

Pilotage Guide to the Upper Humber Estuary

This guide is intended to assist boat owners navigating the Upper Humber Estuary and covers the drying havens that are used regularly by the members of the Humber Yawl Club, but also anchorages and notes on tidal streams and heights. All this information is relevant to the author's yacht which, at 10m and with a draft of nearly 2.0m gives an indication of what is possible. This guide does not replace the ABP charts or give the same amount of detail with regard to the history and information on the ports included in the Tidal Havens of the Wash and Humber that excellent work by Henry Irving. However, the mariner armed with an up-to date chart and a reliable echo-sounder will have no difficulty provided that there is sufficient rise of tide.

SOLAS V (Safety of Life at Sea) requires that leisure craft have a passage plan. It does not state, however, that this should be a written plan. I would suggest the following should be considered prior to a sail on the Upper or Lower Humber;

1. The times of HW at Brough/Winteringham (from experience about 10 minutes earlier at Winteringham) also, live data is available from the ABP website. (Immingham is the Standard Port for the River Humber).
2. Weather Forecast (Inshore Waters, phone app or live data from www.humber.com)
3. Have a look at the chart and highlight any areas of danger to be avoided and have an idea of your planned route.
4. Decide what is the latest time you need to return to the haven entrance.
5. Tell someone of where you are intending to sail.
6. Brief crew prior to departure (safety equipment)

Tidal Heights

When we talk about tidal heights we are referring to the day to day rise and fall of the tide. The depth of water is the actual amount of water from the surface to the seabed, whereas the height of the tide is how high the level has risen above the level of Chart Datum which, is normally the level of the lowest astronomical tide (the 0 on your chart). A quick look at the chart with a figure of 5m would indicate that on the lowest tide of the year there would always be a minimum depth of 5m. Any under-lined figures are called Drying Heights. An under lined 2m would indicate on the lowest tide the sand/mud/rock would be poking above the water by 2m

Anyone driving over the Humber Bridge with a view of the river at low water springs would see the extensive mudflats stretching away up river and wonder how any vessel could possibly navigate in such an area. At high water however, all that can be discerned is a vast area of water with no indication of where the river deepens or shallows. The tide on the Humber can rise or fall by as much as 7m on a spring tide so careful attention to tidal heights whilst navigating is essential especially on a falling tide.

Due to the Estuary bed rising slowly, it is important to use tidal height information relevant to your position as datum and levels change as you move further up river. This information is available on the ABP charts for various locations on the Estuary.

For the lazy mariner VTS Humber broadcast the height of the tide at regular intervals for Immingham and the Humber Bridge, Brough and Blacktoft above the level of chart datum (the 0-contour line on your chart or, on the Lower Humber chart the boundary between the green drying heights that are the underlined figures and the light blue of the chart down river of the Humber Bridge. On the black and white chart upriver of the Bridge these are just the underlined figures.

Alternatively, the tidal curve for Immingham can be used corrected for the Humber Bridge if required, or if available most stand-alone chart plotters will provide this information. (Above the Bridge, however, the chart plotter will not give readings for Brough). Additional information can be found for live tides on ABP Humber website for those with 3/4g on their smart phones. Using an up-to date chart and applying the height of the tide (the level of the tide above Chart Datum) it is therefore

possible to ascertain approximate depths of water. Local knowledge plays an important role.

You need to remember that above the Bridge a new chart is produced bi-monthly by ABP and this can be viewed/downloaded on their website www.humber.com On this page select CURRENT HUMBER CHARTS and from the page select the required area. This also gives you the dates of the surveys and the most up to date soundings for the main shipping channels upriver from the Bridge. Notice to Mariners with the latest buoy moves are also available on the home page with the current weather, tidal height above datum for Spurn, Grimsby, King George Dock, Blacktoft and Goole. Anyone with a modern smartphone and a bit of knowledge could actually refer to this on passage so long as they have a signal. Alternatively, a screen shot printed prior to sailing is very useful. Also, available on the ABP website is a current list of buoy positions.

Example

What height of tide would be required for a yacht with a draught of 2m to pass over the highest part of Hull Middle with a 1m clearance under the keel? A quick glance at the chart may show a drying height of 2.3m so the calculation would be as follows:

| | |
|-------------------------|------|
| Draught | 2.0 |
| Clearance required | 1.0 |
| Drying height | 2.3 |
| Height of tide required | 5.3m |

By using the tidal curve (or the chart plotter) we can then find the time at which the tide has risen to 5.3m above chart datum on that particular day allowing the yacht to pass over the bank. A Chart Plotter does not give you the depth of water only how high the level of the tide is above Chart Datum (the 0 on your chart).

The Channels from the Humber Bridge

Heading up river from the Humber Bridge the Navigator has two options depending upon how early on the tide you make the passage and the draught of your vessel.

If you are 3 hours before high water Hull on a spring tide with a draught of 2m, the prudent mariner would be advised to follow the main buoyed shipping channel to Trent Falls. An up- to date upriver chart corrected for any buoy moves is essential.

It is however possible to navigate up river earlier on a neap tide as you will find more water in the channel.

The alternative option, is to go up the North Channel, though on a large spring tide I would not advise this option any earlier than two hours before HW Hull with a draught of 2m. Although the tide is rising quickly, a grounding with in a fin or bilge keel yacht will result in the boat heeling over alarmingly and being pushed sideways. If in this situation drop your anchor with plenty of scope (chain or rope) and wait until you float and face the incoming tide. It would also be prudent to call VTS. Once afloat again, fix your position and either wait for a sufficient rise in the tide or re trace your course to deeper water.

To enter the North Channel, from slightly north of the middle of the Bridge tend a course towards the pub with the old windmill marked on the chart. Keep north of a line drawn from the middle of the Humber Bridge to North Ferriby Church Spire. Deep water will then be found close to the north bank down past North Ferriby. Once the low cliff finishes past the field to the west of the wooded area, you will need to slowly head out from the bank until approximately 1 - 2 cables off the white pile on the ness (Check with the latest charted information). The channel here is relatively wide though quite shallow and unstable, so the importance of keeping to the North side and the use of a reliable echo sounder cannot be stressed enough. Once the White Pile bears due north, alter course towards the Tide Gauge off Brough. You need to keep close to the north bank but be aware of Brough Scalp. This is hard chalk that extends out from the river bank before the Brough Tide Gauge. You will pass the Humber Yawl Club racing mark (called Airfield on the chart) on your starboard side before reaching the scalp. This channel is pretty regular for many years but again the use of an up- to date chart will provide information on the deepest water.

Once abeam of the yacht club at Brough keep south of the most northerly yellow buoy and continue close to the north bank until the main channel can be gained at the 32 B navigation buoy (Again check the latest chart!)

To enter the channel from the west, again follow the north bank past Brough tending out to the south passing the white pile on the ness. Once past the ness alter course towards the north bank using your echo sounder closing towards North Ferriby. It is

also possible to enter the North Channel from Winteringham Haven by departing from the Capers West buoy heading directly for White Pile Ness (2020) Caution again must be exercised as on a flood tide you will be set to the west of the ground track and to the east on the ebb tide.

The Upper Humber is probably the most scenic area for sailing on the estuary. Apart from the cement works at South Ferriby and the British Aerospace factory at Brough. The scenery is rural with the rising Wolds on the north Bank, whilst the land to the south is flat farmland rising towards Whitton approaching Trent falls. On this stretch the mariner has plenty of options for navigating outside the main channel with sufficient rise of tide and an up-to date chart.

The Humber Yawl Club also place a series of racing marks on this stretch shown on the ABP chart. These act as a good guide for there is always a minimum of 2.5m around these approximately 2hrs before and 1.5hrs after HW Hull. The buoys are painted yellow and are conspicuous.

Inside Reeds Island

Unless you have a very large spring tide and a lifting keel yacht this passage is no longer possible in 2021 due to the large change in the river channel during 2013.

The channel to South Ferriby has also narrowed and become shallower due to the silting to the south side of the Island. Passage however, can still be made to South Ferriby Sluice keeping close to the south bank once past the remains of the old jetty. Then keep close inshore past Redcliffe heading out to the north slightly before abeam of the entrance. The entrance to Ferriby Sluice has been marked by a red buoy which you need to leave on your port side giving an indication on the deepest water. Be careful of a strong cross tide early on the flood. In November 2020 the mud spit off Ferriby appears to be migrating further to the west. The channel is much silted so I would not recommend navigation until about 2 hours before HW Hull with again use of a reliable echo sounder. On this stretch it is important to keep to the river bank side of the channel (south) unless there is a strong northerly wind. If you ground deeper water will lie to the north of you.

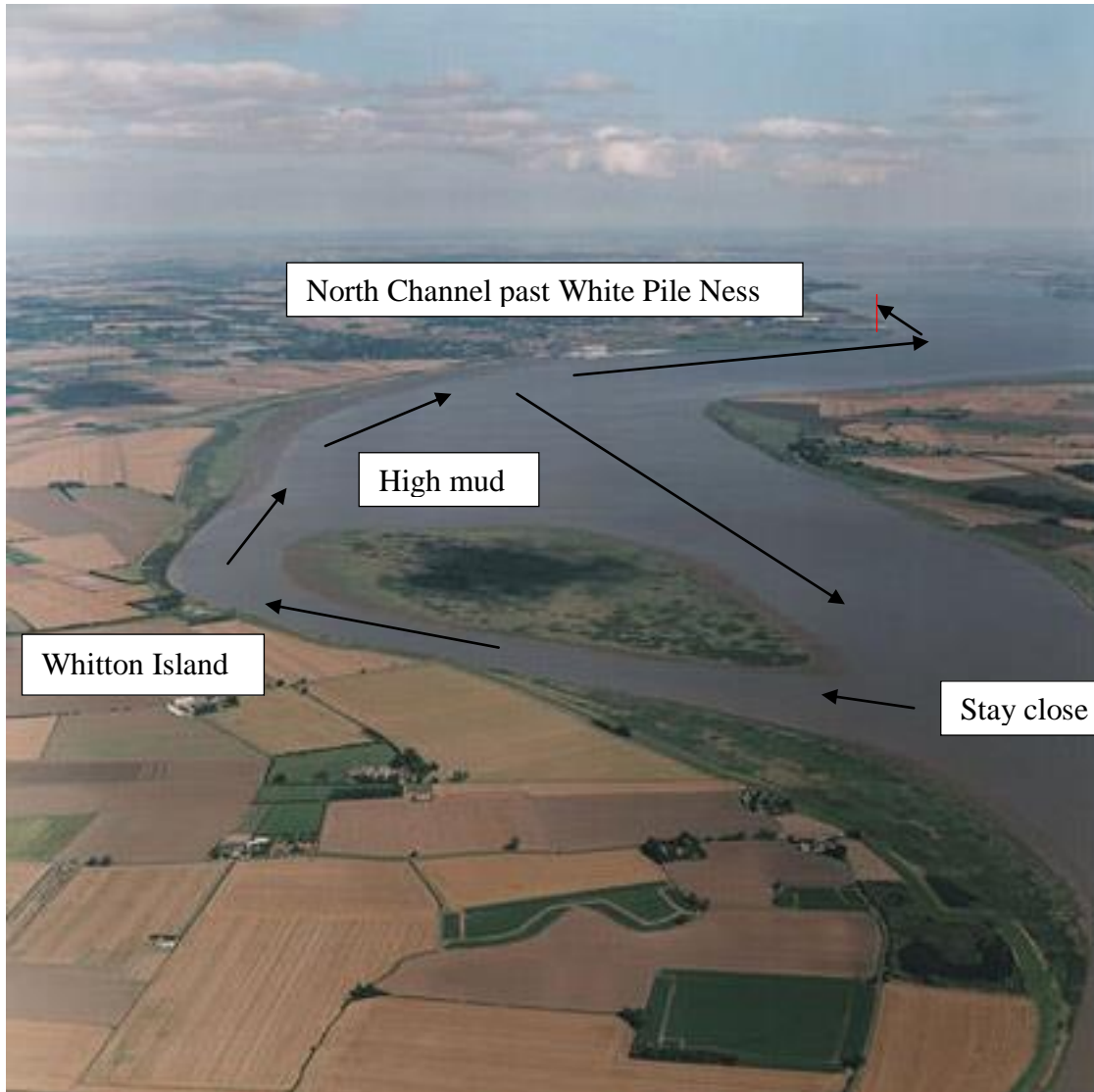
Navigation around Whitton Island

Broomfleet Island situated on the north side of the river just after Trent Falls allows a passage close to the north bank and has always been a favourite for members of the Club over the top of the tide.

Entry to the channel from the west is conspicuous from Trent Falls. The South side of the Island here is steep sided with plenty of water within 20m off the end of the Island. If the tide is still flooding strongly, then the back eddy close to the NW end of the Island can assist progress nearly as far as Market Weighton Lock by staying close to the Island.

Entry from the east again is straight forward though care must be taken with use of your echosounder. The easiest way is to identify the HYC racing mark at Tripod and follow this down to the HYC Broomfleet buoy. Following the north bank maintaining the same distance off having passed the Broomfleet buoy the land gently curves towards the northwest. Mariners need to be aware that there is an extensive bank that extends to the east of the Island. If you are too far to the south, the depth will drop quickly. The trick is to put yourself on the north side of the channel feeling your way along with your echo sounder until the eastern end of the island is passed. After a short distance the Lock Keepers cottage will be sighted followed to port by the western tip of the Island.

It is still possible to anchor off the sluice entrance on neap tides as there is a small pool of deep water, however, there is also an unmarked stone heap located just west of the entrance only visible at half tide.



Suggested course →

Entering the Tidal Havens

When visiting Winteringham or Brough Havens, aim to arrive at least 1 hour before HW (Brough) and 1 hour before Winteringham. At this time the mud banks either side of the entrance channel will be exposed making it easier to recognise where the deepest water in the channel is to be found. Again, with a creek, it's like a miniature river with the deepest water to be found on the outside of the channel bend.

Access times will be dependent at both havens in relation to your yacht's draught.

Winteringham Haven

The members at Winteringham mark the entrance channel with a series of port and starboard buoys. At the entrance the channel is sometimes marked by a yellow buoy. From here, keep between the buoys nearer the reds on the flood tide in the outer entrance as the tide sets across the channel and the greens on an ebb tide. Once into the reed beds, the channel is very narrow with the deepest water found in the middle of the creek. It is nearly 1 kilometre from the entrance buoy until the moorings are reached. With a draught of 1.9m I can enter Winteringham on a tide of 8.5m height at Albert Dock. The Haven is well worth a visit though, on neap tides entry would only be possible for a draught of 1m at HW.

Approach to the Haven can be made from the north and the west. Care must be taken to the east and south east of the haven entrance as there is an extensive mud bank with a cliff edge profile that extends all the way to Reeds Island. There is deep water to the west down towards Whitton Ness and entry to the shipping channel to the north of the entrance.

Contact information for the Club mate is available on the Humber Yawl Club website www.humberyawclub.co.uk

Brough Haven

Home of the Humber Yawl club the Haven is deeper and more accessible than Winteringham. Entry is straight forward and well-marked with a series of transits and withies. The entrance buoy lies to the west of the conspicuous tide gauge. Entry can be made on spring tides with a draught of 1.9m approximately 1.5 hours before HW Albert Dock Hull. On a neap tide, a HW entry is advised. Again, information can be found on the HYC website as for Winteringham.

Brough entrance can be approached from the east, west and south. Care should be taken not to stray too far to the south of the entrance as a large extensive drying bank has formed. This can be problematical if early on the tide as you will need to approach from the east keeping close to the north bank past White Pile Ness. However, if you have followed the main shipping channel you will need to proceed past Brough round the western tip of the bank before making your entry (see latest ABP Upper Humber Chart).

Anchorage above the Humber Bridge

If you need to anchor over the LW period it is advised that you contact VTS Humber on Channel 15 to let them know your intentions and the number of persons on-board

You should also maintain an anchor watch and be prepared should you start to drag

It is possible to anchor and stay afloat along the north bank from the Humber Bridge to North Ferriby. You do need good ground tackle as the tidal streams on a spring can reach up to 4Knts. Skippers are also advised to stream a lifebuoy attached to a floating line behind their yacht in the event they should fall overboard.

Anchorage can also be found in deeper water on the south bank near the chalk beach between Chalderness and South Ferriby. The tidal streams are not particularly strong as there is a back eddy. Care must be taken, however to keep clear of the main shipping channel which is close to the south bank in this area approximately two hours either side of HW Hull.

Anchorage can also be found off Weighton Lock and the north side of the River Trent near Addlingfleet Drain. Here, deep water exists at all states of the tide but beware of foul ground marked as a hash on the chart. Again, the tide runs swiftly so good ground tackle and plenty of scope is required.

Anchoring is also possible off Brough Haven in northerly winds.

Action on running aground on a falling tide

If unable to re-float quickly, you will be aground for a considerable period of time depending upon how long after HW you grounded. **You must call VTS Humber on channel 15 VHF or alternatively by telephone** and follow their instructions.

Humber rescue may have been alerted to your position and you will need to decide whether or not to remain onboard. In a fin keel yacht, you will either stay relatively

upright or go over on your beam ends (it will depend on how soft or hard the mud is). On a bilge keel yacht, you will probably remain upright.

If staying onboard, make sure that as the yacht starts to heel, any heavy objects and lockers are secure. I would also deploy the anchor as soon as possible (if the ground is relatively hard, you may decide to dig this in once the bank dries out should it be safe to do so).

Re-floating

You need to be prepared for the in-coming tide. Ideally, you do not want to start to move until your bow is facing the in-coming tide. If Humber rescue are in attendance, follow their instructions. Make sure you don't have any lines over the side of the yacht before starting your engine. Once afloat head for deeper water (unless being towed).

Commercial Traffic

The Upper Humber is used by small Coasters to access the River Ouse and Trent. They are normally encountered from approximately 1.5 hours before HW Brough until 1 hour after (you may encounter Barge traffic earlier and later than these times). These ships operate with small under keel clearances and need to remain in the main Shipping Channel.

Rule 9 part (b) of the Collision Regulations states;

“A vessel less than 20m in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway”

In other words, keep out of the way of ships in the channel. They may blow their horn at you. 1 short blast=altering course to starboard, 2 short blasts= altering course to port, 3 short blasts= operating stern propulsion, **5 or more short blasts=what are your intentions?**

Fog (restricted visibility)

It would not be prudent to leave port in fog

Part of SOLAS V regulations states that you should have a Radar Reflector onboard as large as practicably possible for the size of your yacht. If the visibility reduces whilst out on the river there are some important actions to consider:

1. Fix your position and regularly update
2. Deploy Radar Reflector
3. Turn on navigation lights
4. Lifejackets for all crew members and brief
5. Call VTS giving your present position and maintain a continuous radio watch on the correct VTS channel (regular ship movement update)
6. Keep a lookout by all available means including Radar (if fitted) and AIS receiver/transponder.
7. Try to avoid the shipping channels as far as practicable and call VTS for permission to cross/enter any channel
8. Sound the correct signal on your fog horn **one long blast and two short blasts** whilst sailing, **one long blast** if under power approximately every 2 minutes

Suggested minimal safety equipment for estuary/inshore waters

- Mobile phone
- VHF radio fixed or handheld.
- Fixed steering compass
- Radar reflector (requirement under SOLAS V)
- Inshore Flare pack (2 red handheld and 2 orange smoke).
- Lifejackets for all persons onboard.
- MOB equipment (lifebuoy etc).
- Anchor with at least 5m of chain plus 20m warp (anchor rope can double as a tow rope).

- Spare fuel, belts, oil and impellor (inboard engine) Spark plug and sheer pin (outboard).
- Basic tool bag
- Torch
- Dry Powder fire extinguisher
- Drinking water (bottled or tank).
- Food (if tinned don't forget tin opener unless pull ring).
- Sleeping bag.
- Change of clothes.

If you are a new member then take advice from existing members who already safely navigate the Estuary. Go out with an existing member to build your knowledge and confidence. Remember to check the forecast, as when a strong wind blows against the tide it can get rough even on the Upper Humber. Monitor your depth gauge regularly, and keep track of the yachts position and time, so as to return before the tide runs away. Winteringham is shallower than Brough. If you have left it too late to get back into Winteringham go to Brough. There are always members here at tide times to assist and visitor berths available

Don't sail outside your comfort zone, and if in doubt, don't go out.

Information on the Humber Byelaws and guidance for pleasure craft is also available from the home page of ABP Humber at www.humber.com