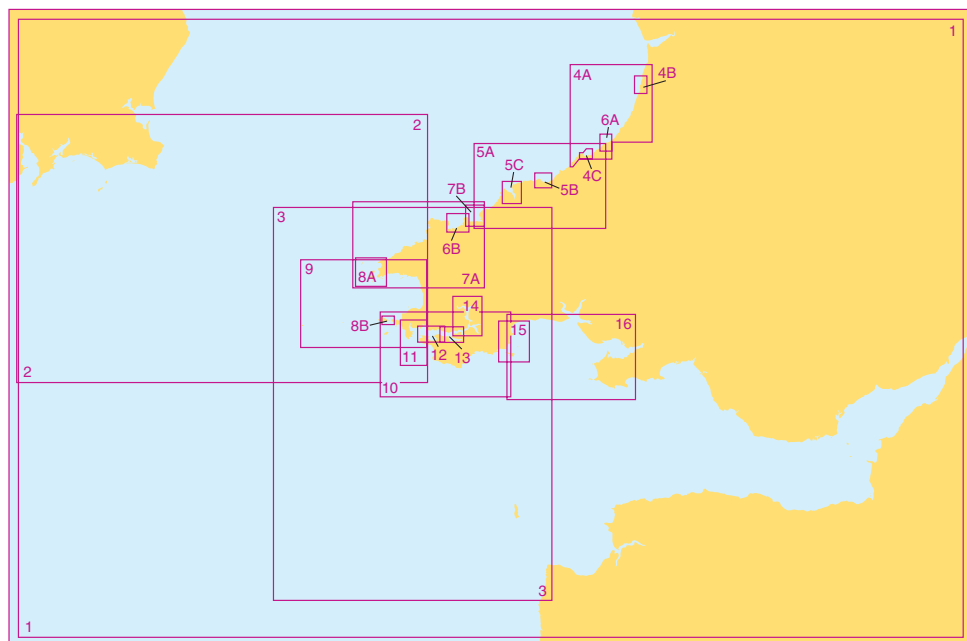




# South West Wales

## Coverage Diagram



5620	Chart Title	Natural Scale 1:
1	Approaches to Saint George's Channel and Bristol Channel	500,000
2	Saint George's Channel	200,000
3	Fishguard to Hartland Point	200,000
4A	Aberystwyth to New Quay	75,000
4B	Aberystwyth	18,000
4C	New Quay	12,500
5A	Aberaeron to Newport	75,000
5B	Aberporth	30,000
5C	Approaches to Cardigan	37,500
6	Aberaeron and Fishguard Bay	
6A	Aberaeron	18,000
6B	Fishguard Bay	15,000
7A	Newport Bay to Ramsey Sound	75,000
7B	Newport Bay	37,500
8	Ramsey Sound and Jack Sound	
8A	Ramsey Sound	25,000
8B	Jack Sound	12,500

5620	Chart Title	Natural Scale 1:
9	Ramsey Sound to Milford Haven including The Smalls	75,000
10	Skomer Island to Caldey Island	75,000
11	Approaches to Milford Haven	25,000
12	Dale Road to Milford Shelf	12,500
13	Milford Shelf to Cleddau Bridge	12,500
14A	River Cleddau	12,500
14B	Carew River	50,000
14C	Continuation of River Cleddau	12,500
14D	Continuation of River Cleddau	50,000
15	Approaches to Tenby and Saundersfoot	25,000
16	Carmarthen Bay	75,000

## Notes

**Positions** are referred to the WGS84 compatible datum, European Terrestrial Reference System 1989 Datum.

**Depths** are in metres and are reduced to Chart Datum, which is approximately the level of Lowest Astronomical Tide.

**Heights** are in metres. Underlined figures are drying heights above Chart Datum. Overhead clearance heights are above Highest Astronomical Tide. All other heights are above Mean High Water Springs.

**Navigational marks:** IALA Maritime Buoyage System-Region A (Red to port)

### DATUM

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


### LIGHTS

Light stars without legends represent two fixed lights displayed vertically. They are seen as red to port and green to starboard, when proceeding upriver.

### OVERHEAD CABLES

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

### OMISSION OF DETAIL

Within the limit marked  and the coastline, this chart should only be used for planning purposes as features such as depths, platforms, wrecks, pipelines, minor aids to navigation and cables have been omitted. Larger scale ADMIRALTY charts are available for mariners intending to navigate in this area.

### SUBMARINE CABLES AND PIPELINES

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

### HIGH SPEED CRAFT

High Speed Craft operate in the area of these charts. Mariners are advised to maintain a good lookout. Some high speed craft may generate large waves, which can have a serious impact on small craft and their moorings close to the shoreline and on shallow off-lying banks.

### HISTORIC AND MILITARY WRECKS

The site of historic and military wrecks are protected from unauthorised interference

### AREA TO BE AVOIDED BETWEEN

THE SMALLS (51°43'N 5°40'W)

AND GRASSHOLM (51°44'N 5°29'W)

To avoid the risk of pollution and damage to the environment, this area has been designated an Area to be Avoided. All vessels carrying dangerous or toxic cargoes, or any other vessel exceeding 500 GT, should avoid the area. This area is IMO-adopted.

### LADEN TANKERS

1. Laden tankers should avoid the area between The Smalls Traffic Separation Scheme and The Smalls (51°43'N 5°40'W).

2. Laden tankers over 10,000 GT should not use the channel between Grassholm and Skomer Island (51°44'N 5°24'W) unless moving between Saint Brides Bay and Milford Haven.

### FIRING PRACTICE AREAS

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

### MOVEMENT OF SHIPPING

Vessels navigating in the approaches to Milford Haven should do so with extreme caution as deep-draught vessels with limited manoeuvrability may be encountered. Small craft should monitor VHF channel 12 at all times when within the Haven. Passing vessels are advised to keep at least 5 miles off Middle Channel Rocks Lighthouse (51°40'31N 5°09'83W). Alternatively, contact Milford Haven Port Control to obtain information on movement of shipping in and out of the Port of Milford Haven.

### MILFORD HAVEN INFORMATION

Passage planning advice and information regarding local Notices to Mariners, weather, tidal and other information can be obtained from Milford Haven Port Authority at [www.mhpa.co.uk](http://www.mhpa.co.uk).

### VESSEL REPORTING

For details of Milford Haven Port Control, see ADMIRALTY List of Radio Signals.

## HM Coastguard Services and Safety Information

### VHF MARITIME RADIO

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

### HM COASTGUARD

#### MILFORD HAVEN (MRCC)

Tel. +44 (0) 1646 690909

MMSI: 002320017

e-mail: zone28@hmcg.gov.uk (FAO Milford Haven Coastguard)

### MARITIME SAFETY INFORMATION

Maritime Safety Information (MSI) is broadcast by MILFORD HAVEN at 0150, 0450, 0750, 1050, 1350, 1650, 1950 & 2250 (local time). These will include gale warnings, local inshore forecasts and navigational warnings. Mariners should listen to the MSI announcement on VHF Channel 16 for details of the working channel to be used for the broadcast.

## Distress and Safety Communication

### Distress - Urgency

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

**Distress** Call **MAYDAY MAYDAY MAYDAY**

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

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

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

### Other Distress Signals

Other recognised signals are:

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

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

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

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

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

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

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

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

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

## Product Specifications

### PRODUCT USAGE CAUTION

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

### KEEPING THIS CHART UPDATED

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

### TIDAL STREAMS

Full details of the tidal streams in the area covered by this folio are given in the following ADMIRALTY Tidal Stream Atlas: NP256 Irish Sea and Bristol Channel.

### PROVIDE UPDATED INFORMATION

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



### IMPROVEMENTS TO THIS PRODUCT

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

Customer Services, The UK Hydrographic Office,  
Admiralty Way, Taunton. +44(0)1823 484444  
E-mail [customerservices@ukho.gov.uk](mailto:customerservices@ukho.gov.uk)

To view all ADMIRALTY Products and services, visit [admiralty.co.uk](http://admiralty.co.uk)

## Tidal Stream Information

## 5620\_1

## Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A	52°02'3 N 6 40-0W	B	51°34'0 N 6 23-1W	C	52°06'5 N 5 54-3W	D	51°15'0 N 5 50-1W	E	52°00'3 N 5 36-6W	F	50°50'0 N 5 30-1W	G	52°24'5 N 5 00-6W	H	51°10'0 N 5 00-1W	
Before High Water	Directions of streams (degrees)	055	0-6 0-3	040	0-6 0-3	012	0-7 0-3	040	0-6 0-3	038	0-9 0-4	050	1-0 0-5	017	0-8 0-5	047	0-9 0-4	-6
Before High Water	Rates at spring tides (knots)	066	1-3 0-7	034	0-9 0-5	021	1-5 0-7	007	0-6 0-3	030	2-2 1-0	023	0-6 0-3	016	1-7 1-0	025	0-4 0-2	-5
Before High Water	Rates at neap tides (knots)	069	1-7 0-9	026	1-0 0-5	022	2-2 1-0	326	0-6 0-3	028	2-8 1-3	279	0-3 0-1	017	2-1 1-3	290	0-3 0-1	-4
Before High Water		081	1-5 0-8	014	0-8 0-4	023	2-3 1-1	304	0-7 0-3	024	2-6 1-2	239	0-7 0-3	017	2-1 1-2	256	1-0 0-5	-3
Before High Water		095	1-0 0-6	354	0-5 0-3	029	1-9 0-9	283	0-7 0-3	024	1-8 0-8	235	1-0 0-5	019	1-7 1-0	247	1-3 0-6	-2
Before High Water		111	0-5 0-3	280	0-2 0-1	039	1-2 0-5	258	0-6 0-3	020	0-9 0-4	235	1-2 0-6	025	0-8 0-5	236	1-2 0-5	-1
After High Water	Directions of streams (degrees)	215	0-3 0-2	220	0-5 0-3	099	0-3 0-1	215	0-6 0-3	215	0-5 0-2	235	1-0 0-5	182	0-4 0-2	228	0-9 0-4	0
After High Water	Rates at spring tides (knots)	246	1-0 0-6	211	0-9 0-4	200	1-3 0-6	179	0-7 0-3	208	1-8 0-8	235	0-5 0-2	194	1-4 0-8	218	0-6 0-3	+1
After High Water	Rates at neap tides (knots)	250	1-7 0-9	208	1-0 0-5	205	2-2 1-0	148	0-6 0-3	207	2-8 1-3	112	0-1 0-0	200	2-1 1-2	175	0-2 0-1	+2
After High Water		258	1-9 1-0	201	0-9 0-4	206	2-6 1-2	123	0-6 0-3	210	2-8 1-3	068	0-6 0-3	201	2-3 1-4	093	0-5 0-2	+3
After High Water		270	1-3 0-7	183	0-5 0-3	207	2-1 1-0	102	0-6 0-3	207	2-1 1-0	066	1-0 0-5	202	1-9 1-1	070	1-1 0-5	+4
After High Water		284	0-6 0-3	122	0-3 0-1	208	1-3 0-6	079	0-5 0-3	194	1-1 0-5	063	1-2 0-6	198	1-0 0-6	057	1-3 0-6	+5
After High Water		046	0-3 0-2	049	0-5 0-2	000	0-2 0-1	049	0-5 0-3	064	0-4 0-2	054	1-0 0-5	025	0-2 0-1	050	1-1 0-5	+6

## 5620\_2

## Tidal Streams referred to HW at MILFORD HAVEN

Hours	Geographical Position	A	52°10'50 N 6 56-40W	B	52°02'30 N 6 40-00W	C	52°06'72 N 6 24-56W	D	52°10'62 N 6 14-56W	E	52°15'10 N 6 18-30W	F	52°12'22 N 6 10-86W	G	52°06'52 N 5 54-36W	H	52°00'32 N 5 36-56W	J	51°36'5 N 5 17-1W
Before High Water	Directions of streams (degrees)	205	0-1 0-1	248	1-3 0-7	249	2-3 1-3	224	2-7 1-5	119	2-7 1-5	136	0-8 0-4	203	1-6 0-7	206	2-4 1-1	143	1-6 0-8
Before High Water	Rates at spring tides (knots)	005	0-3 0-2	253	1-9 1-0	249	2-7 1-5	234	2-5 1-4	120	2-3 1-3	133	2-0 1-1	206	2-4 1-1	208	2-9 1-3	137	2-2 1-0
Before High Water	Rates at neap tides (knots)	006	0-6 0-3	265	1-6 0-8	251	2-3 1-3	228	1-2 0-6	118	1-7 0-9	134	3-1 1-6	209	2-6 1-2	211	2-6 1-2	127	2-1 1-0
Before High Water		011	0-5 0-3	276	1-0 0-6	255	1-3 0-7	059	0-3 0-1	110	1-2 0-6	136	3-3 1-8	207	1-9 0-9	204	1-7 0-8	115	1-5 0-7
Before High Water		015	0-3 0-2	330	0-2 0-1	010	0-1 0-1	047	0-9 0-5	020	0-4 0-2	139	2-8 1-5	215	0-6 0-3	182	0-7 0-3	084	0-7 0-3
Before High Water		011	0-1 0-1	055	0-6 0-3	067	1-0 0-6	050	1-2 0-6	332	1-7 0-9	154	1-2 0-6	012	0-7 0-3	040	0-9 0-4	355	0-9 0-4
After High Water	Directions of streams (degrees)	210	0-2 0-1	066	1-3 0-7	069	2-1 1-2	048	1-3 0-7	331	1-6 0-8	040	0-6 0-3	021	1-7 0-8	030	2-2 1-0	323	1-7 0-8
After High Water	Rates at spring tides (knots)	206	0-9 0-5	069	1-7 0-9	070	2-4 1-3	048	1-7 0-9	331	1-0 0-5	043	3-4 1-8	023	2-2 1-0	028	2-8 1-3	318	2-1 1-0
After High Water	Rates at neap tides (knots)	205	1-4 0-8	081	1-5 0-8	071	2-1 1-1	053	1-5 0-8	350	0-4 0-2	028	3-1 1-6	023	2-4 1-1	024	2-6 1-2	314	2-0 0-9
After High Water		205	1-5 0-8	095	1-0 0-6	073	1-2 0-7	059	0-8 0-4	077	0-4 0-2	033	3-2 1-7	030	1-9 0-9	023	1-7 0-8	306	1-5 0-7
After High Water		205	1-3 0-7	111	0-5 0-3	082	0-4 0-2	260	0-3 0-1	106	1-2 0-6	046	3-0 1-6	040	1-1 0-5	020	0-8 0-4	278	0-6 0-3
After High Water		205	1-0 0-5	215	0-3 0-2	243	0-7 0-4	226	1-2 0-6	117	2-1 1-1	054	1-2 0-6	130	0-3 0-1	216	0-5 0-2	189	0-6 0-3
After High Water		205	0-4 0-2	246	1-0 0-6	248	1-7 1-0	220	2-3 1-2	119	2-5 1-3	112	0-4 0-2	200	1-2 0-5	208	1-8 0-8	146	1-3 0-6

## 5620\_2 continued

Hours	Geographical Position	K	52°15'02 N 5 16-56W	L	51°59'92 N 5 10-16W	
Before High Water	Directions of streams (degrees)	213	1-7 0-8	237	2-6 1-1	-6
Before High Water	Rates at spring tides (knots)	217	2-4 1-2	218	2-5 1-1	-5
Before High Water	Rates at neap tides (knots)	216	2-3 1-1	224	2-4 1-0	-4
Before High Water		220	1-6 0-8	206	0-7 0-3	-3
Before High Water		232	0-5 0-2	060	0-6 0-3	-2
Before High Water		027	0-7 0-4	044	1-7 0-7	-1
After High Water	Directions of streams (degrees)	033	1-7 0-9	048	2-5 1-1	0
After High Water	Rates at spring tides (knots)	036	2-3 1-1	051	2-6 1-1	+1
After High Water	Rates at neap tides (knots)	038	2-3 1-1	045	1-4 0-6	+2
After High Water		039	1-5 0-8	069	0-5 0-2	+3
After High Water		036	0-6 0-3	292	0-5 0-2	+4
After High Water		209	0-4 0-2	237	1-3 0-6	+5
After High Water		211	1-3 0-6	240	2-3 1-0	+6

## 5620\_3

## Tidal Streams referred to HW at MILFORD HAVEN

Hours	Geographical Position	A	52°00'3 N 5 36-6W	B	51°36'5 N 5 17-1W	C	51°22'0 N 4 43-2W	D	51°10'0 N 5 00-1W	E	51°00'4 N 5 31-8W	
Before High Water	Directions of streams (degrees)	206	2-4 1-1	143	1-6 0-8	160	0-5 0-2	205	0-4 0-2	199	0-5 0-2	-6
Before High Water	Rates at spring tides (knots)	208	2-9 1-3	137	2-2 1-0	095	0-9 0-4	122	0-3 0-1	132	0-5 0-2	-5
Before High Water	Rates at neap tides (knots)	211	2-6 1-2	127	2-1 1-0	076	1-4 0-6	077	0-9 0-4	092	0-8 0-3	-4
Before High Water		182	0-7 0-8	115	1-5 0-7	075	1-7 0-8	062	1-4 0-7	074	1-0 0-4	-3
Before High Water		040	0-9 0-4	355	0-9 0-4	065	0-8 0-4	054	1-2 0-6	063	1-1 0-5	-2
Before High Water		030	2-2 1-0	323	1-7 0-8	097	0-2 0-1	025	0-4 0-2	028	0-6 0-2	0
After High Water	Directions of streams (degrees)	028	2-8 1-3	318	2-1 1-0	243	0-6 0-3	290	0-3 0-1	323	0-4 0-2	+1
After High Water	Rates at spring tides (knots)	024	2-6 1-2	314	2-0 0-9	260	1-4 0-6	256	1-0 0-5	278	0-7 0-3	+2
After High Water	Rates at neap tides (knots)	023	1-7 0-8	306	1-5 0-7	265	1-8 0-8	247	1-3 0-6	263	1-0 0-4	+3
After High Water		020	0-8 0-4	278	0-6 0-3	267	1-5 0-7	236	1-2 0-5	252	1-0 0-4	+4
After High Water		216	0-5 0-2	189	0-6 0-3	246	1-1 0-5	228	0-9 0-4	240	1-0 0-4	+5
After High Water		208	1-8 0-8	146	1-3 0-6	190	0-4 0-2	218	0-6 0-3	216	0-6 0-3	+6

## 5620\_6

## Tidal Streams referred to HW at MILFORD HAVEN (Current included)

Hours	Geographical Position	A	52°01'8 N 4 59-6W	B	52°01'7 N 4 57-1W	C	52°00'9 N 4 57-6W	
Before High Water	Directions of streams (degrees)	262	1-8 0-8	230	1-1 0-5	240	0-4 0-2	-6
Before High Water	Rates at spring tides (knots)	262	1-8 0-8	227	1-0 0-4	206	0-3 0-1	-5
Before High Water	Rates at neap tides (knots)	262	1-1 0-5	210	0-4 0-2	162	0-2 0-1	-4
Before High Water		262	0-3 0-1	079	0-5 0-2	116	0-5 0-2	-3
Before High Water		138	0-5 0-2	085	1-0 0-4	116	0-7 0-3	-2
Before High Water		094	1-7 0-7	079	0-7 0-3	138	0-5 0-2	-1
After High Water	Directions of streams (degrees)	094	0-8 0-3	090	0-5 0-2	150	0-5 0-2	0
After High Water	Rates at spring tides (knots)	257	1-8 0-8	135	0-4 0-2	162	0-3 0-1	+1
After High Water	Rates at neap tides (knots)	262	2-0 0-9	186	0-5 0-2	251	0-2 0-1	+2
After High Water		262	2-0 0-9	222	0-2 0-1	263	0-2 0-1	+3
After High Water		262	1-9 0-8	232	0-6 0-3	274	0-4 0-2	+4
After High Water		262	1-9 0-8	232	0-8 0-4	284	0-5 0-2	+5
After High Water		262	1-8 0-8	232	1-2 0-5	251	0-4 0-2	+6

## 5620\_7

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°59'9"N 5 10-2W	B 52°01'8"N 4 59-6W	C 52°00'9"N 4 57-6W	D 52°01'7"N 4 57-1W	
Before High Water	Directions of streams (degrees)	237 2-6 1-1	262 1-8 0-8	240 0-4 0-2	230 1-1 0-5	-6
Before High Water	Rates at spring tides (knots)	218 2-5 1-1	262 1-8 0-8	206 0-3 0-1	227 1-0 0-4	-5
Before High Water	Rates at neap tides (knots)	224 2-4 1-0	262 1-1 0-5	162 0-2 0-1	210 0-4 0-2	-4
High Water	Directions of streams (degrees)	206 0-7 0-3	262 0-3 0-1	116 0-5 0-2	079 0-5 0-2	-3
High Water	Rates at spring tides (knots)	060 0-6 0-3	138 0-5 0-2	116 0-7 0-3	085 1-0 0-4	-2
High Water	Rates at neap tides (knots)	044 1-7 0-7	094 1-7 0-7	138 0-5 0-2	079 0-7 0-3	-1
After High Water	Directions of streams (degrees)	048 2-5 1-1	094 0-8 0-3	150 0-5 0-2	090 0-5 0-2	0
After High Water	Rates at spring tides (knots)	051 2-6 1-1	257 1-8 0-8	162 0-3 0-1	135 0-4 0-2	+1
After High Water	Rates at neap tides (knots)	045 1-4 0-6	262 2-0 0-9	251 0-2 0-1	186 0-5 0-2	+2
High Water	Directions of streams (degrees)	069 0-5 0-2	262 2-0 0-9	263 0-2 0-1	222 0-2 0-1	+3
High Water	Rates at spring tides (knots)	292 0-5 0-2	262 1-9 0-8	274 0-4 0-2	232 0-6 0-3	+4
High Water	Rates at neap tides (knots)	237 1-3 0-6	262 1-9 0-8	284 0-5 0-2	232 0-8 0-4	+5
High Water	Directions of streams (degrees)	240 2-3 1-0	262 1-8 0-8	251 0-4 0-2	232 1-2 0-5	+6

## 5620\_9

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°41'1"N 5 08-9W	B 51°40'2"N 5 11-1W	C 51°39'9"N 5 10-5W	
Before High Water	Directions of streams (degrees)	013 0-0 0-0	127 2-1 0-9	118 1-8 0-8	-6
Before High Water	Rates at spring tides (knots)	023 0-8 0-4	122 2-0 0-9	122 1-6 0-7	-5
Before High Water	Rates at neap tides (knots)	027 1-1 0-5	074 0-8 0-3	083 0-9 0-4	-4
High Water	Directions of streams (degrees)	023 1-0 0-5	003 0-6 0-3	009 0-6 0-2	-3
High Water	Rates at spring tides (knots)	017 0-7 0-3	322 1-1 0-5	321 0-6 0-2	-2
High Water	Rates at neap tides (knots)	354 0-3 0-1	310 1-3 0-6	300 0-8 0-3	-1
After High Water	Directions of streams (degrees)	214 0-5 0-2	300 1-6 0-7	292 1-4 0-6	0
After High Water	Rates at spring tides (knots)	207 0-9 0-4	296 1-8 0-8	292 1-5 0-6	+1
After High Water	Rates at neap tides (knots)	207 1-1 0-5	288 1-5 0-6	288 1-3 0-6	+2
High Water	Directions of streams (degrees)	200 1-1 0-5	264 0-6 0-3	273 0-8 0-3	+3
High Water	Rates at spring tides (knots)	187 0-6 0-3	131 0-9 0-4	156 0-5 0-2	+4
High Water	Rates at neap tides (knots)	120 0-1 0-1	128 2-4 1-0	121 1-8 0-8	+5
High Water	Directions of streams (degrees)		126 2-3 1-0	115 1-9 0-8	+6

## 5620\_10

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°36'5"N 5 17-1W	
Before High Water	Directions of streams (degrees)	143 1-6 0-8	-6
Before High Water	Rates at spring tides (knots)	137 2-2 1-0	-5
Before High Water	Rates at neap tides (knots)	127 2-1 1-0	-4
High Water	Directions of streams (degrees)	115 1-5 0-7	-3
High Water	Rates at spring tides (knots)	084 0-7 0-3	-2
High Water	Rates at neap tides (knots)	355 0-9 0-4	-1
After High Water	Directions of streams (degrees)	323 1-7 0-8	0
After High Water	Rates at spring tides (knots)	318 2-1 1-0	+1
After High Water	Rates at neap tides (knots)	314 2-0 0-9	+2
High Water	Directions of streams (degrees)	306 1-5 0-7	+3
High Water	Rates at spring tides (knots)	278 0-6 0-3	+4
High Water	Rates at neap tides (knots)	189 0-6 0-3	+5
High Water	Directions of streams (degrees)	146 1-3 0-6	+6

## Tidal Streams referred to HW at SWANSEA

Hours	Geographical Position	B 51°31'3"N 5 01-1W	C 51°38'8"N 4 42-8W	
Before High Water	Directions of streams (degrees)	115 0-7 0-3	077 1-4 0-7	-6
Before High Water	Rates at spring tides (knots)	104 1-6 0-7	076 2-1 1-0	-5
Before High Water	Rates at neap tides (knots)	100 2-4 1-1	076 2-6 1-2	-4
High Water	Directions of streams (degrees)	099 2-4 1-1	075 2-4 1-1	-3
High Water	Rates at spring tides (knots)	097 1-7 0-8	078 1-4 0-7	-2
High Water	Rates at neap tides (knots)	092 0-5 0-2	250 0-5 0-2	-1
After High Water	Directions of streams (degrees)	334 0-4 0-2	256 1-9 0-9	0
After High Water	Rates at spring tides (knots)	288 1-4 0-6	253 2-2 1-0	+1
After High Water	Rates at neap tides (knots)	282 2-2 1-0	257 2-2 1-0	+2
High Water	Directions of streams (degrees)	279 2-2 1-0	258 1-9 0-9	+3
High Water	Rates at spring tides (knots)	276 2-0 0-9	259 1-0 0-4	+4
High Water	Rates at neap tides (knots)	270 1-1 0-5	067 0-2 0-1	+5
High Water	Directions of streams (degrees)	159 0-2 0-1	077 1-2 0-6	+6

## 5620\_11

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°39'03"N 5 11-09W	B 51°39'90"N 5 10-53W	C 51°40'23"N 5 11-08W	D 51°41'13"N 5 08-86W	
Before High Water	Directions of streams (degrees)	133 1-7 0-7	118 1-8 0-8	127 2-1 0-9	013 0-0 0-0	-6
Before High Water	Rates at spring tides (knots)	118 1-7 0-7	122 1-6 0-7	122 2-0 0-9	013 0-3 0-1	-5
Before High Water	Rates at neap tides (knots)	091 1-3 0-6	083 0-9 0-4	074 0-8 0-3	023 0-8 0-4	-4
High Water	Directions of streams (degrees)	086 1-3 0-5	009 0-6 0-2	003 0-6 0-3	027 1-1 0-5	-3
High Water	Rates at spring tides (knots)	041 0-7 0-3	321 0-6 0-2	322 1-1 0-5	023 1-0 0-5	-2
High Water	Rates at neap tides (knots)	318 0-8 0-3	300 0-8 0-3	310 1-3 0-6	017 0-7 0-3	-1
After High Water	Directions of streams (degrees)	291 1-3 0-6	292 1-4 0-6	300 1-6 0-7	354 0-3 0-1	0
After High Water	Rates at spring tides (knots)	294 1-7 0-7	292 1-5 0-6	296 1-8 0-8	214 0-5 0-2	+1
After High Water	Rates at neap tides (knots)	292 1-5 0-6	288 1-3 0-6	288 1-5 0-6	207 0-9 0-4	+2
High Water	Directions of streams (degrees)	286 1-0 0-4	273 0-8 0-3	264 0-6 0-3	207 1-1 0-5	+3
High Water	Rates at spring tides (knots)	212 0-5 0-2	156 0-5 0-2	131 0-9 0-4	200 1-1 0-5	+4
High Water	Rates at neap tides (knots)	160 1-1 0-5	121 1-8 0-8	128 2-4 1-0	187 0-6 0-3	+5
High Water	Directions of streams (degrees)	139 1-4 0-6	115 1-9 0-8	126 2-3 1-0	120 0-1 0-1	+6

## 5620\_12

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°41'83"N 5 05-56W	B 51°41'83"N 5 04-36W	C 51°41'93"N 5 01-76W	
Before High Water	Directions of streams (degrees)	003 0-3 0-2	310 0-4 0-2	100 0-1 0-0	-6
Before High Water	Rates at spring tides (knots)	060 0-6 0-3	073 0-4 0-2	097 0-7 0-3	-5
Before High Water	Rates at neap tides (knots)	086 1-2 0-6	085 1-0 0-5	095 1-0 0-4	-4
High Water	Directions of streams (degrees)	088 1-7 0-8	089 1-5 0-7	095 1-1 0-5	-3
High Water	Rates at spring tides (knots)	087 1-5 0-7	097 1-3 0-6	097 1-4 0-6	-2
High Water	Rates at neap tides (knots)	084 0-9 0-4	098 1-1 0-5	102 0-9 0-4	-1
After High Water	Directions of streams (degrees)	017 0-1 0-0	083 0-3 0-2	100 0-1 0-0	0
After High Water	Rates at spring tides (knots)	266 0-4 0-2	294 0-4 0-2	285 1-1 0-5	+1
After High Water	Rates at neap tides (knots)	260 1-2 0-5	272 1-0 0-5	280 1-2 0-5	+2
High Water	Directions of streams (degrees)	260 1-7 0-8	263 1-1 0-5	278 1-1 0-5	+3
High Water	Rates at spring tides (knots)	261 1-4 0-7	257 1-3 0-6	276 0-9 0-4	+4
High Water	Rates at neap tides (knots)	265 1-0 0-5	263 1-2 0-6	270 0-5 0-2	+5
High Water	Directions of streams (degrees)	317 0-6 0-3	278 0-7 0-3	258 0-2 0-1	+6

## 5620\_13

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°41'9"N 5 01-8W	B 51°41'7"N 4 58-9W	C 51°42'1"N 4 56-9W	
Before High Water	Directions of streams (degrees)	100 0-1 0-0	067 0-0 0-0	171 0-2 0-1	-6
Before High Water	Rates at spring tides (knots)	097 0-7 0-3	082 1-5 0-7	116 0-8 0-4	-5
Before High Water	Rates at neap tides (knots)	095 1-0 0-4	083 1-8 0-8	107 1-6 0-7	-4
High Water	Directions of streams (degrees)	095 1-1 0-5	081 1-8 0-8	103 2-1 1-0	-3
High Water	Rates at spring tides (knots)	097 1-4 0-6	081 1-5 0-7	100 2-3 1-2	-2
High Water	Rates at neap tides (knots)	102 0-9 0-4	089 0-3 0-1	095 1-9 0-9	-1
After High Water	Directions of streams (degrees)	100 0-1 0-0	256 1-0 0-5	280 1-2 0-6	0
After High Water	Rates at spring tides (knots)	285 1-1 0-5	262 1-7 0-8	033 0-3 0-1	+1
After High Water	Rates at neap tides (knots)	280 1-2 0-5	259 1-9 0-9	066 0-4 0-2	+2
High Water	Directions of streams (degrees)	278 1-1 0-5	259 1-7 0-8	300 0-2 0-1	+3
High Water	Rates at spring tides (knots)	276 0-9 0-4	260 1-0 0-5	270 0-4 0-2	+4
High Water	Rates at neap tides (knots)	270 0-5 0-2	267 0-2 0-1	240 0-2 0-1	+5
High Water	Directions of streams (degrees)	258 0-2 0-1			+6

\* Normal river current included

## 5620\_14

Tidal Streams referred to  
HW at MILFORD HAVEN

Hours	Geographical Position	A 51°42'2"N 4 55-1W	
Before High Water	Directions of streams (degrees)	210 0-3 0-1	-6
Before High Water	Rates at spring tides (knots)	058 0-1 0-1	-5
Before High Water	Rates at neap tides (knots)	042 0-4 0-2	-4
High Water	Directions of streams (degrees)	058 0-9 0-4	-3
High Water	Rates at spring tides (knots)	062 1-3 0-6	-2
High Water	Rates at neap tides (knots)	063 1-1 0-5	-1
After High Water	Directions of streams (degrees)	082 0-2 0-1	0
After High Water	Rates at spring tides (knots)	244 1-7 0-8	+1
After High Water	Rates at neap tides (knots)	245 2-5 1-2	+2
High Water	Directions of streams (degrees)	243 2-4 1-1	+3
High Water	Rates at spring tides (knots)	238 1-9 0-8	+4
High Water	Rates at neap tides (knots)	233 1-2 0-5	+5
High Water	Directions of streams (degrees)	224 0-5 0-2	+6

\* Normal river current included



5620\_15

Tidal Streams referred to  
HW at AVONMOUTH

Hours	Geographical Position	<b>A</b> 51°38'8N 4 42'8W	<b>B</b> 51°40'4N 4 41'2W	<b>C</b> 51°39'4N 4 40'9W	
Before High Water	Directions of streams (degrees)	076 2.1 1.0	007 0.9 0.4	031 1.4 0.6	-6
Before High Water	Rates at spring tides (knots)	076 2.6 1.2	007 0.8 0.4	058 1.1 0.5	-5
Before High Water	Rates at neap tides (knots)	075 2.4 1.1	357 0.5 0.2	041 0.8 0.4	-4
Before High Water		078 1.4 0.7	002 0.4 0.2	021 1.1 0.5	-3
Before High Water		250 0.5 0.2	142 0.1 0.1	310 0.7 0.3	-2
Before High Water		256 1.9 0.9	177 0.8 0.4	217 1.1 0.5	-1
Before High Water		253 2.2 1.0	184 0.9 0.4	220 1.4 0.6	0
After High Water		257 2.2 1.0	182 0.9 0.4	216 1.2 0.6	+1
After High Water		258 1.9 0.9	188 0.7 0.3	212 1.2 0.6	+2
After High Water		259 1.0 0.4	195 0.3 0.2	214 0.7 0.3	+3
After High Water		067 0.2 0.1	356 0.3 0.1	068 0.2 0.1	+4
After High Water		077 1.2 0.6	003 0.9 0.4	048 0.9 0.4	+5
After High Water		076 1.8 0.8	006 0.9 0.4	040 1.2 0.5	+6

5620\_16

## Tidal Streams referred to HW at SWANSEA

Hours	Geographical Position	<b>A</b> 51°38'8N 4 42'8W	<b>B</b> 51°40'4N 4 41'2W	<b>C</b> 51°39'4N 4 40'9W	<b>D</b> 51°36'9N 4 37'2W	<b>E</b> 51°30'5N 4 24'6W	<b>F</b> 51°35'2N 4 22'4W	<b>G</b> 51°40'4N 4 15'0W	
Before High Water	Directions of streams (degrees)	077 1.4 0.7	004 0.9 0.4	049 1.1 0.5	038 0.8 0.4	104 0.3 0.1	181 0.5 0.2	210 0.8 0.4	-6
Before High Water	Rates at spring tides (knots)	076 2.1 1.0	007 0.9 0.4	031 1.4 0.6	038 0.8 0.4	108 1.1 0.6	138 0.7 0.3	022 0.1 0.0	-5
Before High Water	Rates at neap tides (knots)	076 2.6 1.2	007 0.8 0.4	058 1.1 0.5	045 1.4 0.6	115 1.9 1.0	123 0.9 0.4	023 1.7 0.7	-4
Before High Water		075 2.4 1.1	357 0.5 0.2	041 0.8 0.4	052 1.6 0.7	116 2.2 1.2	122 0.8 0.4	023 2.1 0.9	-3
Before High Water		078 1.4 0.7	002 0.4 0.2	021 1.1 0.5	054 1.2 0.6	116 1.9 1.0	124 0.7 0.3	029 2.0 0.8	-2
Before High Water		250 0.5 0.2	142 0.1 0.1	310 0.7 0.3	054 0.7 0.3	116 1.0 0.5	121 0.5 0.2	031 1.4 0.6	-1
Before High Water		256 1.9 0.9	177 0.8 0.4	217 1.1 0.5	054 0.1 0.0	192 0.1 0.0	330 0.1 0.0	040 0.6 0.2	0
Before High Water		253 2.2 1.0	184 0.9 0.4	220 1.4 0.6	230 0.5 0.2	287 1.0 0.6	321 0.6 0.3	220 0.7 0.3	+1
After High Water		257 2.2 1.0	182 0.9 0.4	216 1.2 0.6	226 1.2 0.6	295 2.1 1.1	319 1.2 0.6	225 1.7 0.7	+2
After High Water		258 1.9 0.9	188 0.7 0.3	212 1.2 0.6	230 1.6 0.7	296 2.4 1.3	328 1.5 0.7	219 2.6 1.1	+3
After High Water		259 1.0 0.4	195 0.3 0.2	214 0.7 0.3	235 1.6 0.7	296 1.9 1.0	289 0.6 0.3	213 4.0 1.7	+4
After High Water		067 0.2 0.1	356 0.3 0.1	068 0.2 0.1	231 1.0 0.4	296 1.0 0.5	238 0.3 0.1	208 3.1 1.3	+5
After High Water		077 1.2 0.6	003 0.9 0.4	048 0.9 0.4	229 0.2 0.1	296 0.1 0.1	193 0.5 0.2	209 1.4 0.6	+6

## TIME &amp; HEIGHT DIFFERENCES FOR PREDICTING THE TIDE AT SECONDARY PORTS

PLACE	Lat. N	Long. W	TIME DIFFERENCES				HEIGHT DIFFERENCES (IN METRES)			
			High Water		Low Water		MHWS	MHWN	MLWN	MLWS
			Zone UT(GMT)							
MILFORD HAVEN .....	51 42	5 03	0100 and 1300	0800 and 2000	0100 and 1300	0700 and 1900	7.0	5.2	2.5	0.7
Cardigan Bay										
Aberdaron .....	52 48	4 43	+0210	+0200	+0240	+0310	-2.4	-1.9	-0.6	-0.2
St. Tudwal's Roads .....	52 49	4 29	+0155	+0145	+0240	+0310	-2.2	-1.9	-0.7	-0.2
Pwllheli .....	52 53	4 24	+0210	+0150	+0245	+0320	-1.9	-1.6	-0.6	-0.1
Criccieth .....	52 55	4 14	+0210	+0155	+0255	+0320	-2.0	-1.8	-0.7	-0.3
Porthmadog .....	52 55	4 08	+0235	+0210	◊	◊	-1.9	-1.8	◊	◊
Barmouth .....	52 43	4 03	+0207	+0200	+0300	+0233	-2.0	-1.5	-0.6	0.0
Aberdovey .....	52 33	4 03	+0215	+0200	+0230	+0305	-2.0	-1.7	-0.5	0.0
Aberystwyth .....	52 24	4 05	+0145	+0130	+0210	+0245	-2.0	-1.7	-0.7	0.0
New Quay .....	52 13	4 21	+0150	+0125	+0155	+0230	-2.1	-1.8	-0.6	-0.1
Aberporth .....	52 08	4 33	+0135	+0120	+0150	+0220	-2.1	-1.8	-0.6	-0.1
Port Cardigan .....	52 07	4 41	+0140	+0120	+0220	+0130	-2.3	-1.8	-0.5	0.0
Cardigan (Town) .....	52 05	4 40	+0220	+0150	◊	◊	-2.2	-1.6	◊	◊
FISHGUARD .....	52 01	4 59	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			
Porthgain .....	51 57	5 11	+0055	+0045	+0045	+0100	-2.5	-1.8	-0.6	0.0
Ramsey Sound .....	51 53	5 19	+0030	+0030	+0030	+0030	-1.9	-1.3	-0.3	0.0
Solva .....	51 52	5 12	+0015	+0010	+0035	+0015	-1.5	-1.0	-0.2	0.0
Little Haven .....	51 46	5 07	+0010	+0010	+0025	+0015	-1.1	-0.8	-0.2	0.0
Martin's Haven .....	51 44	5 15	+0010	+0010	+0015	+0015	-0.8	-0.5	+0.1	+0.1
Skomer Island .....	51 44	5 17	-0005	-0005	+0005	+0005	-0.4	-0.1	0.0	0.0
Dale Roads .....	51 42	5 09	-0005	-0005	-0008	-0008	0.0	0.0	0.0	-0.1
MILFORD HAVEN .....	51 42	5 03	STANDARD PORT							
Cleddau River										
NEYLAND .....	51 42	4 57	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			
Black Tar .....	51 45	4 54	+0010	+0020	+0005	0000	+0.1	+0.1	0.0	-0.1
Haverfordwest .....	51 48	4 58	+0010	+0025	§	§	-4.8	-4.9	§	§
Stackpole Quay .....	51 37	4 54	-0005	+0025	-0010	-0010	+0.9	+0.7	+0.2	+0.3
Tenby .....	51 40	4 42	-0015	-0010	-0015	-0020	+1.4	+1.1	+0.5	+0.2
Towey River										
Ferryside .....	51 46	4 22	0000	-0010	+0220	0000	-0.3	-0.7	-1.7	-0.6
Carmarthen .....	51 51	4 18	+0010	0000	§	§	-4.4	-4.8	§	§
Burry Inlet										
Burry Port .....	51 41	4 15	+0003	+0003	+0007	+0007	+1.6	+1.4	+0.5	+0.4
Llanelli .....	51 40	4 10	-0003	-0003	+0150	+0020	+0.8	+0.6	◊	◊
COBH .....										
COBH .....	51 51	8 18	0500 and 1700	1100 and 2300	0500 and 1700	1100 and 2300	4.1	3.2	1.3	0.4
Baginbun Head .....	52 10	6 50	+0003	+0003	-0008	-0008	-0.2	-0.1	+0.2	+0.2
Fethard-on-Sea .....	52 12	6 49	+0004	+0004	-0004	-0004	0.0	0.0	+0.2	+0.2
Great Saltee .....	52 07	6 37	+0019	+0009	-0004	+0006	-0.3	-0.4	◊	◊
ROSSLARE EUROPOR										
ROSSLARE EUROPOR .....	52 15	6 21	0000 and 1200	0600 and 1800	0500 and 1700	1100 and 2300	2.3	1.8	1.1	0.7
Kilmore Quay .....	52 10	6 35	-0017	-0023	0000	+0015	+1.3	+1.0	+0.1	-0.3
Carnsore Point .....	52 10	6 22	-0016	-0016	-0017	+0013	+0.7	+0.4	◊	◊
ROSSLARE EUROPOR .....	52 15	6 20	STANDARD PORT							
Wexford Harbour .....	52 20	6 27	+0040	+0030	+0100	+0120	-0.3	-0.4	-0.2	-0.2

◊ No Data.

§ Dries out except for river water.

Non-Reference Standard Ports				
STANDARD PORT	MHWS	MHWN	MLWN	MLWS
FISHGUARD	4.8	3.4	2.0	0.8
NEYLAND	7.0	5.2	2.5	0.7

# Tidal Curve Diagrams

