

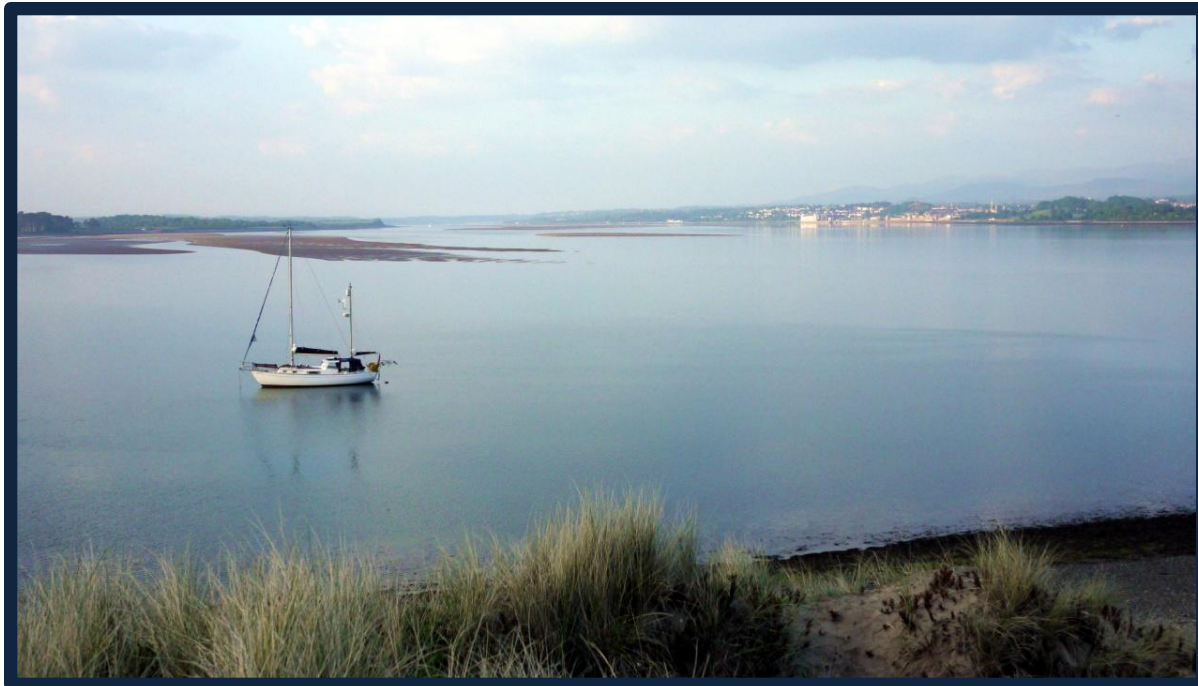


Passage Planning

A 'real world' example of planning of a coastal passage

Introduction

You now know the basic considerations when planning a coastal passage. Now lets put it all to practice on a 'real world' example and look at planning a passage from **CONWY** to **HOLYHEAD** in North Wales



Before Doing Anything

Ask yourself this question :

**Are the capabilities of the crew and
the yacht suitable to complete this
passage?**

If the answer is yes, then carry on.....

Study Chart & Pilot Books

First.....

Look at a possible route

Look and find any navigational hazards

Look at the suitability of bolt holes

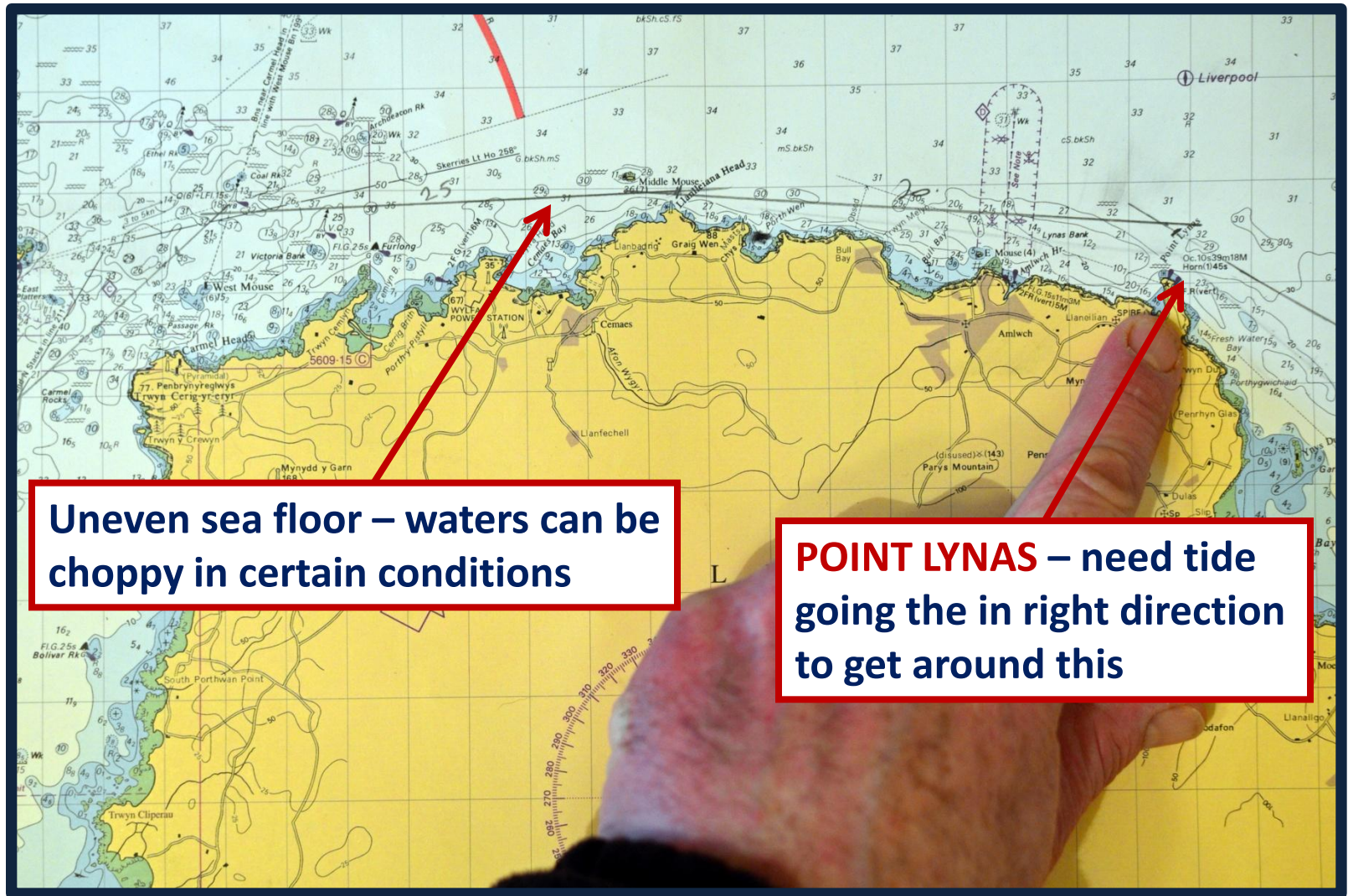
Key Considerations

Exit from **CONWY** may take up to 1 hour to reach **CONWY FAIRWAY BUOY**

Marina

Leaving on a flood tide may make exit even longer as the adverse current can be strong

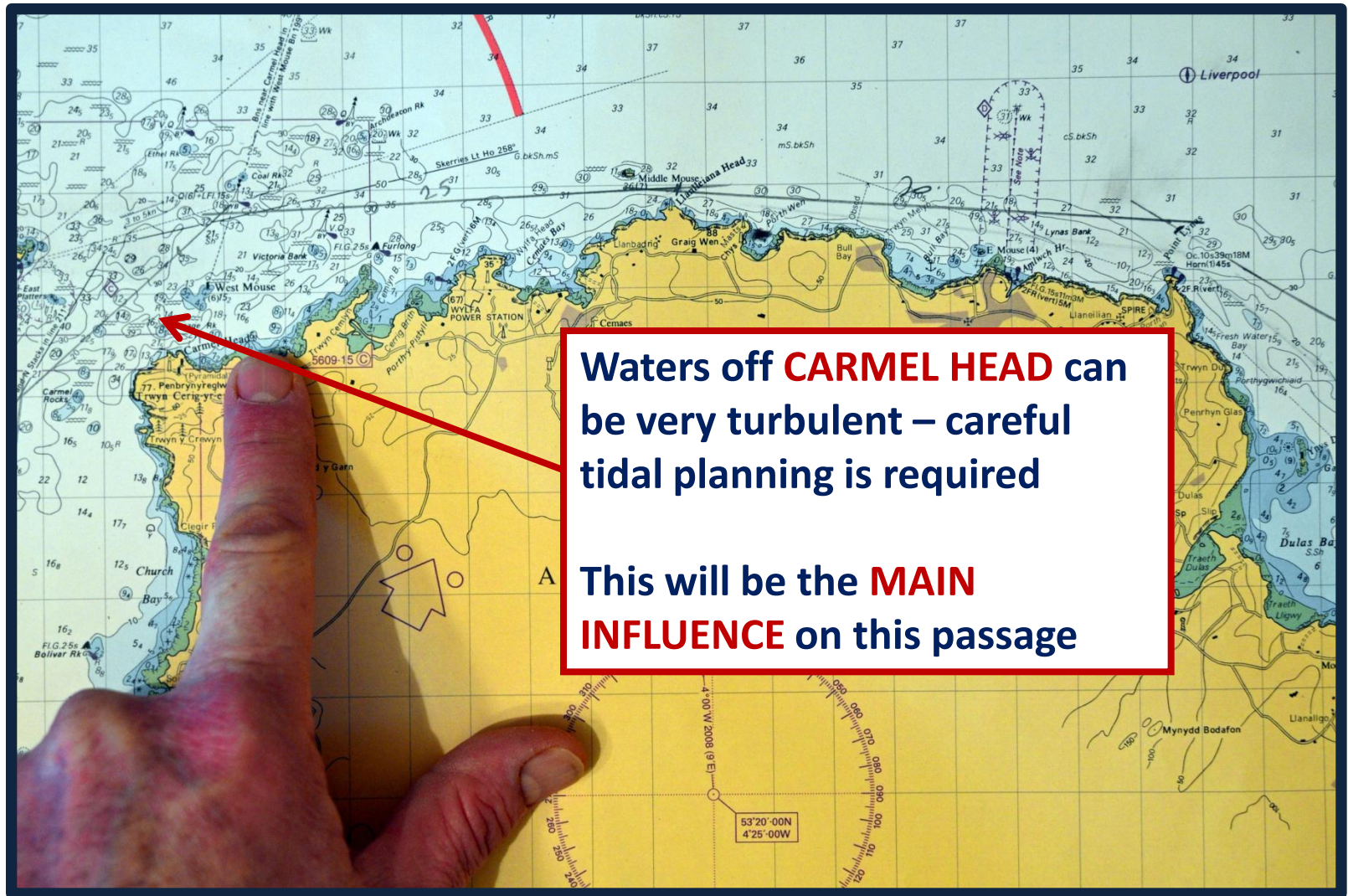
Key Considerations



Uneven sea floor – waters can be choppy in certain conditions

POINT LYNAS – need tide going the in right direction to get around this

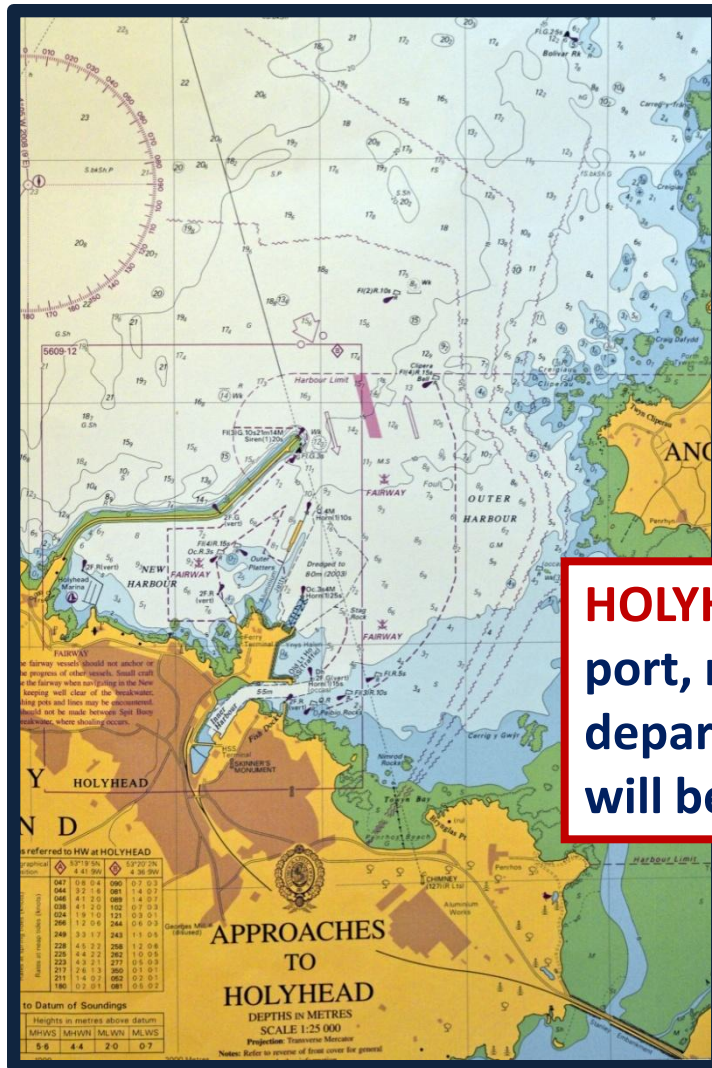
Key Considerations



Waters off **CARMEI HEAD** can be very turbulent – careful tidal planning is required

This will be the **MAIN INFLUENCE** on this passage

Key Considerations



HOLYHEAD is a busy commercial port, many fast ferries arrive and depart from here. Careful pilotage will be required on entry

Hazards

The **Anglesey and Adjoining Waters Pilot** gives a good description of the waters and guidance on how to plan your passage (Imray)

6.4 Tides

The tides along this coast flow at considerable rate, mainly parallel to the coast, with extensive overfalls, eddies and rips in the vicinity of the major obstructions, many of which are underwater.

Carmel Head

To the west, streams off Carmel Head run at 5 knots Springs, the main stream setting in a north east south west direction. A strong tide race runs off the western point of Carmel Head with the flood and off the northern point of the headland with the ebb. Heavy tide rips and overfalls mark the offlying shoals. Wind over tide puts up a confused and dangerous sea.

During the flood, the stream divides at the western extremity of the Skerries, forming eddies close inshore on either

side of the main islet and at the north east extremity of the group. An inshore eddy forms at Carmel Head close along the cliff in an easterly direction towards Henborth.

During the ebb, an eddy is formed close inshore along the shore of Church Bay.

Cemlyn to Lynas

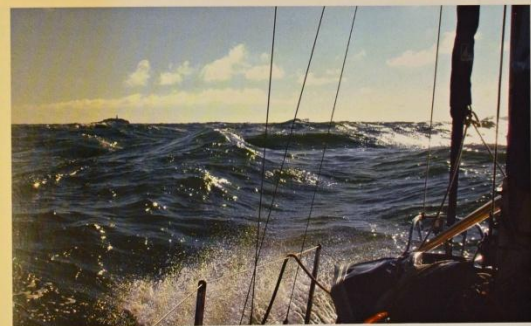
West Mouse forms a considerable obstacle to both flood and ebb streams. Turbulent water forms to the east of the islet with the flood and to the west with the ebb. Eddies and whirlpools are created, particularly with Spring tides.

During the ebb, a short tide race is formed to the west of Harry Furlong Rocks, whilst a patch of disturbed water forms over Victoria Bank. With onshore winds, both these effects may be cam-

....and it's not just Carmel Head that requires respect

Hazards

David Rainsbury's **The Irish Sea Pilot** also gives some excellent pointers to planning this passage (Imray)



Off Carmel Head, a light SW wind is blowing with the young flood. West Mouse off the port bow

thal hazards. Three miles east of head and standing right in the way of both yachts and tide is the reef variously named Harry Furlong, Harry Furlong's Rocks and Harry's Furlong, a jagged line of rocks just awash at low water which extends from the western arm of Camlyn Bay. I like to imagine its name derives from 'Old Harry's Furlong' leaving no doubt as to who gets the blame for its devilish presence across the track of passing craft.

This area would require care to navigate safely in still water but the tide, running up the Irish Sea at around 2½ to three knots reaches Carmel Head and pivots around it, making a sudden right-angle turn to enter Liverpool Bay. This violent change of direction occurs over a very uneven bottom, adding to the turbulence. Tidal rates at Carmel Head can attain 6.1 knots at springs midway between the head and the Skerries. Closer inshore faster rates than these have been reported. In the presence of even moderate winds against this tide the overfalls can achieve a violence of destructive force.

Leaving Puffin Sound, Point Lynas lies 11NM to the NW. There are overfalls off the

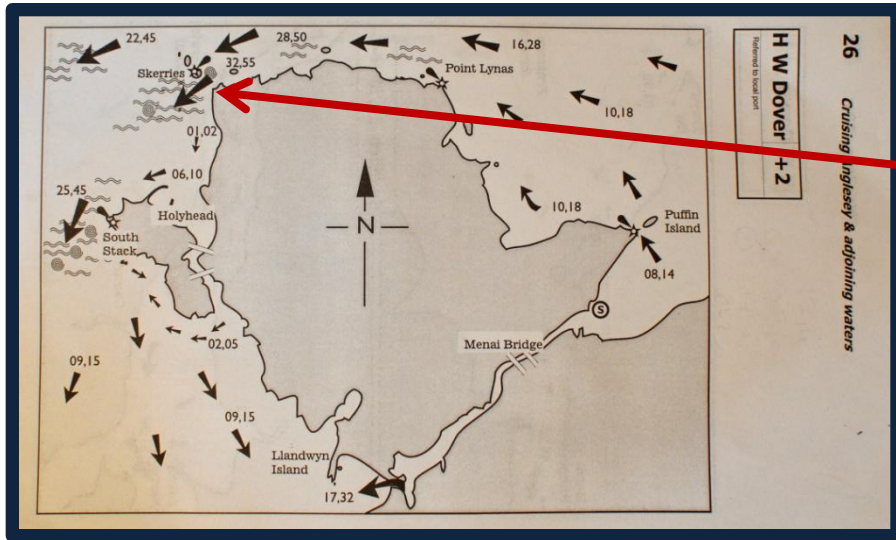
headland and the tide runs strongly. There is a strong flow all along the north coast of Anglesey and conditions can be rough in contrary winds. When planning a passage from the Menai Strait to Holyhead due regard should be given to wind strength and direction when deciding whether to go north about or west-about.

The most difficult judgement is timing departure to arrive at Carmel Head close to slack water. Leaving from Beaumaris at about HW Holyhead will usually give arrival at Carmel on the last of the ebb and a fair tide most of the way. An alternative strategy is to make a stopover on the north coast of Anglesey, rounding Carmel on the first of the ebb.

On rounding Point Lynas, Amlwch lies a mile and a half ahead with the islet of East Mouse just beyond and close inshore. Middle Mouse, visible five miles ahead standing almost half a mile offshore, can be passed on either hand. There is a strong set towards the islet when passing inshore. Wylfa nuclear power station is unmistakable at the far side of Cemaes Bay. Old Harry's Furlong is the most serious hazard on this coast. This awash reef stands out from the shore just to the west of Wylfa, marked at its

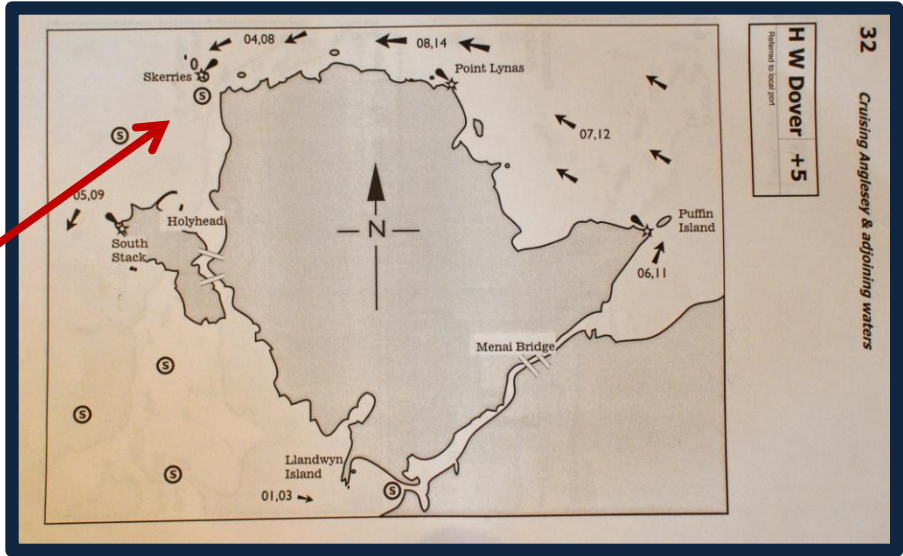
....and gives some clear warnings

Tidal Considerations



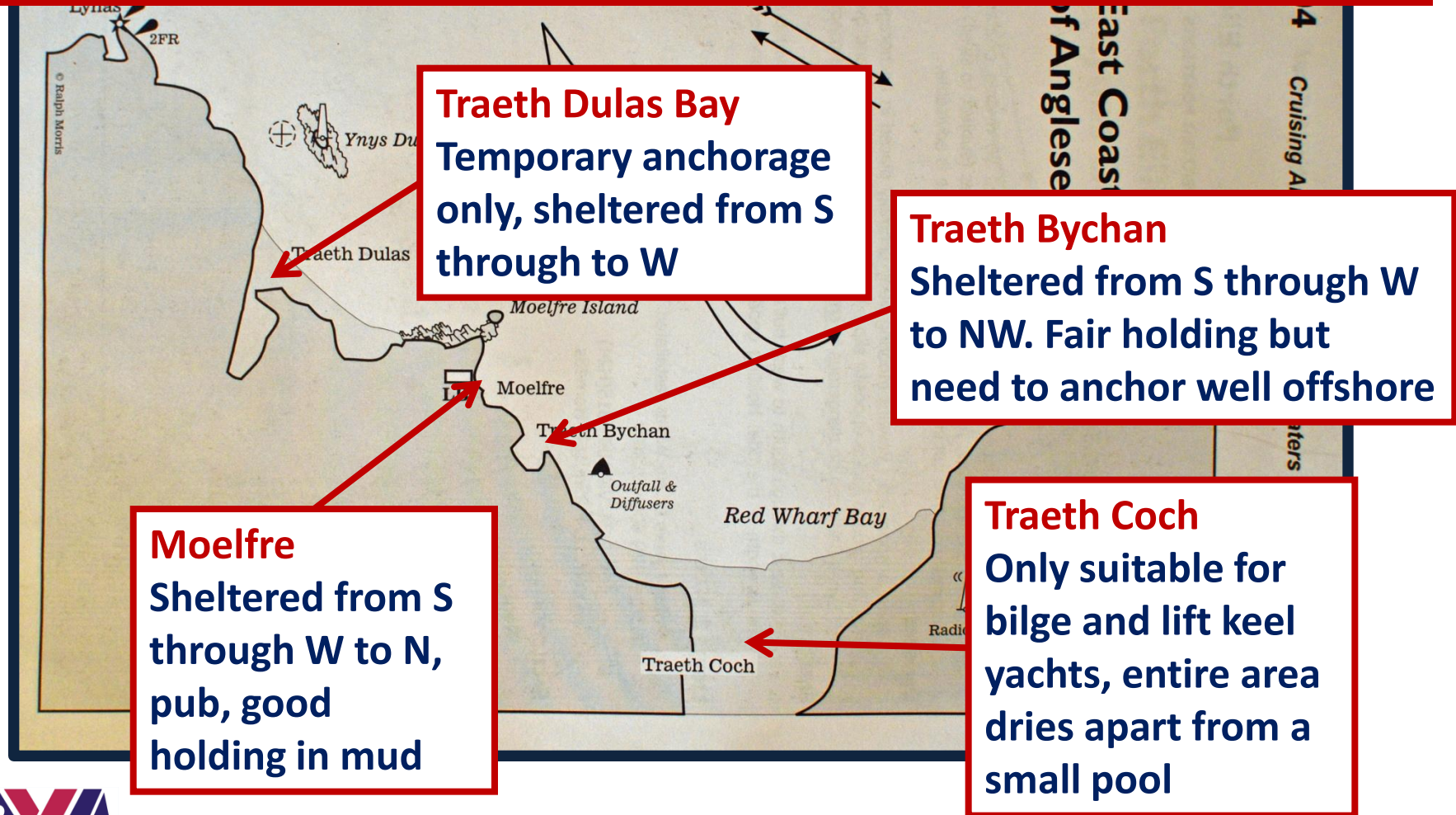
Carmel Head can be very turbulent – here it is 2 hours after HW Dover

At 5 hours after HW Dover it is slack. This is a good time to go when travelling from the East

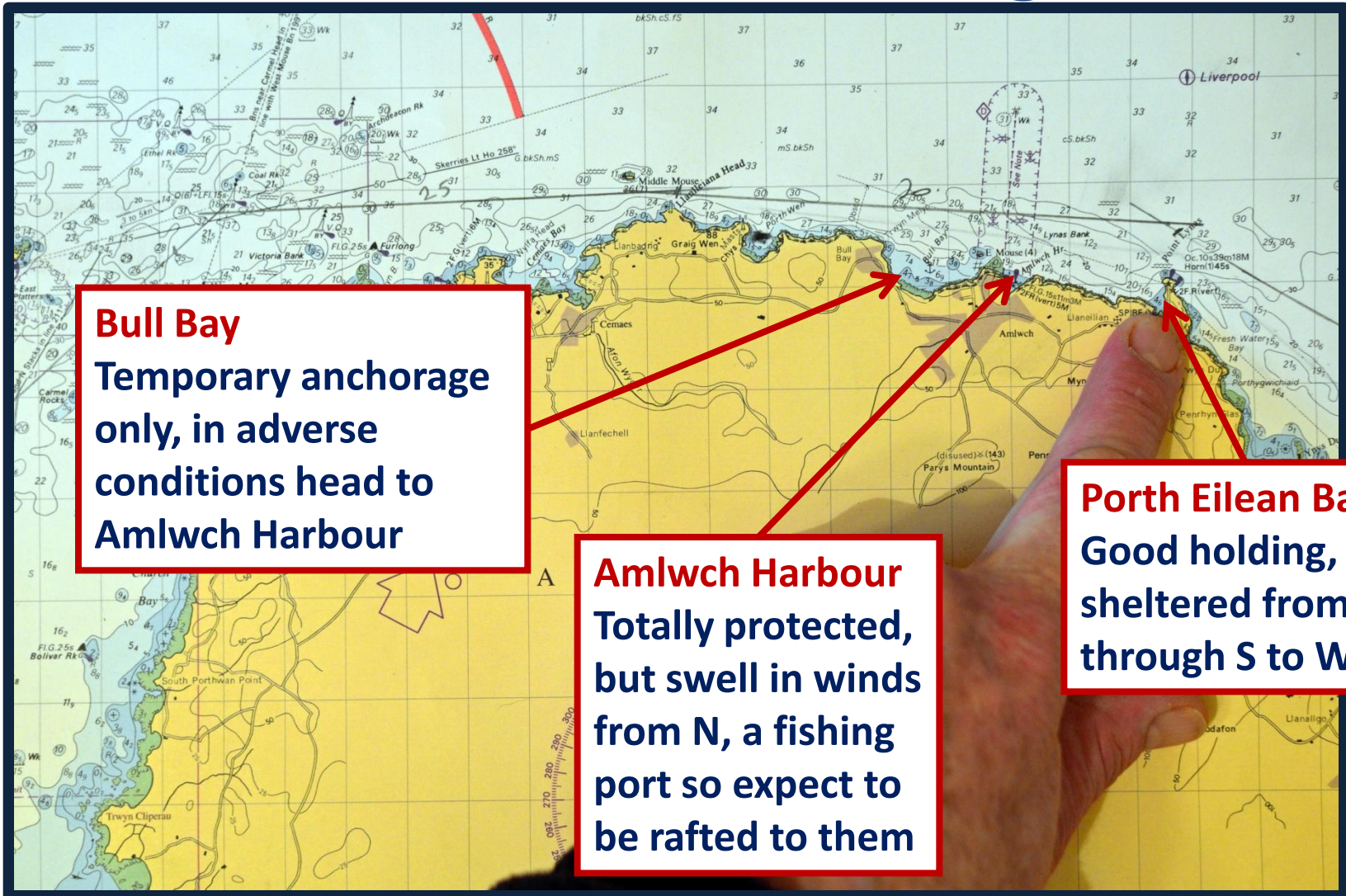


Boltholes & Refuges

There are plenty of boltholes and refuges on this coastline, suitable for different wind directions. The pilot books give the information you need.



Boltholes & Refuges

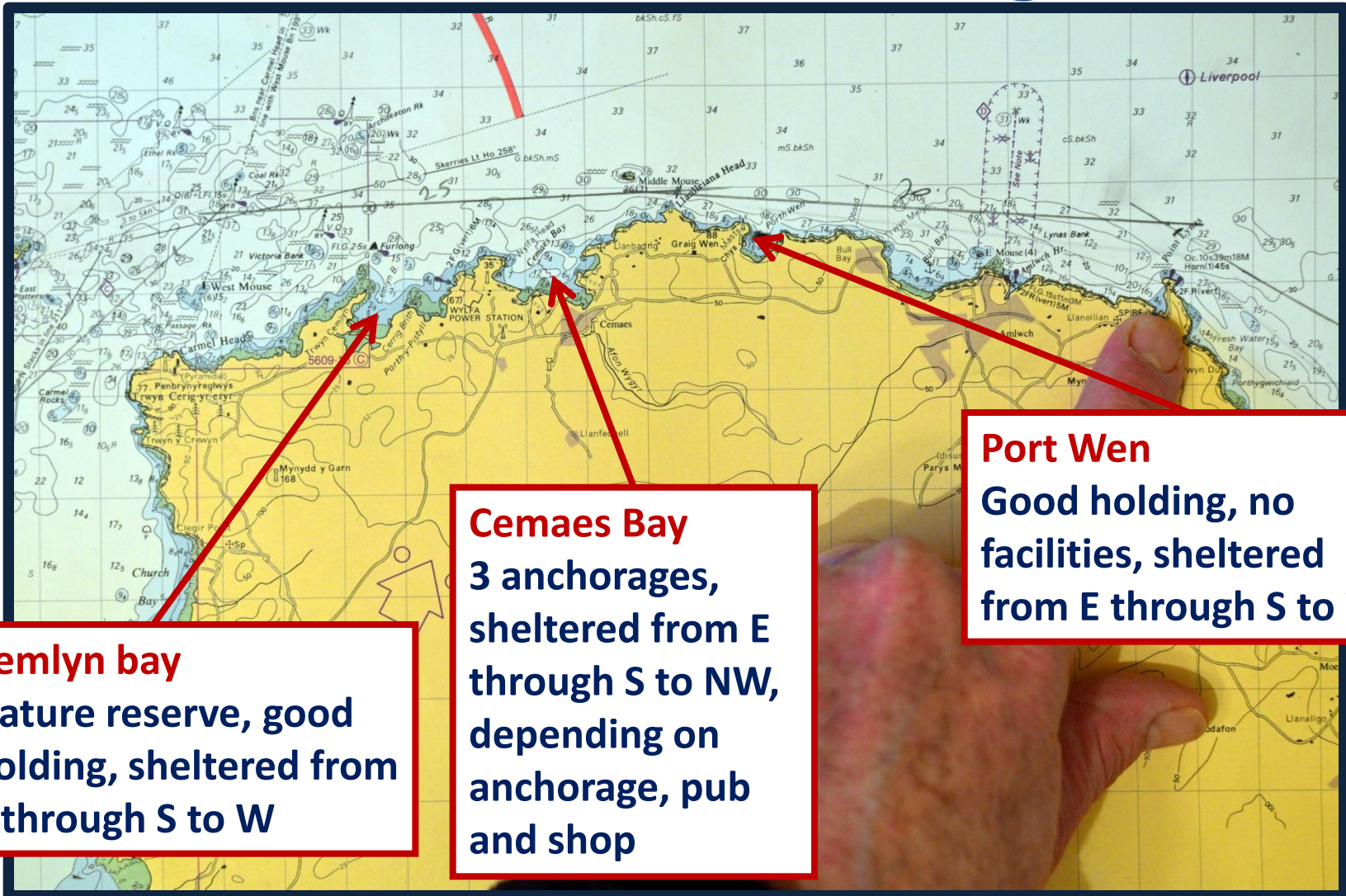


Bull Bay
Temporary anchorage only, in adverse conditions head to Amlwch Harbour

Amlwch Harbour
Totally protected, but swell in winds from N, a fishing port so expect to be rafted to them

Porth Eilean Bay
Good holding, sheltered from E through S to W

Boltholes & Refuges



Cemlyn bay

Nature reserve, good holding, sheltered from E through S to W

Cemaes Bay

3 anchorages, sheltered from E through S to NW, depending on anchorage, pub and shop

Port Wen

Good holding, no facilities, sheltered from E through S to W

How long will passage take

Measuring the course on the chart shows from **CONWY FAIRWAY BUOY** to **HOLYHEAD** is approx 32 miles

CARMEL HEAD, the main tidal gate, is approx 25 miles from **CONWY FAIRWAY BUOY**



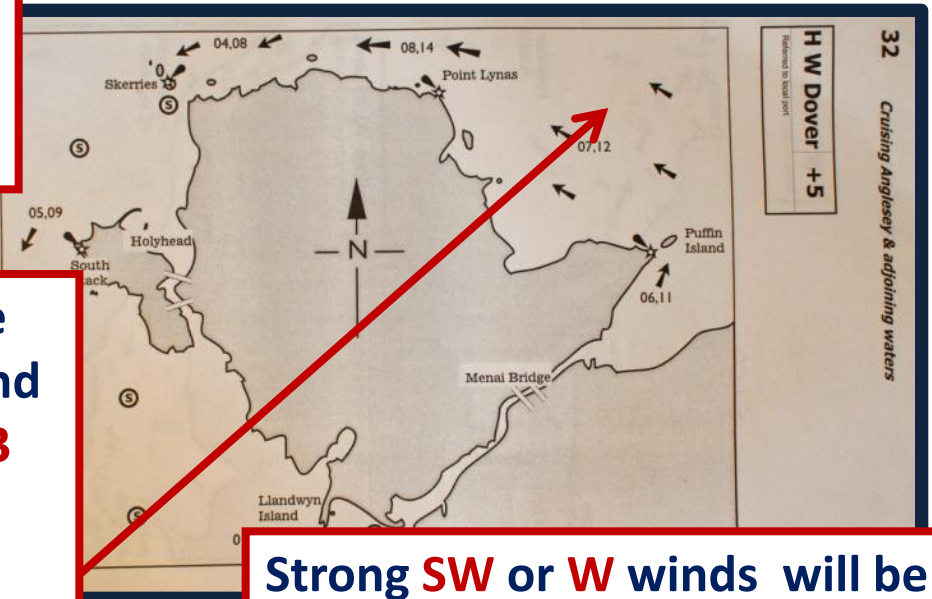
Therefore a yacht travelling at 5 knots will reach **CARMEL HEAD** after about 5 hours and **HOLYHEAD** about an hour or so after that

Planning for Tide

From the **TIDAL ATLAS** we know that **5 hours after HW Dover** would be a good time to go around **CARMEL HEAD**

We also know that we will have the tide with us before we get there; and that tidal streams can run **at up to 3 knots**, therefore it is likely we will reach **CARMEL HEAD** in **less than 5 hours**.

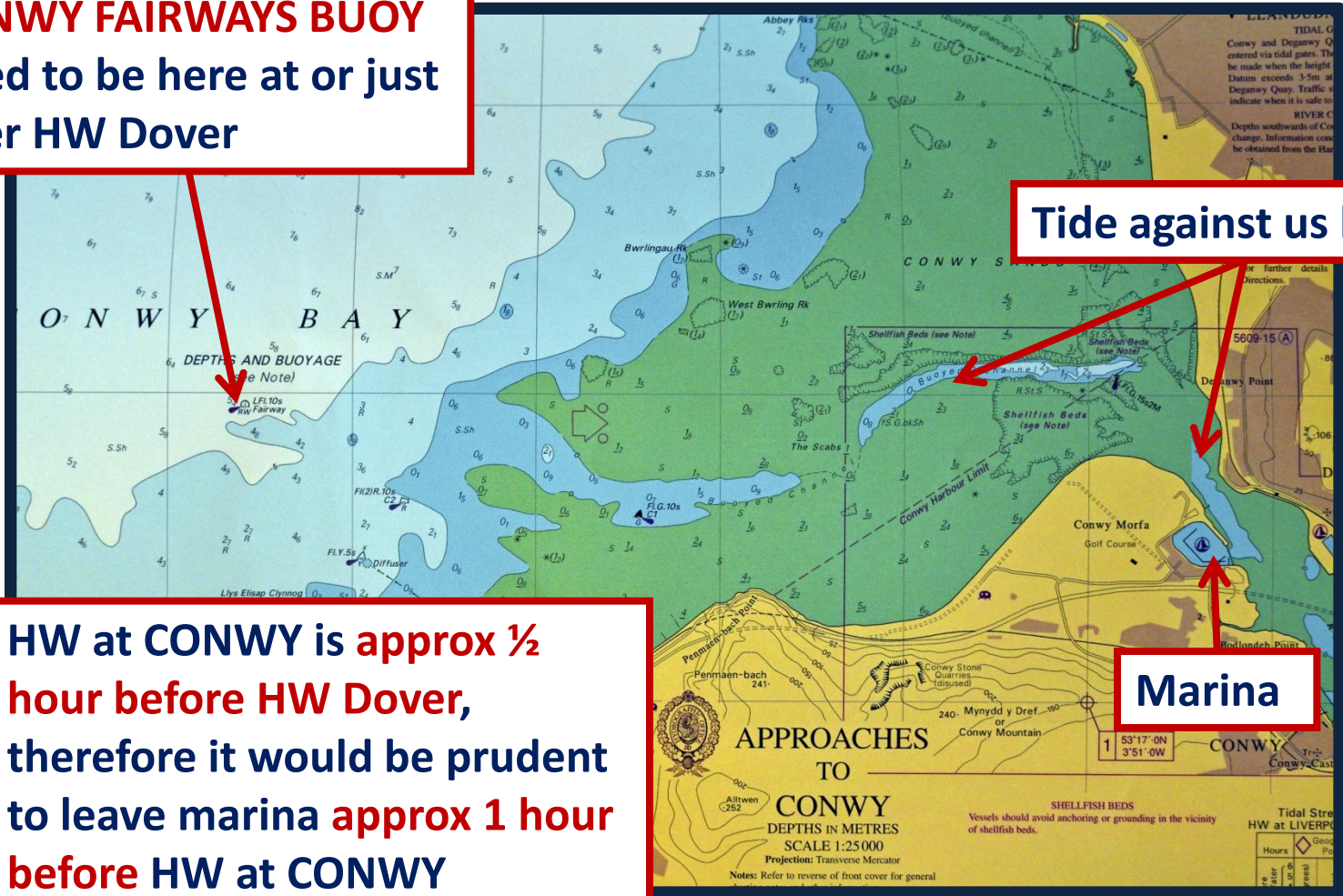
Plan to be at **CONWY FAIRWAY BUOY** at or just after HW Dover



Strong SW or W winds will be against the tide and **may make the waters choppy and confused**, therefore this passage should **not** be attempted in these conditions

Planning for Tide

CONWY FAIRWAYS BUOY
Need to be here at or just
after HW Dover

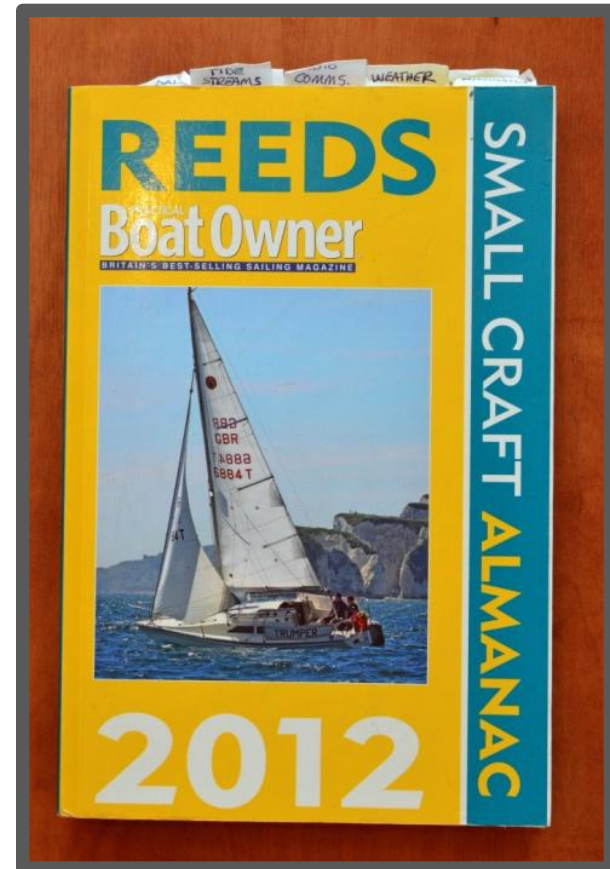


Tide against us here

HW at CONWY is approx ½
hour before HW Dover,
therefore it would be prudent
to leave marina approx 1 hour
before HW at CONWY

Studying the Almanac

The next job is to study the almanac and work out when the tide will allow a suitable leaving time from Conwy Marina



Planning the Passage

**Now you have all the facts to make the passage plan.
It should include:**

- **Safe refuges**
- **Lights / marks and visual navigation aids you can use**
- **Departure plan**
- **Arrival plan**

Before finalising it, you may find it helpful to go through it with you partner / crew

Other Considerations

Finding out the weather forecast for the time of the passage is essential



Consideration should be given to the wind direction and strength as the waters are likely to be choppy if it is against the tide

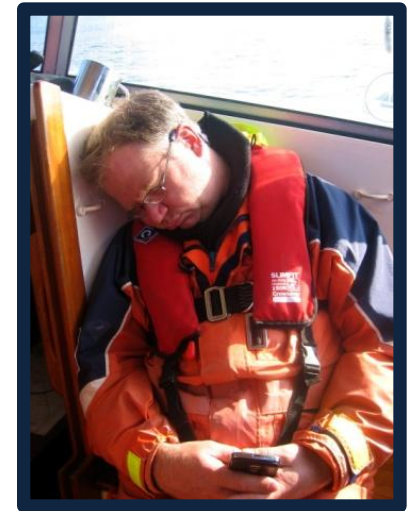


Other Considerations

As it will be a 6-7 hour passage thought must be given to :



- Crew victualling & comfort
- Crew responsibilities and rest periods
- Sufficient fuel and water

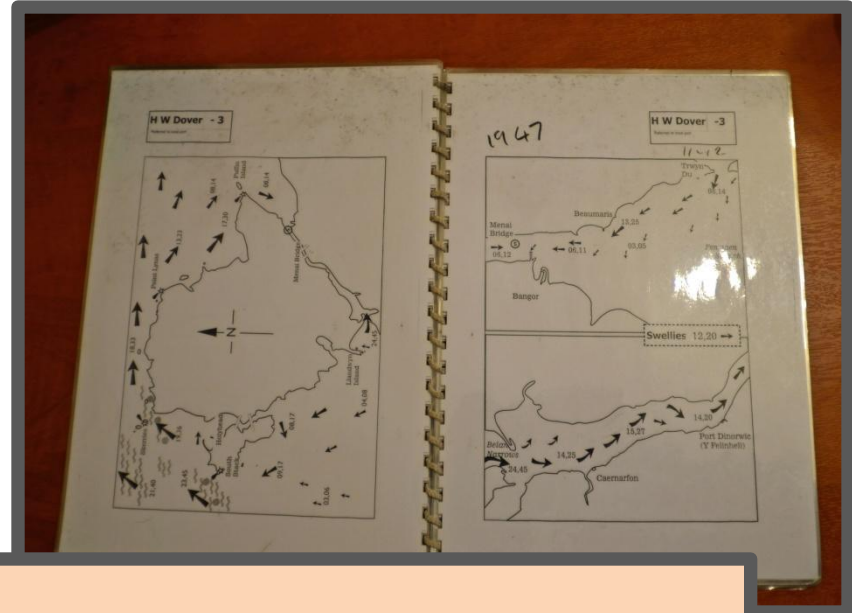
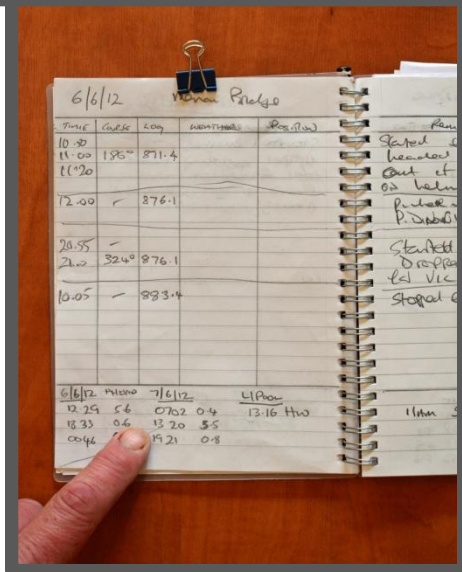


Finally, before setting off remember to contact the coastguard and your land contacts, etc

Top Tips

TOP TIP

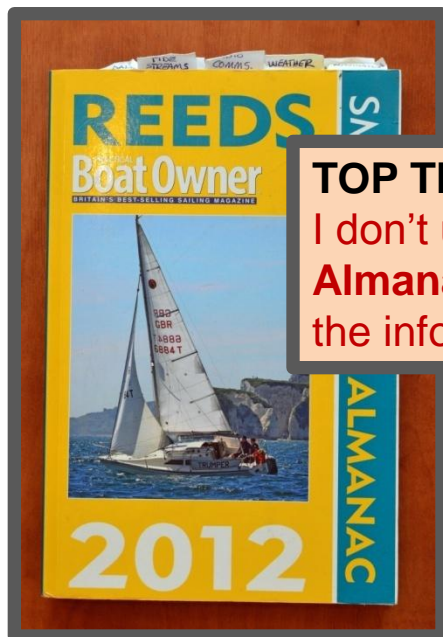
In the real world I write down my tidal information in my **LOGBOOK** on the page that I intend to use during the passage. **That way I always have the information to hand when I need to refer to it.**



TOP TIP

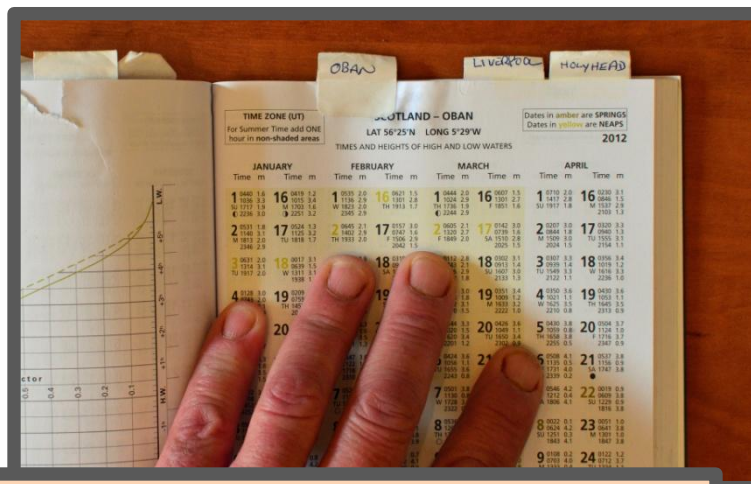
I have laminated my **TIDAL ATLASES** and use **china-graph pencils** to mark the times of important tidal streams during **PASSAGE PLANNING**. **This makes it very easy to refer to them on passage.**

Top Tips



TOP TIP

I don't use a full almanac and prefer the **PBO Cruising Almanac**....it's more compact, better value for money and has all the information I need.



TOP TIP

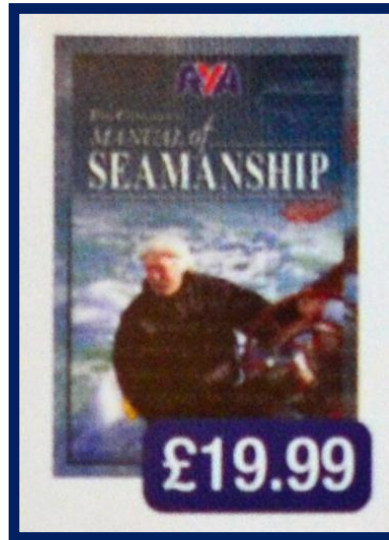
Almanacs have load of pages of similar looking information. To make it easy to find tide times of ports I often use, I make tabs out of stickers. This way I can find the information I need quickly when I need to refer to it.

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Further Reading



We highly recommend Tom Cunliffe's
RYA Seamanship Handbook (G36)

You can buy a copy of this book by visiting our on-line shop

www.penguinsailing.com

