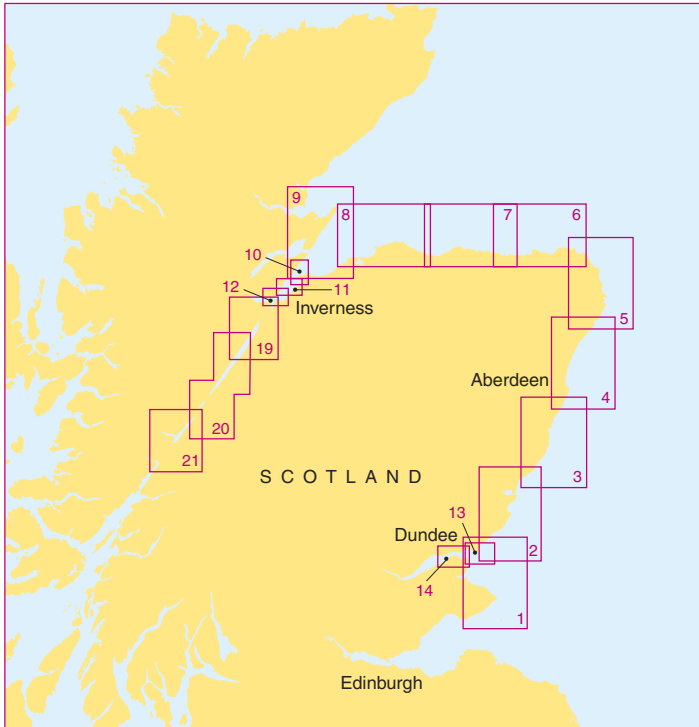




# Scotland - East Coast

## Coverage Diagram



5617	Chart Title	Natural Scale 1:
1	Isle of May to River Tay Entrance	75,000
2	River Tay Entrance to Montrose	75,000
3	Gourdon to Stonehaven	75,000
4	Aberdeen to Bay of Cruden	75,000
5	Peterhead to Fraserburgh	75,000
6	Fraserburgh to Banff	75,000
7A	Banff to Buckie	75,000
7B	Whitehills Marina	
8	Lossiemouth to Tarbat Ness	75,000
9	Approaches to Inverness Firth	75,000
10	Entrance to Inverness Firth	20,000
11	Inverness Firth - Northern Part	20,000
12A	Inverness Firth - Southern Part	20,000
12B	Entrance to River Ness	5,000
13	Approaches to River Tay	25,000
14	River Tay - Tayport to Dundee	25,000

5617	Chart Title	Natural Scale 1:
15A	Montrose Harbour	7,500
15B	Arbroath Harbour	12,500
15C	Stonehaven Harbour	12,500
16	Aberdeen Harbour	7,500
17A	Peterhead Bay and Harbours	6,250
17B	Banff and Macduff	20,000
17C	Fraserburgh	6,250
18	Harbours on the East Coast of Scotland	
18A	Buckie	10,000
18B	Lossiemouth	6,250
18C	Hopeman	6,250
18D	Burghead	6,250
18E	Nairn	6,250
19	Caledonian Canal - Northern Part and Inverness	
19A	Inverness	5,000
19B	Inverness to Urquhart Bay	75,000
19C	Loch Dochfour	12,500
19D	Loch Ness - Urquhart Bay	12,500
20	Caledonian Canal - Central Part	
20A	Urquhart Bay to Fort Augustus	75,000
20B	Fort Augustus to Laggan Locks	75,000
20C	Fort Augustus	12,500
20D	Loch Oich	15,000
21	Caledonian Canal - Southern Part	
21A	Laggan Locks to Corpach	75,000
21B	Loch Lochy - Laggan Locks	12,500
21C	Loch Lochy - Gairloch Locks	25,000
21D	Fort William	25,000
21E	Entrance to Caledonian Canal	6,250

## 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 in this folio are referred to the WGS84 compatible Datum ETRS89. Any positions taken from GPS (referred to WGS84) or from ADMIRALTY Notices to Mariners (referred to ETRS89) can be plotted directly on all charts in this folio.

### MARINE FARMS

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

### OVERHEAD CABLES

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

### THE CALEDONIAN CANAL

The canal is maintained, operated and controlled by Scottish Canals (Caledonian Canal Office), Seaport Marina, Muirtown Wharf, Inverness, IV3 5LE. There are Canal Offices at Clachnaharry and at Corpach. Website: [www.scottishcanals.co.uk](http://www.scottishcanals.co.uk). E-mail: [enquiries@scottishcanals.co.uk](mailto:enquiries@scottishcanals.co.uk).

A useful summary of the Bye-laws and transit safety information, known as the Skipper's Guide, is supplied to all vessels and craft transiting the canal: the summary is also obtainable from the canal website. For further details, see ADMIRALTY Sailing Directions. (taken from 5611)

### OFFSHORE INSTALLATIONS

An exclusion zone of at least 100 metres is present around all jack-up rigs and other offshore installations present within the port of Dundee. For further details see local Port Notices to Mariners.

### FISHING STAKES

Fishing stakes exist in the area covered by this chart, particularly within the 5 metre depth contour. Their positions may change frequently.

### RIVER TAY

#### ABERTAY SANDS AND GAA SAND

(56°26'·7N 2°42'·3W & 56°27'·6N 2°42'·1W)  
Mariners are warned that passage across Abertay Sands and Gaa Sand can be highly dangerous. Depths in these areas are derived from old and incomplete surveys, partially updated from satellite imagery, and should not be relied upon.

#### RIVER TAY – THE BAR

(56°27'·9N 2°38'·0W)

Caution is necessary when navigating in the vicinity of The Bar, particularly during heavy easterly weather, as the depths are subject to change and the outer buoys are liable to break adrift. For further details, see ADMIRALTY Sailing Directions.

### 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.

### 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.

### VESSELS REPORTING

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

- Aberdeen VTS
- Ardersier Port and the Cromarty Firth Port Radio
- Dundee VTS
- Forth Navigation Service
- Peterhead VTS
- Tay Navigation Service

### OIL DRILLING RIGS

Oil drilling rigs are liable to be encountered anywhere in the Cromarty Firth Port area. Anchors, buoys, small craft and ancillary plant are liable to be encountered anywhere up to 500 meters from moored rigs. Where possible, mariners are instructed to give rigs a wide berth, and at all times proceed with utmost caution.

### HISTORIC WRECKS

The sites of historic wrecks are protected from unauthorised interference.

### DEPTHS

For the latest depths information for Peterhead Bay and Harbours consult Harbour Master or visit the following website: [www.peterheadport.co.uk](http://www.peterheadport.co.uk)

### LOCAL NOTICE TO MARINERS

For the latest navigational information in this area including local Aids to Navigation, mariners should also consult Notices to Mariners issued by Scottish Canals. These are available at the Scottish Canal website: [www.scottishcanals.co.uk](http://www.scottishcanals.co.uk)

## 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.

### ABERDEEN COASTGUARD (MRCC)

Tel. +44 (0) 1224 592334

MMSI: 002320004

e-mail: [zone3@hmcg.gov.uk](mailto:zone3@hmcg.gov.uk) (FAO Aberdeen Coastguard)

## Distress and Safety Communication

### Distress - Urgency

A Distress or Urgency message has absolute priority.

Make a call on VHF Channel 16 and give the following essential information:

**Distress Call MAYDAY MAYDAY MAYDAY**

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

**Urgency** (eg. if you break down in bad weather or a crewman requires medical attention)

Call **PANPAN PANPAN PANPAN** and give:

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

### Other Distress Signals

Other recognised signals are:

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

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

The use of mobile telephones in the marine 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: NP252 North Sea, North-Western Part.

### 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

### 5617\_1

Tidal Streams referred to HW at LEITH

Hours	Geographical Position	A 56°27'49N 2 41-59W	B 56°27'49N 2 45-49W	C 56°25'89N 2 36-99W	D 56°18'50N 2 32-09W	E 56°16'90N 2 23-49W	F 56°11'20N 2 40-09W	G 56°09'60N 2 38-89W										
Before High Water	Directions of streams (degrees)	101	0.5 0.3	114	0.4 0.2	067	0.5 0.2	347	0.5 0.3	344	0.6 0.3	061	0.2 0.1	085	0.3 0.2	-6		
		287	1.4 0.7	294	0.8 0.4	158	0.2 0.1	325	0.2 0.1	315	0.3 0.2	241	0.2 0.1	263	0.2 0.1	-5		
		283	1.7 0.9	279	2.0 0.9	209	0.9 0.4	188	0.3 0.1	221	0.3 0.2	232	0.7 0.4	262	0.7 0.4	-4		
		269	1.7 0.9	286	2.3 1.1	216	1.2 0.6	173	0.6 0.2	236	0.4 0.2	236	0.9 0.4	260	0.9 0.5	-3		
		266	1.5 0.8	290	1.8 0.9	228	1.0 0.5	167	0.8 0.4	201	0.5 0.2	250	0.8 0.4	259	0.9 0.5	-2		
		267	1.2 0.6	293	1.6 0.7	234	0.8 0.4	157	0.9 0.5	192	0.5 0.2	255	0.5 0.3	259	0.8 0.4	-1		
High Water	Directions of streams (degrees)	277	0.7 0.3	302	0.5 0.2	243	0.4 0.2	148	0.8 0.5	162	0.4 0.2	231	0.3 0.2	265	0.4 0.2	0		
		063	0.3 0.2	101	0.7 0.3	282	0.2 0.1	134	0.6 0.4	149	0.4 0.2	066	0.1 0.1	101	0.1 0.1	+1		
		098	1.5 0.8	109	1.7 0.8	008	0.6 0.3	062	0.3 0.2	103	0.3 0.1	050	0.5 0.3	073	0.5 0.3	+2		
		100	2.1 1.1	111	1.9 0.9	034	1.0 0.5	016	0.7 0.3	032	0.5 0.2	055	0.8 0.4	079	0.9 0.5	+3		
		097	2.0 1.0	105	1.9 0.9	043	1.2 0.6	003	1.2 0.6	021	0.5 0.3	058	0.8 0.4	083	1.0 0.5	+4		
		096	1.8 0.9	102	1.5 0.7	059	1.2 0.6	359	1.1 0.5	010	0.6 0.3	067	0.6 0.3	085	0.9 0.5	+5		
100	1.2 0.6	113	0.8 0.4	063	0.6 0.3	353	0.7 0.4	348	0.6 0.3	066	0.4 0.2	085	0.5 0.3	+6				
After High Water	Directions of streams (degrees)																	

### 5617\_2 Tidal Streams referred to HW at LEITH

Hours	Geographical Position	A 56°27'49N 2 41-59W	B 56°25'89N 2 36-99W			
Before High Water	Directions of streams (degrees)	101	0.5 0.3	067	0.5 0.2	-6
		287	1.4 0.7	158	0.2 0.1	-5
		283	1.7 0.9	209	0.9 0.4	-4
		269	1.7 0.9	216	1.2 0.6	-3
		266	1.5 0.8	228	1.0 0.5	-2
		267	1.2 0.6	234	0.8 0.4	-1
High Water	Directions of streams (degrees)	277	0.7 0.3	243	0.4 0.2	0
		063	0.3 0.2	282	0.2 0.1	+1
		098	1.5 0.8	008	0.6 0.3	+2
		100	2.1 1.1	034	1.0 0.5	+3
		097	2.0 1.0	043	1.2 0.6	+4
		096	1.8 0.9	059	1.2 0.6	+5
100	1.2 0.6	063	0.6 0.3	+6		

### 5617\_3 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 56°58'99N 02 00-10W		
Before High Water	Directions of streams (degrees)	011	1.2 0.6	-6
		019	0.8 0.4	-5
		046	0.3 0.2	-4
		160	0.4 0.2	-3
		174	1.0 0.5	-2
		181	1.4 0.7	-1
High Water	Directions of streams (degrees)	189	1.2 0.6	0
		203	0.9 0.4	+1
		226	0.6 0.3	+2
		314	0.4 0.2	+3
		358	0.9 0.4	+4
		008	1.3 0.7	+5
010	1.3 0.7	+6		

### 5617\_4 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°19'99N 1 45-10W		
Before High Water	Directions of streams (degrees)	032	1.2 0.6	-6
		044	0.4 0.2	-5
		191	0.4 0.2	-4
		204	1.1 0.5	-3
		207	1.7 0.8	-2
		208	1.7 0.9	-1
High Water	Directions of streams (degrees)	210	1.2 0.6	0
		211	0.6 0.3	+1
		000	0.3 0.1	+2
		017	1.0 0.5	+3
		024	1.5 0.8	+4
		028	1.8 0.9	+5
032	1.4 0.7	+6		

### 5617\_5 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°40'39N 1 42-70W	B 57°29'19N 1 42-40W			
Before High Water	Directions of streams (degrees)	341	0.9 0.4	013	1.5 0.7	-6
		018	0.2 0.1	021	0.5 0.2	-5
		133	0.4 0.2	144	0.6 0.3	-4
		147	0.9 0.4	171	1.4 0.7	-3
		150	1.3 0.6	188	1.7 0.8	-2
		149	1.7 0.8	186	1.7 0.8	-1
High Water	Directions of streams (degrees)	147	1.1 0.5	187	1.3 0.6	0
		157	0.4 0.2	196	0.8 0.4	+1
		305	0.4 0.2	339	0.3 0.2	+2
		315	1.0 0.5	347	1.1 0.5	+3
		318	1.5 0.7	356	1.9 0.9	+4
		331	1.4 0.7	005	2.1 1.0	+5
338	1.1 0.5	012	1.7 0.8	+6		

### 5617\_6 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°45'98N 2 36-10W	B 57°49'98N 2 14-10W			
Before High Water	Directions of streams (degrees)	292	0.4 0.2	277	0.5 0.2	-6
		322	0.3 0.2	281	0.3 0.1	-5
		007	0.2 0.1	024	0.1 0.0	-4
		046	0.3 0.1	102	0.2 0.1	-3
		072	0.3 0.2	121	0.4 0.2	-2
		088	0.4 0.2	111	0.6 0.3	-1
High Water	Directions of streams (degrees)	101	0.4 0.2	106	0.6 0.3	0
		117	0.4 0.2	096	0.4 0.2	+1
		143	0.3 0.2	050	0.3 0.1	+2
		203	0.4 0.2	316	0.2 0.1	+3
		254	0.6 0.3	290	0.4 0.2	+4
		267	0.5 0.3	276	0.7 0.3	+5
282	0.5 0.2	276	0.5 0.3	+6		

### 5617\_7 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°45'98N 2 36-10W		
Before High Water	Directions of streams (degrees)	292	0.4 0.2	-6
		322	0.3 0.2	-5
		007	0.2 0.1	-4
		046	0.3 0.1	-3
		072	0.3 0.2	-2
		088	0.4 0.2	-1
High Water	Directions of streams (degrees)	101	0.4 0.2	0
		117	0.4 0.2	+1
		143	0.3 0.2	+2
		203	0.4 0.2	+3
		254	0.6 0.3	+4
		267	0.5 0.3	+5
282	0.5 0.2	+6		

### 5617\_8 Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°46'98N 3 38-08W		
Before High Water	Directions of streams (degrees)	205	0.0 0.0	-6
		204	0.2 0.1	-5
		215	0.6 0.3	-4
		225	0.5 0.3	-3
		249	0.3 0.2	-2
		270	0.2 0.1	-1
High Water	Directions of streams (degrees)	011	0.2 0.1	0
		040	0.5 0.3	+1
		050	0.7 0.3	+2
		052	0.5 0.2	+3
		056	0.3 0.1	+4
		074	0.1 0.0	+5

### 5617\_9

#### Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°54'08N 3 46·18W	B 57°52'08N 3 49·18W	C 57°51'88N 3 52·88W	D 57°40'58N 3 54·59W	E 57°40'18N 3 58·78W	F 57°36'99N 4 03·10W
Before High Water	Directions of streams (degrees)	240	213	213	246	235	220
		300	232	222	253	245	221
		328	242	230	257	261	226
		022	247	239	266	280	224
		064	253	254	295	232	233
		085	025	343	012	076	248
High Water	Rates at spring tides (knots)	102	040	023	041	099	046
		113	040	036	050	066	051
		184	048	055	062	036	046
		258	058	074	086	044	040
		264	078	086	172	150	043
		246	138	155	228	226	244
After High Water	Rates at neap tides (knots)	237	204	210	239	242	222
		02	03	03	09	04	02
		02	03	04	08	04	02
		03	03	04	07	03	01
		04	02	05	13	06	04
		05	03	05	10	05	02
06	04	01	03	01	01	00	
07	02	01	00	07	03	02	
08	02	01	00	03	01	00	
09	05	03	01	03	01	00	
10	05	03	02	03	02	00	
11	05	03	02	03	02	00	
12	04	02	02	05	04	02	
13	02	01	02	05	03	02	
14	02	01	02	04	02	01	
15	06	04	02	01	05	02	
16	06	04	02	01	01	00	
17	05	03	02	01	00	00	
18	05	03	02	01	00	00	
19	05	03	02	01	00	00	
20	05	03	02	01	00	00	
21	05	03	02	01	00	00	
22	05	03	02	01	00	00	
23	05	03	02	01	00	00	
24	05	03	02	01	00	00	
25	05	03	02	01	00	00	
26	05	03	02	01	00	00	
27	05	03	02	01	00	00	
28	05	03	02	01	00	00	
29	05	03	02	01	00	00	
30	05	03	02	01	00	00	
31	05	03	02	01	00	00	
32	05	03	02	01	00	00	
33	05	03	02	01	00	00	
34	05	03	02	01	00	00	
35	05	03	02	01	00	00	
36	05	03	02	01	00	00	

### 5617\_10

#### Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 57°37'0N 4 03·1W
Before High Water	Directions of streams (degrees)	222
		221
		226
		224
		233
		248
High Water	Rates at spring tides (knots)	046
		051
		046
		040
		043
		244
After High Water	Rates at neap tides (knots)	222
		1·2 0·6
		1·7 0·8
		1·3 0·6
		0·9 0·4
		0·7 0·3
0·3 0·1		
0·5 0·2		
1·7 0·8		
1·8 0·9		
0·8 0·4		
0·4 0·2		
0·2 0·1		
0·7 0·3		

### 5617\_13

#### Tidal Streams referred to HW at ABERDEEN

Hours	Geographical Position	A 56°25'89N 2 36·99W	B 56°27'49N 2 41·59W	C 56°27'49N 2 45·49W
Before High Water	Directions of streams (degrees)	-6	059	096
		-5	063	100
		-4	112	295
		-3	195	285
		-2	213	275
		-1	223	267
High Water	Rates at spring tides (knots)	0	231	266
		+1	240	273
		+2	268	343
		+3	334	095
		+4	023	099
		+5	034	099
After High Water	Rates at neap tides (knots)	+6	052	097
		1·8 0·9	1·8 0·9	1·5 0·7
		0·6 0·3	0·6 0·3	0·8 0·4
		0·3 0·1	0·5 0·3	0·2 0·1
		0·6 0·3	1·6 0·8	1·4 0·7
		1·1 0·5	1·8 0·9	2·2 1·1
1·1 0·5	1·6 0·8	2·0 1·0		
0·9 0·4	1·3 0·6	1·6 0·8		
0·6 0·3	0·8 0·4	1·0 0·5		
0·3 0·1	0·2 0·1	0·3 0·2		
0·4 0·2	1·1 0·6	1·2 0·6		
0·8 0·4	1·9 1·0	1·1 0·9		
1·1 0·5	2·1 1·1	1·9 1·0		
1·2 0·6	1·9 1·0	1·6 0·8		

Note: At position B, an east-going current of about 0.75 knot may be expected.

### 5617\_21

#### Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 56°50'5N 5 07·8W
Before High Water	Directions of streams (degrees)	072
		310
		285
		278
		269
		260
High Water	Rates at spring tides (knots)	220
		110
		097
		093
		080
		076
After High Water	Rates at neap tides (knots)	0·1 0·0
		0·0 0·0
		0·1 0·0
		0·2 0·1
		0·3 0·1
		0·4 0·1
0·2 0·1		
0·1 0·0		
0·1 0·0		
0·3 0·1		
0·3 0·1		
0·3 0·1		
0·2 0·1		
0·1 0·0		

### 5617\_21

#### Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 56°50'46N 5 07·85W
Before High Water	Directions of streams (degrees)	072
		310
		285
		278
		269
		260
High Water	Rates at spring tides (knots)	220
		110
		097
		093
		080
		076
After High Water	Rates at neap tides (knots)	0·1 0·0
		0·0 0·0
		0·1 0·0
		0·2 0·1
		0·3 0·1
		0·4 0·1
0·2 0·1		
0·1 0·0		
0·1 0·0		
0·3 0·1		
0·3 0·1		
0·3 0·1		
0·2 0·1		
0·1 0·0		

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

PLACE	Lat. N	Long. W	TIME DIFFERENCES				HEIGHT DIFFERENCES (IN METRES)			
			High Water Zone UT(GMT)	Low Water	MHWS	MHWN	MLWN	MLWS		
<b>LEITH</b> .....	<b>55 59</b>	<b>3 11</b>	<b>0300</b> and <b>1500</b>	<b>0900</b> and <b>2100</b>	<b>0300</b> and <b>1500</b>	<b>0900</b> and <b>2100</b>	<b>5.6</b>	<b>4.4</b>	<b>2.0</b>	<b>0.8</b>
Anstruther Easter .....	56 13	2 42	-0018	-0012	-0006	-0008	-0.3	-0.2	0.0	0.0
<b>ABERDEEN</b> .....	<b>57 09</b>	<b>2 04</b>	<b>0000</b> and <b>1200</b>	<b>0600</b> and <b>1800</b>	<b>0100</b> and <b>1300</b>	<b>0700</b> and <b>1900</b>	<b>4.3</b>	<b>3.4</b>	<b>1.6</b>	<b>0.6</b>
<i>River Tay</i>										
Bar .....	56 28	2 38	+0100	+0100	+0050	+0110	+0.9	+0.8	+0.3	+0.1
DUNDEE .....	56 27	2 58		STANDARD PORT			See Table of NON-REFERENCE STANDARD PORTS			
Arbroath .....	56 33	2 35	+0056	+0037	+0034	+0055	+1.0	+0.8	+0.4	+0.2
MONTROSE .....	56 42	2 27		STANDARD PORT			See Table of NON-REFERENCE STANDARD PORTS			
Stonehaven .....	56 58	2 12	+0013	+0008	+0013	+0009	+0.2	+0.2	+0.1	0.0
PETERHEAD .....	57 30	1 46		STANDARD PORT			See Table of NON-REFERENCE STANDARD PORTS			
FRASERBURGH .....	57 41	2 00		STANDARD PORT			See Table of NON-REFERENCE STANDARD PORTS			
<b>ABERDEEN</b> .....	<b>57 09</b>	<b>2 04</b>	<b>0200</b> and <b>1400</b>	<b>0900</b> and <b>2100</b>	<b>0400</b> and <b>1600</b>	<b>0900</b> and <b>2100</b>	<b>4.3</b>	<b>3.4</b>	<b>1.6</b>	<b>0.6</b>
Banff .....	57 40	2 31	-0100	-0150	-0150	-0050	-0.4	-0.2	-0.1	+0.2
Whitehills .....	57 41	2 35	-0122	-0137	-0117	-0127	-0.4	-0.3	+0.1	+0.1
Buckie .....	57 41	2 57	-0130	-0145	-0125	-0140	-0.2	-0.2	0.0	+0.1
Lossiemouth .....	57 43	3 18	-0125	-0200	-0130	-0130	-0.2	-0.2	0.0	0.0
Burghead .....	57 42	3 30	-0120	-0150	-0135	-0120	-0.2	-0.2	0.0	0.0
<b>ABERDEEN</b> .....	<b>57 09</b>	<b>2 04</b>	<b>0300</b> and <b>1500</b>	<b>0800</b> and <b>2000</b>	<b>0200</b> and <b>1400</b>	<b>0800</b> and <b>2000</b>	<b>4.3</b>	<b>3.4</b>	<b>1.6</b>	<b>0.6</b>
<i>Dornoch Firth</i>										
Portmahomack .....	57 50	3 50	-0120	-0120	-0140	-0110	-0.2	-0.1	+0.1	+0.1
Meikle Ferry .....	57 51	4 08	-0100	-0140	-0120	-0055	+0.1	0.0	-0.1	0.0
<b>INVERGORDON</b> .....	<b>57 41</b>	<b>4 10</b>	<b>0100</b> and <b>1300</b>	<b>0700</b> and <b>1900</b>	<b>0000</b> and <b>1200</b>	<b>0700</b> and <b>1900</b>	<b>4.3</b>	<b>3.3</b>	<b>1.6</b>	<b>0.7</b>
Nairn .....	57 36	3 52	+0005	-0015	0000	-0015	0.0	0.0	0.0	0.0
WHITENESS HEAD .....	57 36	4 00		STANDARD PORT			See Table of NON-REFERENCE STANDARD PORTS			
<i>Inverness Firth</i>										
Fortrose .....	57 35	4 08	0000	+0010	+0010	-0010	0.0	+0.1	⊙	⊙
Inverness .....	57 30	4 14	+0010	+0015	+0015	+0010	+0.3	+0.2	+0.1	+0.1
<i>Cromarty Firth</i>										
Cromarty .....	57 42	4 03	-0005	0000	0000	-0005	0.0	0.0	0.0	0.0
<b>OBAN</b> .....	<b>56 25</b>	<b>5 29</b>	<b>0100</b> and <b>1300</b>	<b>0700</b> and <b>1900</b>	<b>0100</b> and <b>1300</b>	<b>0800</b> and <b>2000</b>	<b>4.0</b>	<b>2.9</b>	<b>1.8</b>	<b>0.7</b>
<i>Loch Linnhe</i>										
Corpach .....	56 51	5 07	0000	+0020	+0040	0000	0.0	0.0	-0.2	-0.2

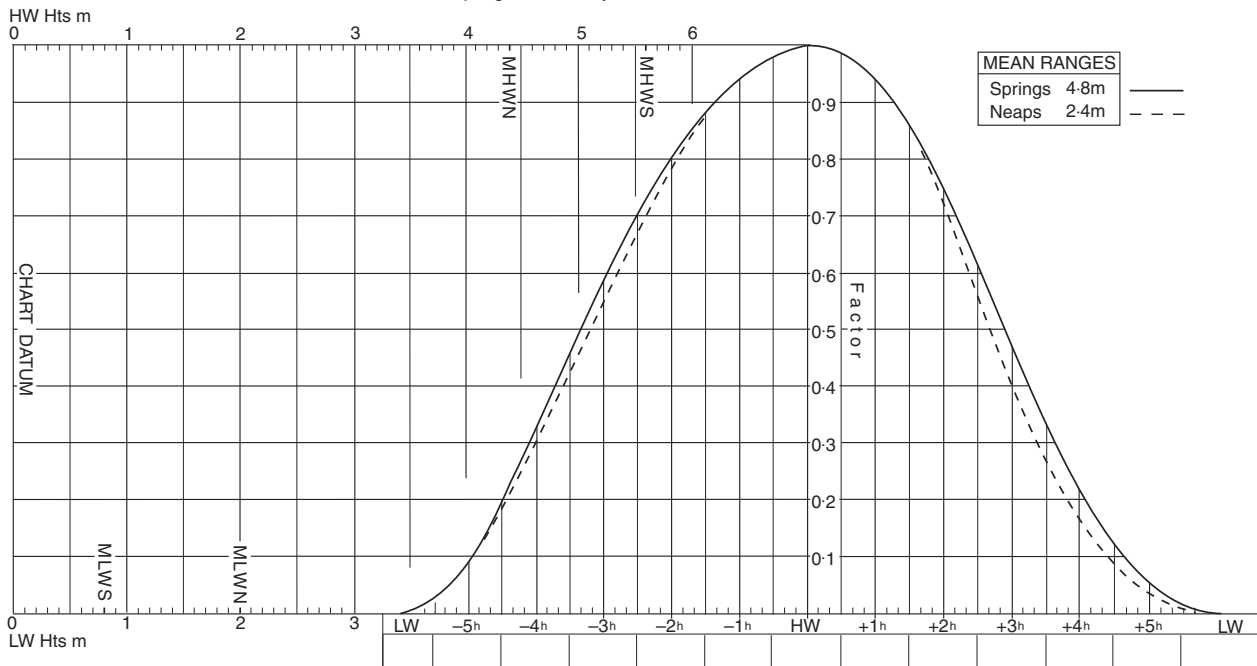
⊙ No data

NON-REFERENCE STANDARD PORTS				
STANDARD PORT	MHWS	MHWN	MLWN	MLWS
DUNDEE	5.5	4.4	2.1	1.0
MONTROSE	4.9	3.8	1.9	0.8
PETERHEAD	4.0	3.2	1.6	0.7
FRASERBURGH	3.8	3.0	1.5	0.8
WHITENESS HEAD	4.2	3.3	1.7	0.9

# Tidal Curve Diagrams

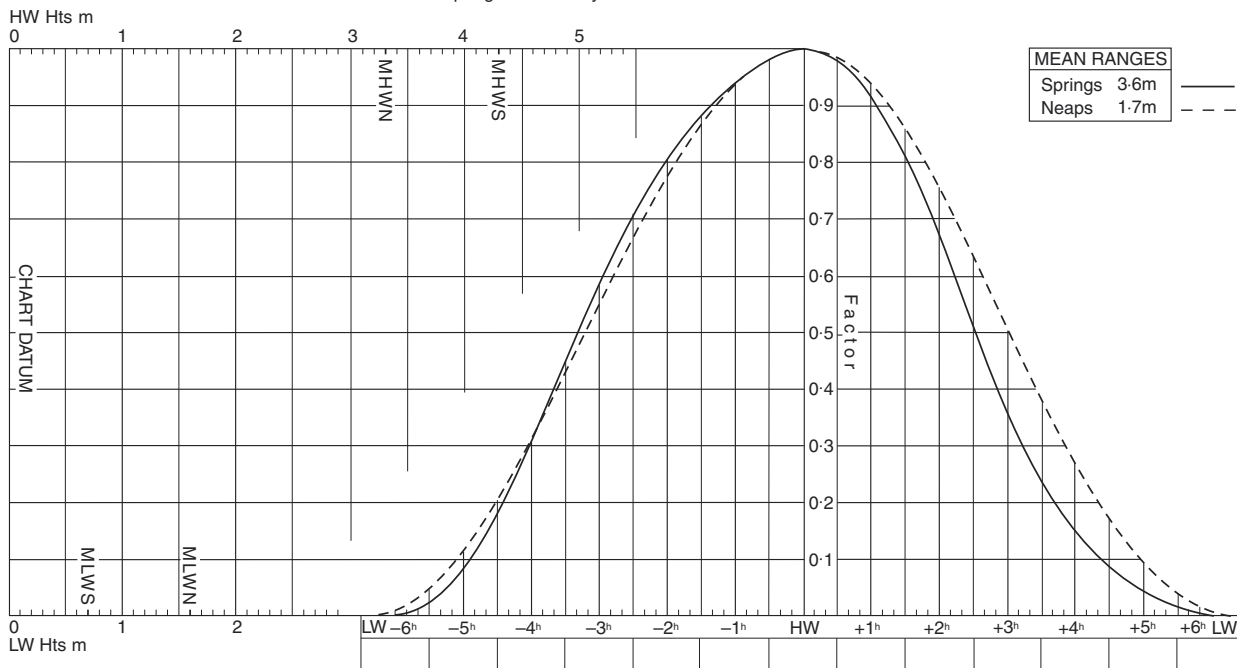
## LEITH

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



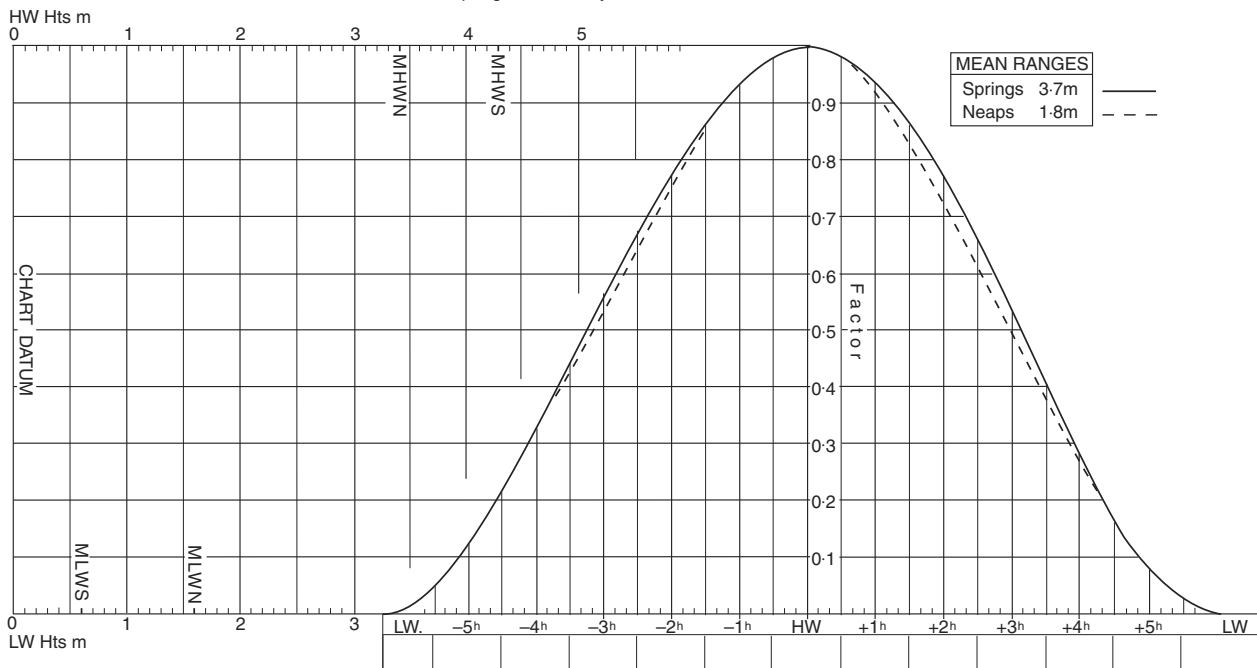
## INVERGORDON

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



### ABERDEEN

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



### OBAN

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

