

Gybeing – dipping
Reefing
Setting fore lug standing
Use the oar!
Anchoring
Boat trim
The risk of loosing halliards and mizzen sheet at sea.
Fishing

Here's more detail on the above

St. Ives Bay Challenges

Gusts

Occur commonly in **North Westerly winds** and **when strong wind blows off the land.**

Gusts occur following a cold front accompanied by broken cumulus clouds.

In these conditions there is a lot of interchange between warm surface air rising – causing the cumulus – and blasts of colder air coming down between the clouds from the fast moving higher air. These gusts hit like a fist and the squalls can be seen spreading out radially as they hit the water.

Gusts due to wind blowing around features on the land.

Blasting down valleys like the Stennack or over the lower part of the town from Porthmeor.

Gusts tend to come down beach valleys like Porthminster and the wind fans out into the bay.

Stronger wind from the land can be expected as one opens up Lelant beach as the dunes are lower and offer less air drag than hills buildings or trees.

More wind offshore

This may seem obvious, but it is of course why so many lilo riders and novice windsurfers get into trouble and have to be rescued. What can seem a pleasant breeze in the harbour can rapidly become fresher on rounding the pier, the Island or simply heading out from the shelter of the land.

Anticipate trouble.

Look at the bay before going out and get an inshore forecast.

If in doubt, reef. Its much easier to do this in the harbour! You have lost nothing if it is quiet outside. Shaking them out is easy.

The clockwise current

We can get out of the harbour for two and a half hours on either side of high water.

Off the Island the current runs ENE on the flood until approx 2 hrs after HW and then WSW on the ebb.

During this whole time the current runs around the bay clockwise. On the flood it is a big eddy and on the ebb the water simply runs around the bay before joining the west going flow outside. Within the harbour the tide continually streams out past the end of Smeatons pier and outside runs strongest (with a N'ly set) off the end of the remains of the breakwater which extends from the end of the New Pier (marked with a green buoy).

At Springs the current can be quite strong – up to one and a half knots.

Always keep an eye on passing pot buoys to check the current strength, and use transits between a buoy and the land behind to assess where the current is setting you.

Tidal effects on wave height and wind strength.

When the current and wind are in opposition, the effect can be dramatic. Even with a knot or so of weather going tide, the boat will feel as if the wind has increased by a Beaufort force, and the wind waves will become shorter and steeper.

The current seems to have less effect on a ground sea; these get steeper and shorter on entering shallow water.

The converse effect can be seen when wind and current run in the same direction; the wind feels lighter and the sea smooths out.

Junction lines occur between bodies of water moving differently. These appear on the water with choppier water on one side corresponding to wind/current interactions .

Sometimes one can easily see from a high point how the current is running and where it is strongest.

Ground sea - Lee shores – surf beaches

Sailing in a big swell is fun. Upwind you notice that there is more wind on the crests of the waves and less in the troughs. Downwind the boat will surf/surge as each wave passes under her.

Holding a course can be difficult as the rudder lifts out of the water. You may have to bear off to sail down the waves more to prevent broaching – turning up along the wave as you slide down it. This poses some risk of capsizing.

A lee shore is a risk to any boat, but must be treated by respect by an engineless sailing boat that makes leeway and is slow to tack!

Surf is very dangerous for open boats, and the size of it cannot be assessed from to seaward.

Do not attempt to land on any surf beach!! Even the harbour beach in the lee of the island should be carefully approached even if the waves are as small as 6 inches.

The risks in surf are of loss of control, broaching and capsizing. There is then danger to life by drowning, of being trapped under the boat and of trauma caused by the boat riding over peoples bodies or limbs on the surges.

Remember, if you are jumping out of a boat to pull her up, do not get in front of the boat or she may suddenly surge over you.

The first man to jump out must hold the boats stern. Others then can hold the sides. Once touching she must be quickly run up until the waves cease to move her.

Do not hesitate if you are drifting down to a lee shore, to anchor as soon as possible, deploying all the anchor rope. You'll then have time to work out your options.

Give yourself time to get home!

The mooring dries out 2 ½ hrs after HW. Be careful when sailing away from the harbour downwind or down tide as it will take longer to get home. On lovely summer evenings the wind tends to die away! If you have to, get rowing in good time rather than missing the mooring and giving yourself or somebody else a job of mooring her up seven hours later!

BOAT SKILLS AND RIG HANDLING

Checking the boat and hoisting sail

Check and grease the rowlock and oar leather and that the anchor with warp attached is fastened to mast and ready to go. Pump ship and scrub off gull droppings.

Lifejackets on, check radio.

If there is room around the mooring I then like to cast off the stern mooring and let the boat lie head to wind. If the boat is on a crowded mooring, row or scull her to a mooring in open water. The tender painter can be tied to the bow mooring near to the joining rope.

Hang the rudder, slipping the rudder gudgeon onto the long pintle on the boat first.

So, out mizzen sprit (or 'mizzen boom' as they were known in St.Ives) and secure it with the toggle. The inboard end of the sheet is tied around the boom forward of the cleat. The other end should be made up on the cleat until it is tied to the clew of the mizzen.

Hoisting Mizzen.

Tie sheet to clew with a bowline. Shackle the tack down to the eyebolt in the thwart by the mast. Take off the traveler safety strop and slip the yard strop cringle over the traveler hook. Tie the mousing line.

Hoist with somebody keeping a little tension on the luff so the yard does not thrash around. The halliard must be tight enough to prevent creases from throat to clew when sailing. Finally tighten the sheet so that the boat weathercocks in the wind.

Hoisting Forelug

Decide which tack to set off on. Move fore lug on its yard to leeward of the mast on your chosen tack. Hook tack shackle to bow hook and tie it with the mousing line. Attach the appropriate sheet (short loop through the cringle – long loop through the splice in the short loop). Ensure that the Burton and the halliard are hooked on the windward side eyebolts. Tighten up the Burton. Bowman sits ready to apply luff tension as you hoist, (controlling the movement of the yard and flogging sail), Halliard man hoists and bowman helps with final tightening.

Getting under way

Mizzen is eased. Bowman unties bow mooring and pulls on it, passing back down the windward side as the boat bears off..

Forelug can be backed by the mast if necessary to help this process.

Sheets trimmed and away!

Trimming sails without a flag.

Wind direction can be detected by flags on potbuoys, ashore, the weathervane on the church, smoke, by watching the wind ripples on the water, by feeling the wind on your face and hearing it roaring in your ears.

It of course can best be seen by its affect on your sails.

Except when running, the sail trim that will give most drive and least heeling moment is found by easing the sail out until the front edge lifts (blows in) and then pull in until the sail is just full again.

When running the sail is let out until the yard is at right angles to the boat (If she starts rolling, pull it in a bit).

On a dead run the main and mizzen can be carried on opposite sides – ‘Goosewinged’.

This is greatly helped by booming one or both sails out. Oar, boathook or any other pole can be used. A little light line lashing on the end of the poles will make this easier.

On a beat the sails are pulled in reasonably tight (not flat as a board or the boat will go sideways!) and the helmsman concentrated on keeping the speed on while sailing as close to the wind as possible.

He achieves this by every half minute or so, luffing slowly until the front of the sail starts to tremble or break, and then bearing off to return the sail to fullness.

As a lad I was often told by the old fishermen to **‘Keep her full and by’**, advise that is very relevant to jumbo sailing with their relatively shallow draft. Go slowly and you will go sideways.

Gusts on a beat can be used to luff past ‘lifting point’ without loosing speed, gaining distance to windward and easing the boat at the same time. You must however bear away again at the slightest loss of boatspeed.

In sharp gusts the sheet must be eased a little – 2--6 inches or so, and then, almost straight away, (as the helmsman luffs) pulled in again so you have something to ease in the next puff.

The effect and importance of the mizzen

The mizzen sail is vital to the balance and handling of a dipping lugger.

If the mizzen is tightened the boat will turn up into the wind and if it is eased it will bear away.

This is used to promote balance and self steering and to relieve unpleasant weather or lee helm.

When tacking the mizzen is tightened to help the boat luff up to head to wind, but, once through the eye of the wind the sail must be eased to allow the boat to fall away to a close hauled course.

If eased totally the boat will bear away slowly onto a run! Thus control of the mizzen when tacking is the job of the helmsman.

If the mizzen is not eased when head to wind the boat will not bear away and will get into ‘irons’, stopping and then gathering sternway.

This requires reverse movement of the helm and easing of the mizzen to correct it.

Everybody gets into irons sometimes. Practice steering backwards!

Tacking – Dipping

Before tacking the helm concentrates on sailing fast while watching for a smooth patch of sea ahead and to windward. When he finds it he says 'Ready about' and puts the helm down gently, sailing the boat round and into the tack and simultaneously tightening up the mizzen sheet.

As soon as the weight comes off the forelug clew, the sheet man (SM) disconnects the sheet block and then shouts to tell the halliard man (HM) to lower away the yard.

The SM grabs the head of the yard, having pulled down the peak if necessary, shouts to tell the halliard man that he has got it, and guides it down and forward until it sits on the mast thwart forward of the mast, between the two straps of the mast gate.

He (SM) then passes the clew around both yard and mast .

Meanwhile the HM unhooks the halliard and passes aft with it, behind the SM and around the sail and hooks it to the halliard eyebolt shackle on the new windward side.

Meanwhile the SM pulls the clew aft, outside the Burton and starts to attach the new sheet.

During this whole performance the helm has been making sure that the boat has borne away to a close reaching course by suitable adjustment of the mizzen sheet and helm.

Once the halliard is hooked on the HM starts to move the Burton, but as soon as SM hails that the sheet is attached the HM passes the Burton to the SM who hooks it onto the windward side and sets it up, hailing when it's done.

HM then starts to hoist the yard and the SM guides it aloft out of harms way.

SM can help with swigging the halliard tight if necessary before going aft to tighten the sheet.

As the boat gathers way the helm guides her back to a close hauled course, by using helm and mizzen, and SM progressively tightens the sheet as she luffs up until close hauled tension is reached. The tack is complete!

When tacking in a big swell, keep the boat sailing fast on the face of the wave and do not attempt to luff until you are over the crest. Turn hard on the back of the wave, trying to get past head to wind before climbing the back of the next wave. Don't try too often before helping the boat to tack with the oar or 'wearing ship' – gybeing around!

Once you have got the bow through the wind the waves will push her round to a reaching position on the new tack, so a short frantic bit of rowing can save you a lot of ground to leeward! If you are anywhere near a lee shore in a lumpy sea, consider wearing round in good time!

Gybeing – Dipping

This can be tricky as the sail is full when it is lowered or hoisted, requiring care in controlling the yard. The mizzen does give some wind shadow however, and the apparent wind is decreased when sailing downwind.

The most important safety consideration in heavy weather, is to ensure that the Burton is on and tightened up on the new side before the sail is rehoisted as it acts as a backstay, preventing the mast from bending and breaking.

So here goes:

Helm bears away onto a run, both sails well eased. "Stand by to gybe" is the word;

SM takes the sheet block off the sail and shouts "Sheet off" to the HM, who lowers the yard.

SM controls the sail by pulling down on the leech until he can grab the yard head, which he guides down onto the mast thwart, between the mast gate straps forward of the mast.

He then passes the clew round the mast, while the HM disconnects the halliard tackle and passes it round behind SM and the sail to hook it onto the new windward eyebolt shackle. SM pulls the clew aft along the new leeward side, outside the Burton and then connects the new sheet. After attaching the halliard tackle, HM starts to unhook and move the Burton, passing it to SM when he is free.

SM hooks on the Burton tackle and tensions it and then shouts "Burton on".

HM tensions the halliard, passes the yard end to SM who steers it aloft and to leeward while keeping a hand on the sheet – it very easily runs out as the sail fills!

HM sweats up the halliard and the gybe is complete.

Throughout the gybe the helm may either keep the boat running before the wind or may round up onto a beam reach if required.

Reefing

Generally speaking, when reefing, the Luff reef cringle is attached to the tack attachment point, the leech reef cringle is attached to the sheet and the bunt of spare sail is tidied up by rolling it and tying it up with the reef points.

On the mizzen the above is exactly what happens.

The main is more difficult because of the need to dip.

The sheet block is attached to the clew reef cringle and the sail is rolled and tied up with the points as above but a different solution has to be found for the luff.

This is because, when the yard head is on the mast thwart when tacking, the reef cringles are well above the stem hook.

Therefore we employ a tack rope. The fore end of which is shackled to the luff cringle. The bow binding of the block (which is captive on the tack rope) is moused to the skudhook on the stemhead. The hauling end of the tack rope run aft through a hole in the hanging knee on the port side of the second thwart and is made fast by belaying to the thole pin.

Upon tacking this line is simply cast off. The correct amount of slack for a single reef is controlled with a knot that comes to bear on the aft face of the hanging knee.

Just before the sail is hoisted on its new tack, the tack rope is hauled in and made off once more to the thole pin.

Working the tack rope is consequently a swift operation and may be done by the SM.

NB. If a double reef is required then the knot will need to be retied approx 24" further aft.

When not in use it is unshackled from the luff cringle and the block is taken off the skudhook.

The slack is then taken in so that the shackle and block bear against the foreface of the hanging knee snug against the planking so that it is clear of the eyebolt for the burton purchase.

In extreme weather the mizzen sail could be hoisted in place of the main and a storm mizzen hoisted (leg o' mutton), but I have not yet tried this in a Jumbo.

Setting Fore-Lugg 'Standing'

The Jumbo mizzen is set standing , being tacked down level with the mast. Set like this only a little sail extends in front of the mast and although the sail does not set well on one tack, it does provide reasonable thrust, without the need to dip it.

The fore lug can be set standing but because of its shape it cannot be effectively sheeted unless set lower on the mast. This is achieved by tacking the first reef cringle down to the eyebolt on the thwart for the traveller safety line.

The halliard is made fast on the same side as the yard and the Burton on the other side, each on their normal pins.

The spare sheet block is removed from the bronze pin where the mizzen burton is belayed. One sheet is unshackled from the gunwhale and attached to the becket of this block. The hauling part of the sheet is passed through the block and it's strop is looped over the aft end of the same belaying pin. Upon tacking, the strop together with the whole sheet purchase, is transferred to the other side of the boat.

The sheet may be made fast to itself or to any strong point with a slippery hitch.

With this set up the yard will not swing out well off the wind but it provides a way of sailing short handed , and of tacking without dipping.

Don't be proud – be practical!

We cant afford to damage our boats or those of other harbour users. Don't be too ambitious! If you get stuck in stays in the harbour entrance due to a flukey gust, GET OUT THE OAR! If you are fetching across the harbour going for your mooring, don't try to squeeze past to weather of a moored boat unless you have the oar ready to use if its turns out that you can't make it! Similarly if you are going for the mooring but are falling below it, don't worry about luffing to the mooring; when you luff, help her with the oar rather than miss the buoy and drift into other moored boats!

If you are near the shore and you are stuck in stays, stroke her round; the old boys would approve!

That brings me to anchoring

An anchor is your final line of safety and is a seamanlike thing to use.

If you are in trouble near the shore drop the fore lug and chuck it out. It will give you time to work out your next move.

The more rope you let out, the better the anchor will hold. Minimum is three times the depth of chain or five times the depth of rope. If there is any sea running use seven times the depth. Keep an eye in a transit (two things in line) abeam of you; If they are moving apart you are dragging. If you cannot let any more rope out you will have to do something else unless you can see the lifeboat!

Boat trim

The Jumbo is designed to carry weight. Being clinker built she is a light and buoyant boat. She is capable of sailing safely with five people aboard, but however many crew you have, they must be aware of the trim of the boat. It is very tempting when tacking or gybeing for all hands to rush forward to help. This results in the boat being down by the head with the rudder out of the water; almost uncontrollable.

At all times crew members must be aware of the effect of moving their weight around the boat. Crew should occupy the middle of the boat. In most weather they should be on the windward side to counter the heeling effect of the sails.

In very light weather the sails will hold a better shape if the boat is heeled to leeward.

Keeping the boat upright when beating will minimize leeway.

A warning – Loosing the travelers up the masts or loosing the mizzen sheet at sea can be serious problems. TAKE CARE!

Fishing from the Jumbo.

Mackerel fishing with feathers is easy from the Jumbo. You need to be where the fish are, which is most dependably outside or just inside the head. The boat needs to be going slowly, at about the speed used by commercial fishermen though fish will be caught if they are there when stationary. So try drifting along with the forelug down on a beam reach under mizzen power, or if you need more speed, with the forelug half hoisted with the lower end of the yard tucked under the stemhook. The number of hooks you use depends on your experience. I use 12, the commercial boys – up to 80!

Its always nice to get a feed and fish are pretty dependably to be had off St. Ives.

I have not tried setting pots but it would be quite possible to set a few in good weather inside the bay. Near the shore inshore fishermen would drop their forelug and manoever with oar and mizzen; quite safe!

Drift fishing for Herring and pilchard was what these boats were principally used for. The harbourmaster of Clovelly does some of this with his 15 foot picarooner. The Jumbo would be much more practical for this but you need the nets, lights, etc..

Trolling for Bass could be a profitable line. Mousehole and Newlyn men get a premium price for Bass caught on lines. Line caught bass under sail – worth a fortune.

Fishing is what these boats were built for ----

Phil Slater June 2010

Amended by JN. June 2011