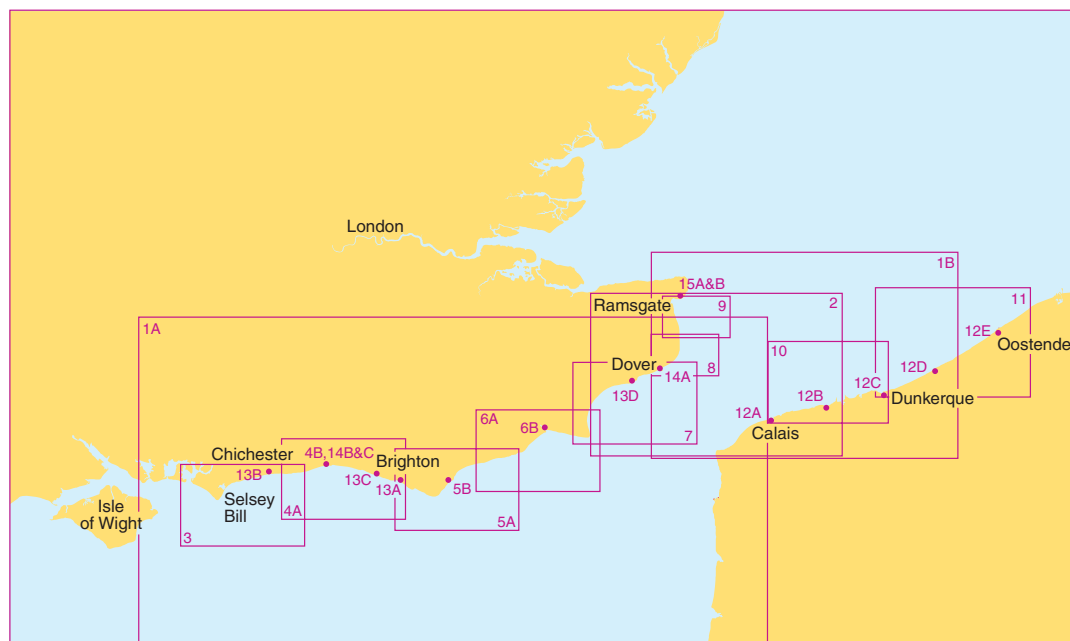




Chichester to Ramsgate

Coverage Diagram



5605	Chart Title	Natural Scale 1:
1A	Western Approaches to Dover Strait	500,000
1B	Northern Approaches to Dover Strait	250,000
2	Dover to Calais	150,000
3	Chichester to Worthing	75,000
4A	Worthing to Newhaven	75,000
4B	Shoreham Harbour - Western Arm and River Adur	5,000
5A	Newhaven to Hastings	75,000
5B	Sovereign Harbour	15,000
6A	Hastings to Dungeness	75,000
6B	Rye	25,000
7	Dungeness to South Foreland	75,000
8	Dover to Deal	37,500
9	Deal to Ramsgate	37,500
10	Calais to Dunkerque	75,000
11	Dunkerque to Blankenberge	100,000

5605	Chart Title	Natural Scale 1:
12A	Calais	15,000
12B	Gravelines	20,000
12C	Dunkerque	20,000
12D	Nieuwpoort	20,000
12E	Oostende	15,000
13A	Newhaven Harbour	5,000
13B	Littlehampton Harbour	6,250
13C	Brighton Marina	5,000
13D	Folkestone Harbour	5,000
14A	Dover	6,250
14B	Shoreham Harbour - Eastern Arm	5,000
14C	Shoreham Harbour - The Canal	5,000
15A	Approaches to Ramsgate	12,500
15B	Ramsgate	5,000

Notes

DATUM

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 upstream.

OMISSION OF DETAILS - FRENCH WATERS

Wrecks, obstructions, foulds, depths and explosive dumping grounds are not shown inside the coastal 20 metre depth contour. Elsewhere wrecks, obstructions and foulds with a depth of more than 20 metres are not shown.

MARINE FARMS

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

OIL AND GAS FIELDS

Production platforms and associated structures, including tanker moorings, storage tankers and platforms on pipelines, generally exhibit Mo(U) lights, aircraft obstruction lights, and audible fog signals. Unauthorised navigation is prohibited within 500 metres of all such structures. Within the areas covered by larger scale charts, certain fixed structures, pipelines and cables have been omitted due to their complexity and frequent change. The appropriate larger scale charts should be used in this area.

VESSEL REPORTING

For details of the following vessel traffic services and vessel reporting systems, see ADMIRALTY List of Radio Signals:

- Westerschelde VTS Scheldemond (VTS-SM)
- Dover Strait Reporting System (CALDOVREP)
- The Channel Navigation Information Service (CNIS)
- Dover VTS, the jurisdiction of Dover Harbour Board extends one mile seaward of the breakwaters. All yachts should report to Dover Port Control on VHF Ch 74 when 2 miles from the port. All vessels must report within 1 mile of the port and take traffic instructions from Dover Port Control.
- Southampton VTS (including Portsmouth)
- Ramsgate Local Port Service
- Calais VTS
- Dunkerque VTS

OMISSION OF DETAIL - UK WATERS

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.

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)

MARINERS' ROUTEING GUIDE

ENGLISH CHANNEL AND DOVER STRAIT

See chart 5500, Mariners' Routeing Guide, English Channel and Dover Strait, for information on passage planning, routeing regulations, aids to navigation, radio reporting and other navigational advice.

WETREP

Tankers of more than 600 dwt carrying heavy crude oil, heavy fuel oil or bitumen and tar and their emulsions are required to participate in the Western European Tanker Reporting System (WETREP). See ADMIRALTY List of Radio Signals for further details.

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 covered by these charts. Mariners are advised to maintain a good lookout. Some high speed craft 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.

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.

CROSS-CHANNEL FERRIES

Ferries operate at frequent intervals from Channel Ports. Vessels passing Dover should keep at least 1 mile off the breakwaters. Information concerning shipping movements can be obtained from Dover and Ramsgate Port Controls. For further details, see ADMIRALTY List of Radio Signals.

DOVER STRAIT: WARNING TO THROUGH TRAFFIC

Vessels using the traffic lanes must comply with Rule 10 of the Collision Regulations, but they are not thereby given any right of way over crossing vessels. When risk of collision is deemed to exist, the Rules fully apply, particularly Rules 15 and 19(d), which are of specific relevance in the crossing situation.

FRENCH REGULATIONS

Vessels over 1600 GT laden with hydrocarbons or other dangerous cargoes must keep at least 7 miles off the French coast, except when entering certain ports. For details, see ADMIRALTY Sailing Directions.

HISTORIC WRECKS

The sites of historic wrecks are protected from unauthorised interference.

COMPULSORY PILOTAGE

For details of compulsory pilotage, see ADMIRALTY Sailing Directions and ADMIRALTY List of Radio Signals

ROUTEING AND TRAFFIC SEPARATION SCHEMES

For full details of Traffic Separation Schemes, special provisions and French Government regulations, see Chart 5500 and ADMIRALTY Sailing Directions.

OFFSHORE WIND FARMS UNDER CONSTRUCTION

United Kingdom: A safety zone of 500m becomes operational around the turbines under construction. Consult local notices to mariners issued by the wind farm developer for details of installation progress.

DEPTHS AND AIDS TO NAVIGATION

The channels and depths shown on this chart are subject to frequent change. The buoyage and other aids to navigation are adjusted accordingly. For the latest information, consult the pilots.

HM Coastguard Services and Safety Information

VHF MARITIME RADIO

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

HM COASTGUARD

DOVER COASTGUARD (MRCC)

Tel +44 (0) 1304 210008

MMSI: 002320010

e-mail: zone14@hmcg.gov.uk (FAO Dover Coastguard)

GRIS-NEZ (CROSS) (MRCC)

Tel +33 (0) 321 872187

MMSI: 002275100

e-mail: gris-nez@mrccfr.eu

MARITIME SAFETY INFORMATION

Maritime Safety Information (MSI) in the UK is broadcast by DOVER COASTGUARD at 0110, 0410, 0710, 1010, 1310, 1610, 1910, 2210 Local Time and by SOLENT COASTGUARD at 0130, 0430, 0730, 1030, 1330, 1630, 1930, 2230 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.

MSI for France is broadcast by GRIS-NEZ MRCC.

On VHF Ch 79 as follows:

Weather Bulletins at 0720, 1320, 1920 Local Time in French;

Navigational Warnings on receipt, then beginning every H+03 broadcast transmitter by transmitter in French;

Bulletins in the Pas de Calais (Dover Strait) at H+10 in English and French.

Times are approximate due to operational reasons.

MSI in Belgium is broadcast by Osstende (OST, OSU).

On VHF Ch 27 as follows:

Weather Bulletins at 0720 Local Time, 0820, 1720 UTC in English and Dutch;

Navigational Warnings on receipt, then after the first H+03, H+33 repeated at 0233, 0633, 1033, 1433, 1833, 2233 UTC in English and Dutch.

For further information details see ADMIRALTY List of Radio Signals: NP283(1).

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. 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 Atlases: NP233 Dover Strait, NP250 The English Channel, NP251 North Sea, Southern Portion and NP337 The Solent and Adjacent Waters.

PROVIDE UPDATED INFORMATION

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



IMPROVEMENTS TO THIS PRODUCT

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

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

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

Tidal Stream Information

5605_1

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A	B	C	D	E	
		50°11'0N 1 04-0W	49°58'0N 0 21-0E	50°28'2N 0 17-3W	50°30'0N 0 26-0E	50°43'0N 0 58-0E	
Before High Water	6 5 4 3 2 1	-6 203 0-1 0-1 -5 081 1-6 0-8 -4 075 2-7 1-4 -3 076 3-4 1-7 -2 077 2-9 1-5 -1 077 1-9 1-0	245 1-1 0-7 184 0-7 0-4 112 1-4 0-8 097 2-3 1-4 087 2-4 1-5 082 2-0 1-2	236 0-5 0-3 090 1-1 0-5 081 1-9 0-9 081 2-6 1-3 074 2-4 1-2 070 1-5 0-7	249 1-1 0-6 206 0-2 0-1 077 1-1 0-6 080 1-9 1-1 082 2-1 1-2 074 1-5 0-8	228 1-6 0-9 228 1-4 0-8 218 0-9 0-5 096 0-4 0-2 044 1-2 0-6 053 1-3 0-8	-6 -5 -4 -3 -2 -1
High Water	1	0 107 0-5 0-2	082 0-9 0-7	063 0-4 0-2	066 0-8 0-4	052 1-3 0-7	0
After High Water	1 2 3 4 5 6	+1 254 0-8 0-4 +2 276 2-2 1-1 +3 260 3-1 1-5 +4 250 3-6 1-8 +5 254 2-9 1-4 +6 249 1-1 0-6	085 0-4 0-3 278 1-3 0-7 276 1-9 1-2 273 2-1 1-3 267 2-0 1-3 258 1-4 0-9	267 0-8 0-4 263 1-9 1-0 260 2-5 1-3 256 2-2 1-1 253 1-6 0-8 247 0-9 0-5	304 0-1 0-1 268 0-8 0-5 263 1-3 0-7 254 1-5 0-8 261 1-6 0-9 256 1-4 0-8	047 1-1 0-6 028 0-6 0-4 - 0-0 0-0 256 0-4 0-2 238 0-9 0-5 225 1-5 0-8	+1 +2 +3 +4 +5 +6
	Directions of streams (degrees)						
	Rates at spring tides (knots)						
	Rates at neap tides (knots)						

5605_1B

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A	B	C	D	E	F
		50°57'4N 1 23-5 E	50°59'9N 1 33-9 E	51°26'0N 1 38-9 E	51°09'5N 1 44-0 E	51°07'7N 2 04-3 E	51°23'0N 2 26-7 E
Before High Water	6 5 4 3 2 1	-6 226 2-1 1-2 -5 227 2-7 1-6 -4 228 2-9 1-4 -3 229 2-1 1-0 -2 259 0-8 0-3 -1 044 1-4 0-7	260 1-8 1-2 260 2-6 1-8 260 2-9 2-0 260 2-7 1-9 270 1-2 0-8 035 0-8 0-5	137 0-5 0-3 164 1-1 0-6 173 1-6 0-9 189 1-9 1-1 201 1-5 0-8 240 0-7 0-4	231 1-0 0-6 218 2-2 1-2 213 2-8 1-6 206 2-8 1-5 207 1-5 0-8 053 0-4 0-2	245 1-3 0-8 237 1-5 1-0 229 1-6 1-1 223 1-5 1-0 187 0-9 0-5 089 0-5 0-4	270 1-1 0-6 255 1-6 1-0 248 1-8 1-2 245 1-7 1-2 232 1-0 0-8 153 0-8 0-5
High Water	1	0 045 2-7 1-3	060 1-7 1-1	328 1-0 0-5	040 1-8 1-0	056 1-2 0-8	075 1-5 0-8
After High Water	1 2 3 4 5 6	+1 046 2-9 1-6 +2 048 2-2 1-4 +3 053 1-2 1-0 +4 090 0-4 0-4 +5 218 0-9 0-2 +6 225 1-9 0-9	060 2-5 1-7 060 2-6 1-8 060 1-9 1-3 053 0-8 0-5 277 0-5 0-6 260 1-9 1-3	353 1-5 0-8 004 1-6 0-9 016 1-3 0-7 026 1-0 0-5 044 0-6 0-3 107 0-3 0-2	035 2-3 1-3 040 2-3 1-3 030 1-9 1-0 023 1-2 0-7 345 0-4 0-2 246 0-7 0-4	052 1-7 1-0 053 1-8 1-1 049 1-4 0-8 028 0-8 0-4 321 0-5 0-3 250 1-0 0-7	064 1-8 1-0 060 1-9 1-1 057 1-6 1-0 052 0-9 0-6 007 0-5 0-3 297 0-8 0-4
	Directions of streams (degrees)						
	Rates at spring tides (knots)						
	Rates at neap tides (knots)						

5605_2

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A	B	C	D	E	F	G	H
		50°55'64N 1 06-10 E	50°57'40N 1 23-50 E	51°06'63N 1 33-20 E	50°59'93N 1 33-90 E	51°20'33N 1 34-20 E	51°13'03N 1 36-30 E	51°04'90N 1 46-70 E	51°07'65N 2 04-32 E
Before High Water	6 5 4 3 2 1	-6 219 1-6 0-9 -5 221 1-8 1-0 -4 220 1-3 0-7 -3 220 0-6 0-3 -2 033 0-1 0-1 -1 036 1-0 0-5	226 2-1 1-2 227 2-7 1-6 228 2-9 1-4 229 2-1 1-0 259 0-8 0-3 044 1-4 0-7	219 1-1 0-6 227 2-5 1-4 225 3-6 2-0 224 3-2 1-8 220 1-8 1-0 050 0-4 0-2	260 1-8 1-2 260 2-6 1-8 260 2-9 2-0 260 2-7 1-9 270 1-2 0-8 035 0-8 0-5	199 2-0 1-2 204 2-6 1-5 208 3-1 1-7 213 2-8 1-5 222 1-5 0-8 357 0-8 0-5	190 0-9 0-5 191 2-3 1-3 195 3-1 1-7 196 3-2 1-8 195 2-0 1-1 000 0-0	236 1-4 1-0 234 2-0 1-4 233 2-2 1-4 229 1-9 1-0 198 1-0 0-3 067 1-0 0-6	245 1-3 0-8 237 1-5 1-0 229 1-6 1-1 223 1-5 1-0 187 0-9 0-5 089 0-5 0-4
High Water	1	0 038 1-7 0-9	045 2-7 1-3	043 2-1 1-2	060 1-7 1-1	015 2-5 1-4	013 1-3 0-7	053 1-8 1-2	056 1-2 0-8
After High Water	1 2 3 4 5 6	+1 040 1-8 1-0 +2 043 1-6 0-9 +3 043 0-9 0-5 +4 185 0-1 0-1 +5 215 0-9 0-5 +6 218 1-5 0-8	046 2-9 1-6 048 2-2 1-4 053 1-2 1-0 090 0-4 0-4 218 0-9 0-2 225 1-9 0-9	046 3-0 1-6 044 3-2 1-8 040 2-4 1-3 038 0-9 0-5 000 0-0 210 0-8 0-4	060 2-5 1-7 060 2-6 1-8 060 1-9 1-3 053 0-8 0-5 277 0-5 0-6 260 1-9 1-3	023 3-2 1-8 029 2-9 1-6 044 2-2 1-3 059 1-2 0-7 000 0-0 197 1-4 0-8	015 2-4 1-4 014 3-1 1-7 017 2-6 1-5 018 1-7 1-0 018 0-6 0-3 189 0-5 0-3	046 1-9 1-5 048 1-9 1-2 054 1-6 0-8 045 0-8 0-3 321 0-2 0-4 237 1-0 0-9	052 1-7 1-0 053 1-8 1-1 049 1-4 0-8 028 0-8 0-4 321 0-5 0-3 250 1-0 0-7
	Directions of streams (degrees)								
	Rates at spring tides (knots)								
	Rates at neap tides (knots)								

5605_3

Tidal Streams referred to HW at PORTSMOUTH

Hours	Geographical Position	A	B	C	D
		50°36'5 N 0 58-1W	50°40'1 N 0 56-4W	50°38'0 N 0 54-6W	50°44'1 N 0 53-3W
Before High Water	6 5 4 3 2 1	-6 083 0-9 0-5 -5 076 1-9 0-9 -4 070 1-9 1-0 -3 066 1-8 0-9 -2 065 1-2 0-6 -1 046 0-3 0-1	085 0-7 0-3 078 1-6 0-8 078 1-8 0-9 065 1-5 0-8 048 0-9 0-4 345 0-2 0-1	081 1-1 0-6 082 1-9 1-0 084 2-2 1-1 072 1-9 1-0 060 1-3 0-6 030 0-3 0-1	090 0-4 0-2 096 0-8 0-4 095 0-9 0-4 093 0-6 0-3 000 0-0 298 0-4 0-2
High Water	1	0 268 0-9 0-4	282 1-3 0-7	271 1-0 0-5	290 0-8 0-4
After High Water	1 2 3 4 5 6	+1 260 1-7 0-9 +2 253 2-1 1-0 +3 245 1-8 0-9 +4 241 1-3 0-6 +5 234 0-7 0-3 +6 083 0-5 0-3	265 1-5 0-7 252 1-6 0-8 236 1-2 0-6 218 0-9 0-4 193 0-4 0-2 095 0-4 0-2	266 2-1 1-1 257 2-0 1-0 246 1-7 0-8 241 1-3 0-6 239 0-5 0-3 078 0-7 0-3	283 1-0 0-5 272 0-9 0-4 246 0-5 0-2 190 0-3 0-1 000 0-0 092 0-3 0-2
	Directions of streams (degrees)				
	Rates at spring tides (knots)				
	Rates at neap tides (knots)				

5605_3 continued Tidal Streams referred to HW at DOVER

	 50°41'44 N 0 48 29 W	 50°39'44 N 0 42 39 W	 50°44'24 N 0 41 79 W	 50°36'54 N 0 41 29 W	 50°36'00 N 0 38 60 W	 50°37'95 N 0 25 50 W
-6	092 1-6 0-8	098 0-9 0-4	058 0-7 0-4	072 1-0 0-5	127 0-1 0-0	222 0-2 0-1
-5	095 2-3 1-2	102 1-5 0-8	051 0-8 0-4	072 2-4 1-2	082 1-3 0-6	079 1-0 0-6
-4	098 2-4 1-2	096 1-9 0-9	044 0-7 0-3	072 2-9 1-4	085 2-1 1-3	080 1-8 1-0
-3	101 1-9 0-9	089 1-3 0-7	043 0-5 0-2	072 2-3 1-2	081 2-5 1-2	075 2-6 1-5
-2	104 0-9 0-5	077 0-6 0-3	040 0-2 0-1	072 1-3 0-7	077 1-9 0-9	062 1-9 1-1
-1	273 0-7 0-3	307 0-4 0-2	250 0-4 0-2	072 0-2 0-1	068 1-0 0-5	056 1-1 0-6
0	280 2-1 1-1	272 1-4 0-7	248 1-0 0-5	252 1-0 0-5	307 0-4 0-2	355 0-3 0-2
+1	280 2-6 1-3	268 1-9 0-9	243 1-1 0-5	252 2-1 1-1	273 1-5 0-7	268 1-0 0-6
+2	277 2-1 1-1	264 1-4 0-7	236 0-8 0-4	252 2-5 1-2	261 2-4 1-2	259 1-7 1-0
+3	273 1-4 0-7	281 0-7 0-4	217 0-5 0-2	252 2-2 1-1	257 1-9 0-9	249 1-7 1-0
+4	271 0-6 0-3	282 0-5 0-3	158 0-2 0-1	252 1-6 0-8	253 1-6 0-8	229 1-6 0-9
+5	091 0-4 0-2	329 0-2 0-1	080 0-3 0-2	252 0-7 0-4	252 1-2 0-6	245 1-4 0-8
+6	092 1-4 0-7	092 0-6 0-3	060 0-6 0-3	072 0-4 0-2	262 0-5 0-2	240 0-6 0-3

5605_4A Tidal Streams referred to HW at DOVER

Hours	 Geographical Position	 50°44'1N 0 20 6W	 50°46'3N 0 18 6W	 50°44'9N 0 03 8E	 50°45'9N 0 03 9E
Before High Water	6	-6 093 0-7 0-4	077 0-7 0-4	277 0-4 0-2	081 0-2 0-1
	5	-5 057 1-5 0-9	069 1-2 0-7	103 0-6 0-3	099 0-6 0-4
	4	-4 052 1-6 0-9	066 1-3 0-8	106 1-3 0-7	109 1-2 0-6
	3	-3 052 1-5 0-8	065 1-2 0-7	103 1-6 0-9	105 1-7 1-0
	2	-2 058 0-9 0-5	050 0-9 0-5	098 1-5 0-9	102 0-9 0-5
	1	-1 310 0-2 0-1	302 0-4 0-2	107 0-8 0-4	102 0-1 0-1
High Water	0	267 0-7 0-4	260 1-0 0-5	278 0-3 0-2	281 0-6 0-3
After High Water	1	250 1-2 0-7	256 1-2 0-7	290 0-9 0-5	282 1-0 0-6
	2	243 1-6 0-9	243 1-1 0-6	285 1-1 0-6	284 1-0 0-6
	3	238 1-4 0-8	232 0-9 0-5	285 1-0 0-6	289 0-8 0-5
	4	221 1-1 0-6	225 0-8 0-4	282 0-9 0-5	294 0-6 0-3
	5	191 0-8 0-5	208 0-5 0-3	278 0-8 0-5	306 0-4 0-2
	6	127 0-6 0-4	091 0-4 0-2	272 0-6 0-3	021 0-1 0-1

5605_5 Tidal Streams referred to HW at DOVER

Hours	 Geographical Position	 50°44'9N 0 03 8E	 50°45'9N 0 03 9E	 50°42'1N 0 14 8E	 50°42'7N 0 26 9E
Before High Water	6	277 0-4 0-2	081 0-2 0-1	263 1-0 0-6	248 0-8 0-4
	5	103 0-6 0-3	099 0-6 0-4	107 0-5 0-3	067 0-5 0-3
	4	106 1-3 0-7	109 1-2 0-6	085 1-9 1-1	068 1-9 1-0
	3	103 1-6 0-9	105 1-7 1-0	075 2-6 1-5	068 2-6 1-5
	2	098 1-5 0-9	102 0-9 0-5	080 2-4 1-4	068 2-3 1-3
	1	107 0-8 0-4	102 0-1 0-1	075 1-4 0-8	068 1-2 0-6
High Water	0	278 0-3 0-2	281 0-6 0-3	107 0-2 0-1	067 0-1 0-1
After High Water	1	290 0-9 0-5	282 1-0 0-6	263 0-8 0-4	248 0-9 0-5
	2	285 1-1 0-6	284 1-0 0-6	266 1-3 0-7	247 1-4 0-8
	3	285 1-0 0-6	289 0-8 0-5	254 2-0 1-0	248 1-8 1-0
	4	282 0-9 0-5	294 0-6 0-3	263 2-0 1-1	248 1-7 1-0
	5	278 0-8 0-5	306 0-4 0-2	263 1-8 1-0	248 1-6 0-9
	6	272 0-6 0-3	021 0-1 0-1	267 1-3 0-7	249 1-2 0-7

5605_6A

Tidal Streams referred to HW at DOVER

Hours	 Geographical Position	 50°48'4N 0 45 6E	 50°53'0N 1 00 5E
Before High Water	6	220 1-1 0-6	211 1-6 0-9
	5	227 0-9 0-5	211 2-1 1-2
	4	233 0-4 0-2	211 1-8 1-1
	3	037 0-8 0-4	211 0-9 0-5
	2	041 1-0 0-5	000 0-0
	1	046 0-8 0-5	031 0-8 0-5
High Water	0	042 0-7 0-4	031 1-5 0-8
After High Water	1	048 0-5 0-3	031 1-9 1-1
	2	056 0-3 0-2	031 1-7 1-0
	3	183 0-2 0-1	031 1-2 0-6
	4	209 0-4 0-2	031 0-4 0-2
	5	216 0-9 0-5	211 0-4 0-2
	6	221 1-1 0-6	211 1-3 0-7

5605_7 Tidal Streams referred to HW at DOVER

Hours	 Geographical Position	 50°55'6N 1 06 1E	 51°01'0N 1 09 9E	 50°56'2N 1 16 7E	 51°06'6N 1 20 3E	 51°03'9N 1 21 9E	 50°58'6N 1 26 7E
Before High Water	6	219 1-6 0-9	224 0-9 0-5	233 2-2 1-2	224 2-3 1-3	226 1-9 1-0	206 1-7 1-0
	5	221 1-8 1-0	239 1-0 0-6	232 2-5 1-4	231 2-5 1-4	233 2-2 1-2	204 2-5 1-4
	4	220 1-3 0-7	235 1-1 0-6	233 2-1 1-2	233 2-4 1-3	236 2-3 1-3	208 2-7 1-5
	3	220 0-6 0-3	242 0-6 0-4	232 0-9 0-5	225 1-5 0-8	240 1-9 1-0	209 2-1 1-2
	2	033 0-1 0-1	000 0-0	050 0-4 0-2	075 0-3 0-2	261 0-7 0-3	221 0-9 0-5
	1	036 1-0 0-5	052 0-6 0-3	052 1-2 0-7	056 2-3 1-3	038 0-9 0-5	017 0-7 0-4
High Water	0	038 1-7 0-9	049 1-2 0-7	058 2-6 1-5	063 3-9 2-2	047 1-9 1-0	026 2-0 1-1
After High Water	1	040 1-8 1-0	049 1-3 0-7	052 2-3 1-3	064 4-1 2-3	054 2-4 1-4	028 2-6 1-5
	2	043 1-6 0-9	056 1-0 0-5	052 1-8 1-0	066 3-5 1-9	060 2-3 1-3	030 2-4 1-4
	3	043 0-9 0-5	054 0-5 0-3	055 1-0 0-6	072 2-6 1-4	061 1-7 1-0	033 1-7 0-9
	4	185 0-1 0-1	000 0-0	000 0-0	087 1-3 0-7	059 0-9 0-5	028 0-6 0-3
	5	215 0-9 0-5	219 0-4 0-2	232 0-8 0-4	208 1-1 0-6	245 0-4 0-2	214 0-4 0-2
	6	218 1-5 0-8	217 0-8 0-4	232 1-8 1-0	220 2-2 1-2	224 1-6 0-9	209 1-4 0-8

5605_8

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A 51°13'3N 1 26.5 E	B 51°10'5N 1 32.1 E	C 51°09'0N 1 27.7 E	D 51°06'6N 1 20.3 E
Before High Water	Directions of streams (degrees)	181 1.6 0.9	225 1.7 1.0	212 2.2 1.2	224 2.3 1.3
High Water	Rates at spring tides (knots)	183 2.1 1.1	225 2.5 1.4	213 2.2 1.2	231 2.5 1.4
After High Water	Rates at neap tides (knots)	186 2.1 1.2	222 3.1 1.7	216 1.9 1.1	233 2.4 1.3
		188 1.9 1.0	219 2.9 1.6	228 1.3 0.8	225 1.5 0.8
		190 0.8 0.5	224 1.4 0.8	0.0 0.0	075 0.3 0.2
		007 0.9 0.5	014 0.5 0.3	032 1.2 0.7	056 2.3 1.3
		001 2.1 1.2	040 2.2 1.2	038 2.0 1.2	063 3.9 2.2
		001 2.3 1.3	042 3.0 1.7	039 2.3 1.3	064 4.1 2.3
		003 2.3 1.3	037 2.8 1.6	034 2.2 1.2	066 3.5 1.9
		002 1.4 0.8	047 1.9 1.1	031 1.5 0.8	072 2.6 1.4
		017 0.6 0.3	061 0.9 0.5	0.0 0.0	087 1.3 0.7
		161 0.3 0.2	167 0.3 0.2	203 1.0 0.6	208 1.1 0.6
		180 1.3 0.7	218 1.3 0.7	210 1.8 1.0	220 2.2 1.2

5605_9

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A 51°20'3N 1 34.2 E	B 51°20'1N 1 29.9 E	C 51°19'7N 1 27.6 E	D 51°18'2N 1 34.3 E	E 51°18'2N 1 31.6 E	F 51°17'9N 1 29.3 E	G 51°16'3N 1 27.3 E	H 51°15'2N 1 33.4 E	J 51°13'3N 1 26.5 E
Before High Water	Directions of streams (degrees)	199 2.0 1.2	191 1.0 0.6	203 1.2 0.7	168 1.1 0.6	218 1.1 0.6	206 1.5 0.8	195 2.0 1.1	226 2.5 1.4	181 1.6 0.9
High Water	Rates at spring tides (knots)	204 2.6 1.5	200 1.5 0.9	203 1.3 0.7	182 1.5 0.9	222 1.7 1.0	214 2.1 1.2	197 2.6 1.5	230 3.1 1.7	183 2.1 1.1
After High Water	Rates at neap tides (knots)	208 3.1 1.7	202 2.0 1.1	210 1.7 1.0	188 2.0 1.1	228 2.3 1.3	218 2.5 1.4	197 2.8 1.5	231 3.4 1.9	186 2.1 1.2
		213 2.8 1.5	199 2.2 1.3	208 1.9 1.1	192 2.1 1.2	229 2.1 1.2	217 2.5 1.4	202 2.4 1.3	234 3.3 1.8	188 1.9 1.0
		222 1.5 0.8	203 1.7 0.9	215 1.4 0.8	215 0.8 0.4	230 1.2 0.7	219 1.5 0.9	215 1.0 0.6	233 1.6 0.9	190 0.8 0.5
		357 0.8 0.5	340 0.6 0.3	005 0.6 0.4	350 1.2 0.7	016 0.6 0.3	008 0.7 0.4	012 1.3 0.7	049 0.8 0.4	007 0.9 0.5
		015 2.5 1.4	007 2.4 1.3	021 2.2 1.2	002 2.4 1.4	039 2.0 1.1	024 2.3 1.3	017 2.7 1.5	049 3.0 1.7	001 2.1 1.2
		023 3.2 1.8	015 2.4 1.3	030 2.3 1.3	008 2.1 1.2	044 2.3 1.3	029 2.8 1.6	027 3.2 1.7	046 3.7 2.1	001 2.3 1.3
		029 2.9 1.6	023 2.0 1.1	032 1.9 1.1	012 1.4 0.8	045 2.1 1.2	032 2.5 1.4	018 2.6 1.4	049 3.4 1.9	003 2.3 1.3
		044 2.2 1.3	031 1.4 0.8	043 1.2 0.7	010 0.8 0.4	048 1.6 0.9	039 1.7 1.0	022 1.7 0.9	057 2.4 1.3	002 1.4 0.8
		059 1.2 0.7	051 0.7 0.4	073 0.4 0.2	0.0 0.0	057 0.8 0.5	050 0.9 0.5	037 0.6 0.3	065 0.9 0.5	017 0.6 0.3
		0.0 0.0	135 0.4 0.2	195 0.6 0.3	142 0.5 0.3	168 0.4 0.2	156 0.3 0.2	205 0.4 0.2	224 0.5 0.3	161 0.3 0.2
		1.4 0.8	195 0.8 0.5	203 1.1 0.6	163 0.9 0.5	210 1.0 0.5	202 1.1 0.6	197 1.6 0.9	225 2.1 1.2	180 1.3 0.7

5605_10

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A 51°04'4N 1 54.9 E	B 51°08'8N 1 57.2 E	C 51°07'7N 2 04.3 E	D 51°09'4N 2 19.5 E
Before High Water	Directions of streams (degrees)	-6 247 1.4 1.0	244 1.4 0.8	245 1.3 0.8	242 1.7 1.3
High Water	Rates at spring tides (knots)	-5 246 2.0 1.2	241 1.9 1.1	237 1.5 1.0	240 2.1 1.4
After High Water	Rates at neap tides (knots)	-4 241 2.3 1.3	238 2.2 1.2	229 1.6 1.1	238 2.3 1.3
		-3 237 2.1 0.9	235 2.1 0.9	223 1.5 1.0	239 1.9 0.9
		-2 233 1.2 0.4	207 1.2 0.4	187 0.9 0.5	237 1.0 0.4
		-1 076 0.6 0.6	081 0.6 0.4	089 0.5 0.4	066 1.2 0.8
		0 058 2.0 1.3	062 1.8 1.0	056 1.2 0.8	059 2.2 1.4
		+1 058 2.4 1.5	061 2.3 1.3	052 1.7 1.0	057 2.4 1.6
		+2 060 2.0 1.2	058 2.2 1.2	053 1.8 1.1	059 2.1 1.2
		+3 061 1.4 0.7	054 1.6 0.8	049 1.4 0.8	063 1.4 0.7
		+4 063 0.6 0.3	027 0.7 0.4	028 0.8 0.4	066 0.5 0.3
		+5 203 0.3 0.4	272 0.3 0.2	321 0.5 0.3	240 0.5 0.7
		+6 244 1.0 0.8	246 1.2 0.7	250 1.0 0.7	244 1.4 1.2

5605_11

Tidal Streams referred to HW at ZEEBRUGGE

Hours	Geographical Position	A 51°06'4N 2 29.7 E	B 51°13'9N 2 38.7 E	C 51°15'2N 2 51.7 E
Before High Water	Directions of streams (degrees)	-6 239 1.4 1.1	253 0.9 0.7	238 0.8 0.7
High Water	Rates at spring tides (knots)	-5 234 1.5 1.0	225 1.1 0.8	227 0.9 0.7
After High Water	Rates at neap tides (knots)	-4 233 1.3 0.8	222 1.1 0.8	227 0.9 0.6
		-3 205 0.4 0.1	199 0.9 0.6	215 0.6 0.3
		-2 066 1.5 1.0	114 1.0 0.6	084 0.7 0.6
		-1 063 1.8 1.2	071 1.5 0.9	061 1.6 1.0
		0 062 1.6 1.2	061 1.2 0.9	055 1.3 1.0
		+1 060 1.4 1.0	050 1.0 0.8	050 1.1 0.8
		+2 057 0.9 0.7	038 0.9 0.6	046 0.8 0.6
		+3 037 0.2 0.2	003 0.5 0.4	008 0.3 0.2
		+4 250 0.6 0.3	310 0.6 0.4	266 0.5 0.3
		+5 244 1.1 0.7	283 0.7 0.5	249 0.7 0.5
		+6 239 1.4 1.0	255 0.9 0.6	239 0.8 0.6

5605_15A

Tidal Streams referred to HW at DOVER

Hours	Geographical Position	A 51°19'74N 1 27.63 E	B 51°20'13N 1 29.89 E
Before High Water	Directions of streams (degrees)	-6 203 1.2 0.7	191 1.0 0.6
High Water	Rates at spring tides (knots)	-5 203 1.3 0.7	200 1.5 0.9
After High Water	Rates at neap tides (knots)	-4 210 1.7 1.0	202 2.0 1.1
		-3 208 1.9 1.1	199 2.2 1.3
		-2 215 1.4 0.8	203 1.7 0.9
		-1 005 0.6 0.4	340 0.6 0.3
		0 021 2.2 1.2	007 2.4 1.3
		+1 030 2.3 1.3	015 2.4 1.3
		+2 032 1.9 1.1	023 2.0 1.1
		+3 043 1.2 0.7	031 1.4 0.8
		+4 073 0.4 0.2	051 0.7 0.4
		+5 195 0.6 0.3	135 0.4 0.2
		+6 203 1.1 0.6	195 0.8 0.5

TIME & HEIGHT DIFFERENCES FOR PREDICTING THE TIDE AT SECONDARY PORTS

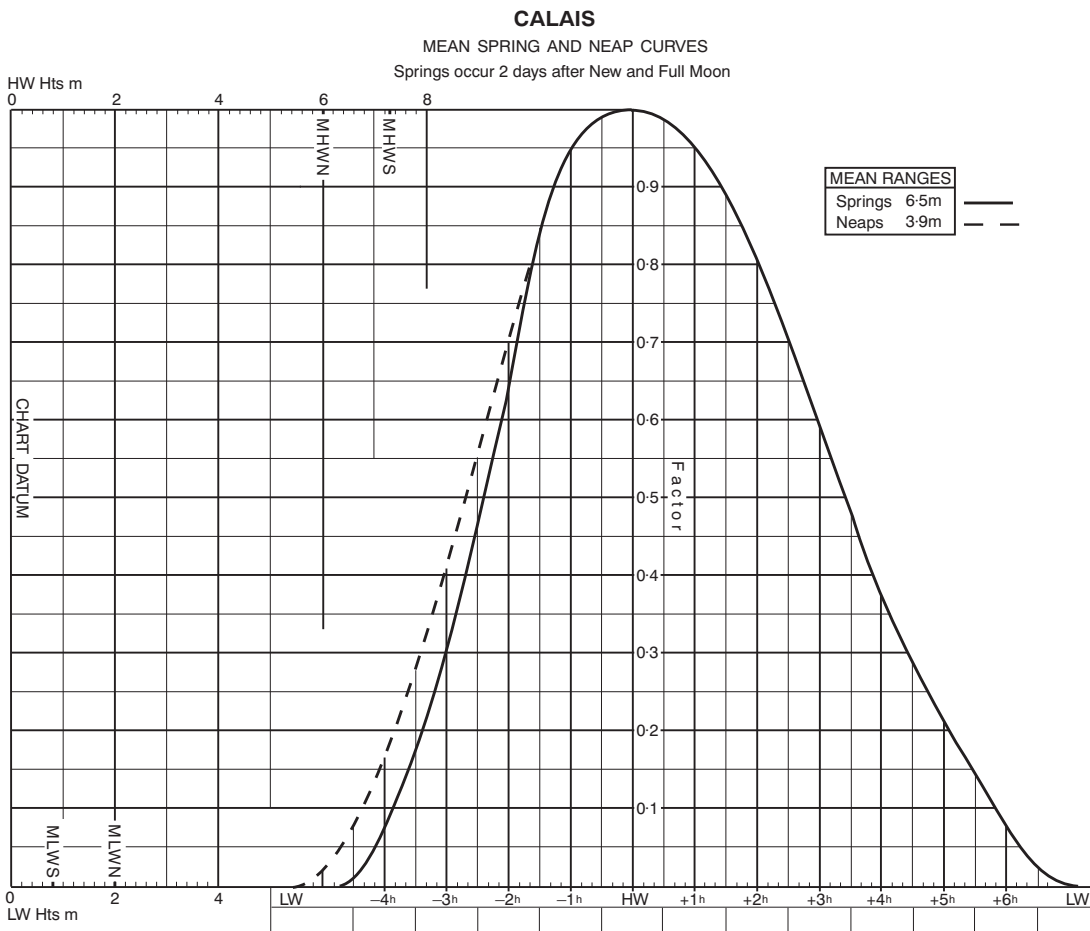
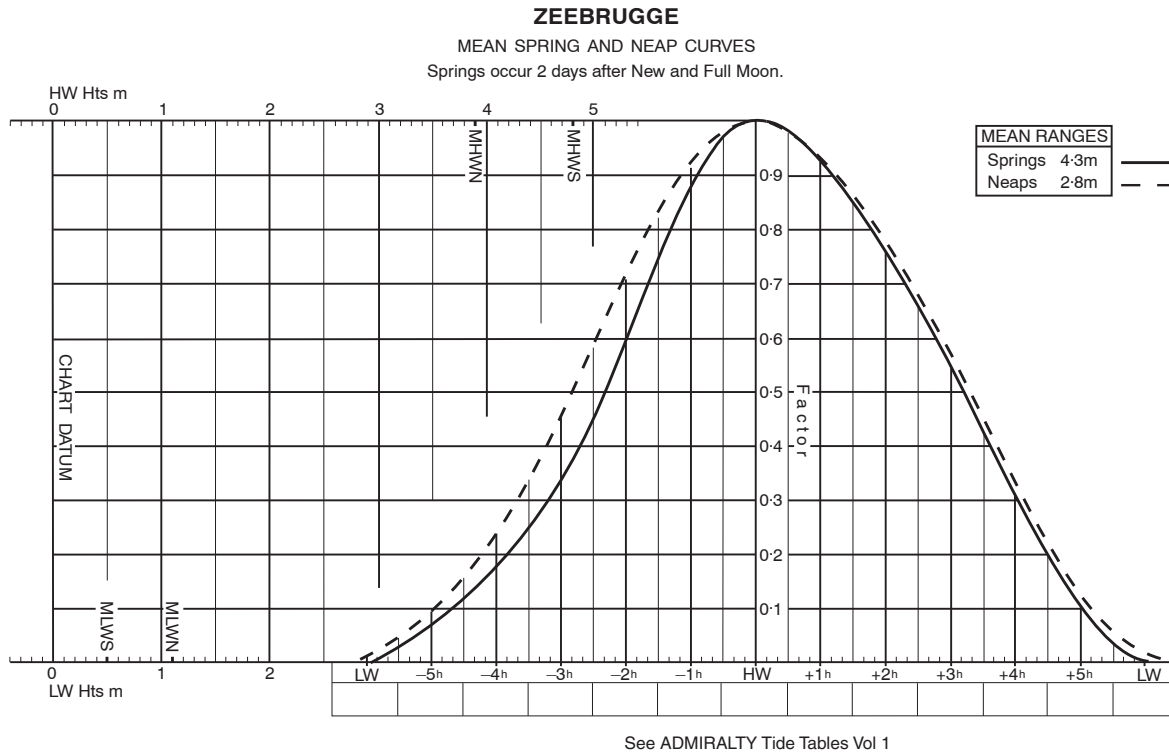
PLACE	Lat N	Long W	TIME DIFFERENCES				HEIGHT DIFFERENCES (IN METRES)			
			High Water	Low Water	Zone UT(GMT)		MHWS	MHWN	MLWN	MLWS
SHOREHAM	50 50	0 15	0500 and 1700	1000 and 2200	0000 and 1200	0600 and 1800	6.3	4.8	1.9	0.6
Pagham	50 46	0 43	+0015	0000	-0015	-0025	-0.7	-0.5	-0.1	-0.1
Bognor Regis	50 47	0 40	+0010	-0005	-0005	-0020	-0.6	-0.5	-0.2	-0.1
<i>River Arun</i>										
Littlehampton	50 48	0 33	+0010	0000	-0005	-0010	-0.4	-0.4	-0.2	-0.2
Arundel	50 51	0 33	◊	+0120	◊	◊	-3.1	-2.8	◊	◊
Worthing	50 48	0 22	+0010	0000	-0005	-0010	-0.1	-0.2	0.0	0.0
Brighton Marina.....	50 49	0 06	-0002	-0002	0000	0000	+0.2	+0.2	+0.1	+0.1
NEWHAVEN	N 50 47	E 0 04	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			
SHOREHAM	50 50	0 15	0500 and 1700	1000 and 2200	0000 and 1200	0600 and 1800	6.3	4.8	1.9	0.6
Eastbourne	50 46	0 18	-0010	-0005	+0015	+0020	+1.1	+0.6	+0.2	+0.1
Sovereign Harbour	50 47	0 19	-0005	-0010	+0010	+0020	+1.1	+0.8	+0.3	+0.1
DOVER	51 07	1 19	0000 and 1200	0600 and 1800	0100 and 1300	0700 and 1900	6.8	5.3	2.1	0.8
Hastings	50 51	0 36	0000	-0010	-0030	-0030	+0.8	+0.5	+0.1	-0.1
Rye (Approaches)	50 55	0 47	+0005	-0010	◊	◊	+1.0	+0.7	◊	◊
Rye (Harbour)	50 56	0 46	+0005	-0010	§	§	-1.4	-1.7	§	§
Dungeness	50 55	0 58	-0010	-0015	-0020	-0010	+1.0	+0.6	+0.4	+0.1
Folkestone	51 05	1 12	-0020	-0005	-0010	-0010	+0.4	+0.4	0.0	-0.1
Deal	51 13	1 25	+0012	+0010	+0004	+0002	-0.5	-0.3	0.0	+0.1
Richborough	51 18	1 21	+0015	+0015	+0030	+0030	-3.4	-2.6	-1.7	-0.7
RAMSGATE	51 20	1 25	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			
DUNKERQUE	51 03	2 22	0200 and 1400	0800 and 2000	0200 and 1400	0900 and 2100	6.0	5.0	1.5	0.6
Dunkerque Quest	51 01	2 11	-0010	-0015	-0010	-0005	+0.4	+0.3	0.0	0.0
Gravelines	51 01	2 06	-0010	-0015	-0010	-0005	+0.5	+0.3	+0.1	0.0
Sandettie Bank	51 15	2 03	-0010	-0015	-0015	-0010	-0.6	-0.6	-0.2	-0.1
CALAIS	50 58	1 51	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			
Wissant	50 53	1 40	-0035	-0050	-0030	-0010	+2.0	+1.5	+0.9	+0.4
ZEEBRUGGE	51 21	3 12	0300 and 1500	0900 and 2100	0300 and 1500	0900 and 2100	4.8	4.0	1.2	0.5
Nieuwpoort	51 09	2 43	-0031	-0031	-0010	-0010	+0.7	+0.5	+0.2	+0.1
OOSTENDE	51 14	2 55	STANDARD PORT				See Table of NON-REFERENCE STANDARD PORTS			

◊ No Data

§ Dries out except for river water

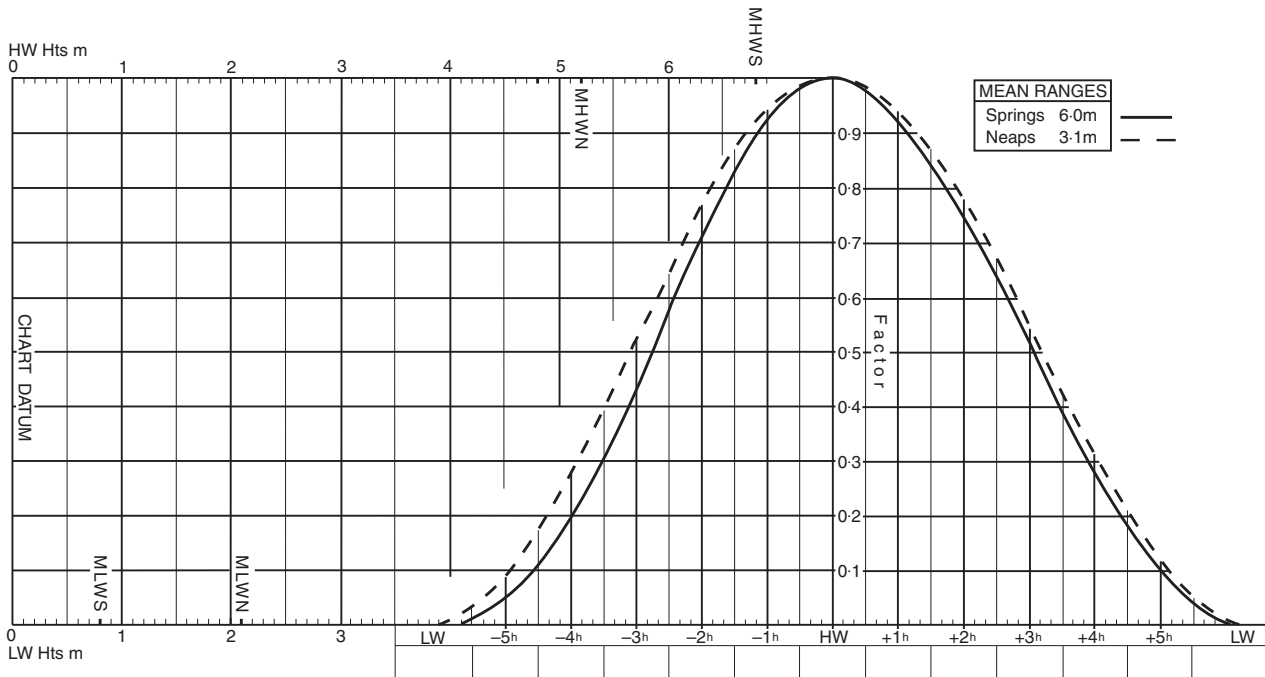
Non-Reference Standard Ports				
STANDARD PORT	MHWS	MHWN	MLWN	MLWS
NEWHAVEN	6.8	5.2	2.1	0.8
RAMSGATE	5.2	4.0	1.4	0.6
CALAIS	7.3	6.0	2.1	0.8
OOSTENDE	5.2	4.3	1.3	0.6

Tidal Curve Diagrams

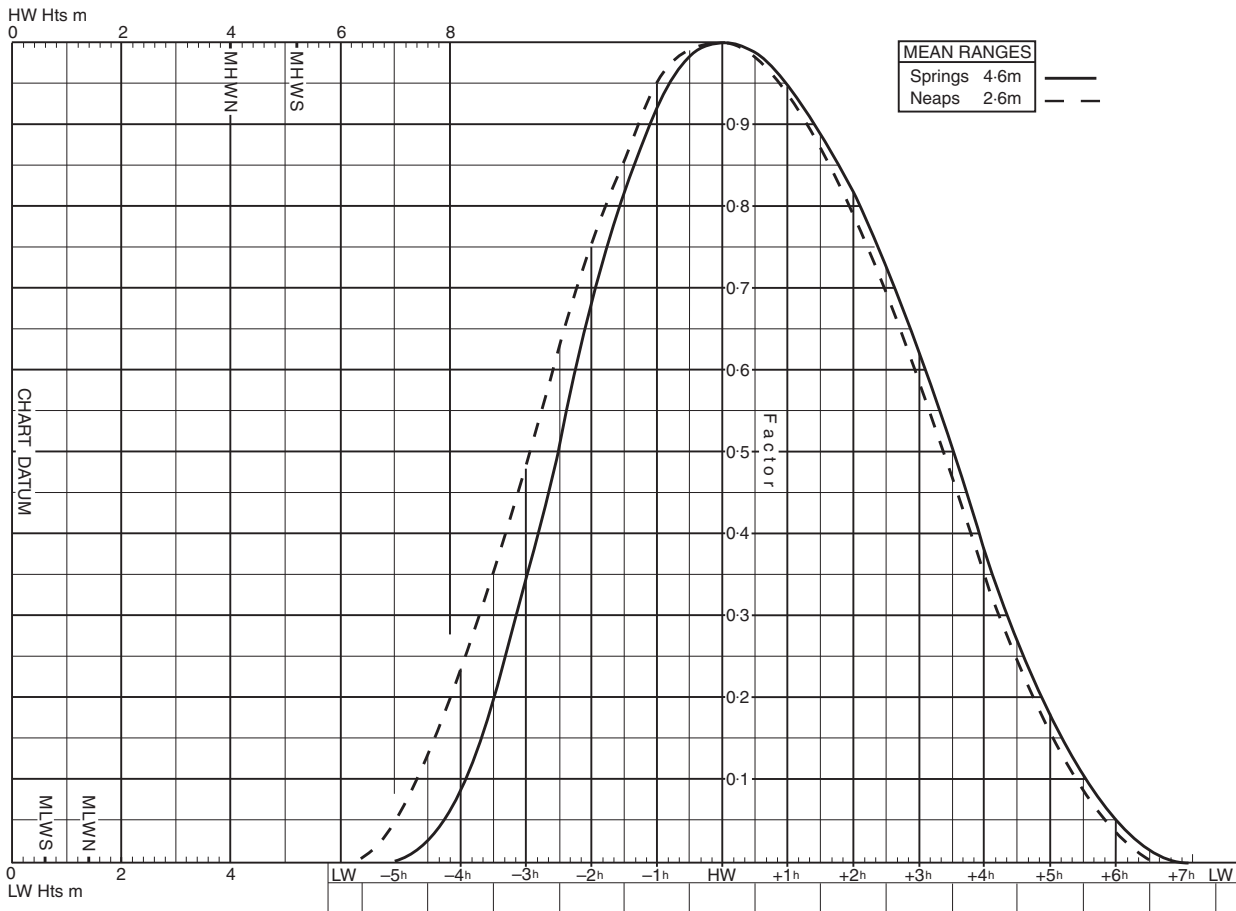


NEWHAVEN

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

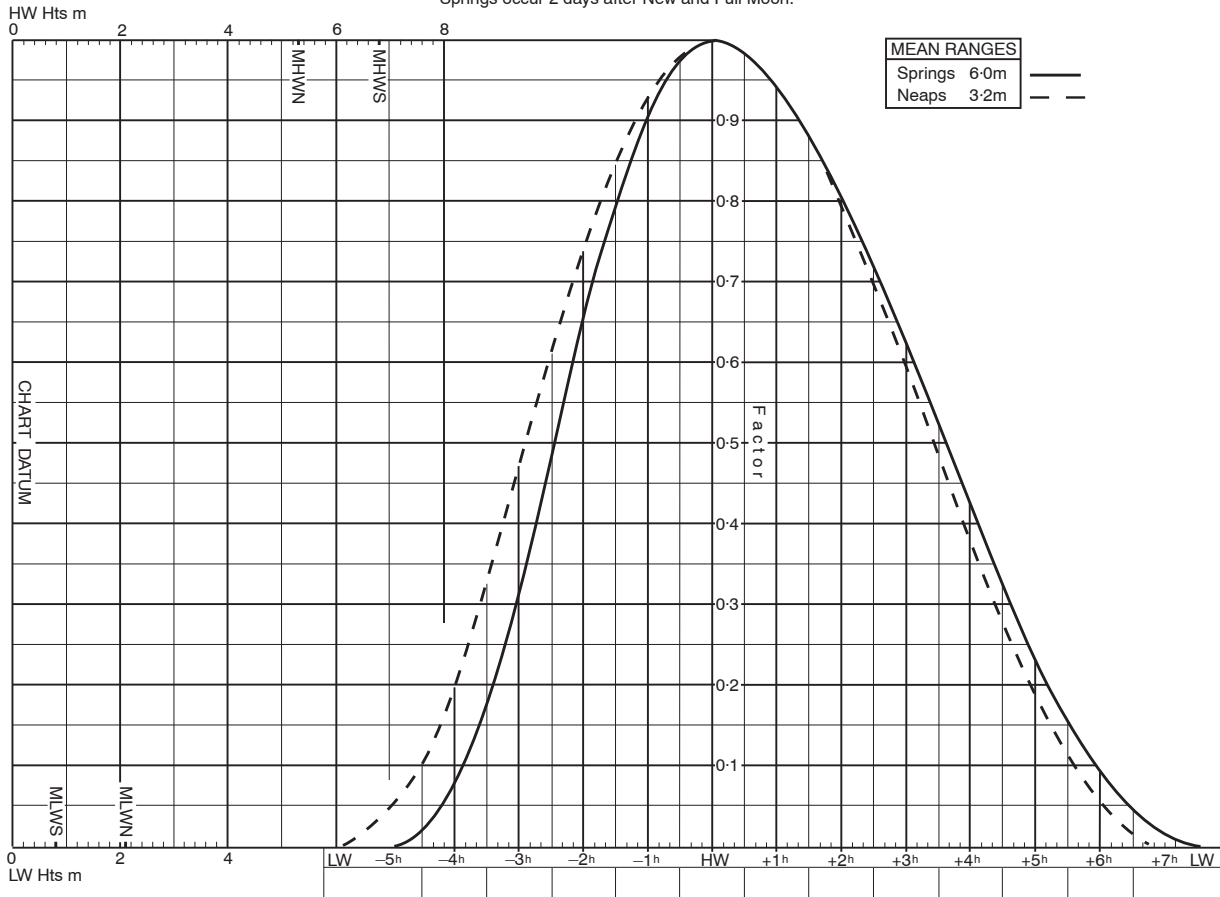
**RAMSGATE**

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

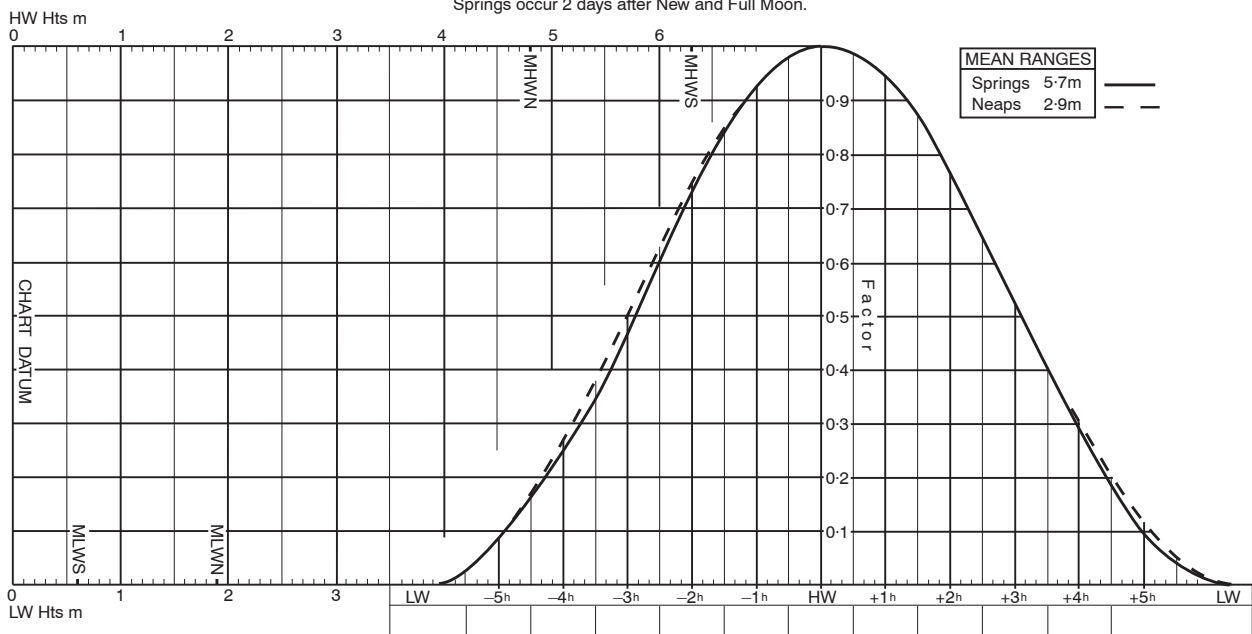


DOVER

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

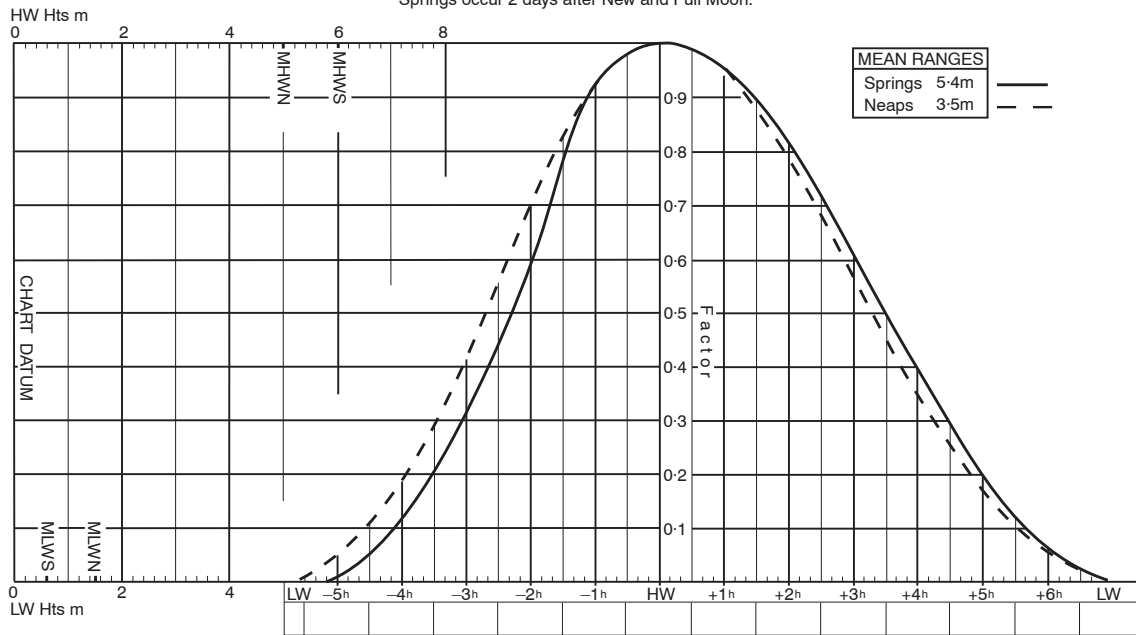
**SHOREHAM**

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

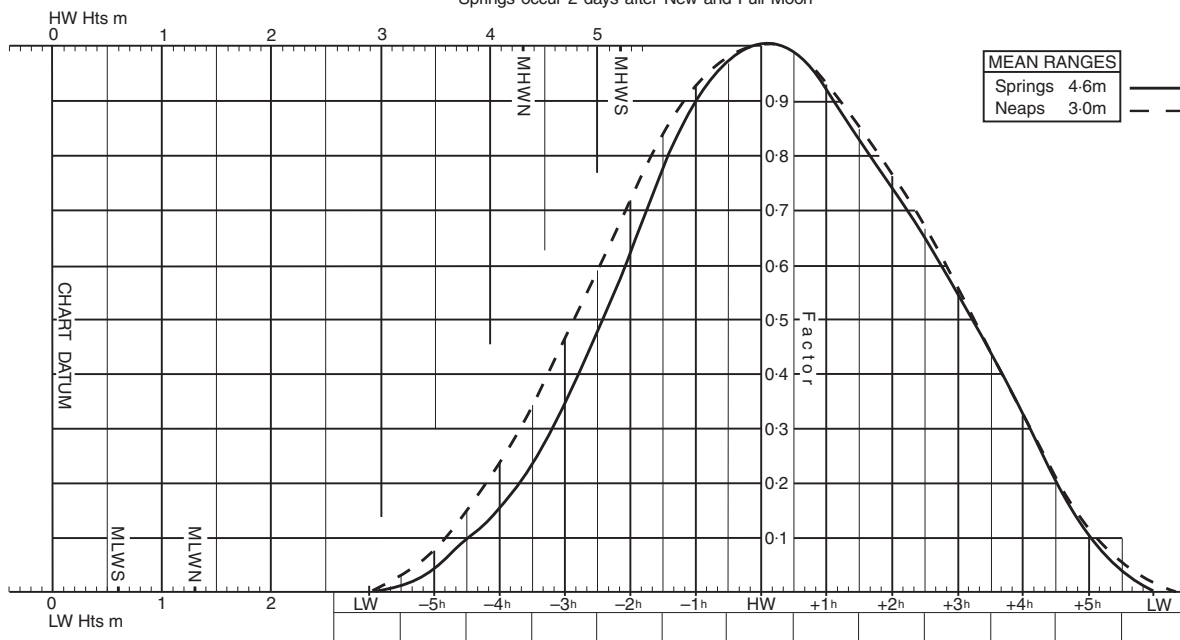


DUNKERQUE

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

**OOSTENDE**

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



For guidance on the use of Standard Curve Diagrams, see ADMIRALTY Tide Tables NP201A