UK Hydrographic Office

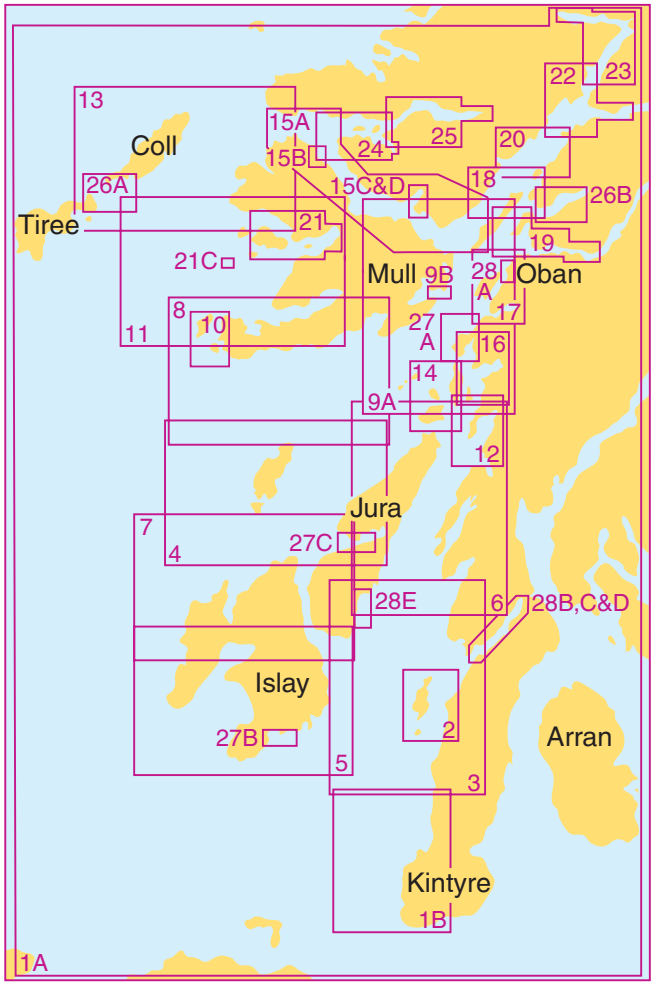
5611

Updated to February 2024

Version 1.0

West Coast of Scotland

Coverage Diagram



5611	Chart Title	Natural Scale 1:
1A	West Coast of Scotland, Mull of Kintyre to Point of Ardnamurchan	500,000
1B	Western Approaches to Mull of Kintyre	75,000
2	Sound of Gigha	25,000
3	Southern Approaches to the Sound of Jura	75,000
4	Sound of Islay to Colonsay	75,000
5	Islay, Southern Part	75,000
6	Sound of Jura	75,000
7	Islay, Northern Part	75,000
8	Colonsay to Ross of Mull	75,000

5611	Chart Title	Natural Scale 1:
9A	Firth of Lorn	75,000
9B	Loch Spelve Entrance	25,000
10	Sound of Iona	25,000
11	Ross of Mull to Ulva	75,000
12	Crinan to Luing and Loch Craignish	25,000
13	Tiree to Point of Ardnamurchan	75,000
14	Sound of Luing	25,000
15A	Sound of Mull	75,000
15B	Tobermory Harbour	10,000
15C	Entrance to Loch Aline	10,000
15D	Loch Aline	25,000
16	Approaches to Loch Melfort	25,000
17	Approaches to Oban	25,000
18	Loch Linnhe, Southern Part	25,000
19A	Approaches to Loch Etive	25,000
19B	Continuation of Loch Etive	25,000
20	Loch Linnhe, Central Part	25,000
21A	Island of Mull, Loch na Keal	25,000
21B	Continuation of Loch na Keal	25,000
21C	Staffa	25,000
22A	Loch Linnhe, Approaches to Corran Narrows	25,000
22B	Loch Leven	25,000
23A	Upper Loch Linnhe	25,000
23B	Continuation of Loch Eil	25,000
24A	Loch Sunart, Western Part	25,000
24B	Continuation of Loch Teacuis	25,000
25A	Loch Sunart, Eastern Part	25,000
25B	Continuation of Loch Sunart	25,000
26A	Gunna Sound	25,000
26B	Loch Creran	25,000
27A	Seil Sound and Sound of Insh	25,000
27B	Islay, Port Ellen	15,000
27C	Jura, Loch Tarbert	25,000
28A	Oban	10,000
28B	West Loch Tarbert	25,000
28C	West Loch Tarbert	25,000
28D	West Loch Tarbert	25,000
28E	The Small Isles	25,000

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

CHART ACCURACY

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

MARINE FARMS

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

DEPTHS

Some areas within these charts have not been systematically surveyed. Depths in these areas are from old leadline surveys. Uncharted dangers may exist.

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.
E-mail: 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.

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.

TIDAL STREAMS, RACES AND OVERFALLS

Strong tidal streams with eddies, races and overfalls occur in certain areas throughout these charts and can be dangerous to small vessels. Some can attain spring rates of up to 6 knots and in bad weather conditions with opposing winds can be considerably worsened. For further details, see the notes on individual sheets and ADMIRALTY Sailing Directions.

MOORINGS

Numerous moorings exist within the area of these charts. They may not all be shown and may be privately owned. Usually they are located inshore and are unlit.

OVERHEAD CABLES

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

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.

SUBMARINE CABLES AND PIPELINES

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

HISTORIC AND MILITARY WRECKS

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

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 generate large waves, which can have a serious impact on small craft and their moorings close to the shoreline and on off-lying banks.

LADEN TANKERS

North Channel (55°20′N 6°00′W). Laden tankers of over 10,000 GT should avoid the area between the North Channel Traffic Separation Scheme and the adjacent coasts of Rathlin Island and the Mull of Kintyre. No laden tanker should use the narrow passage through Rathlin Sound.

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
BELFAST COASTGUARD (MRCC)
Tel. +44 (0) 2891 463933
MMSI: 002320021
e-mail: zone34@hmcg.gov.uk (FAO Belfast Coastguard)

STORNOWAY COASTGUARD (MRCC)
Tel. +44 (0) 1851 702013
MMSI: 002320024
e-mail: zone36@hmcg.gov.uk (FAO Stornoway Coastguard)

Distress and Safety Communication

Distress - Urgency

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

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

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

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

Other Distress Signals

Other recognised signals are:

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

THE USE OF MOBILE TELEPHONES IN DISTRESS AND SAFETY COMMUNICATIONS

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

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

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

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

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

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

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

Product Specifications

PRODUCT USAGE CAUTION

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

KEEPING THIS CHART UPDATED

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

TIDAL STREAMS

Full details of the tidal streams in the area covered by this folio are given in the following ADMIRALTY Tidal Stream Atlases: NP218 North Coast of Ireland and West Coast of Scotland and NP222 Firth of Clyde and Approaches.

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

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T: +44 (0)1823 484444 Find out more at **admiralty.co.uk**

Tidal Stream Information

5611_1A Tidal Streams referred to HW at DOVER

Hours	Geographical Position		A 56°21′·5N 6 43·0W		B 55°29′·7N 6 51·3W		C 55°22′·9N 6 05·9W	
			Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	-6	035	0·6 0·2	040	0·7 0·4	284	0·2 0·1
	5	-5	030	0·4 0·1	101	1·4 0·9	128	1·2 0·6
	4	-4	110	0·1 0·0	122	2·2 1·3	129	2·4 1·2
	3	-3	195	0·4 0·1	135	2·4 1·4	124	2·7 1·3
	2	-2	198	0·5 0·2	140	2·1 1·2	117	2·4 1·2
	1	-1	206	0·7 0·2	144	1·6 1·0	109	1·6 0·8
High Water		0	212	0·6 0·2	165	0·5 0·3	085	0·4 0·2
After High Water	1	+1	221	0·4 0·2	308	0·9 0·5	305	1·1 0·6
	2	+2	247	0·1 0·1	310	2·0 1·2	298	2·4 1·2
	3	+3	015	0·2 0·1	297	2·7 1·6	298	2·8 1·4
	4	+4	036	0·6 0·2	298	2·3 1·4	301	2·6 1·3
	5	+5	029	0·7 0·2	325	1·7 1·0	303	1·9 0·9
	6	+6	033	0·6 0·2	000	0·9 0·5	300	0·8 0·4

5611_2 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 55°40′·8N 5 42·7W	
		Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	000	1·0 0·3
	5	009	1·2 0·4
	4	012	1·1 0·4
	3	015	0·8 0·3
	2	011	0·5 0·2
	1	150	0·1 0·0
High Water		185	0·8 0·2
After High Water	1	193	1·2 0·4
	2	183	1·3 0·4
	3	174	1·0 0·3
	4	193	0·6 0·2
	5	312	0·2 0·1
	6	353	1·0 0·3

5611_3 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 55°40′·0N 5 53·1W		B 55°53′·2N 5 49·1W		C 55°40′·8N 5 42·7W	
		Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	359	0·3 0·1	350	0·8 0·3	000	1·0 0·3
	5	024	0·6 0·2	352	1·7 0·7	009	1·2 0·4
	4	018	0·5 0·2	000	1·8 0·7	012	1·1 0·4
	3	008	0·3 0·1	008	1·4 0·6	015	0·8 0·3
	2	358	0·1 0·0	017	0·9 0·4	011	0·5 0·2
	1	197	0·2 0·1	093	0·2 0·1	150	0·1 0·0
High Water		198	0·5 0·2	165	0·5 0·2	185	0·8 0·2
After High Water	1	198	0·6 0·2	182	1·0 0·4	193	1·2 0·4
	2	191	0·4 0·2	189	1·6 0·6	183	1·3 0·4
	3	181	0·2 0·1	192	1·6 0·6	174	1·0 0·3
	4	143	0·1 0·0	190	1·0 0·4	193	0·6 0·2
	5	010	0·1 0·0	190	0·2 0·1	312	0·2 0·1
	6	359	0·3 0·1	358	0·5 0·2	353	1·0 0·3

5611_4 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 55°59′·6N 6 30·8W		B 56°09′·2N 6 24·8W		C 55°59′·5N 6 05·6W	
		Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	271	0·5 0·2	229	0·5 0·2	291	0·4 0·2
	5	354	0·5 0·2	269	0·6 0·2	330	0·4 0·2
	4	026	0·9 0·3	293	0·8 0·3	357	0·6 0·2
	3	044	1·1 0·4	316	0·9 0·4	012	0·7 0·2
	2	045	1·0 0·4	353	0·7 0·3	044	0·4 0·2
	1	059	0·7 0·2	029	0·5 0·2	092	0·5 0·2
High Water		081	0·3 0·1	058	0·5 0·2	114	0·5 0·2
After High Water	1	183	0·3 0·1	082	0·5 0·2	140	0·5 0·2
	2	209	0·7 0·3	119	0·5 0·2	167	0·4 0·2
	3	206	1·1 0·4	146	0·6 0·2	197	0·5 0·2
	4	215	1·2 0·4	166	0·5 0·2	220	0·5 0·2
	5	236	0·8 0·3	192	0·5 0·2	247	0·5 0·2
	6	261	0·6 0·2	219	0·5 0·2	278	0·4 0·1

5611_6 Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°11′·7N 5 39·9W		B 56°11′·0N 5 53·4W		C 56°00′·5N 5 43·7W		D 55°53′·2N 5 49·1W	
			Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	-6	327	1·5 0·6	243	0·6 0·2	045	0·7 0·3	350	0·8 0·3
	5	-5	338	1·9 0·8	281	0·7 0·3	030	1·3 0·5	352	1·7 0·7
	4	-4	355	2·1 0·9	309	1·0 0·3	015	1·8 0·7	000	1·8 0·7
	3	-3	009	1·9 0·8	335	0·7 0·2	010	1·6 0·7	008	1·4 0·6
	2	-2	015	1·4 0·6	357	1·0 0·4	010	1·1 0·5	017	0·9 0·4
	1	-1	005	0·7 0·3	021	1·0 0·3	310	0·4 0·2	093	0·2 0·1
High Water		0	162	1·0 0·4	070	0·9 0·3	230	0·8 0·3	165	0·5 0·2
After High Water	1	+1	169	2·0 0·8	100	0·8 0·3	215	1·3 0·5	182	1·0 0·4
	2	+2	175	2·3 0·9	129	0·8 0·3	200	1·4 0·6	189	1·6 0·6
	3	+3	171	1·8 0·7	148	0·8 0·3	182	1·2 0·5	192	1·6 0·6
	4	+4	171	1·4 0·6	176	0·6 0·2	177	1·1 0·4	190	1·0 0·4
	5	+5	257	0·5 0·2	207	0·9 0·3	180	0·5 0·2	190	0·2 0·1
	6	+6	320	1·3 0·5	220	0·7 0·2	048	0·5 0·2	358	0·5 0·2

5611_7 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A 55°59′·6N 6 30·8W		B 55°59′·5N 6 05·6W	
		Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	271	0·5 0·2	291	0·4 0·2
	5	354	0·5 0·2	330	0·4 0·2
	4	026	0·9 0·3	357	0·6 0·2
	3	044	1·1 0·4	012	0·7 0·2
	2	045	1·0 0·4	044	0·4 0·2
	1	059	0·7 0·2	092	0·5 0·2
High Water		081	0·3 0·1	114	0·5 0·2
After High Water	1	183	0·3 0·1	140	0·5 0·2
	2	209	0·7 0·3	167	0·4 0·2
	3	206	1·1 0·4	197	0·5 0·2
	4	215	1·2 0·4	220	0·5 0·2
	5	236	0·8 0·3	247	0·5 0·2
	6	261	0·6 0·2	278	0·4 0·1

5611_8 Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°21′·1N 6 16·4W		B 56°19′·0N 6 23·3W		C 56°09′·2N 6 24·8W		D 56°12′·5N 6 11·3W		E 56°11′·0N 5 53·4W	
			Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)	Directions of streams (degrees)	Rates at spring tides (knots) / Rates at neap tides (knots)
Before High Water	6	106	0·3 0·1	020	0·9 0·4	229	0·5 0·2	219	0·4 0·1	243	0·6 0·2	
	5	114	0·3 0·1	024	0·7 0·3	269	0·6 0·2	253	0·3 0·1	281	0·7 0·3	
	4	127	0·3 0·1	057	0·2 0·1	293	0·8 0·3	282	0·1 0·0	309	1·0 0·3	
	3	153	0·3 0·1	163	0·2 0·1	316	0·9 0·4	000	0·1 0·0	335	0·7 0·2	
	2	143	0·2 0·1	206	0·7 0·3	353	0·7 0·3	054	0·2 0·0	357	1·0 0·4	
	1	208	0·1 0·0	208	0·9 0·3	029	0·5 0·2	076	0·3 0·1	021	1·0 0·3	
High Water		233	0·1 0·0	209	0·9 0·3	058	0·5 0·2	080	0·4 0·1	070	0·9 0·3	
After High Water	1	270	0·2 0·1	210	0·6 0·3	082	0·5 0·2	079	0·4 0·1	100	0·8 0·3	
	2	309	0·5 0·2	207	0·3 0·1	119	0·5 0·2	084	0·3 0·1	129	0·8 0·3	
	3	311	0·3 0·1	049	0·2 0·1	146	0·6 0·2		0·0 0·0	148	0·8 0·3	
	4	339	0·2 0·1	018	0·6 0·2	166	0·5 0·2	229	0·2 0·1	176	0·6 0·2	
	5	064	0·1 0·0	019	0·9 0·3	192	0·5 0·2	227	0·3 0·1	207	0·9 0·3	
	6	102	0·3 0·1	020	0·9 0·4	219	0·5 0·2	225	0·4 0·1	220	0·7 0·2	

5611_9A

Tidal Streams referred to HW at OBAN

Hours	Geographical Position			A 56°30′·0N 5 42 ·5W			B 56°27′·6N 5 38 ·4W			C 56°26′·0N 5 34 ·1W			D 56°22′·6N 5 38 ·7W			E 56°17′·3N 5 43 ·8W			F 56°11′·0N 5 53 ·4W			G 56°11′·7N 5 39 ·9W		
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)																						
Before High Water 6				-6	296	0·1 0·1	182	0·5 0·2	212	0·1 0·0	123	0·1 0·0	303	0·5 0·2	243	0·6 0·2	327	1·5 0·6	-6
Before High Water 5				-5	313	1·3 0·5	318	0·6 0·2	029	0·1 0·0	034	0·5 0·2	344	0·6 0·2	281	0·7 0·3	338	1·9 0·8	-5
Before High Water 4				-4	312	1·7 0·6	338	2·0 0·7	026	0·2 0·1	024	0·9 0·3	011	0·6 0·2	309	1·0 0·3	355	2·1 0·9	-4
Before High Water 3				-3	314	1·8 0·7	340	3·0 1·1	022	0·3 0·1	025	1·0 0·3	032	0·7 0·2	335	0·7 0·2	009	1·9 0·8	-3
Before High Water 2				-2	318	1·3 0·5	338	2·6 0·9	022	0·4 0·1	027	0·8 0·3	045	0·7 0·2	357	1·0 0·4	015	1·4 0·6	-2
Before High Water 1				-1	310	0·5 0·2	352	1·3 0·5	028	0·3 0·1	035	0·5 0·2	068	0·6 0·2	021	1·0 0·3	005	0·7 0·3	-1
High Water				0	114	0·3 0·1	128	0·5 0·2	049	0·1 0·0	060	0·1 0·0	113	0·4 0·1	070	0·9 0·3	162	1·0 0·4	0
After High Water 1				+1	128	1·3 0·5	150	1·5 0·5	145	0·1 0·0	196	0·3 0·1	169	0·5 0·2	100	0·8 0·3	169	2·0 0·8	+1
After High Water 2				+2	136	1·8 0·7	152	2·0 0·7	184	0·2 0·1	207	0·7 0·2	191	0·7 0·2	129	0·8 0·3	175	2·3 0·9	+2
After High Water 3				+3	140	1·6 0·6	157	2·1 0·8	204	0·3 0·1	209	0·9 0·3	203	0·7 0·2	148	0·8 0·3	171	1·8 0·7	+3
After High Water 4				+4	137	1·1 0·4	162	2·1 0·7	219	0·3 0·1	209	0·9 0·3	217	0·6 0·2	176	0·6 0·2	171	1·4 0·6	+4
After High Water 5				+5	132	0·8 0·3	165	1·6 0·6	226	0·3 0·1	203	0·7 0·2	241	0·5 0·2	207	0·9 0·3	257	0·5 0·2	+5
After High Water 6				+6	149	0·1 0·0	175	0·7 0·3	219	0·1 0·0	191	0·4 0·1	281	0·4 0·1	220	0·7 0·2	320	1·3 0·5	+6

5611_10

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°19′·0N 6 23 ·3W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)	
Before High Water 6			020	0·9 0·4
Before High Water 5			024	0·7 0·3
Before High Water 4			057	0·2 0·1
Before High Water 3			163	0·2 0·1
Before High Water 2			206	0·7 0·3
Before High Water 1			208	0·9 0·3
High Water			209	0·9 0·3
After High Water 1			210	0·6 0·3
After High Water 2			207	0·3 0·1
After High Water 3			049	0·2 0·1
After High Water 4			018	0·6 0·2
After High Water 5			019	0·9 0·3
After High Water 6			020	0·9 0·4

5611_11

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°19′·0N 6 23 ·3W		B 56°21′·1N 6 16 ·4W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)			
Before High Water 6			020	0·9 0·4	106	0·3 0·1
Before High Water 5			024	0·7 0·3	114	0·3 0·1
Before High Water 4			057	0·2 0·1	127	0·3 0·1
Before High Water 3			163	0·2 0·1	153	0·3 0·1
Before High Water 2			206	0·7 0·3	143	0·2 0·1
Before High Water 1			208	0·9 0·3	208	0·1 0·0
High Water			209	0·9 0·3	233	0·1 0·0
After High Water 1			210	0·6 0·3	270	0·2 0·1
After High Water 2			207	0·3 0·1	309	0·5 0·2
After High Water 3			049	0·2 0·1	311	0·3 0·1
After High Water 4			018	0·6 0·2	339	0·2 0·1
After High Water 5			019	0·9 0·3	064	0·1 0·0
After High Water 6			020	0·9 0·4	102	0·3 0·1

5611_13

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°33′·2N 6 43·7W		B 56°40′·0N 6 19·1W		C 56°40′·4N 6 08·0W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)					
Before High Water 6			302	1·2 0·4	218	0·6 0·2	275	0·1 0·0
Before High Water 5			314	1·8 0·7	270	0·2 0·1	260	0·2 0·1
Before High Water 4			311	1·8 0·7	355	0·5 0·2	270	0·2 0·1
Before High Water 3			309	1·0 0·4	011	1·0 0·3	200	0·1 0·0
Before High Water 2			315	0·3 0·1	021	1·1 0·4		0·0 0·0
Before High Water 1			113	0·9 0·4	031	1·0 0·3	050	0·1 0·0
High Water			121	1·9 0·8	047	0·7 0·2	079	0·2 0·1
After High Water 1			131	1·3 0·5	093	0·4 0·1	090	0·3 0·1
After High Water 2			136	0·8 0·3	175	0·4 0·1	106	0·2 0·1
After High Water 3			142	0·5 0·2	197	0·6 0·2		0·0 0·0
After High Water 4			133	0·3 0·1	202	1·0 0·3	296	0·2 0·1
After High Water 5			020	0·1 0·0	204	1·0 0·4	250	0·1 0·0
After High Water 6			301	0·8 0·3	213	0·7 0·3	290	0·1 0·0

5611_14

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°11′·7N 5 39 ·9W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)	
Before High Water 6			327	1·5 0·6
Before High Water 5			338	1·9 0·8
Before High Water 4			355	2·1 0·9
Before High Water 3			009	1·9 0·8
Before High Water 2			015	1·4 0·6
Before High Water 1			005	0·7 0·3
High Water			162	1·0 0·4
After High Water 1			169	2·0 0·8
After High Water 2			175	2·3 0·9
After High Water 3			171	1·8 0·7
After High Water 4			171	1·4 0·6
After High Water 5			257	0·5 0·2
After High Water 6			320	1·3 0·5

5611_15A

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°40′·4N 6 08·0W		B 56°37′·1N 6 01·1W		C 56°32′·6N 5 54·6W		D 56°30′·0N 5 42·5W		E 56°27′·6N 5 38·4W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)									
Before High Water 6			275	0·1 0·0	347	0·5 0·2	000	0·2 0·1	296	0·1 0·1	182	0·5 0·2
Before High Water 5			260	0·2 0·1	339	0·6 0·2	313	0·5 0·2	313	1·3 0·5	318	0·6 0·2
Before High Water 4			270	0·2 0·1	341	0·8 0·3	309	0·7 0·2	312	1·7 0·6	338	2·0 0·7
Before High Water 3			200	0·1 0·0	353	0·5 0·2	304	0·7 0·2	314	1·8 0·7	340	3·0 1·1
Before High Water 2				0·0 0·0	341	0·4 0·1	300	0·3 0·1	318	1·3 0·5	338	2·6 0·9
Before High Water 1			050	0·1 0·0	327	0·3 0·1		0·0 0·0	310	0·5 0·2	352	1·3 0·5
High Water			079	0·2 0·1	140	0·5 0·2	101	0·1 0·0	114	0·3 0·1	128	0·5 0·2
After High Water 1			090	0·3 0·1	185	0·8 0·3	112	0·3 0·1	128	1·3 0·5	150	1·5 0·5
After High Water 2			106	0·2 0·1	168	1·0 0·4	132	0·5 0·2	136	1·8 0·7	152	2·0 0·7
After High Water 3				0·0 0·0	168	0·5 0·2	119	0·6 0·2	140	1·6 0·6	157	2·1 0·8
After High Water 4			296	0·2 0·1	142	0·2 0·1	133	0·4 0·1	137	1·1 0·4	162	2·1 0·7
After High Water 5			250	0·1 0·0	342	0·1 0·0	145	0·3 0·1	132	0·8 0·3	165	1·6 0·6
After High Water 6			290	0·1 0·0	355	0·4 0·1	066	0·1 0·0	149	0·1 0·0	175	0·7 0·3

5611_17

Tidal Streams referred to HW at OBAN

Hours	Geographical Position		A 56°26′·0N 5 34·1 W	
	Directions of streams (degrees)	Rates at spring tides (knots)	Rates at neap tides (knots)	
Before High Water 6			212	0·1 0·0
Before High Water 5			029	0·1 0·0
Before High Water 4			026	0·2 0·1
Before High Water 3			022	0·3 0·1
Before High Water 2			022	0·4 0·1
Before High Water 1			028	0·3 0·1
High Water			049	0·1 0·0
After High Water 1			145	0·1 0·0
After High Water 2			184	0·2 0·1
After High Water 3			204	0·3 0·1
After High Water 4			219	0·3 0·1
After High Water 5			226	0·3 0·1
After High Water 6			219	0·1 0·0

5611_18 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A	56°35′·1N 5 25 ·1W	
Before High Water 6	Directions of streams (degrees)	Rates at spring tides (knots)	169	0·2 0·1
Before High Water 5			140	0·1 0·0
Before High Water 4			017	0·2 0·1
Before High Water 3			015	0·3 0·1
Before High Water 2			005	0·4 0·2
Before High Water 1			008	0·2 0·1
High Water			034	0·1 0·1
After High Water 1				0·0 0·0
After High Water 2			225	0·1 0·0
After High Water 3			219	0·2 0·1
After High Water 4			202	0·4 0·1
After High Water 5			194	0·3 0·1
After High Water 6		Rates at neap tides (knots)	180	0·2 0·1

5611_20 Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A	56°35′·1N 5 25 ·1W	
Before High Water 6	Directions of streams (degrees)	Rates at spring tides (knots)	169	0·2 0·1
Before High Water 5			140	0·1 0·0
Before High Water 4			017	0·2 0·1
Before High Water 3			015	0·3 0·1
Before High Water 2			005	0·4 0·2
Before High Water 1			008	0·2 0·1
High Water			034	0·1 0·1
After High Water 1				0·0 0·0
After High Water 2			225	0·1 0·0
After High Water 3			219	0·2 0·1
After High Water 4			202	0·4 0·1
After High Water 5			194	0·3 0·1
After High Water 6		Rates at neap tides (knots)	180	0·2 0·1

5611_22A Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A	56°43′·3N 5 14 ·3W	
Before High Water 6	Directions of streams (degrees)	Rates at spring tides (knots)	200	1·3 0·4
Before High Water 5			022	1·0 0·3
Before High Water 4			030	2·1 0·7
Before High Water 3			030	3·8 1·3
Before High Water 2			028	4·9 1·6
Before High Water 1			030	4·0 1·3
High Water			036	1·1 0·4
After High Water 1			202	0·7 0·2
After High Water 2			197	1·4 0·5
After High Water 3			197	3·6 1·2
After High Water 4			197	3·2 1·1
After High Water 5			197	2·5 0·8
After High Water 6		Rates at neap tides (knots)	200	1·3 0·4

5611_23A Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A	56°50′·5N 5 07 ·8W	
Before High Water 6	Directions of streams (degrees)	Rates at spring tides (knots)	072	0·1 0·0
Before High Water 5				0·0 0·0
Before High Water 4			310	0·1 0·0
Before High Water 3			285	0·2 0·1
Before High Water 2			278	0·3 0·1
Before High Water 1			269	0·4 0·1
High Water			260	0·2 0·1
After High Water 1			220	0·1 0·0
After High Water 2			110	0·1 0·0
After High Water 3			097	0·3 0·1
After High Water 4			093	0·3 0·1
After High Water 5			080	0·2 0·1
After High Water 6		Rates at neap tides (knots)	076	0·1 0·0

5611_24A Tidal Streams referred to HW at OBAN

Hours	Geographical Position	A	56°37′·1N 6 01 ·1W		B	56°40′·2N 5 57 ·7W	
Before High Water 6	Directions of streams (degrees)	Rates at spring tides (knots)	347	0·5 0·2	240	0·2 0·1	
Before High Water 5			339	0·6 0·2		0·0 0·0	
Before High Water 4			341	0·8 0·3	066	0·2 0·1	
Before High Water 3			353	0·5 0·2	070	0·3 0·1	
Before High Water 2			341	0·4 0·1	065	0·4 0·1	
Before High Water 1			327	0·3 0·1	060	0·3 0·1	
High Water			140	0·5 0·2	040	0·2 0·1	
After High Water 1			185	0·8 0·3	020	0·1 0·0	
After High Water 2			168	1·0 0·4	339	0·1 0·0	
After High Water 3			168	0·5 0·2	252	0·1 0·0	
After High Water 4			142	0·2 0·1	229	0·5 0·2	
After High Water 5			342	0·1 0·0	242	0·5 0·2	
After High Water 6		Rates at neap tides (knots)	355	0·4 0·1	240	0·2 0·1	

5611_26A Tidal Streams referred to HW at OBAN

Hours	A	56°33′·19 N 6 43·66W	
Before High Water 6	Directions of streams (degrees)	302	1·2 0·4
Before High Water 5		314	1·8 0·7
Before High Water 4		311	1·8 0·7
Before High Water 3		309	1·0 0·4
Before High Water 2		315	0·3 0·1
Before High Water 1		113	0·9 0·4
High Water		121	1·9 0·8
After High Water 1		131	1·3 0·5
After High Water 2		136	0·8 0·3
After High Water 3		142	0·5 0·2
After High Water 4		133	0·3 0·1
After High Water 5		020	0·1 0·0
After High Water 6	Rates at neap tides (knots)	301	0·8 0·3

TIDAL NOTES

In the Sound of Jura, south of Loch Crinan, the rise of tide occurs mainly during the 3½ hours following low water, and the fall during the 3½ hours following high water. At other times the changes in level are usually small and irregular. In the vicinity of the amphidromic point, predictions using the data in Part II may produce significant differences compared to those using harmonic constants, especially at neaps when the diurnal inequality becomes pronounced.

At Port Ellen, weather conditions have a marked effect on sea level, southerly and easterly gales raising the level up to 1 m; at neaps the tide is sometimes diurnal, while the range is negligible. At Machrihanish the difference between springs and neaps is not more than 0.2 m.

TIME AND HEIGHT DIFFERENCES FOR PREDICTING THE TIDE AT SECONDARY PORTS

PLACE	Lat. N	Long. W	TIME DIFFERENCES High Water	TIME DIFFERENCES Low Water			HEIGHT DIFFERENCES (IN METRES) MHWS	MHWN	MLWN	MLWS
			Zone UT(GMT)							
OBAN	56 25	5 29	0000 and 1200	0600 and 1800	0100 and 1300	0700 and 1900	4.0	2.9	1.8	0.7
Coll										
Loch Eatharna	56 37	6 31	+0025	+0010	+0015	+0025	+0.4	+0.3	⊙	⊙
Tiree										
Gott Bay	56 31	6 48	0000	+0010	+0005	+0010	0.0	+0.1	0.0	0.0
OBAN	56 25	5 29	0100 and 1300	0700 and 1900	0100 and 1300	0800 and 2000	4.0	2.9	1.8	0.7
Mull										
Carsaig Bay	56 19	5 58	−0015	−0005	−0030	+0020	+0.1	+0.2	0.0	−0.1
Iona	56 20	6 23	−0010	−0005	−0020	+0015	0.0	+0.1	−0.3	−0.2
Bunessan	56 19	6 14	−0015	−0015	−0010	−0015	+0.3	+0.1	0.0	−0.1
Sound of Ulva	56 29	6 08	−0010	−0015	0000	−0005	+0.4	+0.3	0.0	−0.1
Loch Sunart										
Salen	56 43	5 47	−0015	+0015	+0010	+0005	+0.6	+0.5	−0.1	−0.1
Sound of Mull										
Tobermory	56 37	6 04	+0025	+0010	+0015	+0025	+0.5	+0.6	+0.1	+0.2
Salen	56 31	5 57	+0045	+0015	+0020	+0030	+0.2	+0.2	−0.1	0.0
Loch Aline	56 32	5 46	+0012	+0012	⊙	⊙	+0.5	+0.3	⊙	⊙
Craignure	56 28	5 42	+0030	+0005	+0010	+0015	0.0	+0.1	−0.1	−0.1
Loch Linnhe										
Corran	56 43	5 14	+0007	+0007	+0004	+0004	+0.4	+0.4	−0.1	0.0
Corpach	56 51	5 07	0000	+0020	+0040	0000	0.0	0.0	−0.2	−0.2
Loch Eil Head	56 51	5 20	+0025	+0045	+0105	+0025	⊙	⊙	⊙	⊙
Loch Leven Head	56 43	5 00	+0045	+0045	+0045	+0045	⊙	⊙	⊙	⊙
Loch Linnhe										
Port Appin	56 33	5 25	−0005	−0005	−0030	0000	+0.2	+0.2	+0.1	+0.1
Loch Creran										
Barcaldine Pier	56 32	5 19	+0010	+0020	+0040	+0015	+0.1	+0.1	0.0	+0.1
Loch Creran Head	56 33	5 16	+0015	+0025	+0120	+0020	−0.3	−0.3	−0.4	−0.3
Loch Etive										
Dunstaffnage Bay	56 27	5 26	+0005	0000	0000	+0005	+0.1	+0.1	+0.1	+0.1
Connel	56 27	5 24	+0020	+0005	+0010	+0015	−0.3	−0.2	−0.1	+0.1
Ardchattan Point	56 28	5 17	+0150	+0150	+0215	+0200	−2.0	−1.3	−0.1	−0.3
Bonawe	56 27	5 13	+0150	+0205	+0240	+0210	−2.0	−1.7	−1.3	−0.5
Rubha Na Creige	56 28	5 11	+0200	+0200	+0230	+0215	−1.9	−1.3	−1.0	−0.3
Seil Sound	56 18	5 35	−0035	−0015	−0040	−0015	−1.3	−0.9	−0.7	−0.3
Colonsay										
Scalasaig	56 04	6 11	−0020	−0005	−0015	+0005	−0.3	-0.2	−0.3	0.0
Jura										
Glengarrisdale Bay	56 07	5 47	−0020	0000	−0010	0000	−0.4	−0.2	0.0	−0.2
Islay										
Rubh' A' Mhail	55 56	6 07	−0020	0000	+0005	−0015	−0.3	−0.1	−0.3	−0.1
Ardnave Point	55 52	6 20	−0035	+0010	0000	−0025	−0.4	−0.2	−0.3	−0.1
Orsay	55 41	6 31	−0110	−0110	−0040	−0040	−1.9	-1.3	−0.7	+0.1
Bruichladdich	55 46	6 22	−0105	−0035	−0110	−0110	−1.8	−1.3	−0.5	+0.3
Port Ellen	55 38	6 11	−0530	−0050	−0045	−0530	−3.1	−2.1	−1.3	−0.4*
Port Askaig	55 50	6 06	−0030	−0035	−0015	−0025	−1.8	-1.3	−0.7	-0.2*
Sound of Jura										
Craighouse	55 50	5 57	−0230	−0250	−0150	−0230	−3.0	−2.4	−1.3	−0.6*
Loch Melfort	56 15	5 29	−0055	−0025	−0040	−0035	−1.2	−0.8	−0.5	−0.1
Loch Beag	56 09	5 36	−0110	−0045	−0035	−0045	−1.6	−1.2	−0.8	−0.4
Carsaig Bay	56 02	5 38	−0105	−0040	−0050	−0050	−2.1	−1.6	−1.0	−0.4*
Sound of Gigha	55 41	5 44	−0450	−0210	−0130	−0410	−3.0	−2.2	−1.3	−0.4*
Machrihanish	55 25	5 45	−0520	−0350	−0340	−0540	⊙	⊙	⊙	⊙*

⊙ No data.
* See tidal notes.

Tidal Curve Diagram