·5 | 0·8 | 344 | 1·3 | 0·6 | 004 | 1·6 | 0·8 | 352 | 1·6 | 0·8 | 010 | 2·0 | 0·9 | 022 | 1·7 | 0·8 | 027 | 1·2 | 0·6 |
| Before High Water 2 | | | | 029 | 1·4 | 0·7 | 019 | 0·7 | 0·3 | 024 | 1·4 | 0·7 | 023 | 1·1 | 0·5 | 025 | 1·8 | 0·9 | 027 | 1·4 | 0·7 | 054 | 1·0 | 0·5 |
| Before High Water 1 | | | | 055 | 0·8 | 0·4 | 091 | 0·7 | 0·3 | 076 | 1·1 | 0·5 | 088 | 1·0 | 0·5 | 046 | 1·4 | 0·7 | 035 | 0·9 | 0·4 | 092 | 1·0 | 0·5 |
| High Water | | | | 126 | 0·6 | 0·3 | 118 | 1·5 | 0·7 | 134 | 2·1 | 1·0 | 113 | 1·4 | 0·7 | 089 | 1·2 | 0·6 | 110 | 0·2 | 0·1 | 132 | 1·0 | 0·5 |
| After High Water 1 | | | | 158 | 1·2 | 0·6 | 127 | 2·3 | 1·1 | 161 | 2·3 | 1·1 | 124 | 1·8 | 0·9 | 141 | 1·4 | 0·7 | 201 | 2·0 | 0·9 | 157 | 1·1 | 0·5 |
| After High Water 2 | | | | 174 | 1·5 | 0·7 | 146 | 2·5 | 1·2 | 182 | 1·9 | 1·0 | 137 | 1·9 | 0·9 | 172 | 1·8 | 0·9 | 188 | 2·9 | 1·4 | 183 | 1·0 | 0·5 |
| After High Water 3 | | | | 189 | 1·5 | 0·8 | 166 | 2·1 | 1·0 | 204 | 1·4 | 0·7 | 166 | 1·8 | 0·9 | 190 | 2·0 | 1·0 | 202 | 2·2 | 1·0 | 213 | 1·0 | 0·5 |
| After High Water 4 | | | | 209 | 1·4 | 0·7 | 200 | 1·3 | 0·6 | 233 | 0·9 | 0·5 | 195 | 2·0 | 1·0 | 215 | 1·7 | 0·9 | 227 | 1·1 | 0·5 | 238 | 0·9 | 0·4 |
| After High Water 5 | | | | 237 | 0·9 | 0·5 | 288 | 0·9 | 0·4 | 277 | 0·8 | 0·4 | 232 | 1·6 | 0·8 | 237 | 1·5 | 0·7 | 326 | 0·4 | 0·2 | 259 | 0·9 | 0·4 |
| After High Water 6 | | | | 289 | 0·8 | 0·4 | 313 | 1·8 | 0·9 | 315 | 1·0 | 0·5 | 286 | 1·4 | 0·7 | 260 | 1·1 | 0·5 | 000 | 0·7 | 0·3 | 281 | 0·9 | 0·4 |

## 5603_15A

**Tidal Streams referred to HW at PLYMOUTH (DEVONPORT)**

| Hours | Directions of streams (degrees) | Rates at spring tides (knots) | Rates at neap tides (knots) | A 49°46′3 N 6 19·6W | | B 50°09′4 N 5 58·9W | | C 49°53′0 N 5 55·0W | | D 50°00′2 N 5 46·7W | | E 49°52′2 N 5 11·0W | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Before High Water 6 | | | | 276 | 1·6 | 0·8 | 278 | 0·4 | 0·2 | 300 | 1·0 | 0·5 | 316 | 2·2 | 1·0 | 256 | 1·8 | 0·9 |
| Before High Water 5 | | | | 302 | 1·0 | 0·5 | 000 | 0·6 | 0·3 | 337 | 1·1 | 0·5 | 324 | 2·2 | 1·0 | 254 | 1·2 | 0·6 |
| Before High Water 4 | | | | 356 | 0·9 | 0·4 | 013 | 1·2 | 0·5 | 004 | 1·1 | 0·5 | 331 | 1·7 | 0·8 | 234 | 0·4 | 0·2 |
| Before High Water 3 | | | | 031 | 1·3 | 0·6 | 018 | 1·7 | 0·7 | 027 | 1·2 | 0·6 | 344 | 1·3 | 0·6 | 045 | 0·4 | 0·2 |
| Before High Water 2 | | | | 054 | 1·5 | 0·7 | 025 | 1·6 | 0·7 | 054 | 1·0 | 0·5 | 019 | 0·7 | 0·3 | 054 | 1·0 | 0·5 |
| Before High Water 1 | | | | 076 | 1·5 | 0·7 | 050 | 1·0 | 0·4 | 092 | 1·0 | 0·5 | 091 | 0·7 | 0·3 | 059 | 1·8 | 0·9 |
| High Water | | | | 101 | 1·3 | 0·6 | 090 | 0·5 | 0·2 | 132 | 1·0 | 0·5 | 118 | 1·5 | 0·7 | 067 | 2·3 | 1·1 |
| After High Water 1 | | | | 136 | 1·0 | 0·5 | 157 | 0·6 | 0·3 | 157 | 1·1 | 0·5 | 127 | 2·3 | 1·1 | 075 | 1·8 | 0·9 |
| After High Water 2 | | | | 181 | 1·0 | 0·5 | 185 | 1·2 | 0·5 | 183 | 1·0 | 0·5 | 146 | 2·5 | 1·2 | 082 | 0·8 | 0·4 |
| After High Water 3 | | | | 219 | 1·1 | 0·5 | 202 | 1·7 | 0·8 | 213 | 1·0 | 0·5 | 166 | 2·1 | 1·0 | 203 | 0·4 | 0·2 |
| After High Water 4 | | | | 247 | 1·5 | 0·8 | 217 | 1·5 | 0·7 | 238 | 0·9 | 0·4 | 200 | 1·3 | 0·6 | 233 | 1·4 | 0·7 |
| After High Water 5 | | | | 261 | 1·9 | 0·9 | 227 | 1·1 | 0·5 | 259 | 0·9 | 0·4 | 288 | 0·9 | 0·4 | 247 | 2·3 | 1·1 |
| After High Water 6 | | | | 271 | 1·8 | 0·9 | 245 | 0·6 | 0·3 | 281 | 0·9 | 0·4 | 313 | 1·8 | 0·9 | 257 | 1·9 | 0·9 |

Diagram to show the changes in Chart Datum in the Fal, Penryn and Truro Rivers.




## TIME & HEIGHT DIFFERENCES FOR PREDICTING THE SECONDARY PORTS
## ENGLAND, SOUTH WEST

| PLACE | Lat. N | Long. W | TIME DIFFERENCES High Water | TIME DIFFERENCES Low Water | | | HEIGHT DIFFERENCES (IN METRES) MHWS | MHWN | MLWN | MLWS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Zone UT(GMT) | | | | | | | |
| **PLYMOUTH** (DEVONPORT) ..... **England** | (see page 22) | | **0000 and 1200** | **0600 and 1800** | **0000 and 1200** | **0600 and 1800** | **5.5** | **4.4** | **2.2** | **0.8** |
| *Isles of Scilly* | | | | | | | | | | |
| Saint Mary's ..... | 49 55 | 6 19 | | STANDARD PORT | | | See Table of NON-REFERENCE STANDARD PORTS | | | |
| Penzance (Newlyn) ..... | 50 06 | 5 33 | | STANDARD PORT | | | See Table of NON-REFERENCE STANDARD PORTS | | | |
| Porthleven ..... | 50 05 | 5 19 | -0045 | -0105 | -0030 | -0025 | 0.0 | -0.1 | -0.2 | 0.0 |
| Lizard Point ..... | 49 58 | 5 12 | -0045 | -0100 | -0030 | -0030 | -0.2 | -0.2 | -0.3 | -0.2 |
| Coverack ..... | 50 01 | 5 06 | -0030 | -0050 | -0020 | -0015 | -0.2 | -0.2 | -0.3 | -0.2 |
| Helford River (Entrance) ..... | 50 05 | 5 05 | -0030 | -0035 | -0015 | -0010 | -0.2 | -0.2 | -0.3 | -0.2 |
| *River Fal* | | | | | | | | | | |
| FALMOUTH ..... | 50 09 | 5 03 | | STANDARD PORT | | | See Table of NON-REFERENCE STANDARD PORTS | | | |
| TRURO ..... | 50 18 | 5 03 | | STANDARD PORT | | | See Table of NON-REFERENCE STANDARD PORTS | | | |
| **MILFORD HAVEN** ..... | **51 42** | **5 03** | **0100 and 1300** | **0700 and 1900** | **0100 and 1300** | **0700 and 1900** | **7.0** | **5.2** | **2.5** | **0.7** |
| Sennen Cove ..... | 50 05 | 5 42 | -0130 | -0145 | -0125 | -0125 | -0.9 | -0.4 | ⊙ | ⊙ |
| Cape Cornwall ..... | 50 08 | 5 42 | -0130 | -0145 | -0120 | -0120 | -1.0 | -0.9 | -0.5 | -0.1 |
| St. Ives ..... | 50 13 | 5 29 | -0050 | -0115 | -0105 | -0040 | -0.4 | -0.3 | -0.1 | +0.1 |
| Perranporth ..... | 50 21 | 5 09 | -0100 | -0110 | -0110 | -0050 | -0.1 | 0.0 | 0.0 | +0.1 |
| Newquay ..... | 50 25 | 5 05 | | STANDARD PORT | | | See Table of NON-REFERENCE STANDARD PORTS | | | |
| *River Camel* | | | | | | | | | | |
| Padstow ..... | 50 33 | 4 56 | -0055 | -0050 | -0040 | -0050 | +0.3 | +0.4 | +0.1 | +0.1 |
| Wadebridge ..... | 50 31 | 4 50 | -0052 | -0052 | +0235 | +0245 | -3.8 | -3.8 | -2.5 | -0.4 |
| Port Isaac ..... | 50 36 | 4 50 | -0100 | -0100 | -0100 | -0100 | +0.5 | +0.6 | 0.0 | +0.2 |
| Boscastle ..... | 50 41 | 4 42 | -0045 | -0010 | -0110 | -0100 | +0.3 | +0.4 | +0.2 | +0.2 |
| Bude ..... | 50 50 | 4 33 | -0040 | -0040 | -0035 | -0045 | +0.7 | +0.6 | ⊙ | ⊙ |

⊙ No data

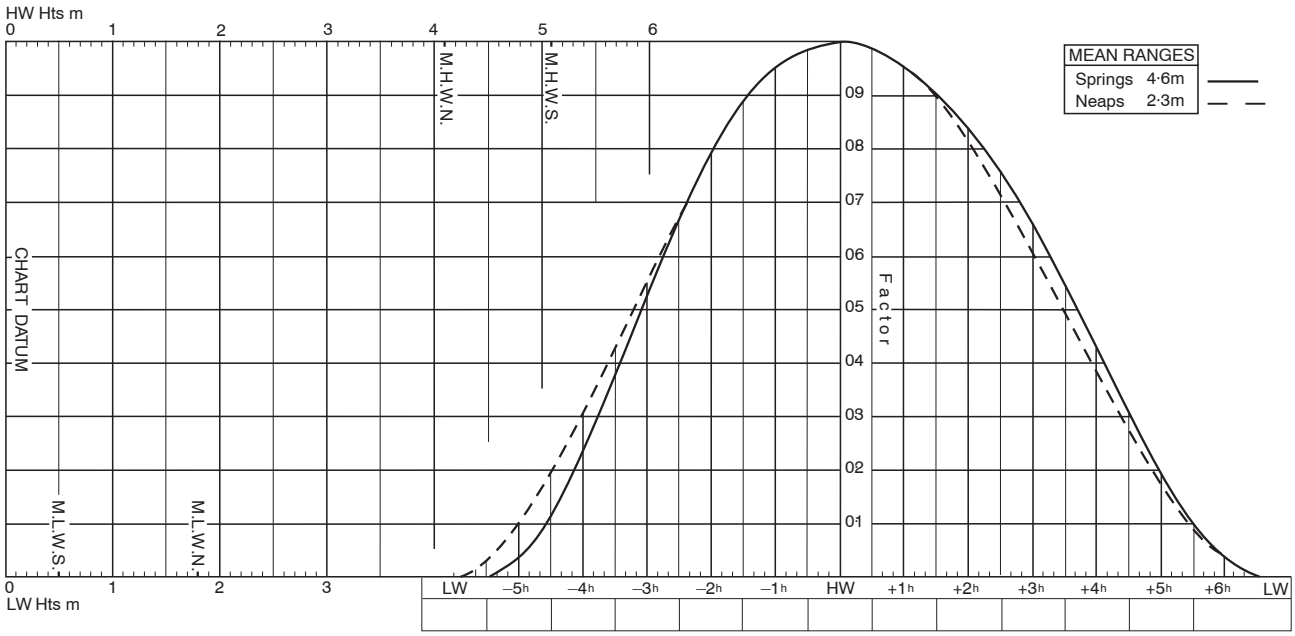
| Non-Reference Standard Ports | | | | |
|---|---|---|---|---|
| **STANDARD PORT** | **MHWS** | **MHWN** | **MLWN** | **MLWS** |
| ST. MARY'S | +0.2 | -0.1 | -0.2 | -0.1 |
| PENZANCE | 0.0 | -0.1 | -0.2 | 0.0 |
| FALMOUTH | 5.1 | 4.1 | 1.8 | 0.5 |
| TRURO | 4.9 | 3.8 | 2.0 | 0.5 |
| NEWQUAY | 0.0 | +0.1 | 0.0 | -0.1 |

# Tidal Curve Diagrams

**FALMOUTH**

MEAN SPRING AND NEAP CURVES

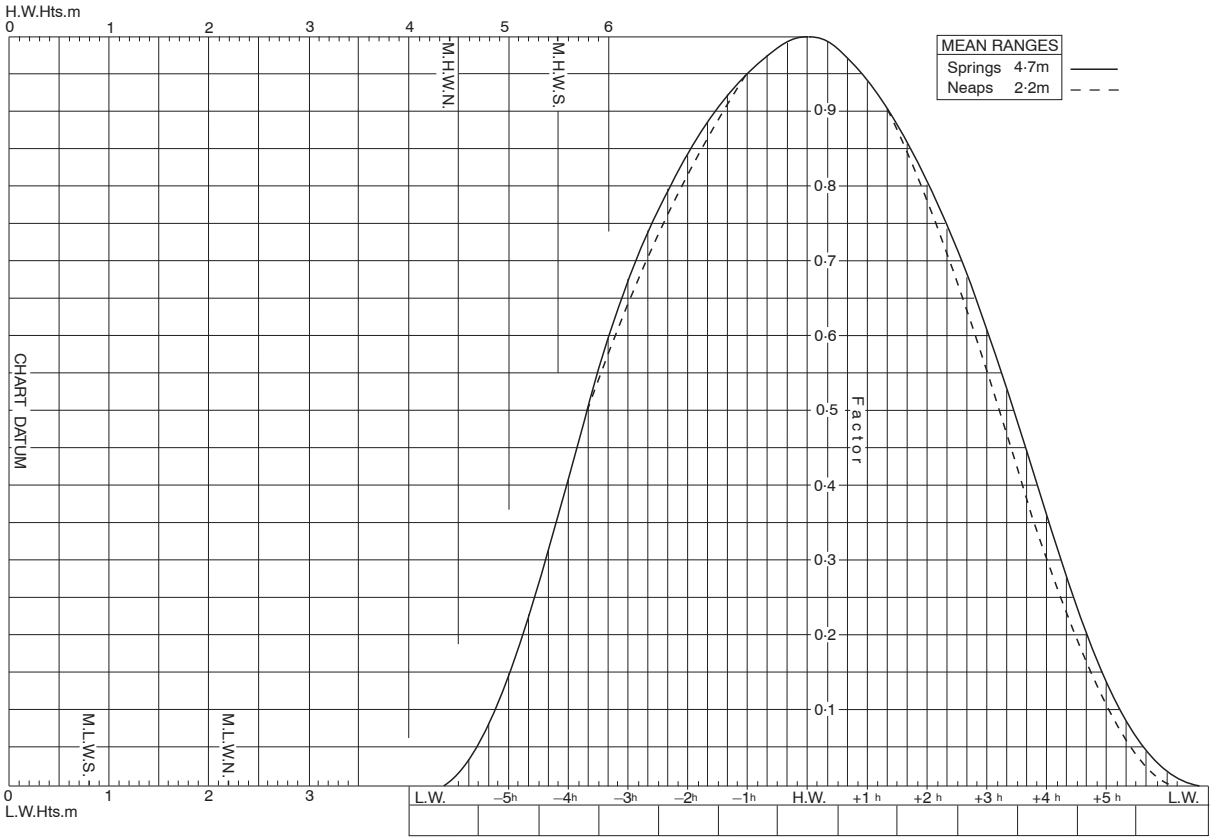
Springs occur 2 days after New and Full Moon




**PLYMOUTH (DEVONPORT)**

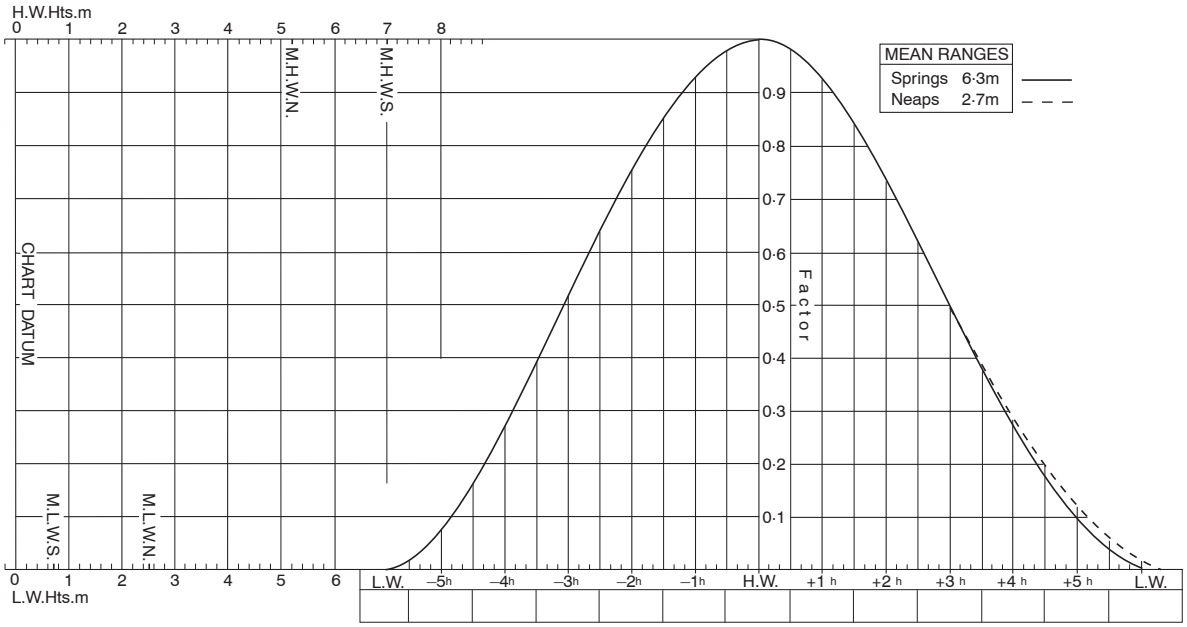
MEAN SPRING AND NEAP CURVES

Springs occur 2 days after New and Full Moon.



## MILFORD HAVEN

MEAN SPRING AND NEAP CURVES
Springs occur 2 days after New and Full Moon.



## TIDAL STREAM DIAGRAMS FOR EACH HOUR OF THE TIDE

The figures show the mean neap and mean spring rates of the tidal stream in tenths of a knot. The arrows have been graded in length and weight approximately to indicate the rates of the stream. Due to the strong rates of the tidal streams in some areas, eddies may occur.