



Port of
Milford Haven

FREE
Not for resale

**2021 Tide Tables
& Leisure User Guide**
for the Port of Milford Haven

Find out more about the Port of Milford Haven at www.mhpa.co.uk



Eat

at Milford Waterfront

Visit us by boat and enjoy a fantastic range of cafés and restaurants at Milford Waterfront.

Whether you fancy coffee and cake, breakfast, brunch, afternoon tea, dinner, traditional fish and chips, authentic Neapolitan pizza or an ice cream, there's a wide selection of eateries to choose from off the pontoon.



 **Milford Waterfront**
Where the land meets the sea

www.milfordwaterfront.co.uk

#visitmilfordhaven



Climate Change Adaptation in Pembrokeshire

Coastal Communities Adapting Together (CCAT)

The town of Pembroke Dock has never stood still. It has faced many challenges over the years but today it has a new opportunity to adapt and respond to climate change as it creates a world-class centre for marine engineering and renewable energy.

Coastal Communities Adapting Together (CCAT) is part-funded by the European Regional Development Fund through the Ireland Wales programme and is researching creative ways to support communities to understand and adapt to climate change.

With a strong focus on learning, the CCAT project is producing educational resources and creating links between school graduates and the emerging renewable energy industries that will provide hundreds of jobs locally in the future. Arts events and exhibitions are all in the pipeline, as well as community mapping projects, card games and computer gaming. Keen to bring Pembroke Dock's heritage to life CCAT is also researching the use of augmented reality, allowing people to peel back time and experience historic parts of Pembroke Port as they were in the past and how they might look in the future.

Learn more about the CCAT project and find out how you can get involved by visiting our website at www.ccatproject.eu

✉ lauren.blacklaw-jones@mhpa.co.uk

☎ 01646 696100



ccat
coastal communities
adapting together



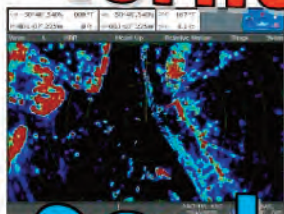


Dyfed Electronics Ltd

**Cleddau House Milford Haven Marina, Pembrokeshire
Pembrokeshire SA73 3AA**



Internet Prices



Local Advice

Email info@dyfedelectronics.co.uk

Tel 01646 694572

www.Dyfedelectronics.co.uk

Local Service



Your Local Company Supplying Local Service since 1981

QUADRA MARINE SERVICES

The Docks, Milford Haven
SA73 3AX, 01646 278270



- ENGINE SERVICING
- MAINTENANCE & WINTERIZATION
- NEW ENGINES SUPPLIED & FITTED
- PRESSURE WASHING & ANTIFOUL
- HULL & BOAT MAINTENANCE
- TRAILER MAINTENANCE
- BROKERAGE SERVICES



T: 01646 278270 E: INFO@QUADRAMARINESERVICES.CO.UK



YACHTS.CO

MILFORD HAVEN

POWERED BY NETWORK YACHT BROKERS

INTERNATIONAL NEW & USED
BOAT SALES & BROKERAGE



01646 278270
MILFORD@YACHTS.CO

JEANNEAU DEALER & QUICKSILVER POWERBOATS



PORT ENGINEERING

Exceeding Expectations



- *General Engineering*
- *Welding and Fabrication*
- *Installation of Structural Steel and Pipework*
- *Onsite Welding*
- *Afloat Repairs*
- *Fully Coded Welding Engineers*

Port Engineering, Hubberston Road, Milford Haven,
Pembrokeshire SA73 3PR

T: **01646 663889** E: **info@portengineeringltd.co.uk**

META

MARINE ENERGY TEST AREA
ARDAL BROFI YNNI MOROL

CREATING A HAVEN FOR MARINE ENERGY
CREU HAFAN AR GYFER YNNI MOROL

WWW.META.WALES





WILLIAMS SHIPPING



Supporting Renewable Innovation

MARINE AND LAND LOGISTICS • PORT SERVICES • STORAGE

CONTACT US TODAY

01646 684 169

www.williams-shipping.co.uk

Royal Dockyard,
Pembroke Docks,
SA72 6TD

MILFORD FISH DOCKS

Wales' largest fishing port

Milford Fish Docks is Wales' largest fishing port and is located in one of the deepest natural harbours in the world

We operate a 24/7 service to the fishing industry, providing excellent facilities and sheltered non-tidal quays.

Landing berths | Skilled operatives available 24 hours a day
Fleet of cargo handling and lifting equipment including a fixed marine crane | Bunkerage | Flake Ice | Cold Storage
Water | Waste management | Marine engineering companies on site | Welfare and laundry facilities

**Milford Fish Docks, Cleddau House,
Milford Haven SA73 3AF**
Part of the Port of Milford Haven

+44(0) 1646 696300
www.milfordfishdocks.com

The project to install a Hiab Winch and Fishing Welfare Facilities is part-funded through the European Maritime and Fisheries Fund, which is funded by the Welsh Government and the European Union.





2 for 1 designer glasses from £99

with single-vision lenses
to the same prescription

Book an eye test at [specsavers.co.uk](https://www.specsavers.co.uk)

Haverfordwest 4 Bridge Street
Tel 01437 767 788



Cannot be used with any other offers. Second pair from £69-£169 ranges, to the same price range or below and to the same prescription. **£69-£169 ranges:** standard 1.5 single vision lenses included in both pairs. Varifocal/bifocal: you pay for the lenses in your first pair only. **£169 Rimless range:** standard 1.6 single vision lenses included in both pairs. Varifocal/bifocal: you pay for the lenses in your first pair only. All lenses scratch-resistant. Extra Options available at an additional charge on both pairs. Excludes safety eyewear. SKU 30715660. ©2019 Specsavers.



Port of Milford Haven

2021 Tide Tables

for the Port of Milford Haven

Harbourmaster: Mike Ryan

Gorsewood Drive, Milford Haven, Pembrokeshire SA73 3EP

Telephone: (01646) 696100 Email: enquiries@mhpa.co.uk

Port Control (24 hours):

Telephone: (01646) 696136 Email: portcontrol@mhpa.co.uk

Fax: (01646) 696110

www.mhpa.co.uk

Index	
General information	13
Table of Distances within the Haven	14
Port Control Concise Guide	14
Selected Bye-laws	16
Selected Collision Regulations	17
Beaufort Scale	18
Table of Distances from Milford Haven	19
Exceptional Tides	20
Tidal Predictions	22
Metres-Feet Conversion Table	46
Tidal Reduction Tables	47
Sunrise and Sunset Tables	52
Leisure User Guide	63

Shipping Weather Forecast Areas



General Information

Tidal predictions for Milford Haven have been computed by the National Oceanography Centre: Copyright Reserved.

The time is mean time of the meridian of Greenwich. The heights are referred to the datum of the largest scale Admiralty chart of the Port and should be added to the depths given on the chart. The datum is 3.71 m. (12.17ft.) below Ordnance Datum for Mean Sea Level (Newlyn) or zero of the automatic tide gauge at the Port of Milford Haven Jetty.

The information published in this booklet is provided to assist shipping using the Haven, and whilst every endeavour is made to ensure that it is accurate, the Port of Milford Haven accepts no responsibility for any errors it may contain or for loss or damage of whatever description arising directly or indirectly from matter contained therein.

The rates covering Conservancy Charges, Mooring Charges and Pilotage Charges can be obtained from the Port of Milford Haven.

Time Differences of High and Low Water at Other Locations

	High Water at		Low Water at	
	0100 and 1300	0800 and 2000	0100 and 1300	0700 and 1900
Milford Haven				
Fishguard	+0115	+0100	+0110	+0135
Porthgain	+0055	+0045	+0045	+0100
Ramsey Sound	+0030	+0030	+0030	+0030
Solva	+0015	+0010	+0035	+0015
Little Haven	+0010	+0010	+0025	+0015
Martins Haven	+0010	+0010	+0015	+0015
Skomer Island	- 0005	- 0005	+0005	+0005
Dale Roads	- 0005	- 0005	- 0008	- 0008
Neyland	+0002	+0010	0000	0000
Llangwm	+0010	+0020	+0005	0000
Haverfordwest	+0010	+0025	—NO DATA—	
Stackpole Quay	- 0005	+0025	- 0010	- 0010
Tenby	- 0015	- 0010	- 0015	- 0020

Predictions for tides which fall between the times given may be obtained by interpolation between the columns. The difference should be added to or subtracted from the prediction given in the Tide Tables.

Crown Copyright. Reproduced from Admiralty Tide Tables with the permission of the Controller of Her Majesty's Stationery Office.

Table of Distances

Table of distances from entrance of Haven along centre of navigable channel in nautical miles.

Location	Mid Channel Rock	Angle Buoy	South Hook west end	Puma Energy west end	Valero west end	Milford Dock Channel	Newton Noyes	Dragon Jetty	Wear Spit	Carr Spit	Neyland Spit Buoy	Cleddau Bridge
Mid Channel Rock	0.00	2.01	3.93	4.81	5.13	5.92	6.64	7.07	7.95	8.63	9.35	9.98
Angle Buoy	2.01	0.00	1.92	2.80	3.12	3.91	4.63	5.06	5.94	6.62	7.34	7.97
South Hook west end	3.93	1.92	0.00	0.88	1.20	2.01	2.71	3.14	4.02	4.70	5.42	6.05
Puma Energy west end	4.81	2.80	0.88	0.00	0.32	0.39	1.83	2.26	3.14	3.82	4.54	5.17
Valero west end	5.13	3.12	1.20	0.32	0.00	0.79	1.51	1.94	2.82	3.50	4.22	4.85
Milford Dock Channel Entry	5.92	3.91	2.01	0.39	0.79	0.00	0.72	1.15	2.03	2.71	3.43	4.06
Newton Noyes	6.64	4.63	2.71	1.83	1.51	0.72	0.00	0.43	1.31	1.99	2.71	3.34
Dragon Jetty	7.07	5.06	3.14	2.26	1.94	1.15	0.43	0.00	0.88	1.56	2.28	2.91
Wear Spit	7.95	5.94	4.02	3.14	2.82	2.03	1.31	0.88	0.00	0.68	1.40	2.03
Carr Spit	8.63	6.62	4.70	3.82	3.50	2.71	1.99	1.56	0.68	0.00	0.72	1.35
Neyland Spit Buoy	9.35	7.34	5.42	4.54	4.22	3.43	2.71	2.28	1.40	0.72	0.00	0.63
Cleddau Bridge	9.98	7.97	6.05	5.17	4.85	4.06	3.34	2.91	2.03	1.35	0.63	0.00

Milford Haven Port Control Concise Guide

Ship movements are coordinated by the Port of Milford Haven's Port Control based at Hubberston Point, Position Lat. 51° 42.5' N, Long. 05° 03' W (approx).

Call sign "Milford Haven Port Control" with a continuous listening watch kept on VHF channel 12, the port frequency, as well as channels 11, 14 and 16.

Pilot and Patrol Launches maintain a continuous listening watch on channels 12 and 11.

It is mandatory for all vessels over 20 metres in length operating in Milford Haven and the approaches to report to Port Control.

Vessels inward bound

Vessels must send ETA at least 12 hours in advance to Port Control with any subsequent amendments at least two hours before arrival.

When within one hour of St Ann's Head, vessels must contact Port Control on VHF channel 12 and must subsequently maintain watch on channel 12. Vessels with any damage, or suspected damage, must advise Port Control and obtain permission to enter.

Vessels towing

Vessels towing must provide a tow plan and obtain permission from Port Control to enter. Towing guidelines can be found at www.mhpa.co.uk/marine-services

Passage plans

Vessels of 50 metres or more in length wishing to enter, depart or navigate within the area of jurisdiction of the Port of Milford Haven shall prepare a passage plan and declare such to Port Control prior to each movement commencing.

Vessels underway within the Haven

Vessels underway within the Haven must maintain a continuous listening watch on VHF channel 12. Reporting vessels over 20 metres in length should report at the various reporting points across the Haven.

Vessels anchoring

Vessels brought up in an anchorage must report to Port Control and, whilst at anchor, must maintain a continuous listening watch on VHF channels 12 and 16. Vessels at anchor will not be permitted to take on bunkers or immobilise main engines without the permission of the Harbourmaster.

Vessels outward bound

Vessels must report to Port Control prior to getting underway from berth or anchorage and maintain a continuous listening watch on VHF channel 12 until clearing port limits.

Harbour surveillance radar

The Port of Milford Haven operates a VTS traffic organisation service which includes harbour surveillance radar covering Milford Haven up to the Cleddau Bridge and seaward approaches for ranges up to 6 miles.

Berthing channels

VHF channels 15 and 9 have been allocated for berthing and unberthing operations within the main body of the Haven for use by ships, tugs, mooring boats and jetties. The channel allocation is as follows: north shore primary 9, secondary 15, south shore primary 15, secondary 9.

Exclusion zones

Any information regarding the introduction and enforcement of exclusion zones will be duly notified through Notice to Mariners and on our website www.mhpa.co.uk/notice-to-mariners

Milford Haven Port Authority Selected Bye-laws **B/L20 Vessels to be Navigated with Care:**

A vessel shall not be navigated or manoeuvred within the Haven in such a manner or at such speed as will or may:

- Cause damage to any lock gate, sea wall, jetty or other property within the Haven
- Cause damage, inconvenience or interruption to dredgers or other craft working within the Haven
- Cause damage, danger or inconvenience to other users of the Haven

B/L22 As to Fairway:

No vessel (whether sailing or power-driven) which is not confined to a channel by a reason of its draught, shall make use of that channel in such a way as to cause obstruction to any other vessel (whether sailing or power driven) which is confined to that channel by reason of its draught.

B/L24 Recognised Landing Place not to be Obstructed:

A master shall not place his vessel or allow it to be in such a situation as to obstruct or interfere with the access to any recognised landing place in the Haven.

B/L27 Unauthorised Vessels not to Approach Petroleum Berth:

Except with the permission of the Harbourmaster no vessel other than a petroleum ship, a vessel engaged in the mooring, unmooring and berthing operations of a petroleum ship or a vessel engaged in supplying or servicing a petroleum ship shall enter or navigate within 100 metres of a petroleum berth or a petroleum ship moored thereto.

B/L29 Water-skiing and Aqua-planing

A person shall not without the permission of the Harbourmaster engage or take part in water-skiing or aqua-planing, para-kiting or any similar airborne or waterborne activities in the Haven except in such areas as the Harbourmaster may designate and in accordance with such reasonable conditions as he may impose.

B/L30 Navigating Whilst Drunk

A person shall not navigate any vessel within the Haven whilst under the influence of drink or drugs to such an extent as to be incapable of taking proper control of the vessel.

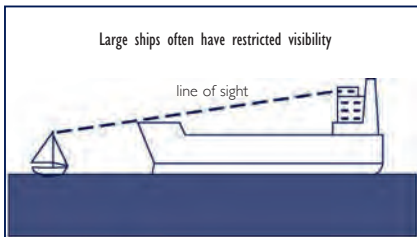
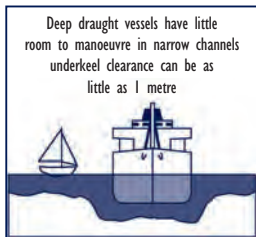
B/L56 Acts Affecting Safety of Navigation

A person shall not do any act or thing injuriously affecting the safety of navigation within the Haven.

Full details of the Milford Haven Bye-laws 1984 are available at www.mhpa.co.uk

Selected International Regulations for Preventing Collision at Sea 1972 (with 1995 amendments)

- Rule 5** Every vessel shall at all times maintain proper lookout by sight and hearing as well as by all available means appropriate to the prevailing circumstances and conditions so as to make a full appraisal of the situation and or risk of collision.
- Rule 6** Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid a collision and be stopped within a distance appropriate to the prevailing conditions.
- Rule 9(b)** A vessel of less than 20m in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.
- Rule 13** Any vessel overtaking any other shall keep out of the way of the vessel being overtaken.
- Rule 14(a)** When two power-driven vessels are meeting on reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of each other.
- Rule 18(a)** A power-driven vessel underway shall keep out of the way of:
- iv) a sailing vessel.
- Rule 18(a)(b)** A vessel underway shall keep out of the way of:
- i) a vessel not under command
 - ii) a vessel restricted in her ability to manoeuvre
 - iii) a vessel engaged in fishing



Beaufort Wind Scale

Force	Wind Speed (Knots)	Description	Sea
0	Less than 1	Calm	Sea like a mirror
1	1-3	Light Air	Ripples without foam crests
2	4-6	Light Breeze	Small wavelets. Crests do not break
3	7-10	Gentle Breeze	Large wavelets. Crests begin to break
4	11-16	Moderate Breeze	Small waves. Fairly frequent white horses
5	17-21	Fresh Breeze	Moderate waves. Many white horses
6	22-27	Strong Breeze	Large waves. White foam crests everywhere.
7	28-33	Near Gale	Sea heaps up. White foam begins to be blown in streaks.
8	34-40	Gale	Moderately high waves of greater length. Foam blown in well-marked streaks.
9	41-47	Strong Gale	High waves. Dense streaks of foam. Crests begin to roll over. Spray may affect visibility.
10	48-55	Storm	Very high waves with long overhanging crests. Great patches of foam in dense white streaks. Sea surface white. Tumbling of sea becomes heavy. Visibility affected.
11	56-63	Violent Storm	Exceptionally high waves. Small and medium sized ships may be lost to view. Sea completely covered with foam. Visibility affected.
12	More than 64	Hurricane	Sea completely white with driving spray. Air filled with foam and spray. Visibility very seriously affected.

Table of Distances from Milford Haven

Approximate navigable distances in nautical miles from Milford Haven:

Aberdeen (N)	643	London Bridge	487
Amsterdam	556	Liverpool	188
Antwerp	533	Londonderry	280
Ardrossan	248	Manchester	223
Avonmouth	99	Medway	451
Barry	77	Middlesborough	666
Belfast	215	Mongstad (Bergen)	827
Cardiff	84	Newcastle	690
Cork	129	Newport	94
Douglas	174	New York	2992
Dover	396	Orkneys	513
Drogheda	155	Peel (Douglas IOM)	178
Dublin	123	Plymouth	173
Falmouth	140	Poole	270
Fawley	292	Portland	250
Fishguard	56	Portsmouth (Needles)	313
Foynes	305	Qatar (Doha)	6213
Galway	360	Rosslare	70
Glasgow	296	Rotterdam	528
Gothenburg	1030	Shannon (Foynes)	318
Grangemouth (N)	740	Shetland	611
Grangemouth (S)	802	Shoreham	350
Gravesend	466	Southampton (Needles)	316
Great Yarmouth	494	Stanlow	207
Harwich	460	Statfjord Field	760
Heysham	190	Sture (Bergen)	827
Immingham	594	Sunderland	676
Inverness	624	Swansea	55
Jersey (St Helier)	262	Teesport	666
Larne	212	Terneusen	495
Le Havre	336	Thames (Thameshaven)	460
Leith (N) (Braefoot Bay)	728	Tivoli (Cork)	139
Leixoes	679	Whitegate	127
Limerick	328	Workington	194

Exceptional Tides

(1) Astronomical predictions for 2021 show that High Water levels of 7.3 metres and above occur on the following dates:

Date	Time	Metres	Feet
28 February	06:57	7.35	24.1
01 March	07:36	7.50	24.6
01 March	19:58	7.33	24.1
02 March	08:16	7.50	24.6
03 March	08:56	7.31	24.0
29 March	06:32	7.53	24.7
29 March	18:54	7.49	24.6
30 March	07:13	7.68	25.2
30 March	19:34	7.55	24.8
31 March	07:54	7.63	25.0
31 March	20:15	7.41	24.3
01 April	08:35	7.37	24.2
27 April	06:04	7.52	24.7
27 April	18:28	7.52	24.7
28 April	06:48	7.63	25.0
28 April	19:11	7.56	24.8
29 April	07:33	7.54	24.7
29 April	19:54	7.42	24.3
26 May	05:39	7.30	23.9
26 May	18:04	7.34	24.1
27 May	06:27	7.37	24.2
27 May	18:51	7.40	24.3
28 May	19:38	7.30	24.0

Date	Time	Metres	Feet
08 September	19:12	7.42	24.3
09 September	19:49	7.45	24.4
10 September	20:28	7.31	24.0
06 October	18:06	7.48	24.6
07 October	06:29	7.44	24.4
07 October	18:46	7.66	25.1
08 October	07:08	7.54	24.7
08 October	19:26	7.65	25.1
09 October	07:47	7.45	24.5
09 October	20:06	7.44	24.4
04 November	17:39	7.50	24.6
05 November	06:02	7.50	24.6
05 November	18:21	7.65	25.1
06 November	06:44	7.60	24.9
06 November	19:05	7.62	25.0
07 November	07:27	7.52	24.7
07 November	19:50	7.38	24.2
04 December	05:39	7.33	24.0
04 December	18:03	7.41	24.3
05 December	06:27	7.47	24.5
05 December	18:51	7.40	24.3
06 December	07:14	7.45	24.5
07 December	08:03	7.30	23.9

Know your tides - especially if you are heading up-river.

(2) Predicted Low Water will fall to levels of 0.5 metres or less on the following dates:

Date	Time	Metres	Feet
01 March	13:58	0.42	1.4
02 March	02:12	0.47	1.5
02 March	14:36	0.49	1.6
29 March	00:30	0.50	1.6
29 March	12:55	0.30	1.0
30 March	01:11	0.29	0.9
30 March	13:35	0.22	0.7
31 March	01:51	0.26	0.9
31 March	14:15	0.35	1.2
01 April	02:31	0.44	1.4
27 April	12:28	0.34	1.1
28 April	00:47	0.32	1.1
28 April	13:11	0.31	1.0
29 April	01:30	0.32	1.1
29 April	13:53	0.48	1.6

(3) Predicted High Water of 4.9 metres or less will occur on the following dates:

Date	Time	Metres	Feet
23 March	13:29	4.84	15.9
01 October	01:15	4.84	15.9

Warning: When the barometer is reading above 1016 millibars (30.00"), the water level is liable to drop below predicted heights.

**Alcohol impairs judgement - don't endanger lives
by drinking when afloat.**

JANUARY

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Fri	01:23	1.37	4.5	5.49	18.0	9 Sat	02:10	5.88	19.3	3.84	12.6
	07:26	6.86	22.5	5.49	18.0		08:34	2.05	6.7	3.83	12.6
	13:48	1.37	4.5	5.49	18.0		14:41	6.11	20.0	4.06	13.3
	19:48	6.68	21.9	5.31	17.4		21:15	1.88	6.2	4.22	13.9
2 Sat	02:01	1.38	4.5	5.30	17.4	10 Sun	03:18	6.13	20.1	4.25	13.9
	08:05	6.85	22.5	5.47	17.9		09:44	1.80	5.9	4.33	14.2
	14:27	1.39	4.6	5.46	17.9		15:48	6.32	20.7	4.52	14.8
	20:29	6.60	21.7	5.21	17.1		22:18	1.64	5.4	4.68	15.4
3 Sun	02:41	1.45	4.8	5.15	16.9	11 Mon	04:21	6.46	21.2	4.82	15.8
	08:46	6.76	22.2	5.31	17.4		10:45	1.50	4.9	4.97	16.3
	15:09	1.47	4.8	5.29	17.4		16:50	6.57	21.6	5.08	16.7
	21:12	6.45	21.2	4.99	16.4		23:13	1.39	4.5	5.19	17.0
4 Mon	03:24	1.58	5.2	4.87	16.0	12 Tue	05:17	6.79	22.3	5.40	17.7
	09:30	6.61	21.7	5.03	16.5		11:39	1.23	4.0	5.56	18.3
	15:54	1.60	5.3	5.01	16.4		17:44	6.79	22.3	5.57	18.3
	21:58	6.25	20.5	4.65	15.3						
5 Tue	04:09	1.76	5.8	4.49	14.7	13 Wed ●	00:03	1.19	3.9	5.61	18.4
	10:20	6.42	21.1	4.65	15.3		06:07	7.04	23.1	5.86	19.2
	16:43	1.78	5.8	4.64	15.2		12:29	1.04	3.4	6.01	19.7
	22:50	6.04	19.8	4.26	14.0		18:32	6.93	22.7	5.89	19.3
6 Wed ☾	05:02	1.96	6.4	4.08	13.4	14 Thu	00:49	1.07	3.5	5.85	19.2
	11:15	6.22	20.4	4.26	14.0		06:53	7.18	23.6	6.11	20.0
	17:41	1.95	6.4	4.27	14.0		13:15	0.96	3.1	6.23	20.4
	23:51	5.86	19.2	3.90	12.8		19:17	6.95	22.8	5.99	19.7
7 Thu	06:05	2.12	6.9	3.74	12.3	15 Fri	01:33	1.07	3.5	5.88	19.3
	12:19	6.06	19.9	3.94	12.9		07:36	7.19	23.6	6.13	20.1
	18:48	2.06	6.8	4.00	13.1		13:57	1.00	3.3	6.19	20.3
8 Fri							19:58	6.86	22.5	5.86	19.2
	00:59	5.78	19.0	3.72	12.2	16 Sat	02:12	1.16	3.8	5.69	18.7
	07:18	2.16	7.1	3.62	11.9		08:17	7.08	23.2	5.91	19.4
	13:30	6.01	19.7	3.85	12.6		14:37	1.15	3.8	5.93	19.4
	20:03	2.04	6.7	3.97	13.0		20:37	6.67	21.9	5.52	18.1

If you are on the water after dark, always use
your lights.

JANUARY - (Continued)

All Times
GMT

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17	02:50	1.35	4.4	5.31	17.4	25	03:42	5.55	18.2	3.07	10.1
Sun	08:56	6.86	22.5	5.50	18.1	Mon	10:06	2.38	7.8	3.16	10.4
	15:15	1.39	4.5	5.47	18.0		16:08	5.71	18.7	3.32	10.9
	21:14	6.40	21.0	5.02	16.5		22:27	2.16	7.1	3.55	11.6
18	03:26	1.61	5.3	4.79	15.7	26	04:33	5.93	19.4	3.76	12.4
Mon	09:34	6.57	21.5	4.96	16.3	Tue	10:55	2.04	6.7	3.89	12.8
	15:51	1.67	5.5	4.89	16.1		16:56	6.04	19.8	4.01	13.1
	21:51	6.10	20.0	4.42	14.5		23:12	1.83	6.0	4.21	13.8
19	04:01	1.91	6.3	4.19	13.7	27	05:16	6.30	20.7	4.47	14.7
Tue	10:12	6.23	20.5	4.33	14.2	Wed	11:38	1.70	5.6	4.60	15.1
	16:27	1.98	6.5	4.25	13.9		17:39	6.36	20.9	4.67	15.3
	22:29	5.78	19.0	3.79	12.5		23:53	1.52	5.0	4.84	15.9
20	04:39	2.22	7.3	3.56	11.7	28	05:57	6.63	21.7	5.10	16.7
Wed	10:53	5.89	19.3	3.67	12.0	Thu	12:18	1.39	4.6	5.24	17.2
☾	17:09	2.29	7.5	3.60	11.8	○	18:18	6.63	21.8	5.24	17.2
	23:12	5.47	17.9	3.18	10.4						
21	05:25	2.52	8.3	2.94	9.7	29	00:32	1.26	4.1	5.37	17.6
Thu	11:42	5.56	18.2	3.04	10.0	Fri	06:36	6.89	22.6	5.63	18.5
	18:01	2.56	8.4	3.00	9.8		12:57	1.14	3.7	5.76	18.9
							18:58	6.84	22.4	5.70	18.7
22	00:07	5.22	17.1	2.65	8.7	30	01:11	1.06	3.5	5.78	19.0
Fri	06:27	2.76	9.1	2.45	8.0	Sat	07:15	7.08	23.2	6.03	19.8
	12:43	5.32	17.4	2.55	8.4		13:36	0.96	3.1	6.13	20.1
	19:09	2.72	8.9	2.59	8.5		19:37	6.96	22.8	6.00	19.7
23	01:21	5.11	16.8	2.38	7.8	31	01:51	0.93	3.1	6.03	19.8
Sat	07:47	2.84	9.3	2.27	7.4	Sun	07:54	7.18	23.6	6.25	20.5
	13:59	5.25	17.2	2.42	7.9		14:16	0.87	2.9	6.31	20.7
	20:25	2.69	8.8	2.56	8.4		20:17	6.97	22.9	6.10	20.0
24	02:39	5.24	17.2	2.54	8.3						
Sun	09:05	2.69	8.8	2.55	8.4						
	15:10	5.41	17.8	2.73	8.9						
	21:33	2.47	8.1	2.94	9.6						

All users must adhere to the Bye-laws and general regulations shown on pages 16 and 17.

FEBRUARY

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Mon	02:30	0.91	3.0	6.06	19.9	9 Tue	04:15	6.12	20.1	4.16	13.6
	08:35	7.16	23.5	6.25	20.5		10:40	1.71	5.6	4.41	14.5
	14:56	0.91	3.0	6.26	20.5		16:47	6.20	20.3	4.49	14.7
	20:57	6.87	22.5	5.96	19.6		23:08	1.60	5.3	4.59	15.1
2 Tue	03:10	1.02	3.3	5.85	19.2	10 Wed	05:12	6.55	21.5	4.95	16.2
	09:16	7.03	23.1	6.01	19.7		11:36	1.34	4.4	5.21	17.1
	15:36	1.07	3.5	5.95	19.5		17:39	6.54	21.4	5.19	17.0
	21:39	6.65	21.8	5.58	18.3		23:57	1.28	4.2	5.26	17.2
3 Wed	03:51	1.23	4.0	5.42	17.8	11 Thu ●	06:00	6.89	22.6	5.61	18.4
	10:00	6.77	22.2	5.54	18.2		12:22	1.06	3.5	5.83	19.1
	16:19	1.35	4.4	5.42	17.8		18:23	6.78	22.2	5.72	18.8
	22:25	6.35	20.8	5.00	16.4						
4 Thu ☾	04:37	1.54	5.1	4.81	15.8	12 Fri	00:39	1.06	3.5	5.72	18.8
	10:48	6.43	21.1	4.88	16.0		06:42	7.11	23.3	6.05	19.8
	17:08	1.71	5.6	4.71	15.5		13:03	0.90	3.0	6.20	20.3
	23:17	6.00	19.7	4.29	14.1		19:03	6.90	22.6	6.00	19.7
5 Fri	05:30	1.90	6.2	4.11	13.5	13 Sat	01:18	0.95	3.1	5.95	19.5
	11:45	6.04	19.8	4.15	13.6		07:20	7.18	23.6	6.23	20.4
	18:08	2.07	6.8	3.97	13.0		13:39	0.87	2.8	6.31	20.7
6 Sat							19:39	6.90	22.6	6.03	19.8
	00:21	5.70	18.7	3.63	11.9	14 Sun	01:53	0.96	3.1	5.94	19.5
	06:41	2.20	7.2	3.50	11.5		07:56	7.13	23.4	6.17	20.2
	12:57	5.73	18.8	3.53	11.6		14:14	0.94	3.1	6.19	20.3
	19:28	2.30	7.6	3.43	11.2		20:12	6.80	22.3	5.86	19.2
7 Sun	01:40	5.58	18.3	3.28	10.7	15 Mon	02:25	1.07	3.5	5.73	18.8
	08:09	2.28	7.5	3.30	10.8		08:30	6.97	22.9	5.90	19.3
	14:20	5.64	18.5	3.36	11.0		14:45	1.11	3.7	5.86	19.2
	20:57	2.25	7.4	3.39	11.1		20:44	6.61	21.7	5.50	18.0
8 Mon	03:03	5.74	18.8	3.49	11.5	16 Tue	02:55	1.27	4.2	5.34	17.5
	09:33	2.07	6.8	3.67	12.0		09:01	6.73	22.1	5.45	17.9
	15:41	5.84	19.2	3.77	12.4		15:15	1.36	4.5	5.37	17.6
	22:09	1.96	6.4	3.88	12.7		21:14	6.36	20.9	5.00	16.4

Ensure all waste is properly stowed and taken home for disposal.

FEBRUARY - (Continued)

All Times
GMT

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17	03:24	1.55	5.1	4.81	15.8	25	04:54	6.18	20.3	4.27	14.0
Wed	09:33	6.42	21.1	4.87	16.0	Thu	11:17	1.63	5.3	4.55	14.9
	15:44	1.67	5.5	4.75	15.6		17:18	6.31	20.7	4.69	15.4
	21:45	6.06	19.9	4.39	14.4		23:33	1.44	4.7	4.87	16.0
18	03:54	1.88	6.2	4.18	13.7	26	05:36	6.66	21.8	5.21	17.1
Thu	10:06	6.05	19.9	4.18	13.7	Fri	11:59	1.17	3.9	5.48	18.0
	16:15	2.02	6.6	4.03	13.2		18:00	6.74	22.1	5.56	18.3
	22:19	5.71	18.7	3.69	12.1						
19	04:28	2.24	7.4	3.47	11.4	27	00:13	1.03	3.4	5.70	18.7
Fri	10:43	5.66	18.6	3.41	11.2	Sat	06:16	7.05	23.1	6.02	19.8
☾	16:54	2.40	7.9	3.26	10.7		12:39	0.80	2.6	6.26	20.5
	23:00	5.36	17.6	2.96	9.7		18:39	7.07	23.2	6.27	20.6
20	05:14	2.62	8.6	2.73	9.0	28	00:54	0.71	2.3	6.36	20.9
Sat	11:33	5.26	17.3	2.64	8.7	Sun	06:57	7.35	24.1	6.64	21.8
	17:48	2.75	9.0	2.51	8.3		13:19	0.54	1.8	6.81	22.3
							19:18	7.28	23.9	6.74	22.1
21	00:00	5.04	16.5	2.29	7.5						
Sun	06:28	2.92	9.6	2.12	7.0						
	12:45	4.98	16.3	2.06	6.7						
	19:16	2.94	9.6	2.04	6.7						
22	01:30	4.94	16.2	2.00	6.6						
Mon	08:12	2.93	9.6	2.01	6.6						
	14:23	5.00	16.4	2.08	6.8						
	20:50	2.78	9.1	2.22	7.3						
23	03:03	5.20	17.1	2.42	7.9						
Tue	09:34	2.59	8.5	2.60	8.5						
	15:39	5.36	17.6	2.76	9.1						
	21:58	2.38	7.8	2.98	9.8						
24	04:06	5.67	18.6	3.29	10.8						
Wed	10:31	2.12	7.0	3.55	11.6						
	16:34	5.83	19.1	3.72	12.2						
	22:49	1.91	6.3	3.93	12.9						

Life jackets save lives. Remember to carry out annual checks and wear them when afloat.

MARCH

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Mon	01:33	0.51	1.7	6.76	22.2	9 Tue	02:54	5.55	18.2	3.06	10.0
	07:36	7.50	24.6	6.99	22.9		09:29	2.19	7.2	3.36	11.0
	13:58	0.42	1.4	7.08	23.2		15:39	5.60	18.4	3.41	11.2
	19:58	7.33	24.1	6.91	22.7		22:03	2.11	6.9	3.49	11.4
2 Tue	02:12	0.47	1.5	6.86	22.5	10 Wed	04:08	6.01	19.7	3.90	12.8
	08:16	7.50	24.6	7.03	23.1		10:35	1.75	5.7	4.26	14.0
	14:36	0.49	1.6	7.00	23.0		16:40	6.05	19.8	4.30	14.1
	20:37	7.22	23.7	6.73	22.1		23:00	1.66	5.4	4.39	14.4
3 Wed	02:51	0.60	2.0	6.63	21.7	11 Thu	05:01	6.48	21.3	4.82	15.8
	08:56	7.31	24.0	6.71	22.0		11:25	1.34	4.4	5.14	16.8
	15:15	0.74	2.4	6.56	21.5		17:27	6.45	21.2	5.11	16.8
	21:18	6.95	22.8	6.21	20.4		23:44	1.29	4.2	5.16	16.9
4 Thu	03:31	0.89	2.9	6.06	19.9	12 Fri	05:45	6.83	22.4	5.54	18.2
	09:38	6.95	22.8	6.05	19.9		12:06	1.05	3.5	5.78	19.0
	15:55	1.15	3.8	5.80	19.0		18:06	6.73	22.1	5.67	18.6
	22:00	6.55	21.5	5.40	17.7						
5 Fri	04:14	1.33	4.4	5.22	17.1	13 Sat ●	00:22	1.04	3.4	5.68	18.7
	10:23	6.46	21.2	5.13	16.8		06:23	7.04	23.1	6.00	19.7
	16:39	1.66	5.5	4.79	15.7		12:42	0.89	2.9	6.15	20.2
	22:49	6.08	19.9	4.41	14.5		18:41	6.88	22.6	5.99	19.6
6 Sat ☾	05:05	1.83	6.0	4.24	13.9	14 Sun	00:56	0.91	3.0	5.96	19.6
	11:18	5.90	19.4	4.07	13.4		06:57	7.11	23.3	6.20	20.4
	17:36	2.18	7.2	3.72	12.2		13:14	0.83	2.7	6.28	20.6
	23:53	5.62	18.4	3.44	11.3		19:13	6.92	22.7	6.08	20.0
7 Sun	06:15	2.29	7.5	3.33	10.9	15 Mon	01:27	0.89	2.9	6.03	19.8
	12:33	5.43	17.8	3.15	10.3		07:29	7.09	23.2	6.20	20.3
	19:03	2.55	8.4	2.89	9.5		13:44	0.87	2.9	6.21	20.4
							19:43	6.87	22.5	6.00	19.7
8 Mon	01:19	5.38	17.6	2.83	9.3	16 Tue	01:57	0.96	3.2	5.91	19.4
	07:58	2.45	8.0	2.93	9.6		08:00	6.97	22.9	6.01	19.7
	14:09	5.30	17.4	2.85	9.4		14:12	1.00	3.3	5.96	19.6
	20:47	2.49	8.2	2.81	9.2		20:12	6.74	22.1	5.74	18.8

Remember to carry out pre-season boat checks.

MARCH - (Continued)

All Times GMT
+ 1hr from 28th

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17	02:24	1.12	3.7	5.62	18.4	25	03:31	5.58	18.3	3.09	10.1
Wed	08:28	6.77	22.2	5.65	18.5	Thu	10:00	2.10	6.9	3.48	11.4
	14:40	1.22	4.0	5.55	18.2		16:04	5.77	18.9	3.67	12.0
	20:39	6.54	21.5	5.32	17.4		22:19	1.92	6.3	3.85	12.6
18	02:51	1.37	4.5	5.17	17.0	26	04:24	6.17	20.2	4.25	13.9
Thu	08:57	6.49	21.3	5.12	16.8	Fri	10:48	1.51	5.0	4.66	15.3
	15:06	1.51	5.0	4.98	16.3		16:51	6.35	20.8	4.84	15.9
	21:07	6.27	20.6	4.75	15.6		23:06	1.36	4.5	4.99	16.4
19	03:18	1.69	5.6	4.57	15.0	27	05:08	6.73	22.1	5.37	17.6
Fri	09:26	6.15	20.2	4.46	14.6	Sat	11:32	0.98	3.2	5.75	18.9
	15:35	1.87	6.1	4.28	14.0		17:33	6.86	22.5	5.88	19.3
	21:37	5.94	19.5	4.07	13.3		23:48	0.87	2.9	5.99	19.7
20	03:50	2.07	6.8	3.87	12.7	28	05:51	7.20	23.6	6.33	20.8
Sat	09:59	5.75	18.9	3.68	12.1	Sun	12:14	0.57	1.9	6.63	21.8
	16:08	2.26	7.4	3.48	11.4		18:14	7.26	23.8	6.69	21.9
	22:12	5.56	18.2	3.30	10.8						
21	04:29	2.47	8.1	3.09	10.1						
Sun	10:41	5.32	17.5	2.85	9.3						
	16:52	2.66	8.7	2.66	8.7						
	23:03	5.18	17.0	2.52	8.3						
22	05:28	2.84	9.3	2.34	7.7	29	00:30	0.50	1.6	6.76	22.2
Mon	11:46	4.94	16.2	2.10	6.9	Mon	06:32	7.53	24.7	7.03	23.1
	18:07	2.97	9.8	1.97	6.5		12:55	0.30	1.0	7.23	23.7
							18:54	7.49	24.6	7.19	23.6
23	00:27	4.92	16.2	1.95	6.4	30	01:11	0.29	0.9	7.21	23.6
Tue	07:16	2.97	9.8	1.95	6.4	Tue	07:13	7.68	25.2	7.40	24.3
	13:29	4.84	15.9	1.87	6.1		13:35	0.22	0.7	7.46	24.5
	20:03	2.92	9.6	1.92	6.3		19:34	7.55	24.8	7.33	24.0
24	02:16	5.07	16.6	2.15	7.1	31	01:51	0.26	0.9	7.29	23.9
Wed	08:55	2.65	8.7	2.42	7.9	Wed	07:54	7.63	25.0	7.38	24.2
	15:04	5.20	17.1	2.55	8.4		14:15	0.35	1.2	7.28	23.9
	21:23	2.48	8.2	2.72	8.9		20:15	7.41	24.3	7.06	23.2

From 28 March, add 1 hour for
British Summer Time

Lights, sounds, flags and navigation markers can save lives.
Find out more at www.mhpa.co.uk/enjoy-the-waterway.

BST: Add
1 hour to times

APRIL

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Thu	02:31	0.44	1.4	6.98	22.9	9 Fri	04:39	6.41	21.0	4.70	15.4
	08:35	7.37	24.2	6.93	22.8		11:02	1.40	4.6	5.01	16.5
	14:54	0.69	2.3	6.68	21.9		17:03	6.37	20.9	4.97	16.3
	20:55	7.09	23.3	6.40	21.0		23:20	1.38	4.5	4.99	16.4
2 Fri	03:12	0.81	2.7	6.28	20.6	10 Sat	05:20	6.71	22.0	5.33	17.5
	09:18	6.93	22.7	6.12	20.1		11:40	1.15	3.8	5.56	18.2
	15:34	1.18	3.9	5.75	18.9		17:40	6.63	21.7	5.47	18.0
	21:39	6.64	21.8	5.46	17.9		23:56	1.16	3.8	5.47	17.9
3 Sat	03:57	1.32	4.3	5.32	17.4	11 Sun	05:56	6.88	22.6	5.72	18.8
	10:04	6.35	20.8	5.03	16.5		12:13	1.01	3.3	5.86	19.2
	16:19	1.75	5.8	4.60	15.1		18:13	6.78	22.2	5.76	18.9
	22:30	6.11	20.0	4.35	14.3						
4 Sun ☾	04:49	1.88	6.2	4.22	13.9	12 Mon ●	00:27	1.04	3.4	5.74	18.8
	11:00	5.74	18.8	3.86	12.7		06:29	6.94	22.8	5.91	19.4
	17:17	2.31	7.6	3.43	11.3		12:43	0.96	3.2	5.98	19.6
	23:35	5.61	18.4	3.30	10.8		18:44	6.84	22.4	5.88	19.3
5 Mon	06:04	2.35	7.7	3.26	10.7	13 Tue	00:57	1.00	3.3	5.84	19.1
	12:18	5.27	17.3	2.92	9.6		06:59	6.93	22.8	5.93	19.5
	18:50	2.66	8.7	2.61	8.5		13:12	0.98	3.2	5.95	19.5
							19:12	6.83	22.4	5.85	19.2
6 Tue	01:04	5.37	17.6	2.71	8.9	14 Wed	01:27	1.05	3.4	5.78	19.0
	07:49	2.46	8.1	2.91	9.5		07:28	6.85	22.5	5.80	19.0
	13:58	5.19	17.0	2.73	9.0		13:41	1.08	3.5	5.77	18.9
	20:33	2.55	8.4	2.64	8.7		19:40	6.76	22.2	5.68	18.6
7 Wed	02:39	5.56	18.3	3.01	9.9	15 Thu	01:54	1.18	3.9	5.58	18.3
	09:15	2.17	7.1	3.39	11.1		07:57	6.70	22.0	5.52	18.1
	15:24	5.54	18.2	3.36	11.0		14:08	1.26	4.1	5.44	17.8
	21:46	2.15	7.0	3.39	11.1		20:08	6.60	21.7	5.34	17.5
8 Thu	03:48	6.00	19.7	3.85	12.6	16 Fri	02:23	1.39	4.6	5.22	17.1
	10:16	1.76	5.8	4.24	13.9		08:26	6.47	21.2	5.08	16.7
	16:20	5.99	19.6	4.23	13.9		14:36	1.52	5.0	4.95	16.2
	22:39	1.71	5.6	4.27	14.0		20:36	6.38	20.9	4.86	15.9

Always keep a lookout (and don't forget to watch for traffic approaching from behind).

APRIL - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Sat	02:51	1.67	5.5	4.71	15.4	25 Sun	04:34	6.77	22.2	5.43	17.8
	08:55	6.17	20.2	4.49	14.7		11:00	0.94	3.1	5.83	19.1
	15:05	1.84	6.0	4.33	14.2		17:02	6.90	22.6	5.96	19.6
	21:06	6.09	20.0	4.25	13.9		23:18	0.86	2.8	6.04	19.8
18 Sun	03:24	2.01	6.6	4.08	13.4	26 Mon	05:20	7.22	23.7	6.36	20.9
	09:29	5.81	19.1	3.80	12.5		11:45	0.56	1.8	6.67	21.9
	15:39	2.19	7.2	3.62	11.9		17:45	7.29	23.9	6.73	22.1
	21:42	5.75	18.9	3.56	11.7	27 Tue ○	00:03	0.51	1.7	6.78	22.2
19 Mon	04:03	2.36	7.7	3.39	11.1		06:04	7.52	24.7	7.01	23.0
	10:11	5.42	17.8	3.06	10.1		12:28	0.34	1.1	7.18	23.6
	16:22	2.55	8.4	2.88	9.4		18:28	7.52	24.7	7.18	23.5
	22:32	5.39	17.7	2.85	9.3	28 Wed	00:47	0.32	1.1	7.20	23.6
20 Tue ☾	05:00	2.67	8.8	2.72	8.9		06:48	7.63	25.0	7.31	24.0
	11:12	5.08	16.7	2.40	7.9		13:11	0.31	1.0	7.32	24.0
	17:29	2.83	9.3	2.25	7.4		19:11	7.56	24.8	7.25	23.8
	23:48	5.14	16.9	2.31	7.6	29 Thu	01:30	0.32	1.1	7.24	23.7
21 Wed	06:31	2.80	9.2	2.34	7.7		07:33	7.54	24.7	7.22	23.7
	12:45	4.96	16.3	2.16	7.1		13:53	0.48	1.6	7.06	23.2
	19:14	2.83	9.3	2.13	7.0		19:54	7.42	24.3	6.93	22.8
22 Thu	01:26	5.21	17.1	2.38	7.8	30 Fri	02:14	0.52	1.7	6.89	22.6
	08:10	2.53	8.3	2.69	8.8		08:17	7.25	23.8	6.72	22.1
	14:19	5.26	17.2	2.73	9.0		14:35	0.83	2.7	6.42	21.0
	20:40	2.45	8.0	2.81	9.2		20:38	7.10	23.3	6.27	20.6
23 Fri	02:47	5.65	18.5	3.20	10.5	24 Sat	03:45	6.22	20.4	4.32	14.2
	09:18	2.01	6.6	3.64	11.9		10:12	1.44	4.7	4.78	15.7
	15:25	5.80	19.0	3.79	12.4		16:16	6.39	21.0	4.94	16.2
	21:41	1.90	6.2	3.91	12.8		22:32	1.34	4.4	5.05	16.6

Power doesn't always give way to sail. Check the exceptions on pgs 16 and 17 to stay safe.

BST: Add
1 hour to times

MAY

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Sat	02:58	0.90	3.0	6.20	20.4	9 Sun	04:46	6.46	21.2	4.85	15.9
	09:02	6.78	22.3	5.88	19.3		11:05	1.41	4.6	5.05	16.6
	15:18	1.32	4.3	5.47	17.9		17:07	6.41	21.0	5.00	16.4
	21:24	6.66	21.9	5.35	17.5		23:23	1.42	4.7	4.98	16.4
2 Sun	03:45	1.40	4.6	5.27	17.3	10 Mon	05:24	6.60	21.7	5.18	17.0
	09:52	6.23	20.5	4.84	15.9		11:39	1.28	4.2	5.32	17.5
	16:06	1.84	6.1	4.39	14.4		17:41	6.57	21.6	5.29	17.4
	22:18	6.17	20.3	4.33	14.2		23:57	1.31	4.3	5.26	17.3
3 Mon ☾	04:42	1.90	6.2	4.27	14.0	11 Tue ●	05:57	6.68	21.9	5.37	17.6
	10:50	5.70	18.7	3.79	12.4		12:11	1.22	4.0	5.46	17.9
	17:06	2.32	7.6	3.37	11.1		18:12	6.67	21.9	5.45	17.9
	23:23	5.75	18.9	3.43	11.2						
4 Tue	05:57	2.28	7.5	3.47	11.4	12 Wed	00:28	1.26	4.1	5.41	17.8
	12:03	5.31	17.4	3.03	9.9		06:29	6.70	22.0	5.44	17.9
	18:32	2.60	8.5	2.72	8.9		12:42	1.21	4.0	5.49	18.0
							18:43	6.70	22.0	5.49	18.0
5 Wed	00:43	5.54	18.2	2.94	9.7	13 Thu	00:59	1.27	4.2	5.44	17.8
	07:26	2.37	7.8	3.17	10.4		07:00	6.66	21.9	5.39	17.7
	13:31	5.25	17.2	2.87	9.4		13:12	1.27	4.2	5.39	17.7
	20:03	2.52	8.3	2.73	8.9		19:12	6.68	21.9	5.40	17.7
6 Thu	02:06	5.64	18.5	3.12	10.2	14 Fri	01:30	1.35	4.4	5.33	17.5
	08:42	2.18	7.1	3.46	11.3		07:30	6.56	21.5	5.21	17.1
	14:49	5.50	18.0	3.32	10.9		13:42	1.40	4.6	5.16	16.9
	21:12	2.22	7.3	3.28	10.7		19:42	6.58	21.6	5.18	17.0
7 Fri	03:13	5.93	19.4	3.71	12.2	15 Sat	02:00	1.49	4.9	5.09	16.7
	09:41	1.88	6.2	4.05	13.3		08:02	6.39	21.0	4.89	16.1
	15:45	5.85	19.2	3.97	13.0		14:13	1.58	5.2	4.80	15.8
	22:04	1.88	6.2	3.97	13.0		20:14	6.42	21.1	4.83	15.9
8 Sat	04:04	6.23	20.4	4.34	14.2	16 Sun	02:33	1.70	5.6	4.72	15.5
	10:27	1.61	5.3	4.62	15.2		08:35	6.16	20.2	4.46	14.6
	16:30	6.17	20.2	4.56	15.0		14:45	1.82	6.0	4.34	14.2
	22:46	1.61	5.3	4.56	14.9		20:48	6.19	20.3	4.37	14.3

Spring is seabird nesting time. Please avoid sensitive sea cliff areas and follow the Pembrokeshire Marine Code (now available as an app).

MAY - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Mon	03:09	1.94	6.4	4.25	14.0	25 Tue	04:50	7.06	23.2	6.04	19.8
	09:12	5.88	19.3	3.94	12.9		11:16	0.78	2.6	6.28	20.6
	15:23	2.09	6.8	3.79	12.5		17:17	7.13	23.4	6.35	20.8
	21:27	5.93	19.5	3.84	12.6		23:37	0.72	2.4	6.41	21.0
18 Tue	03:51	2.19	7.2	3.74	12.3	26 Wed ○	05:39	7.30	23.9	6.58	21.6
	09:57	5.59	18.3	3.40	11.2		12:03	0.61	2.0	6.68	21.9
	16:09	2.35	7.7	3.24	10.6		18:04	7.34	24.1	6.73	22.1
	22:18	5.67	18.6	3.32	10.9	27 Thu	00:25	0.56	1.8	6.79	22.3
19 Wed ☾	04:47	2.39	7.9	3.28	10.7		06:27	7.37	24.2	6.82	22.4
	10:56	5.35	17.5	2.95	9.7		12:50	0.60	2.0	6.77	22.2
	17:10	2.54	8.3	2.80	9.2		18:51	7.40	24.3	6.80	22.3
	23:26	5.49	18.0	2.95	9.7	28 Fri	01:13	0.55	1.8	6.85	22.5
20 Thu	06:00	2.46	8.1	3.03	10.0		07:15	7.28	23.9	6.73	22.1
	12:12	5.27	17.3	2.81	9.2		13:36	0.74	2.4	6.55	21.5
	18:32	2.55	8.4	2.71	8.9		19:38	7.30	24.0	6.57	21.5
21 Fri	00:45	5.53	18.2	2.98	9.8	29 Sat	02:00	0.71	2.3	6.59	21.6
	07:24	2.28	7.5	3.25	10.7		08:03	7.04	23.1	6.33	20.8
	13:33	5.46	17.9	3.17	10.4		14:21	1.01	3.3	6.03	19.8
	19:53	2.30	7.5	3.16	10.4		20:25	7.06	23.2	6.05	19.9
22 Sat	02:00	5.82	19.1	3.53	11.6	30 Sun	02:48	1.01	3.3	6.06	19.9
	08:34	1.91	6.3	3.91	12.8		08:51	6.67	21.9	5.66	18.6
	14:41	5.87	19.2	3.95	13.0		15:07	1.38	4.5	5.29	17.4
	20:59	1.88	6.2	3.99	13.1		21:15	6.72	22.1	5.35	17.5
23 Sun	03:04	6.26	20.5	4.38	14.4	31 Mon	03:38	1.39	4.6	5.34	17.5
	09:33	1.48	4.8	4.78	15.7		09:42	6.24	20.5	4.85	15.9
	15:38	6.35	20.8	4.87	16.0		15:57	1.78	5.8	4.46	14.6
	21:56	1.42	4.7	4.92	16.2		22:06	6.34	20.8	4.56	15.0
24 Mon	03:59	6.70	22.0	5.28	17.3						
	10:26	1.08	3.5	5.62	18.4						
	16:29	6.79	22.3	5.71	18.7						
	22:48	1.02	3.3	5.77	18.9						

Large tankers may not see you, and they have less manoeuvrability. Stay clear to stay safe.

BST: Add
1 hour to times

JUNE

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Tue	04:33	1.78	5.8	4.56	15.0	9 Wed	05:27	6.37	20.9	4.73	15.5
	10:36	5.82	19.1	4.03	13.2		11:41	1.52	5.0	4.85	15.9
	16:52	2.15	7.1	3.66	12.0		17:44	6.44	21.1	4.92	16.1
	23:04	5.99	19.6	3.83	12.6						
2 Wed ☾	05:35	2.10	6.9	3.89	12.8	10 Thu ●	00:01	1.54	5.0	4.90	16.1
	11:36	5.50	18.0	3.40	11.1		06:03	6.44	21.1	4.90	16.1
	17:59	2.40	7.9	3.09	10.1		12:15	1.46	4.8	4.98	16.3
							18:18	6.54	21.5	5.07	16.6
3 Thu	00:09	5.75	18.8	3.34	11.0	11 Fri	00:36	1.49	4.9	5.05	16.6
	06:44	2.26	7.4	3.48	11.4		06:37	6.46	21.2	4.98	16.3
	12:46	5.35	17.5	3.09	10.1		12:49	1.45	4.8	5.01	16.4
	19:13	2.47	8.1	2.88	9.5		18:51	6.58	21.6	5.12	16.8
4 Fri	01:18	5.67	18.6	3.20	10.5	12 Sat	01:10	1.49	4.9	5.09	16.7
	07:52	2.25	7.4	3.42	11.2		07:12	6.44	21.1	4.95	16.2
	13:57	5.41	17.7	3.16	10.4		13:23	1.49	4.9	4.95	16.2
	20:21	2.36	7.7	3.05	10.0		19:25	6.56	21.5	5.07	16.6
5 Sat	02:24	5.75	18.9	3.39	11.1	13 Sun	01:45	1.53	5.0	5.03	16.5
	08:52	2.12	6.9	3.64	11.9		07:46	6.36	20.9	4.83	15.8
	14:57	5.61	18.4	3.49	11.5		13:57	1.57	5.1	4.79	15.7
	21:18	2.17	7.1	3.44	11.3		20:00	6.48	21.3	4.92	16.1
6 Sun	03:20	5.92	19.4	3.75	12.3	14 Mon	02:21	1.62	5.3	4.87	16.0
	09:42	1.94	6.4	3.98	13.1		08:23	6.23	20.5	4.62	15.1
	15:48	5.86	19.2	3.92	12.9		14:34	1.69	5.5	4.54	14.9
	22:06	1.96	6.4	3.90	12.8		20:38	6.36	20.9	4.67	15.3
7 Mon	04:07	6.10	20.0	4.13	13.6	15 Tue	03:00	1.74	5.7	4.62	15.2
	10:26	1.77	5.8	4.33	14.2		09:03	6.07	19.9	4.33	14.2
	16:30	6.10	20.0	4.33	14.2		15:14	1.84	6.0	4.23	13.9
	22:48	1.78	5.8	4.32	14.2		21:20	6.20	20.3	4.36	14.3
8 Tue	04:49	6.25	20.5	4.47	14.7	16 Wed	03:44	1.87	6.1	4.33	14.2
	11:05	1.63	5.3	4.63	15.2		09:48	5.88	19.3	4.01	13.2
	17:09	6.29	20.6	4.67	15.3		16:00	2.01	6.6	3.88	12.7
	23:26	1.64	5.4	4.66	15.3		22:09	6.04	19.8	4.03	13.2

Kill cords save lives when used correctly.
Check to see yours works and you are using it properly.

JUNE - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Thu	04:33	1.99	6.5	4.04	13.3	25 Fri	00:10	0.85	2.8	6.22	20.4
	10:40	5.72	18.8	3.72	12.2		06:14	7.03	23.1	6.18	20.3
	16:53	2.14	7.0	3.57	11.7		12:35	0.90	3.0	6.13	20.1
	23:06	5.91	19.4	3.76	12.3		18:38	7.20	23.6	6.30	20.7
18 Fri ☾	05:32	2.06	6.8	3.84	12.6	26 Sat	01:01	0.78	2.6	6.42	21.1
	11:42	5.63	18.5	3.56	11.7		07:05	7.03	23.0	6.25	20.5
	17:57	2.20	7.2	3.42	11.2		13:23	0.93	3.1	6.09	20.0
19 Sat	00:10	5.87	19.3	3.67	12.0		19:27	7.20	23.6	6.27	20.6
	06:40	2.04	6.7	3.83	12.6	27 Sun	01:51	0.83	2.7	6.38	20.9
	12:51	5.67	18.6	3.63	11.9		07:53	6.90	22.6	6.07	19.9
	19:08	2.13	7.0	3.54	11.6		14:10	1.07	3.5	5.83	19.1
20 Sun	01:18	5.96	19.6	3.84	12.6		20:15	7.08	23.2	6.02	19.7
	07:50	1.89	6.2	4.08	13.4	28 Mon	02:39	1.00	3.3	6.08	20.0
	13:59	5.87	19.3	3.98	13.1		08:40	6.67	21.9	5.67	18.6
	20:18	1.91	6.3	3.96	13.0		14:55	1.29	4.2	5.38	17.6
21 Mon	02:25	6.18	20.3	4.26	14.0		21:01	6.86	22.5	5.56	18.2
	08:56	1.65	5.4	4.52	14.8	29 Tue	03:25	1.27	4.2	5.59	18.3
	15:02	6.18	20.3	4.53	14.9		09:25	6.37	20.9	5.10	16.7
	21:22	1.62	5.3	4.56	15.0		15:40	1.58	5.2	4.79	15.7
22 Tue	03:27	6.45	21.2	4.83	15.9		21:48	6.56	21.5	4.97	16.3
	09:57	1.39	4.6	5.06	16.6	30 Wed	04:11	1.58	5.2	4.98	16.3
	16:00	6.53	21.4	5.14	16.9		10:11	6.04	19.8	4.46	14.6
	22:22	1.31	4.3	5.22	17.1		16:26	1.89	6.2	4.15	13.6
23 Wed	04:26	6.72	22.0	5.41	17.7		22:35	6.23	20.4	4.33	14.2
	10:52	1.15	3.8	5.57	18.3	24 Thu ☉	05:21	6.92	22.7	5.88	19.3
	16:55	6.84	22.4	5.68	18.7		11:45	0.98	3.2	5.94	19.5
	23:18	1.04	3.4	5.80	19.0		17:48	7.07	23.2	6.09	20.0

It's a busy waterway. Please help keep everyone safe
by knowing the 'rules of the road'.

BST: Add
1 hour to times

JULY

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Thu ☾	04:58	1.89	6.2	4.33	14.2	9 Fri	05:42	6.23	20.5	4.49	14.7
	10:59	5.72	18.8	3.83	12.6		11:54	1.64	5.4	4.60	15.1
	17:15	2.18	7.1	3.54	11.6		17:59	6.44	21.1	4.80	15.7
	23:26	5.91	19.4	3.74	12.3						
2 Fri	05:50	2.16	7.1	3.76	12.3	10 Sat ●	00:18	1.59	5.2	4.84	15.9
	11:52	5.47	17.9	3.31	10.9		06:20	6.37	20.9	4.77	15.7
	18:11	2.40	7.9	3.07	10.1		12:31	1.51	5.0	4.85	15.9
3 Sat	00:22	5.67	18.6	3.27	10.7		18:36	6.57	21.6	5.06	16.6
	06:47	2.34	7.7	3.33	10.9	11 Sun	00:56	1.47	4.8	5.10	16.7
	12:54	5.33	17.5	2.99	9.8		06:57	6.45	21.2	4.98	16.3
	19:15	2.52	8.3	2.81	9.2		13:08	1.43	4.7	5.03	16.5
4 Sun	01:24	5.54	18.2	3.02	9.9		19:12	6.66	21.9	5.24	17.2
	07:50	2.40	7.9	3.14	10.3	12 Mon	01:33	1.39	4.6	5.27	17.3
	14:00	5.34	17.5	2.95	9.7		07:34	6.49	21.3	5.10	16.7
	20:22	2.49	8.2	2.85	9.3		13:45	1.38	4.5	5.11	16.8
5 Mon	02:28	5.55	18.2	3.05	10.0		19:50	6.69	22.0	5.31	17.4
	08:51	2.33	7.6	3.22	10.6	13 Tue	02:11	1.35	4.4	5.34	17.5
	15:01	5.50	18.0	3.17	10.4		08:12	6.48	21.3	5.13	16.8
	21:23	2.35	7.7	3.15	10.3		14:24	1.39	4.6	5.09	16.7
6 Tue	03:26	5.68	18.6	3.32	10.9		20:28	6.67	21.9	5.28	17.3
	09:46	2.17	7.1	3.51	11.5	14 Wed	02:50	1.37	4.5	5.30	17.4
	15:54	5.74	18.8	3.57	11.7		08:51	6.41	21.0	5.04	16.5
	22:14	2.15	7.1	3.59	11.8		15:03	1.46	4.8	4.95	16.2
7 Wed	04:17	5.87	19.3	3.72	12.2		21:09	6.59	21.6	5.13	16.8
	10:33	1.98	6.5	3.89	12.8	15 Thu	03:30	1.45	4.8	5.14	16.9
	16:40	6.01	19.7	4.02	13.2		09:33	6.28	20.6	4.83	15.8
	23:00	1.94	6.4	4.07	13.3		15:45	1.58	5.2	4.70	15.4
8 Thu	05:01	6.06	19.9	4.12	13.5		21:53	6.45	21.2	4.87	16.0
	11:15	1.80	5.9	4.27	14.0	16 Fri	04:15	1.58	5.2	4.87	16.0
	17:21	6.24	20.5	4.45	14.6		10:20	6.11	20.0	4.53	14.9
	23:40	1.75	5.7	4.49	14.7		16:31	1.75	5.7	4.36	14.3
							22:41	6.27	20.6	4.53	14.8

Please respect wildlife and do not approach or harass.

JULY - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Sat ☾	05:03	1.75	5.7	4.52	14.8	25 Sun	00:54	0.87	2.9	6.24	20.5
	11:12	5.93	19.5	4.18	13.7		06:56	6.92	22.7	6.04	19.8
	17:24	1.92	6.3	4.01	13.1		13:12	0.98	3.2	5.94	19.5
	23:37	6.09	20.0	4.17	13.7		19:16	7.22	23.7	6.24	20.5
18 Sun	06:00	1.92	6.3	4.18	13.7	26 Mon	01:39	0.83	2.7	6.39	21.0
	12:13	5.79	19.0	3.88	12.7		07:40	6.91	22.7	6.08	20.0
	18:28	2.06	6.8	3.74	12.3		13:56	1.00	3.3	5.91	19.4
19 Mon	00:42	5.95	19.5	3.90	12.8		20:00	7.18	23.6	6.18	20.3
	07:09	2.01	6.6	3.94	12.9	27 Tue	02:22	0.91	3.0	6.27	20.6
	13:22	5.77	18.9	3.76	12.3		08:21	6.78	22.2	5.87	19.3
	19:42	2.07	6.8	3.70	12.1		14:36	1.13	3.7	5.65	18.5
20 Tue	01:54	5.94	19.5	3.86	12.7		20:41	7.01	23.0	5.88	19.3
	08:25	1.98	6.5	3.96	13.0	28 Wed	03:02	1.11	3.6	5.90	19.4
	14:34	5.92	19.4	3.94	12.9		09:00	6.56	21.5	5.45	17.9
	20:59	1.92	6.3	4.00	13.1		15:14	1.36	4.5	5.20	17.1
21 Wed	03:06	6.07	19.9	4.15	13.6		21:20	6.74	22.1	5.38	17.7
	09:37	1.79	5.9	4.28	14.0	29 Thu	03:39	1.40	4.6	5.34	17.5
	15:42	6.21	20.4	4.41	14.5		09:38	6.27	20.6	4.87	16.0
	22:08	1.64	5.4	4.57	15.0		15:51	1.66	5.4	4.61	15.1
22 Thu	04:14	6.31	20.7	4.68	15.3		21:58	6.40	21.0	4.75	15.6
	10:39	1.53	5.0	4.78	15.7	30 Fri	04:15	1.73	5.7	4.68	15.3
	16:44	6.56	21.5	5.03	16.5		10:15	5.95	19.5	4.22	13.8
	23:09	1.32	4.3	5.24	17.2		16:27	1.99	6.5	3.96	13.0
23 Fri	05:15	6.58	21.6	5.27	17.3		22:38	6.04	19.8	4.05	13.3
	11:36	1.27	4.2	5.31	17.4	31 Sat ☾	04:53	2.07	6.8	3.97	13.0
	17:40	6.88	22.6	5.61	18.4		10:56	5.62	18.4	3.56	11.7
24 Sat ○	00:03	1.05	3.4	5.84	19.1		17:09	2.32	7.6	3.30	10.8
	06:08	6.80	22.3	5.76	18.9		23:22	5.68	18.6	3.35	11.0
	12:26	1.07	3.5	5.73	18.8						
	18:30	7.11	23.3	6.04	19.8						

The Leisure User Guide shows all the Waterway zones so check it to make the most of your visit.

BST: Add
1 hour to times

AUGUST

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Sun	05:39	2.39	7.8	3.29	10.8	9 Mon	00:40	1.29	4.2	5.44	17.8
	11:45	5.34	17.5	2.95	9.7		06:41	6.65	21.8	5.36	17.6
	18:03	2.62	8.6	2.72	8.9		12:52	1.21	4.0	5.44	17.8
							18:57	6.92	22.7	5.71	18.7
2 Mon	00:17	5.37	17.6	2.75	9.0	10 Tue	01:18	1.09	3.6	5.83	19.1
	06:38	2.63	8.6	2.74	9.0		07:18	6.80	22.3	5.71	18.7
	12:50	5.15	16.9	2.52	8.3		13:30	1.07	3.5	5.73	18.8
	19:15	2.79	9.2	2.36	7.7		19:33	7.05	23.1	5.98	19.6
3 Tue	01:29	5.20	17.1	2.41	7.9	11 Wed	01:55	0.98	3.2	6.07	19.9
	07:53	2.71	8.9	2.49	8.2		07:55	6.87	22.5	5.89	19.3
	14:10	5.17	17.0	2.46	8.1		14:08	1.01	3.3	5.86	19.2
	20:37	2.74	9.0	2.43	8.0		20:12	7.08	23.2	6.07	19.9
4 Wed	02:45	5.27	17.3	2.53	8.3	12 Thu	02:33	0.96	3.2	6.11	20.1
	09:07	2.58	8.5	2.69	8.8		08:33	6.83	22.4	5.87	19.2
	15:21	5.42	17.8	2.84	9.3		14:46	1.05	3.5	5.77	18.9
	21:45	2.49	8.2	2.93	9.6		20:51	7.00	23.0	5.94	19.5
5 Thu	03:50	5.52	18.1	3.03	10.0	13 Fri	03:11	1.07	3.5	5.93	19.4
	10:06	2.30	7.6	3.22	10.6		09:13	6.68	21.9	5.61	18.4
	16:16	5.78	19.0	3.47	11.4		15:25	1.22	4.0	5.46	17.9
	22:38	2.16	7.1	3.62	11.9		21:31	6.80	22.3	5.58	18.3
6 Fri	04:41	5.84	19.2	3.69	12.1	14 Sat	03:51	1.30	4.3	5.50	18.1
	10:54	1.99	6.5	3.86	12.7		09:54	6.44	21.1	5.14	16.9
	17:01	6.14	20.1	4.15	13.6		16:07	1.49	4.9	4.95	16.2
	23:22	1.83	6.0	4.31	14.1		22:15	6.51	21.3	5.02	16.5
7 Sat	05:24	6.16	20.2	4.33	14.2	15 Sun ☾	04:34	1.62	5.3	4.89	16.0
	11:36	1.69	5.5	4.47	14.7		10:42	6.13	20.1	4.51	14.8
	17:41	6.46	21.2	4.77	15.7		16:55	1.82	6.0	4.31	14.1
							23:06	6.14	20.1	4.32	14.2
8 Sun ●	00:02	1.54	5.0	4.93	16.2	16 Mon	05:27	1.98	6.5	4.16	13.6
	06:03	6.43	21.1	4.90	16.1		11:40	5.81	19.1	3.82	12.5
	12:14	1.43	4.7	5.00	16.4		17:57	2.15	7.1	3.66	12.0
	18:19	6.73	22.1	5.30	17.4						

If you are new to boating, lessons are a great way to ensure you act responsibly and stay safe.

AUGUST - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Tue	00:12	5.78	19.0	3.64	11.9	25 Wed	01:57	0.86	2.8	6.41	21.0
	06:37	2.29	7.5	3.49	11.5		07:56	6.92	22.7	6.06	19.9
	12:54	5.60	18.4	3.31	10.9		14:09	1.02	3.3	5.90	19.3
	19:21	2.34	7.7	3.26	10.7		20:13	7.11	23.3	6.09	20.0
18 Wed	01:33	5.59	18.4	3.26	10.7	26 Thu	02:30	1.04	3.4	6.07	19.9
	08:09	2.37	7.8	3.23	10.6		08:29	6.73	22.1	5.70	18.7
	14:19	5.66	18.6	3.30	10.8		14:42	1.23	4.0	5.50	18.1
	20:52	2.21	7.3	3.45	11.3		20:46	6.85	22.5	5.62	18.4
19 Thu	03:00	5.71	18.7	3.50	11.5	27 Fri	03:01	1.30	4.3	5.55	18.2
	09:31	2.13	7.0	3.58	11.7		09:00	6.48	21.3	5.17	17.0
	15:39	6.01	19.7	3.87	12.7		15:12	1.53	5.0	4.95	16.2
	22:06	1.85	6.1	4.16	13.6		21:18	6.53	21.4	5.00	16.4
20 Fri	04:15	6.06	19.9	4.21	13.8	28 Sat	03:31	1.64	5.4	4.89	16.0
	10:36	1.75	5.7	4.31	14.1		09:31	6.17	20.2	4.53	14.9
	16:42	6.47	21.2	4.72	15.5		15:42	1.88	6.2	4.29	14.1
	23:07	1.43	4.7	5.04	16.5		21:51	6.15	20.2	4.27	14.0
21 Sat	05:12	6.46	21.2	5.03	16.5	29 Sun	04:01	2.01	6.6	4.13	13.6
	11:30	1.38	4.5	5.09	16.7		10:05	5.82	19.1	3.81	12.5
	17:34	6.88	22.6	5.51	18.1		16:15	2.27	7.4	3.55	11.7
	23:57	1.08	3.6	5.80	19.0		22:27	5.73	18.8	3.47	11.4
22 Sun ○	06:00	6.78	22.2	5.69	18.7	30 Mon ☾	04:37	2.40	7.9	3.33	10.9
	12:16	1.09	3.6	5.68	18.6		10:45	5.45	17.9	3.05	10.0
	18:19	7.17	23.5	6.07	19.9		16:57	2.66	8.7	2.79	9.2
							23:14	5.32	17.4	2.66	8.7
23 Mon	00:42	0.87	2.8	6.30	20.7	31 Tue	05:27	2.78	9.1	2.54	8.3
	06:42	6.96	22.8	6.09	20.0		11:41	5.12	16.8	2.34	7.7
	12:57	0.94	3.1	6.02	19.7		18:07	2.99	9.8	2.13	7.0
	19:00	7.29	23.9	6.35	20.8						
24 Tue	01:21	0.79	2.6	6.49	21.3						
	07:21	7.00	23.0	6.20	20.3						
	13:35	0.92	3.0	6.08	19.9						
	19:38	7.26	23.8	6.35	20.8						

Up-river has some beautiful scenery but remember
to keep to Dead Slow Minimum Wake.

BST: Add
1 hour to times

SEPTEMBER

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Wed	00:23	4.99	16.4	2.00	6.6	9 Thu	01:33	0.65	2.1	6.77	22.2
	06:50	3.02	9.9	1.97	6.5		07:33	7.26	23.8	6.61	21.7
	13:09	4.97	16.3	1.95	6.4		13:47	0.69	2.3	6.57	21.6
	19:52	3.05	10.0	1.92	6.3		19:49	7.45	24.4	6.75	22.2
2 Thu	02:04	4.96	16.3	1.91	6.3	10 Fri	02:10	0.67	2.2	6.77	22.2
	08:30	2.93	9.6	2.03	6.7		08:11	7.21	23.7	6.53	21.4
	14:49	5.19	17.0	2.27	7.4		14:24	0.78	2.6	6.43	21.1
	21:20	2.74	9.0	2.46	8.1		20:28	7.31	24.0	6.53	21.4
3 Fri	03:26	5.29	17.3	2.55	8.4	11 Sat	02:48	0.87	2.9	6.44	21.1
	09:41	2.55	8.4	2.73	9.0		08:49	7.00	23.0	6.13	20.1
	15:53	5.65	18.5	3.10	10.2		15:03	1.03	3.4	5.98	19.6
	22:17	2.28	7.5	3.37	11.1		21:08	7.01	23.0	5.99	19.6
4 Sat	04:20	5.75	18.9	3.47	11.4	12 Sun	03:27	1.22	4.0	5.79	19.0
	10:31	2.10	6.9	3.65	12.0		09:30	6.66	21.9	5.44	17.9
	16:39	6.14	20.2	4.04	13.3		15:45	1.41	4.6	5.25	17.2
	23:01	1.81	5.9	4.33	14.2		21:51	6.58	21.6	5.17	16.9
5 Sun	05:02	6.21	20.4	4.40	14.4	13 Mon	04:09	1.69	5.5	4.89	16.0
	11:13	1.66	5.4	4.55	14.9		10:16	6.23	20.4	4.54	14.9
	17:18	6.59	21.6	4.93	16.2		16:33	1.88	6.2	4.35	14.3
	23:40	1.39	4.6	5.20	17.1		22:43	6.05	19.8	4.17	13.7
6 Mon	05:41	6.62	21.7	5.23	17.2	14 Tue	05:01	2.20	7.2	3.85	12.6
	11:52	1.27	4.2	5.35	17.5		11:16	5.78	18.9	3.58	11.7
	17:57	6.97	22.9	5.69	18.7		17:37	2.35	7.7	3.43	11.3
							23:53	5.55	18.2	3.21	10.5
7 Tue ●	00:18	1.04	3.4	5.93	19.5	15 Wed	06:18	2.61	8.6	2.94	9.7
	06:18	6.95	22.8	5.91	19.4		12:39	5.48	18.0	2.87	9.4
	12:30	0.97	3.2	5.98	19.6		19:18	2.57	8.4	2.91	9.5
	18:34	7.25	23.8	6.28	20.6						
8 Wed	00:55	0.78	2.6	6.47	21.2	16 Thu	01:27	5.33	17.5	2.76	9.1
	06:55	7.17	23.5	6.39	21.0		08:08	2.65	8.7	2.69	8.8
	13:09	0.76	2.5	6.40	21.0		14:17	5.58	18.3	2.94	9.6
	19:12	7.42	24.3	6.65	21.8		20:55	2.35	7.7	3.24	10.6

Please be aware of your wash, especially in high speed boats/PWC, when close to shore or near other users.

SEPTEMBER - (Continued)

BST: Add
1 hour to times

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Fri	03:06	5.58	18.3	3.23	10.6	25 Sat	02:24	1.33	4.4	5.56	18.2
	09:32	2.28	7.5	3.30	10.8		08:24	6.64	21.8	5.31	17.4
	15:38	6.04	19.8	3.76	12.3		14:36	1.52	5.0	5.12	16.8
	22:06	1.88	6.2	4.16	13.6		20:41	6.59	21.6	5.07	16.6
18 Sat	04:13	6.06	19.9	4.18	13.7	26 Sun	02:51	1.64	5.4	4.94	16.2
	10:32	1.80	5.9	4.26	14.0		08:52	6.36	20.9	4.71	15.5
	16:35	6.56	21.5	4.76	15.6		15:03	1.86	6.1	4.50	14.8
	23:00	1.42	4.7	5.13	16.8		21:10	6.22	20.4	4.36	14.3
19 Sun	05:03	6.51	21.4	5.09	16.7	27 Mon	03:19	2.01	6.6	4.21	13.8
	11:19	1.39	4.5	5.13	16.8		09:22	6.02	19.7	4.01	13.1
	17:21	6.96	22.8	5.58	18.3		15:34	2.25	7.4	3.77	12.4
	23:44	1.09	3.6	5.87	19.3		21:43	5.81	19.1	3.56	11.7
20 Mon ○	05:44	6.83	22.4	5.74	18.8	28 Tue	03:51	2.42	7.9	3.39	11.1
	12:00	1.11	3.6	5.73	18.8		09:57	5.64	18.5	3.22	10.6
	18:00	7.21	23.6	6.10	20.0		16:12	2.67	8.8	2.97	9.7
21 Tue	00:21	0.91	3.0	6.30	20.7		22:24	5.37	17.6	2.70	8.8
	06:21	7.01	23.0	6.10	20.0	29 Wed ☾	04:34	2.83	9.3	2.53	8.3
	12:36	0.97	3.2	6.04	19.8		10:47	5.25	17.2	2.42	7.9
	18:37	7.29	23.9	6.32	20.7		17:12	3.05	10.0	2.19	7.2
22 Wed	00:55	0.86	2.8	6.43	21.1		23:27	4.97	16.3	1.91	6.3
	06:54	7.05	23.1	6.19	20.3	30 Thu	05:48	3.16	10.4	1.80	5.9
	13:08	0.96	3.1	6.10	20.0		12:10	4.98	16.3	1.81	6.0
	19:10	7.25	23.8	6.30	20.7		19:06	3.19	10.5	1.79	5.9
23 Thu	01:27	0.93	3.0	6.33	20.8	24 Fri	01:56	1.08	3.6	6.03	19.8
	07:26	7.00	23.0	6.07	19.9		07:55	6.86	22.5	5.77	18.9
	13:39	1.05	3.4	5.95	19.5		14:08	1.24	4.1	5.61	18.4
	19:42	7.11	23.3	6.06	19.9		20:12	6.89	22.6	5.64	18.5

Autumn is seal pupping season. Please follow the
Pembrokeshire Marine Code (now available as an app).

BST: Add
1 hour to times

OCTOBER

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Fri	01:15	4.84	15.9	1.65	5.4	9 Sat	01:47	0.60	2.0	7.05	23.1
	07:47	3.14	10.3	1.70	5.6		07:47	7.45	24.5	6.85	22.5
	14:06	5.12	16.8	1.98	6.5		14:03	0.69	2.3	6.76	22.2
	20:45	2.87	9.4	2.25	7.4		20:06	7.44	24.4	6.75	22.2
2 Sat	02:54	5.19	17.0	2.32	7.6	10 Sun	02:26	0.87	2.9	6.57	21.6
	09:08	2.72	8.9	2.47	8.1		08:27	7.20	23.6	6.32	20.7
	15:19	5.61	18.4	2.90	9.5		14:45	1.01	3.3	6.19	20.3
	21:45	2.33	7.7	3.28	10.8		20:48	7.05	23.1	6.05	19.8
3 Sun	03:50	5.74	18.8	3.40	11.2	11 Mon	03:06	1.31	4.3	5.75	18.9
	10:01	2.17	7.1	3.57	11.7		09:10	6.79	22.3	5.48	18.0
	16:07	6.18	20.3	4.01	13.2		15:29	1.47	4.8	5.32	17.5
	22:31	1.78	5.8	4.40	14.4		21:35	6.52	21.4	5.06	16.6
4 Mon	04:33	6.30	20.7	4.52	14.8	12 Tue	03:51	1.85	6.1	4.68	15.3
	10:45	1.64	5.4	4.66	15.3		10:00	6.29	20.6	4.45	14.6
	16:48	6.71	22.0	5.07	16.6		16:21	2.00	6.6	4.29	14.1
	23:12	1.28	4.2	5.44	17.8		22:30	5.93	19.5	3.93	12.9
5 Tue	05:12	6.80	22.3	5.52	18.1	13 Wed ☾	04:47	2.39	7.9	3.54	11.6
	11:25	1.18	3.9	5.62	18.4		11:04	5.81	19.1	3.42	11.2
	17:27	7.16	23.5	5.98	19.6		17:33	2.47	8.1	3.34	11.0
	23:51	0.88	2.9	6.28	20.6		23:45	5.44	17.8	2.97	9.7
6 Wed ●	05:51	7.19	23.6	6.31	20.7	14 Thu	06:15	2.78	9.1	2.66	8.7
	12:05	0.83	2.7	6.36	20.9		12:31	5.54	18.2	2.76	9.1
	18:06	7.48	24.6	6.66	21.8		19:18	2.61	8.6	2.93	9.6
7 Thu	00:29	0.62	2.0	6.87	22.5	15 Fri	01:24	5.30	17.4	2.69	8.8
	06:29	7.44	24.4	6.83	22.4		08:03	2.71	8.9	2.59	8.5
	12:44	0.61	2.0	6.83	22.4		14:09	5.70	18.7	2.99	9.8
	18:46	7.66	25.1	7.05	23.1		20:48	2.32	7.6	3.37	11.1
8 Fri	01:08	0.51	1.7	7.14	23.4	16 Sat	02:57	5.62	18.4	3.30	10.8
	07:08	7.54	24.7	7.02	23.0		09:19	2.30	7.6	3.32	10.9
	13:24	0.56	1.8	6.98	22.9		15:22	6.14	20.1	3.84	12.6
	19:26	7.65	25.1	7.09	23.3		21:52	1.88	6.2	4.26	14.0

Know your sound signals. Five blasts means danger so check if it is aimed at you and act accordingly.

OCTOBER - (Continued)

Add
1 hour for
British Summer
Time to 30 Oct

Date	Time	Height m	ft	Range m	ft	Date	Time	Height m	ft	Range m	ft
17 Sun	03:56	6.10	20.0	4.22	13.8	25 Mon	02:19	1.71	5.6	4.86	15.9
	10:15	1.84	6.0	4.25	14.0		08:21	6.48	21.3	4.77	15.6
	16:15	6.59	21.6	4.75	15.6		14:36	1.90	6.2	4.58	15.0
	22:40	1.49	4.9	5.10	16.7		20:39	6.25	20.5	4.36	14.3
18 Mon	04:42	6.51	21.3	5.02	16.5	26 Tue	02:48	2.04	6.7	4.22	13.8
	10:58	1.48	4.9	5.03	16.5		08:51	6.18	20.3	4.14	13.6
	16:58	6.91	22.7	5.43	17.8		15:07	2.24	7.4	3.93	12.9
	23:20	1.23	4.0	5.68	18.6		21:12	5.88	19.3	3.64	11.9
19 Tue	05:20	6.79	22.3	5.56	18.2	27 Wed	03:21	2.40	7.9	3.48	11.4
	11:35	1.25	4.1	5.53	18.2		09:27	5.83	19.1	3.43	11.2
	17:36	7.09	23.3	5.84	19.2		15:47	2.61	8.6	3.22	10.6
	23:54	1.10	3.6	5.99	19.7		21:53	5.48	18.0	2.87	9.4
20 Wed ○	05:54	6.94	22.8	5.84	19.2	28 Thu ☾	04:03	2.77	9.1	2.71	8.9
	12:09	1.15	3.8	5.79	19.0		10:15	5.47	17.9	2.70	8.8
	18:09	7.14	23.4	5.99	19.7		16:42	2.94	9.6	2.53	8.3
21 Thu	00:25	1.07	3.5	6.08	19.9		22:53	5.12	16.8	2.18	7.1
	06:26	7.00	23.0	5.93	19.5	29 Fri	05:09	3.08	10.1	2.04	6.7
	12:39	1.14	3.7	5.86	19.2		11:28	5.20	17.0	2.12	7.0
	18:41	7.11	23.3	5.97	19.6		18:15	3.09	10.1	2.11	6.9
22 Fri	00:55	1.12	3.7	5.99	19.7	30 Sat	00:24	4.96	16.3	1.87	6.1
	06:55	6.98	22.9	5.86	19.2		06:54	3.11	10.2	1.85	6.1
	13:09	1.22	4.0	5.76	18.9		13:07	5.23	17.2	2.12	7.0
	19:12	7.00	23.0	5.78	19.0		19:56	2.84	9.3	2.39	7.9
23 Sat	01:24	1.24	4.1	5.76	18.9	31 Sun GMT	02:02	5.22	17.1	2.38	7.8
	07:24	6.88	22.6	5.64	18.5		08:22	2.76	9.1	2.46	8.1
	13:38	1.37	4.5	5.51	18.1		14:30	5.64	18.5	2.88	9.4
	19:40	6.82	22.4	5.45	17.9		21:02	2.35	7.7	3.29	10.8
24 Sun	01:51	1.44	4.7	5.38	17.7						
	07:52	6.72	22.0	5.27	17.3						
	14:06	1.60	5.3	5.11	16.8						
	20:09	6.57	21.6	4.97	16.3						

Visit thegreenblue.org.uk to see how you can minimise your impact on the waterway environment.

NOVEMBER

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1 Mon	03:07	5.74	18.8	3.39	11.1	9 Tue	02:54	1.41	4.6	5.57	18.3
	09:21	2.24	7.3	3.50	11.5		08:59	6.88	22.6	5.47	17.9
	15:26	6.18	20.3	3.94	12.9		15:21	1.50	4.9	5.38	17.7
	21:53	1.80	5.9	4.38	14.4		21:26	6.47	21.2	4.97	16.3
2 Tue	03:55	6.31	20.7	4.50	14.8	10 Wed	03:42	1.91	6.3	4.56	15.0
	10:10	1.70	5.6	4.61	15.1		09:53	6.42	21.1	4.51	14.8
	16:12	6.72	22.0	5.02	16.5		16:18	1.97	6.5	4.45	14.6
	22:37	1.30	4.3	5.42	17.8		22:24	5.94	19.5	3.97	13.0
3 Wed	04:39	6.83	22.4	5.52	18.1	11 Thu ☾	04:41	2.38	7.8	3.56	11.7
	10:54	1.23	4.0	5.60	18.4		10:57	6.00	19.7	3.63	11.9
	16:56	7.18	23.5	5.95	19.5		17:30	2.36	7.7	3.65	12.0
	23:20	0.91	3.0	6.26	20.5		23:36	5.53	18.1	3.18	10.4
4 Thu ●	05:21	7.24	23.7	6.32	20.8	12 Fri	06:04	2.67	8.8	2.86	9.4
	11:37	0.87	2.8	6.37	20.9		12:15	5.76	18.9	3.09	10.1
	17:39	7.50	24.6	6.63	21.8		19:00	2.47	8.1	3.29	10.8
5 Fri	00:03	0.67	2.2	6.83	22.4	13 Sat	01:01	5.41	17.8	2.94	9.6
	06:02	7.50	24.6	6.83	22.4		07:36	2.64	8.7	2.77	9.1
	12:20	0.65	2.1	6.85	22.5		13:38	5.82	19.1	3.18	10.4
	18:21	7.65	25.1	7.00	23.0		20:18	2.30	7.6	3.52	11.5
6 Sat	00:45	0.60	2.0	7.06	23.2	14 Sun	02:23	5.62	18.4	3.31	10.9
	06:44	7.60	24.9	7.00	23.0		08:48	2.36	7.7	3.26	10.7
	13:03	0.61	2.0	6.99	22.9		14:48	6.09	20.0	3.73	12.2
	19:05	7.62	25.0	7.01	23.0		21:20	2.01	6.6	4.08	13.4
7 Sun	01:27	0.71	2.3	6.91	22.7	15 Mon	03:24	5.96	19.6	3.95	13.0
	07:27	7.52	24.7	6.81	22.3		09:43	2.02	6.6	3.94	12.9
	13:47	0.75	2.5	6.77	22.2		15:43	6.39	21.0	4.37	14.3
	19:50	7.38	24.2	6.64	21.8		22:08	1.74	5.7	4.65	15.3
8 Mon	02:09	0.99	3.2	6.39	21.0	16 Tue	04:10	6.29	20.6	4.56	15.0
	08:12	7.27	23.8	6.28	20.6		10:28	1.75	5.7	4.55	14.9
	14:33	1.06	3.5	6.21	20.4		16:27	6.62	21.7	4.88	16.0
	20:36	6.98	22.9	5.92	19.4		22:48	1.54	5.0	5.09	16.7

Checking fuel lines regularly will help prevent pollution.

NOVEMBER - (Continued)

All Times
GMT

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Wed	04:50	6.54	21.5	5.01	16.4	25 Thu	03:06	2.25	7.4	3.73	12.2
	11:06	1.56	5.1	4.98	16.3		09:12	6.04	19.8	3.79	12.4
	17:06	6.77	22.2	5.21	17.1		15:34	2.39	7.8	3.65	12.0
	23:24	1.42	4.7	5.35	17.5		21:38	5.68	18.6	3.29	10.8
18 Thu	05:25	6.71	22.0	5.29	17.3	26 Fri	03:49	2.52	8.3	3.16	10.4
	11:41	1.46	4.8	5.25	17.2		09:59	5.77	18.9	3.25	10.6
	17:42	6.84	22.4	5.38	17.6		16:26	2.62	8.6	3.16	10.4
	23:56	1.37	4.5	5.47	17.9		22:32	5.41	17.8	2.80	9.2
19 Fri ○	05:58	6.80	22.3	5.43	17.8	27 Sat ☾	04:45	2.75	9.0	2.66	8.7
	12:13	1.42	4.7	5.38	17.6		11:00	5.56	18.2	2.81	9.2
	18:15	6.84	22.4	5.42	17.8		17:33	2.73	9.0	2.83	9.3
							23:42	5.27	17.3	2.54	8.3
20 Sat	00:27	1.38	4.5	5.47	17.9	28 Sun	06:01	2.83	9.3	2.44	8.0
	06:29	6.83	22.4	5.46	17.9		12:15	5.52	18.1	2.69	8.8
	12:45	1.45	4.8	5.39	17.7		18:57	2.63	8.6	2.89	9.5
	18:46	6.79	22.3	5.34	17.5						
21 Sun	00:57	1.44	4.7	5.35	17.6	29 Mon	01:03	5.37	17.6	2.74	9.0
	06:59	6.80	22.3	5.36	17.6		07:25	2.66	8.7	2.71	8.9
	13:15	1.54	5.0	5.27	17.3		13:32	5.73	18.8	3.07	10.1
	19:17	6.68	21.9	5.14	16.9		20:09	2.32	7.6	3.41	11.2
22 Mon	01:27	1.57	5.1	5.11	16.8	30 Tue	02:14	5.72	18.8	3.40	11.1
	07:30	6.70	22.0	5.13	16.8		08:33	2.28	7.5	3.43	11.3
	13:46	1.69	5.5	5.02	16.5		14:37	6.12	20.1	3.83	12.6
	19:48	6.50	21.3	4.82	15.8		21:09	1.90	6.2	4.22	13.8
23 Tue	01:58	1.75	5.8	4.75	15.6						
	08:00	6.53	21.4	4.78	15.7						
	14:18	1.89	6.2	4.64	15.2						
	20:21	6.27	20.6	4.38	14.4						
24 Wed	02:30	1.99	6.5	4.28	14.0						
	08:34	6.31	20.7	4.32	14.2						
	14:54	2.13	7.0	4.18	13.7						
	20:56	5.98	19.6	3.85	12.6						

Know how to call for help in case you get into difficulties when afloat.

DECEMBER

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
1	03:12	6.18	20.3	4.28	14.1	9	03:35	1.72	5.6	4.83	15.8
Wed	09:30	1.85	6.1	4.34	14.2	Thu	09:45	6.67	21.9	4.95	16.2
	15:33	6.55	21.5	4.71	15.4		16:11	1.71	5.6	4.95	16.3
	22:02	1.49	4.9	5.07	16.6		22:13	6.13	20.1	4.41	14.5
2	04:04	6.65	21.8	5.16	16.9	10	04:30	2.08	6.8	4.05	13.3
Thu	10:22	1.42	4.7	5.23	17.1	Fri	10:41	6.31	20.7	4.23	13.9
	16:24	6.95	22.8	5.54	18.2		17:11	2.05	6.7	4.26	14.0
	22:51	1.14	3.7	5.81	19.1		23:12	5.77	18.9	3.72	12.2
3	04:52	7.04	23.1	5.90	19.4	11	05:33	2.37	7.8	3.40	11.1
Fri	11:12	1.07	3.5	5.97	19.6	Sat	11:42	6.02	19.7	3.65	12.0
	17:14	7.25	23.8	6.18	20.3		18:18	2.28	7.5	3.74	12.3
	23:39	0.91	3.0	6.34	20.8						
4	05:39	7.33	24.0	6.42	21.0	12	00:18	5.54	18.2	3.27	10.7
Sat	12:00	0.84	2.8	6.49	21.3	Sun	06:46	2.51	8.2	3.03	9.9
●	18:03	7.41	24.3	6.57	21.5		12:51	5.86	19.2	3.35	11.0
							19:27	2.34	7.7	3.52	11.5
5	00:26	0.81	2.7	6.59	21.6	13	01:29	5.51	18.1	3.17	10.4
Sun	06:27	7.47	24.5	6.65	21.8	Mon	07:57	2.48	8.1	3.03	9.9
	12:48	0.75	2.5	6.72	22.0		13:58	5.86	19.2	3.38	11.1
	18:51	7.40	24.3	6.65	21.8		20:31	2.27	7.5	3.59	11.8
6	01:12	0.86	2.8	6.54	21.4	14	02:35	5.65	18.5	3.38	11.1
Mon	07:14	7.45	24.5	6.59	21.6	Tue	08:59	2.33	7.7	3.32	10.9
	13:37	0.82	2.7	6.64	21.8		14:59	5.98	19.6	3.64	11.9
	19:40	7.24	23.7	6.42	21.1		21:26	2.12	7.0	3.85	12.6
7	01:58	1.05	3.4	6.18	20.3	15	03:30	5.88	19.3	3.76	12.3
Tue	08:03	7.30	23.9	6.24	20.5	Wed	09:51	2.14	7.0	3.74	12.3
	14:26	1.03	3.4	6.27	20.6		15:51	6.14	20.1	3.99	13.1
	20:29	6.93	22.7	5.91	19.4		22:12	1.96	6.4	4.18	13.7
8	02:45	1.35	4.4	5.58	18.3	16	04:17	6.12	20.1	4.17	13.7
Wed	08:52	7.02	23.0	5.67	18.6	Thu	10:36	1.96	6.4	4.16	13.6
	15:17	1.35	4.4	5.67	18.6		16:36	6.29	20.7	4.33	14.2
	21:20	6.54	21.5	5.19	17.0		22:54	1.81	5.9	4.49	14.7

There are some great waterway walks, check out
Pembrokeshire Coast National Park for ideas.

DECEMBER - (Continued)

All Times
GMT

Date	Time	Height		Range		Date	Time	Height		Range	
		m	ft	m	ft			m	ft	m	ft
17 Fri	04:58	6.34	20.8	4.53	14.9	25 Sat	03:37	2.07	6.8	3.94	12.9
	11:15	1.81	5.9	4.53	14.9		09:45	6.16	20.2	4.09	13.4
	17:16	6.42	21.1	4.61	15.1		16:09	2.11	6.9	4.05	13.3
	23:30	1.69	5.5	4.74	15.5		22:12	5.81	19.1	3.71	12.2
18 Sat	05:35	6.51	21.4	4.82	15.8	26 Sun	04:24	2.24	7.3	3.58	11.7
	11:52	1.70	5.6	4.81	15.8		10:35	5.99	19.6	3.75	12.3
	17:53	6.51	21.4	4.81	15.8		17:00	2.24	7.3	3.75	12.3
19 Sun ○	00:06	1.61	5.3	4.90	16.1		23:07	5.65	18.5	3.42	11.2
	06:09	6.62	21.7	5.01	16.4	27 Mon ☾	05:19	2.37	7.8	3.28	10.8
	12:27	1.63	5.4	4.99	16.4		11:33	5.87	19.2	3.49	11.5
	18:28	6.55	21.5	4.92	16.1		18:01	2.30	7.6	3.56	11.7
20 Mon	00:39	1.58	5.2	4.97	16.3	28 Tue	00:11	5.59	18.3	3.29	10.8
	06:43	6.68	21.9	5.10	16.7		06:27	2.41	7.9	3.17	10.4
	13:01	1.62	5.3	5.06	16.6		12:39	5.85	19.2	3.43	11.3
	19:02	6.54	21.4	4.92	16.1		19:12	2.25	7.4	3.59	11.8
21 Tue	01:12	1.59	5.2	4.94	16.2	29 Wed	01:21	5.68	18.6	3.42	11.2
	07:16	6.67	21.9	5.08	16.7		07:41	2.30	7.6	3.38	11.1
	13:35	1.64	5.4	5.03	16.5		13:50	5.97	19.6	3.67	12.0
	19:36	6.47	21.2	4.83	15.8		20:23	2.07	6.8	3.90	12.8
22 Wed	01:45	1.65	5.4	4.82	15.8	30 Thu	02:30	5.93	19.5	3.86	12.7
	07:50	6.61	21.7	4.95	16.3		08:51	2.04	6.7	3.89	12.8
	14:09	1.72	5.6	4.89	16.0		14:57	6.23	20.4	4.18	13.7
	20:10	6.35	20.8	4.64	15.2		21:29	1.79	5.9	4.43	14.5
23 Thu	02:20	1.76	5.8	4.60	15.1	31 Fri	03:33	6.30	20.7	4.50	14.8
	08:25	6.49	21.3	4.74	15.5		09:55	1.70	5.6	4.60	15.1
	14:45	1.82	6.0	4.67	15.3		15:59	6.54	21.4	4.84	15.9
	20:47	6.20	20.3	4.37	14.3		22:28	1.48	4.9	5.05	16.6
24 Fri	02:57	1.90	6.2	4.30	14.1						
	09:03	6.34	20.8	4.44	14.6						
	15:24	1.96	6.4	4.38	14.4						
	21:27	6.01	19.7	4.05	13.3						

Please do not anchor in the Sensitive Habitat Zones as marked on the Leisure User Guide.

Metres/feet double conversion table

Note: The central figures in heavy type represent either metres or feet as the case may be eg. 1 metre – 3.281 feet and 1 foot – .305 metres.

Metres		Feet	Metres		Feet
.305	1	3.281	6.401	21	68.988
.610	2	6.562	6.706	22	72.180
.914	3	9.843	7.010	23	75.461
1.219	4	13.124	7.315	24	78.742
1.524	5	16.405	7.630	25	82.022
1.829	6	19.695	8.025	26	85.303
2.134	7	22.966	8.230	27	88.584
2.438	8	26.247	8.534	28	91.865
2.743	9	29.528	8.839	29	95.146
3.048	10	32.809	9.144	30	98.427
3.353	11	36.090	9.449	31	101.708
3.658	12	39.371	9.753	32	104.989
3.962	13	42.652	10.058	33	108.270
4.267	14	45.933	10.363	34	111.551
4.572	15	49.213	10.668	35	114.881
4.877	16	52.494	10.973	36	118.112
5.182	17	55.775	11.277	37	121.393
5.486	18	59.056	11.582	38	124.674
5.791	19	62.337	11.887	39	127.955
6.096	20	65.618	12.192	40	131.236

Tidal Reduction Tables

Explanation

The following tables aim to provide a simple method of determining the approximate height of tide at times not predicted in the main tables.

To use the table:

- (1) Find out whether the required tide is on the ebb or flood, and also the nearest high water.
- (2) Take out the 'Range of Tide' from the 'ebb' or 'flood' column of the tables for the nearest high water.
- (3) Enter the reduction table with the time before or after high water on top and the 'Range' at the side and take out the height in feet or metres above low water from this table.
- (4) To this result add the height of nearest low water.
- (5) The final result will be the tidal height referred to port low water datum for the given time.

CAUTION: - The predictions by these tables must be taken as approximate on account of variations in level due to meteorological conditions. It should be noted that when the local barometer pressure is over 30.00", and particularly if this is accompanied by N to NE winds of force 5 or upwards, tidal levels may be considerably lowered.

The changes in sea level referred to are usually slow; thus in the Haven at the beginning of a period of high barometer and out blowing winds, sea level may drop, and supposing the barometer and wind remain constant, continue to drop for several days until a height, depending on the height of the barometer and force of wind, is reached. Sea level will probably then remain constant until the barometer begins to drop and the wind to decrease, when a gradual rise to normal begins, but may not be completed until some time after weather conditions have become normal.

Height in feet to be added to low Water to obtain height at intervening intervals (in hours)

Range of Tide In feet	BEFORE HIGH WATER													
	-6½	-6	-5½	-5	-4½	-4	-3½	-3	-2½	-2	-1½	-1	-½	H.W.
7	0.1	0	0.2	0.6	1.2	1.9	2.7	3.6	4.5	5.2	6.0	6.5	6.9	7.0
8	0.1	0	0.2	0.7	1.3	2.1	3.1	4.1	5.1	6.0	6.8	7.4	7.8	8.0
9	0.1	0	0.3	0.8	1.5	2.4	3.5	4.6	5.7	6.7	7.7	8.4	8.8	9.0
10	0.1	0	0.3	0.8	1.6	2.7	3.9	5.1	6.4	7.5	8.5	9.3	9.8	10.0
11	0.1	0	0.3	0.9	1.8	2.9	4.2	5.6	7.0	8.2	9.4	10.2	10.8	11.0
12	0.1	0	0.3	1.0	1.9	3.1	4.6	6.1	7.6	8.9	10.2	11.2	11.8	12.0
13	0.1	0	0.3	1.0	2.0	3.4	4.9	6.6	8.2	9.7	11.0	12.1	12.7	13.0
14	0.1	0	0.3	1.1	2.2	3.6	5.3	7.0	8.8	10.4	11.9	13.1	13.7	14.0
15	0.2	0	0.3	1.2	2.3	3.9	5.7	7.6	9.4	11.2	12.7	14.0	14.7	15.0
16	0.2	0	0.3	1.3	2.5	4.1	6.1	8.1	10.0	11.9	13.5	15.0	15.7	16.0
17	0.2	0	0.3	1.3	2.6	4.3	6.4	8.5	10.6	12.6	14.4	15.9	16.7	17.0
18	0.2	0	0.4	1.4	2.7	4.6	6.8	9.0	11.3	13.3	15.2	16.8	17.6	18.0
19	0.2	0	0.4	1.4	2.9	4.9	7.1	9.5	11.8	14.1	16.1	17.8	18.6	19.0
20	0.2	0	0.4	1.5	3.0	5.1	7.5	10.0	12.5	14.8	16.9	18.7	19.6	20.0
21	0.2	0	0.4	1.5	3.1	5.3	7.8	10.4	13.1	15.6	17.7	19.6	20.6	21.0
22	0.2	0	0.4	1.5	3.2	5.5	8.1	10.9	13.7	16.3	18.5	20.5	21.6	22.0
23	0.2	0	0.4	1.6	3.3	5.8	8.5	11.4	14.3	17.0	19.4	21.4	22.5	23.0
24	0.2	0	0.4	1.6	3.5	6.0	8.8	11.8	14.9	17.8	20.2	22.3	23.5	24.0
25	0.3	0	0.4	1.7	3.6	6.2	9.2	12.3	15.5	18.5	21.0	23.3	24.5	25.0

Range of Tide In feet	AFTER HIGH WATER													
	H.W.	+½	+1	+1½	+2	+2½	+3	+3½	+4	+4½	+5	+5½	+6	+6½
7	7.0	6.9	6.5	5.9	5.2	4.5	3.7	2.9	2.1	1.4	0.8	0.4	0.1	0
8	8.0	7.8	7.4	6.8	6.0	5.1	4.2	3.4	2.4	1.6	1.0	0.4	0.2	0
9	9.0	8.8	8.3	7.6	6.7	5.8	4.7	3.8	2.7	1.9	1.1	0.5	0.2	0.1
10	10.0	9.8	9.3	8.5	7.5	6.4	5.3	4.2	3.0	2.0	1.2	0.5	0.2	0.1
11	11.0	10.8	10.2	9.2	8.2	7.0	5.8	4.6	3.3	2.2	1.3	0.6	0.2	0.1
12	12.0	11.8	11.1	10.1	8.9	7.6	6.2	5.0	3.5	2.4	1.4	0.6	0.2	0.1
13	13.0	12.7	12.0	11.0	9.6	8.3	6.8	5.3	3.8	2.6	1.4	0.7	0.2	0.1
14	14.0	13.7	13.0	11.8	10.3	8.9	7.3	5.7	4.1	2.7	1.5	0.7	0.2	0.1
15	15.0	14.7	13.9	12.6	11.1	9.5	7.7	6.1	4.3	2.9	1.6	0.7	0.2	0.1
16	16.0	15.7	14.8	13.4	11.8	10.1	8.2	6.5	4.6	3.0	1.7	0.7	0.2	0.1
17	17.0	16.7	15.7	14.3	12.5	10.7	8.7	6.8	4.8	3.2	1.7	0.7	0.2	0.1
18	18.0	17.6	16.7	15.1	13.2	11.3	9.2	7.1	5.0	3.4	1.8	0.7	0.2	0.1
19	19.0	18.6	17.6	15.9	13.9	11.9	9.7	7.5	5.3	3.5	1.9	0.8	0.2	0.1
20	20.0	19.6	18.5	16.7	14.6	12.5	10.2	7.8	5.6	3.7	2.0	0.8	0.2	0.1
21	21.0	20.6	19.4	17.5	15.3	13.0	10.6	8.1	5.8	3.8	2.0	0.8	0.2	0.1
22	22.0	21.6	20.4	18.3	16.0	13.6	11.1	8.5	6.0	4.0	2.1	0.8	0.2	0.1
23	23.0	22.5	21.3	19.2	16.7	14.3	11.6	8.8	6.3	4.1	2.1	0.8	0.2	0.1
24	24.0	23.5	22.2	19.9	17.4	14.8	12.0	9.1	6.5	4.3	2.2	0.8	0.2	0.1
25	25.0	24.5	23.1	20.8	18.1	15.5	12.5	9.5	6.8	4.5	2.3	0.8	0.2	0.1

Height in Metres to be added to low Water to obtain height at intervening intervals (in hours)

Range of Tide In metres	BEFORE HIGH WATER													
	-6½	-6	-5½	-5	-4½	-4	-3½	-3	-2½	-2	-1½	-1	-½	H.W.
2.00	0.03	0.00	0.06	0.17	0.34	0.54	0.77	1.03	1.29	1.49	1.71	1.86	1.97	2.00
2.25	0.03	0.00	0.06	0.20	0.38	0.60	0.87	1.16	1.44	1.69	1.92	2.09	2.21	2.25
2.50	0.03	0.00	0.06	0.22	0.41	0.66	0.97	1.28	1.59	1.88	2.13	2.31	2.44	2.50
2.75	0.03	0.00	0.08	0.23	0.45	0.74	1.07	1.41	1.77	2.08	2.34	2.55	2.69	2.75
3.00	0.03	0.00	0.09	0.24	0.48	0.81	1.17	1.53	1.94	2.25	2.55	2.79	2.94	3.00
3.25	0.03	0.00	0.09	0.27	0.53	0.87	1.26	1.66	2.09	2.43	2.77	3.02	3.19	3.25
3.50	0.03	0.00	0.09	0.29	0.57	0.92	1.34	1.78	2.23	2.60	2.99	3.25	3.44	3.50
3.75	0.03	0.00	0.09	0.30	0.60	0.99	1.43	1.91	2.38	2.79	3.19	3.49	3.68	3.75
4.00	0.03	0.00	0.09	0.31	0.62	1.05	1.51	2.03	2.52	2.98	3.38	3.72	3.91	4.00
4.25	0.05	0.00	0.09	0.34	0.66	1.11	1.61	2.14	2.67	3.17	3.60	3.96	4.16	4.25
4.50	0.06	0.00	0.09	0.36	0.69	1.17	1.71	2.28	2.82	3.36	3.81	4.20	4.41	4.50
4.75	0.06	0.00	0.09	0.39	0.74	1.23	1.81	2.41	2.98	3.54	4.02	4.45	4.66	4.75
5.00	0.06	0.00	0.09	0.41	0.78	1.28	1.91	2.53	3.13	3.71	4.22	4.69	4.91	5.00
5.25	0.06	0.00	0.11	0.42	0.81	1.35	2.00	2.64	3.29	3.89	4.43	4.91	5.15	5.25
5.50	0.06	0.00	0.12	0.43	0.83	1.41	2.08	2.75	3.45	4.06	4.64	5.13	5.38	5.50
5.75	0.06	0.00	0.12	0.44	0.87	1.47	2.17	2.88	3.60	4.25	4.86	5.37	5.63	5.75
6.00	0.06	0.00	0.12	0.45	0.90	1.53	2.25	3.00	3.75	4.44	5.07	5.61	5.88	6.00
6.25	0.06	0.00	0.12	0.46	0.93	1.59	2.33	3.11	3.90	4.64	5.28	5.84	6.13	6.25
6.50	0.06	0.00	0.12	0.46	0.96	1.64	2.41	3.22	4.05	4.83	5.48	6.07	6.38	6.50
6.75	0.06	0.00	0.12	0.48	0.98	1.71	2.50	3.34	4.20	5.00	5.69	6.29	6.62	6.75
7.00	0.06	0.00	0.12	0.49	1.00	1.77	2.59	3.45	4.35	5.17	5.90	6.51	6.85	7.00
7.25	0.08	0.00	0.12	0.50	1.04	1.82	2.68	3.57	4.50	5.36	6.10	6.75	7.10	7.25
7.50	0.09	0.00	0.12	0.51	1.08	1.86	2.76	3.69	4.65	5.55	6.30	6.99	7.35	7.50
7.75	0.10	0.00	0.12	0.53	1.12	1.92	2.85	3.82	4.81	5.74	6.51	7.23	7.60	7.75
8.00	0.10	0.00	0.12	0.54	1.15	1.98	2.94	3.94	4.96	5.92	6.72	7.46	7.84	8.00

Range of Tide In metres	AFTER HIGH WATER													
	H.W.	+½	+1	+1½	+2	+2½	+3	+3½	+4	+4½	+5	+5½	+6	+6½
2.00	2.00	1.97	1.86	1.69	1.49	1.29	1.06	0.83	0.60	0.40	0.23	0.11	0.03	0.00
2.25	2.25	2.21	2.09	1.91	1.69	1.44	1.19	0.95	0.68	0.45	0.27	0.12	0.04	0.00
2.50	2.50	2.44	2.31	2.13	1.88	1.59	1.31	1.06	0.75	0.50	0.31	0.13	0.06	0.00
2.75	2.75	2.69	2.55	2.34	2.07	1.76	1.45	1.16	0.83	0.55	0.34	0.14	0.06	0.02
3.00	3.00	2.94	2.79	2.55	2.25	1.92	1.59	1.26	0.90	0.60	0.36	0.15	0.06	0.03
3.25	3.25	3.19	3.02	2.74	2.43	2.08	1.72	1.36	0.98	0.65	0.39	0.17	0.06	0.03
3.50	3.50	3.44	3.25	2.93	2.61	2.23	1.85	1.46	1.05	0.70	0.41	0.19	0.06	0.03
3.75	3.75	3.68	3.47	3.16	2.78	2.39	1.97	1.55	1.11	0.75	0.42	0.20	0.06	0.03
4.00	4.00	3.91	3.69	3.38	2.95	2.55	2.09	1.63	1.17	0.80	0.43	0.21	0.06	0.03
4.25	4.25	4.16	3.93	3.58	3.14	2.70	2.20	1.73	1.23	0.84	0.45	0.21	0.06	0.03
4.50	4.50	4.41	4.17	3.78	3.33	2.85	2.31	1.83	1.29	0.87	0.48	0.22	0.06	0.03
4.75	4.75	4.66	4.40	3.99	3.51	3.01	2.44	1.93	1.37	0.91	0.50	0.22	0.06	0.03
5.00	5.00	4.91	4.63	4.19	3.69	3.16	2.56	2.03	1.44	0.94	0.53	0.22	0.06	0.03
5.25	5.25	5.15	4.86	4.40	3.86	3.31	2.69	2.10	1.49	0.99	0.54	0.23	0.06	0.03
5.50	5.50	5.38	5.10	4.61	4.03	3.45	2.81	2.17	1.53	1.04	0.55	0.23	0.06	0.03
5.75	5.75	5.63	5.33	4.81	4.21	3.60	2.94	2.26	1.61	1.08	0.58	0.23	0.06	0.03
6.00	6.00	5.88	5.55	5.01	4.38	3.75	3.06	2.34	1.68	1.11	0.60	0.23	0.06	0.03
6.25	6.25	6.13	5.78	5.22	4.56	3.89	3.17	2.43	1.74	1.15	0.61	0.24	0.06	0.03
6.50	6.50	6.38	6.00	5.42	4.74	4.02	3.28	2.51	1.80	1.18	0.62	0.24	0.06	0.03
6.75	6.75	6.62	6.24	5.63	4.91	4.19	3.41	2.60	1.86	1.22	0.63	0.24	0.06	0.03
7.00	7.00	6.85	6.48	5.84	5.08	4.35	3.53	2.68	1.92	1.25	0.64	0.24	0.06	0.03
7.25	7.25	7.10	6.71	6.04	5.26	4.50	3.64	2.77	1.98	1.30	0.67	0.24	0.06	0.03
7.50	7.50	7.35	6.93	6.24	5.43	4.65	3.75	2.85	2.04	1.35	0.69	0.24	0.06	0.03
7.75	7.75	7.60	7.16	6.45	5.61	4.81	3.88	2.95	2.11	1.40	0.72	0.25	0.06	0.03
8.00	8.00	7.84	7.39	6.66	5.79	4.96	4.00	3.04	2.18	1.44	0.74	0.25	0.06	0.03

Approximate Sunrise, Sunset at Milford Haven

	January		February		March	
	Rise	Set	Rise	Set	Rise	Set
1	0827	1620	0759	1709	0705	1800
2	0827	1621	0757	1711	0703	1802
3	0827	1622	0755	1713	0701	1804
4	0826	1624	0754	1714	0659	1806
5	0826	1625	0752	1716	0657	1807
6	0826	1626	0750	1718	0655	1809
7	0825	1628	0749	1720	0653	1811
8	0825	1629	0747	1722	0650	1813
9	0824	1630	0745	1724	0648	1814
10	0824	1632	0744	1726	0646	1816
11	0823	1633	0742	1728	0643	1818
12	0823	1635	0740	1730	0641	1819
13	0822	1637	0738	1731	0639	1821
14	0821	1638	0736	1733	0637	1823
15	0820	1639	0734	1735	0635	1824
16	0819	1641	0732	1737	0633	1826
17	0818	1642	0730	1739	0630	1828
18	0817	1644	0728	1741	0628	1830
19	0816	1646	0726	1742	0626	1832
20	0815	1647	0724	1744	0623	1834
21	0814	1649	0722	1746	0621	1835
22	0813	1651	0721	1747	0619	1837
23	0812	1653	0719	1749	0616	1839
24	0811	1655	0717	1751	0614	1840
25	0809	1657	0715	1752	0612	1842
26	0808	1658	0713	1754	0609	1844
27	0807	1700	0710	1756	0607	1845
28	0805	1702	0708	1758	0605	1847
29	0804	1703	*****	*****	0602	1849
30	0802	1705	*****	*****	0600	1850
31	0800	1707	*****	*****	0558	1852

Add 1 hour for British Summer Time (28 March - 30 Oct)

Eat | Shop | Enjoy | Stay
#visitmilford haven



**Milford
Waterfront**
Where the land meets the sea

Approximate Sunrise, Sunset at Milford Haven

	April		May		June	
	Rise	Set	Rise	Set	Rise	Set
1	0555	1854	0452	1944	0407	2029
2	0553	1855	0450	1945	0406	2030
3	0551	1857	0448	1947	0405	2031
4	0548	1859	0446	1949	0405	2032
5	0546	1900	0444	1950	0404	2033
6	0544	1902	0442	1952	0404	2034
7	0541	1904	0440	1954	0403	2035
8	0539	1906	0439	1955	0403	2036
9	0537	1907	0437	1957	0402	2037
10	0535	1909	0435	1959	0402	2037
11	0533	1910	0434	2000	0402	2038
12	0531	1912	0432	2002	0401	2038
13	0529	1914	0430	2004	0401	2039
14	0527	1915	0429	2005	0401	2039
15	0525	1917	0427	2006	0401	2040
16	0522	1919	0425	2008	0401	2040
17	0520	1920	0424	2009	0401	2040
18	0518	1922	0422	2011	0401	2040
19	0516	1924	0421	2013	0401	2040
20	0514	1925	0420	2014	0401	2041
21	0512	1927	0419	2015	0402	2041
22	0510	1929	0417	2017	0402	2042
23	0508	1930	0416	2018	0402	2042
24	0506	1932	0415	2019	0403	2042
25	0503	1934	0414	2021	0403	2042
26	0501	1935	0413	2022	0403	2042
27	0459	1937	0412	2023	0404	2042
28	0457	1939	0411	2025	0404	2042
29	0455	1940	0410	2026	0405	2042
30	0453	1942	0409	2027	0405	2041
31	*****	*****	0408	2028	*****	*****

Add 1 hour for British Summer Time (28 March - 30 Oct)

Eat | Shop | Enjoy | Stay
www.milfordwaterfront.co.uk



**Milford
Waterfront**
 Where the land meets the sea

Approximate Sunrise, Sunset at Milford Haven

	July		August		September	
	Rise	Set	Rise	Set	Rise	Set
1	0406	2041	0443	2009	0532	1907
2	0406	2041	0445	2007	0533	1905
3	0407	2040	0446	2006	0535	1903
4	0408	2040	0448	2004	0537	1900
5	0408	2040	0449	2002	0538	1858
6	0409	2039	0450	2000	0540	1856
7	0410	2039	0451	1958	0542	1853
8	0411	2038	0453	1956	0543	1851
9	0412	2037	0455	1955	0545	1849
10	0413	2037	0457	1953	0547	1846
11	0414	2036	0459	1951	0548	1844
12	0415	2035	0500	1949	0550	1842
13	0416	2034	0502	1947	0552	1839
14	0417	2033	0504	1945	0553	1837
15	0419	2032	0505	1943	0555	1835
16	0420	2031	0507	1941	0557	1832
17	0421	2030	0509	1939	0558	1830
18	0423	2029	0510	1937	0559	1828
19	0424	2028	0511	1935	0601	1825
20	0425	2027	0513	1933	0602	1823
21	0427	2025	0514	1931	0604	1821
22	0428	2024	0515	1929	0606	1818
23	0429	2023	0517	1926	0607	1816
24	0431	2021	0519	1924	0609	1814
25	0432	2020	0521	1922	0611	1811
26	0433	2019	0523	1920	0612	1809
27	0435	2017	0524	1918	0613	1807
28	0436	2016	0526	1916	0615	1804
29	0438	2014	0528	1913	0617	1802
30	0440	2012	0529	1911	0619	1800
31	0441	2011	0530	1909	-----	-----

Add 1 hour for British Summer Time (28 March - 30 Oct)

Eat | Shop | Enjoy | Stay
#visitmilford haven



**Milford
Waterfront**
Where the land meets the sea

Approximate Sunrise, Sunset at Milford Haven

	October		November		December	
	Rise	Set	Rise	Set	Rise	Set
1	0621	1757	0714	1653	0805	1613
2	0622	1755	0716	1651	0806	1613
3	0624	1753	0718	1649	0808	1612
4	0626	1751	0719	1647	0809	1612
5	0627	1749	0721	1645	0810	1611
6	0629	1747	0723	1643	0811	1611
7	0631	1744	0724	1642	0812	1610
8	0632	1742	0726	1640	0813	1610
9	0634	1740	0728	1638	0815	1610
10	0636	1737	0730	1637	0816	1610
11	0638	1735	0732	1636	0817	1610
12	0640	1733	0734	1634	0818	1609
13	0642	1730	0735	1633	0819	1609
14	0643	1728	0737	1632	0820	1609
15	0645	1726	0739	1630	0821	1610
16	0647	1724	0740	1629	0822	1610
17	0648	1722	0742	1628	0823	1610
18	0650	1720	0744	1626	0824	1611
19	0652	1718	0746	1625	0824	1611
20	0653	1716	0748	1624	0824	1611
21	0655	1714	0750	1622	0825	1612
22	0657	1712	0751	1621	0825	1612
23	0658	1710	0752	1620	0826	1613
24	0700	1708	0754	1619	0826	1613
25	0702	1706	0755	1618	0827	1614
26	0703	1704	0757	1617	0827	1614
27	0705	1702	0759	1616	0827	1615
28	0707	1700	0800	1615	0827	1616
29	0708	1658	0802	1614	0827	1617
30	0710	1656	0804	1613	0827	1618
31	0712	1654	-----	-----	0827	1619

Add 1 hour for British Summer Time (28 March - 30 Oct)

Eat | Shop | Enjoy | Stay
www.milfordwaterfront.co.uk



**Milford
Waterfront**
 Where the land meets the sea

☎ 01646 696100
✉ enquiries@mhpa.co.uk
🌐 mhpa.co.uk
📧 quayside.properties

Quayside
properties



Port of Milford Haven

Commercial property solutions to suit every business

The Port of Milford Haven has a wide and diverse range of commercial properties available in Milford Haven and Pembroke Dock for short, long and project-term lease. Spaces include:

- Industrial units (light and heavy)
- Secure external laydown spaces and fabrication
- Offices
- Warehousing
- Retail & Leisure
- Land development opportunities



IRELAND. DRIVE THERE, EXPERIENCE IT!

Treat yourself to a memorable break in the Emerald Isle. Ireland is best enjoyed by car. That way you can explore at your leisure or have an action packed adventure.

Book today at irishferries.com. A safer way to get away.

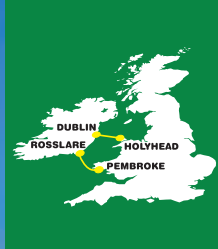


Image: Lukash Warzecha, Healy Pass, Wild Atlantic Way, Co. Kerry



M290A



30 MIN
CHECK-IN



UNLIMITED
LUGGAGE



FREE
WIFI



IRISH FERRIES

rockpool | design

The **creative** Pembrokeshire graphic design company





Swinging Moorings

Store and launch/Dry racking

Long term storage ashore

Tohatsu Outboards

Engine servicing

Repairs of all makes and models

Engine installations/Refits

General boat repairs & maintenance

Polishing/Antifouling

Mooring servicing

New moorings made up and laid

RYA Powerboat training

Brokerage

01646 600288

www.ruddersboatyard.co.uk

info@ruddersboatyard.co.uk



Pembrokeshire Performance Sailing Academy



RYA Dinghy/Multihull/Keelboat Training including:

Junior and Adult beginner and taster sailing sessions
All RYA Dinghy Advanced Modules*
Bespoke and RYA Performance Dinghy Sailing Coaching
Dinghy hire

RYA Powerboat Training including:

Level 2+, Safety Boat, Intermediate and Advanced+
AND

Shore based training including:

Essential Navigation and Seamanship**, Marine
VHF/DSC**,
RYA First Aid, RYA Basic Sea Survival+, Day Skipper Theory,
Professional Practices and Responsibilities**+
For further details

Please call 01646 686759 or 07967 049885
or email enquiries@ppsa.co.uk or go to www.ppsa.co.uk

*Assumed Sailing Ability to RYA Level 2 (Basic Skills)

**Online Courses,

Community Fund



Proud to support Pembrokeshire

The Port of Milford Haven is a Trust Port which means we have no shareholders. Instead, we are accountable to a wide range of stakeholders and through our activities we aim to build the Haven's prosperity by re-investing profits back into the business to sustain the Port for future generations and to develop projects that will create jobs, support economic growth and help deliver a bright outlook for the region.

Our Community Fund provides direct financial support to charities, voluntary organisations, community organisations and social enterprises that are working within Pembrokeshire.

For more information and to apply:
www.mhpa.co.uk/community-fund



Port of Milford Haven

The perfect base for boating in Pembrokeshire



12 month berthing
Seasonal berthing
Visitor berthing
Boatyard only contracts
Liveaboards welcome

MILFORD MARINA

Berthing | Boatyard | Services



Call us today on 01646 696312
or visit www.milfordmarina.com





Unexpected repairs? Hit bad weather?

Pembroke Port offers a well-equipped layover hub close to the Irish Sea and Bristol Channel shipping routes. With unrivalled access to a doorstep supply chain, any planned, short-notice or emergency requirements can be organised quickly and efficiently.

- **Emergency or planned repairs and works**
- **Bad weather layover**
- **Ship inspections including dive inspections**
- **Bunkers • Fresh water**
- **Crew changeover**
- **Crew welfare facilities • Ship supplies**
- **Cargo transfer**



The Dockyard, Pembroke Dock SA72 6TD

pembrokeport.com • info@pembrokeport.com • 01646 696631

Part of the Port of Milford Haven

2021 Leisure User Guide

Please see over for more information about the Waterway.

Dead Slow Minimum Wake

These areas are designated for navigational safety and importance for wildlife. Bays, creeks and tributaries provide vital feeding and breeding areas. At low water most of these areas may dry out or become very shallow revealing submerged natural features. The restriction on speed and wake reduces disturbance and helps protect wildlife from swamping or being panicked by fast moving vessels, and the environment from damaging effects of wake and vessel contacts. Operating at slow speed in these areas also reduces the possibility of serious injury or damage and also helps to reduce conflicts between users and ensures safe navigation for all.

Jet Ski/PWC Aquabatics Area

Personal Watercraft (PWC) aquabatics are ONLY permitted in the Pwllchrochan Flats PWC area. PWCs are permitted elsewhere in the Haven if they navigate considerably with due care and attention and in compliance with Harbour Bye-laws and zoning.

Water-skiing Areas

In the interest of safety, vessel owners should be mindful of their wake in these areas and transit with caution.

Renewable Test Bed Sites

Potential Renewable Test Bed Sites

Sensitive Habitat Zone - Voluntary No Anchoring

National Park

Hotel or Public House

Launch Site

Public Pontoon (Seasonal)

Castle

Yacht Club

Fuel

Privately owned/operated Pontoon (Seasonal)

Marker Buoys

Moorings (Commercial)

Day Visitor Moorings

These moorings are for the use of vessels up to a max length of 40ft and max weight of 10 tonnes during daylight only. The skipper must ensure sufficient depth of water and swinging area is available for the vessel to be secured. Full conditions of use can be found at www.mhpa.co.uk/marine-leisure-services/

Day & Night Visitor Moorings

These moorings are to be used the same as Day Visitor Moorings with the addition of over night stays permitted.

Defibrillator (accessible from water)

Defibrillators can be found at:

Hazelbeach: public toilet wall at the top of the pontoon

Burton: public toilet wall in the car park

Neyland Marina: top of the gangway entrance

Milford Marina: Pier Head and Cleddau House

Dale: the boathouse **Lawrenny:** in Lawrenny Arms

Black Tar: top of slipway **Sandy Haven:** alongside slipway

All Pilot Vessels and the Water Ranger RHIB carry defibrillators (contact details overleaf).

Leading Lights in the Haven

Haven Approach:

West Blockhouse (WBH)

Watwick Beacon (WB) 022(T)

West Channel:

Great Castle Head (GCH)

Little Castle Head (LCH) 040(T)

Main Channel:

Popton and Bullwell beacons (PP) (BW) in line 095(T) 094(T)

Milford Shelf:

Beacons above Newton Noyes (NN) 080(T) 087(T)



Stay safe when using the Waterway.

The RYA SafeTrx app monitors your boat journeys and can alert emergency contacts should you fail to arrive on time.

It is an app for both Android and Apple iOS smartphones that allows you to track your journey on your phone.

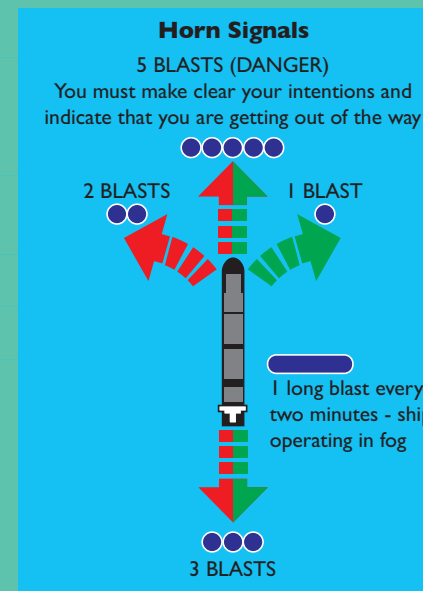
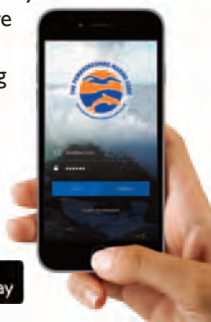
Visit: www.safetrx.rya.org.uk



Please respect this environment:

take your litter home with you and follow the Pembrokeshire Marine Code. Together we'll protect the amazing plants and wildlife found

along the Waterway. To find out how you can protect marine wildlife go to www.pembrokeshiremarinecode.org.uk or download the Pembrokeshire Marine Code App.



CAUTION: These areas have a high incidence of close quarters situations between craft of less than 20 metres in length, and vessels which can only safely navigate within the fairway. Recreational craft should navigate with extreme caution in these areas and should monitor VHF channel 12 at all times when within the Haven. Users are advised that Port Vessels and Police Marine Unit vessels patrol near Terminals to maintain BL27.

NOTE: Tug wash may be experienced at the entrance and in the west channel whilst escorting tankers.

*** Approximate Ferry Times**
St. Ann's inwards at 1145 hours
Depart Ferry Terminal at 1445 hours
St. Ann's inwards at 2345 hours
Depart Ferry Terminal at 0245 hours

NOT TO BE USED FOR NAVIGATION

Port of Milford Haven

Pembroke Barrage
To request barrage opening, ring County Hall 01437 764551
Operating times 07:00-19:00 weekdays 09:00-12:00 Saturdays
Please request 72hrs in advance

www.mhpa.co.uk

[PortofMilfordHaven](https://www.facebook.com/PortofMilfordHaven)

[@mh_port](https://twitter.com/mh_port)

List of Admiralty Charts 1478, 2878, 3273, 3274, 3275
Leisure Charts SC5620 folio 1 Imray Y26 and 2600 ATLAS refer

It is recommended that you:



Inform Tell others where you are going and when you will be back.



Tides and Weather Check the tides and forecast to ensure conditions are and will remain suitable for your vessel and activity.



SOS Device Carry a marine VHF radio with Ch16 and capable of listening to Ch12 (harbour working channel) as well as any other means of calling for help.



Wear a Lifejacket You never know when you might need it and it could just save your life.



Engine and Equipment checks Ensure you have appropriate working equipment, fuel and spares aboard and that all moorings or anchors being used are capable of withstanding extreme weather conditions.



Training Ensure your vessel is handled in a competent manner and avoid taking unnecessary risks.

RNLI safety information is available by visiting www.rnli.org.uk

Been involved in an incident on the Waterway?

Report to Milford Haven Port Control on 01646 696136/7 or complete an incident report form, found on the Port's website: goo.gl/yqhVWwz



The Water Ranger

The Water Ranger patrols the Waterway in a grey RHIB with Patrol on the sides from St Ann's Head at the entrance to the Haven, upriver to Haverfordwest on the Western Cleddau, and Blackpool Mill on the Eastern Cleddau. The main aim of this service is to provide information, advice and assistance to all Waterway users, police the zoning system and enforce the appropriate Bye-laws.

If you wish to contact the Water Ranger please call 01646 696100.

Further information for recreation users can be found by visiting www.mhpa.co.uk/enjoy-the-waterway



Waterway patrol vessels

Port pilot vessels operate throughout the Waterway 24/7 and can be recognised by their green hulls and white superstructure. All patrol vessels keep radio watch on channel 12.

Sharing the Estuary Safely

You are sharing the Haven with wildlife, commercial activity and a whole range of other leisure activities. To promote the safety of navigation and reduce conflict between users, the Waterway is zoned for high speed activity. The zones also ensure that the sensitive areas of the Haven remain tranquil and can be used for quiet enjoyment. The Milford Haven Port Authority Bye-laws (see page 16) control navigation and should be followed at all times.



Conservation & Wildlife

The Haven is a special place, protected for its tranquil, scenic landscape and varied wildlife. The upper and lower reaches form part of the Pembrokeshire Coast National Park because of their unspoilt character. For more information on exploring the National Park visit: www.pembrokeshirecoast.org.uk

In spring and summer the peaceful bays and rivers form breeding grounds for many birds, whilst in winter up to 25,000 birds such as shelduck, teal, widgeon, curlew and redshank come here to feed. Many parts of the foreshore are Sites of Special Scientific Interest and the whole Haven forms part of the Pembrokeshire Marine Special Area of Conservation because of its international importance for marine wildlife above and below the water. For more information visit www.pembrokeshiremarinesac.org.uk

Human activities in the Haven can damage and disturb wildlife and its habitats. Please think and act in an environmentally friendly way by following the zoning, Bye-laws and Pembrokeshire Marine Code. Following the Marine Code will help you to enjoy the best of the coast without disturbing sensitive wildlife. www.pembrokeshiremarinecode.org.uk



Recreation Activities

A whole range of water-based recreation activities take place on the Waterway, including sailing, power boating, water-skiing, personal watercraft use (jet-skiing), windsurfing, canoeing, fishing, diving and bathing. Activities take place both on an informal basis and through organised events.



Navigation Notes

Commercial Vessel Speed

Large commercial vessels may, at times, make passage at higher speeds than expected to maintain proper control and steerage. Users should monitor the approach of vessels and remain clear when required.

Approach for Milford Docks

Leading lights 348° fixed blue in line with fixed blue on white background attached to wall below the Lord Nelson Hotel.

Cleddau Bridge

There may be confused water by bridge piers approximately 1 hour before and after High Water springs.



Lifeboats

A Tamar class lifeboat is based at Angle. **People in danger and needing rescue services should contact Milford Coastguard - 999** - ask for Coastguard, or call on VHF channel 16 using accepted emergency procedures.



Public Pontoons (Mar-Oct)

A maximum stay of 12hrs is permitted with no return within 24hrs. The 'T-Head' must remain clear at all times for embarking /disembarking.



Fishing Restrictions

Welsh Government legislation and the Bass Order 1990 restrict fishing between 30th April and 1st November in areas of the Waterway. Fishing methods, minimum sizes and catch quantities are also controlled throughout. For information call 0300 025 3500. Fishing for salmon, trout, freshwater species and eels within the Waterway requires a valid UK rod licence.



Local Weather Information

Weather forecasts are broadcast by **Milford Haven Coastguard on channels 16 and 84**. Times: Inshore weather 0750, repeated three hourly, and 1950, repeated three hourly. Strong wind and gale warnings are broadcast as soon as they have been received and on subsequent three hour forecasts.



Tidal Information

Differences at High Water

Approximate times to be applied to Milford Haven

High Water predictions

Dover	+5 hrs	Tenby	-14 mins
Fishguard	+1 hr 3 mins	Swansea	+5 mins
Neyland	+2 mins	Ilfracombe	-30 mins
Haverfordwest	+10 mins	Padstow	-50 mins

Tidal Streams

Across the entrance to Milford Haven the streams run approximately at right angles to the line of approach; while within the entrance they run nearly parallel to the channel.

The tidal streams run approximately as follows:

Position	Interval from High Water Milford Haven	Direction
1 mile outside entrance	+0455 -0125 <i>Maximum spring rate in each direction is 2.25 knots</i>	East West
Inside the entrance	-0555 +0030 <i>Maximum spring ingoing rate is 1.5 knots and outgoing rate is 1.75 knots</i>	Ingoing Outgoing

It should be noted that heavy swell may be experienced until inside St Ann's Head and in adverse conditions as far as Angle Light-buoy.

Tidal streams within the Haven run in the direction of the deepwater channel as far as Wear Point (51°42'N, 04°59'W). In the reach above the Wear Point the ingoing stream is deflected to the north side of the channel by Carr Spit (51°42'N, 04°57'8W).

In Pembroke Reach the ingoing stream runs principally in the channel north of Dockyard Bank, attaining a spring rate of 2.0 knots; it is weak and irregular in the channel south of this bank, in which it attains a spring rate of 0.5 knot. The outgoing stream runs strongly in the channel south of the Dockyard Bank, attaining a spring rate of 2 knots. It is weak on the south side of the channel, north of the bank; in the north part of the latter channel an eddy runs strongly during the outgoing stream.



Safety

FOG - recommended procedure for small craft in visibility of 0.5 mile or less

1. All craft with VHF radio maintain a listening watch on channel 12
2. Provided you are aware of your position and you intend staying out of the fairway, monitor the commercial activity reported on channel 12
3. If you are uncertain of your position, it may be prudent to anchor clear of the shipping channel until visibility improves

Sound signals used by vessels in the area (Bye-laws No 9)

Signal	Meaning
Four short blasts in rapid succession	A power-driven vessel underway is about to turn around (altering course more than 135°)
<i>Followed after a short interval by</i>	
One short blast	Vessel turning with head to starboard or
Two short blasts	Vessel turning with head to port
Three short blasts	Vessel operating to stern
One long blast, two short blasts	Power-driven vessel or vessel not under command unable to give way to a sailing vessel
Five short blasts	A vessel is doubtful if you are taking sufficient avoiding action

Further Information

Key Contacts

	VHF Channel	STD number
Milford Haven Port Control	12	01646 696137
Water Ranger	12 & 16	01646 696100
Milford Pierhead	14	01646 696310
Castlemartin Firing Range	16	01646 662367

Emergency Numbers

HM Coastguard	999 or 01646 690909
Police (inc. Marine Unit)	999 or 0845 330 2000
Customs	0800 595000
Withybush Hospital, Haverfordwest	01437 764545
Natural Resources Wales (Incident Hotline)	0300 065 3000

Berths/Boatyards/Chandlery

Dale Sailing	01646 603110
East Llanion Marine	01646 686866
Lawrenny Quay	01646 651212
Milford Marina and Boatyard	01646 696312/3
Neyland Marina	01646 601601
Quadra Marine	01646 278270
Rudders Boatyard	01646 600288
Windjammer Marine	01646 699070

Yacht Clubs

Dale	01646 636362
Neyland	01646 600267
Pembrokeshire	01646 692799
Pembroke Haven	01646 684403

Other

Tourist Information Centre, Haverfordwest	01437 775244
Pembrokeshire Coast National Park	01646 624800
Pembrokeshire County Council Beaches Dept.	01646 602105
Crime Stoppers	0800 555111