National Windsurfing Scheme

Intermediate Coaching Notes

Incorporating:

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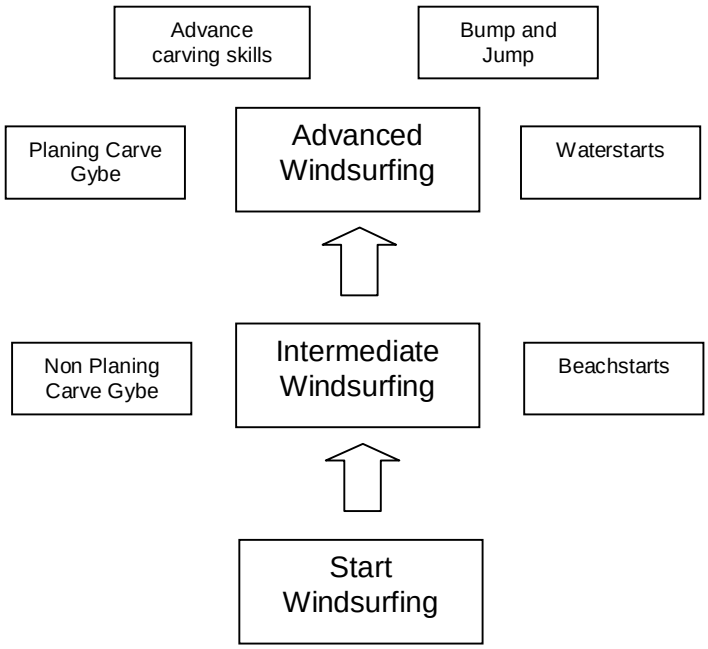
The National Windsurfing Scheme



RYA Windsurfing Scheme and Coaching

To satisfy individual requirements as people progress, clinics are added in addition to the main scheme content. So for example, a student on an intermediate course could choose to extend their knowledge and do a beach start clinic. Someone who's already accomplished in straps and harness, but is looking to improve their overall sailing, would use and apply the Fast*fwd* formula to enhance their proficiency with a planing carve gybe clinic.

Scheme clinics can be taught separately or included as part of the main course. However taught students should be encouraged to participate on clinics required for the environment to aid a rounded ability. For example; Tidal areas may require the use of gybing in assisting sailing back to an original goal point or launching area.

Fastfwd Coaching

In reality, 99% of people want to learn how to blast up and down and turn round. Effective coaching should help address the end users needs and focuses on getting customers quickly into the thrill of the sport.

In recent years we have seen a variety of user-friendly equipment designs that now offer the perfect platform to really relish the sport. In conjunction with this recent equipment evolution, windsurfing skills and coaching techniques have also seen massive advances.

To take full advantage of these exciting changes, RYA Windsurfing turned to technique expert Simon Bornhoft. Simon was particularly keen to simplify and focus on the exact coaching skills and techniques that really do make a big difference on the water.

Fast*fwd* concentrates on cultivating skills that are an integral part of progression and totally transferable into every area of the sport. The formula can be delivered by various levels of

Instructors, in both planing and non-planing environments, either in a structured course, or clinic.
The formula is proven to be a very simple, memorable and incredibly versatile coaching method containing five key elements that are supported by some very specific actions and techniques, all of which are critical to our windsurfing and work right through the whole sport.

No matter what level of windsurfer we are, we all stand on a board with our hands and feet roughly shoulder width apart as we cruise along. From this position, we aim to control the equipment and conditions and enjoy the great thrill of windsurfing. If you look at a very experienced windsurfer blasting along, they aren't actually doing anything wildly different to the less experienced sailor. What separates them is the ability to use and commit to a small number of simple, yet very specific, techniques. There are no magical secrets and no complex actions to master. As any good Instructor knows, often a customer's success can be down to one very small basic point that makes all the difference in the world. An instructor must be confident to *avoid over complicating their delivery*.

Fast*fwd* Coaching within our National Windsurfing Scheme:

- Identifies the most influential and key areas in windsurfing coaching
- Simplifies and constantly helps develop skills
- Transferable into every area of the sport

USING THE FASTWFD FORMULA

Fastfwd is an on-water coaching guide and self-reminder system that can become a common language between instructor and student.

Whilst you might concentrate on one particular point at a time, the formula works in a continuous circle and acts as a constant student and Instructor prompt. So, starting with **vision**, you'll regularly run through the formula, until you home in on one particular element to sort out a problem, or emphasise a point.

The formula is made up of 5 key elements that form the basis of our actions on a board…"

Vision Ÿ Trim Ÿ (Counter) Balance Ÿ Power Ÿ Stance

You may already have your own interpretation of these terms and how each element can have its own particular merits. When coaching, you may stay focused on only one element, and later choose to link the elements together.

"VISION *maintains our sailing line*"

Where you look, your sailing line and how you use your head, are always the first considerations before any other action. Try starting your coaching or diagnosis with **vision**. Such a simple point but it is unquestionably the most important aspect of both coaching and improving technique.

"TRIM *keeps the board flat*"

A flat, stable platform increases the ease in which we can control the board and rig in any situation. All our actions and the other elements in the formula (except **vision**) refer and relate to **trim**.

"BALANCE *forms our framework*"

OR *'**Counter Balance'*** refers to our continuous objective of maintaining our distance from the rig (by extending the front arm) and always opposing and counter balancing the rigs pull, position and movement with our body.

"POWER *channels the rigs' forces*"

Power refers to channelling the rigs forces, by sheeting the boom in, back and down - critical in many skills learnt in windsurfing.

"STANCE *is how we use our body*"

Stance refers to how we position angle and direct the rig's forces with our body. We can recommend some very specific actions to create a range of movement that maximises the effect of our body in a windsurfing environment.

LESSON PLANS

This is an outline guide and lesson plan to aid your initial delivery of the the RYA National Windsurfing Scheme and the Fast*fwd* formula, used in conjunction with training on either an Intermediate Instructor conversion or course.

INTRODUCTION

The following lesson plans provide guidance to help you with the first few courses or sessions that you run. You should also use your own experience, ideas and knowledge to develop your courses and sessions to suit your own teaching environment and specific weather conditions.

The Intermediate Course

The Intermediate course is designed to be fitted in to a variety of formats, this simply provides some suggestions. You should design your programme to suit your centre, experience and specific conditions. If you are unsure of your chosen programme, you can check its suitability with RYA Windsurfing.

Competence should be recorded in the National Scheme Logbook, with competence recorded as Non-Planing or Planing.

Introduction of the Formula

Give a clear and structured introduction to the values of the concept of the Fast*fwd* formula. This should include a brief outline to the key elements.

Give guidance and concise meanings for each of the elements. Always simplify your message and refer back to why each element is important and how they interrelate. This will enable you to be more simplistic, less wordy and very effective guidance on the water.

Ÿ **Vision** Ÿ **Trim** Ÿ **Balance** Ÿ **Power** Ÿ **Stance**

Aim:

To familiarise the group with the formula terminology by practical demonstration showing how the elements of the Formula fit together.

Objectives:

By the end of the session students should:

- Have an understanding of the Fast*fwd coaching formula*
- Have a basic understanding of the key elements
- Understand how the formula fits into other areas of their sailing

Group Dynamics:

This session is based around a simulator. The Instructor demonstrates and talks through the Formula.

Remember - The longer the session takes, the longer it will take before you get onto the water.

Finally – Emphasis and continually demonstrate how accentuating the simple skills, actions and detail within the formula makes a massive difference on the water.

THE FORMULA

Fast*fwd* VISION

VISION maintains our sailing line

Where you look, your angle to the wind and how you use your head are always the first considerations before any other action. Always start the formula and your coaching diagnosis with **vision**.

Why do we use VISION?

- To maintain our sailing line in relation to the wind.
- To judge and assess situations and detect changes in sailing line or direction.
- Vision affects our balance, stability and ease to carry out other actions.
- Vision has a very positive effect on the success of our technique and stance.

Problems occur when people don't use their head, their sense of direction, or when they look at the equipment too much.

Applying VISION

- *Vision is always our first consideration*
- *Look where you want to go!*

Before and during any action or objective, you always need to make sure you're on the right line for what you're trying to achieve

- Look forward for early planing, harnessing, footstraps and blasting control.
- Look downwind when heading or turning off the wind - e.g. increasing speed.
- Look upwind when heading or turning upwind - e.g. control speed / heading upwind.

Avoid Gear Gazing - apart from very brief glimpses, e.g. while hooking in, prolonged gear gazing is usually very destructive to your technique.

In situations like beachstarts and transitions, we have some very specific recommendations on where exactly to look and how to use **vision** to the full.

Fast*fwd* TRIM

TRIM keeps the board flat

A flat, stable platform increases the ease in which we can control the board and rig in any situation.

Why do we use TRIM?

Trim is influenced by the other elements in the formula. All our actions link back in to the aim of keeping the board as flat on the water as possible.
Trim is a priority and constant guide to see if everything else is working. Poor **trim** indicates that either **trim** itself, or other elements are not being applied effectively.

Trim is paramount for getting going, encouraging early planing, harnessing, finding footstraps and blasting control.

Applying TRIM

Where we stand and how we direct our forces affects **trim**.

FOOT POSITIONING OUT OF THE STRAPS – approximately shoulder width apart.

The front foot should always point forward to control pitch, which helps to drive the board forward through an extended front leg to brace against the forces of the rig.

The rear foot is directed across the board to manage sideways tilt, which helps control variations in speed and any windward rail lift.

At slower speeds both feet move forward and inboard, with increased pressure through the toes.

At higher speeds both feet move back and outboard, with increased pressure through the heels.

TRIM IN THE FOOTSTRAPS

When in the footstraps at speed, the above theme continues.

For marginal winds, early planing and to help increase acceleration, pressure is applied through the toes.

For stronger winds, the heels drop and the toes curl to lock the windward rail down.

THE BACK LEG HELPS CONTROL TRIM

The back leg plays a massive role in board **trim** and crosses over into the **stance** and **blasting control** sections.

- Always try to avoid a very straight over weighted back leg.
- In light and marginal winds, flex the back leg to take weight off the tail when getting going.
- At higher speed over chop, you'll occasionally heavily flex the back leg to avoid the nose lifting excessively or spin out at higher speeds.

þ FASTNOTES

In some situations, we may want to alter the pitch or tilt of the board, such as more acute turning in transitions or increased pressure on windward rail when going upwind. On these occasions we will explain exactly how and when this should be done.

þ COACHING TIPS

Running sessions where you show how the board slows and stalls if the back foot is moved too far back and the rear leg is heavily straightened. This helps show how small foot movements and heavy footedness can affect their speed, acceleration and **trim**.
Exercises encouraging students to try transferring weight on to the toes to encourage early planing, or heels to help control if travelling at speed.

Try a combined session using **vision** and **trim** together by getting your students to sail upwind without a daggerboard using specific **vision** and board tilt.

Fast*fwd* BALANCE

BALANCE forms our framework

Balance or counter balance is about creating our distance from the rig, particularly with the front arm and always opposing the rigs position, forces and movement.

Why do we use BALANCE?

- **Balance** is an action that is continually used both in straight line blasting and transitions.
- **Balance** is an integral part of maintaining **trim** and is very much part of both **power** and **stance**.
- It is our ability to constantly maintain, adjust and develop our **balance** that makes us better windsurfers.
- Neglect your **balance** by getting too close to the rig, or moving in the same direction as the rig and suddenly all sorts of problems occur.

Applying Balance

POINT 1: Always try to keep the rig clear and away from the body by extending that front arm. This simple but crucial action creates a solid framework for our straight line blasting, contributing greatly to controlling the rig and improving our **trim**, **power** and **stance**.

In marginal conditions you can really accentuate **counter balance** by really extending the front arm to increase the pull from the rig and help **trim** the board flat. All of which is most beneficial when getting going, early planing and after getting in the harness and or footstraps. In strong winds fully extending the front arm is less critical, but keeping a good distance from the rig remains a constant aim.

POINT 2: We always use our body to oppose and counter balance the rig's position, forces and movement. If the mast / rig moves one way, the body moves in the opposite direction

If the rig is leant back, the body leans or moves forward to **counter balance**

If the rig is leant forward, the body leans or moves back to **counter balance**

If the rig is moved across the board, the body opposes the rigs movement to **counter balance**

*See the **counter balance** example in the tack for an example:*

Entry: Rig back, body forward.
Mid: Rig moves across and body moves across to **counter balance**.
Exit: Rig forward and body back.

þ FASTNOTES
In certain situations we might have to temporarily limit our first rule of **balance**, for example when swinging the harness line to get into the harness, or when blasting very overpowered in a Super 7 drop and dig stance. However, we should seek to apply the two objectives of **balance** whenever possible.

þ COACHING TIPS
To show the importance of **counter balance**, you can run sessions where you show how **trim** is interlinked with **balance** e.g. standing near the tail and showing it's possible to keep the board trimmed flat if the rig is kept well forward. Alternatively demonstrate how getting too close to the boom or moving in the same direction as the rig when using the harness, footstraps, tacking or gybing destroys Balance, control and stability.

Fast*fwd* POWER

POWER channels the rigs' forces

Power is the simple action of sheeting the boom both in, back and down.

Why do we use POWER?

- Sheeting the boom in and back creates more drive and is an essential part of trimming the sail.
- The action of also pulling down on the boom puts force through the mast base, which in turn, helps **trim** the board and stabilises the rig in so many situations.
- We use **power** in varying degrees when getting going, promoting early planing, harnessing, finding footstraps and blasting control.

Applying POWER

- **Power** is best achieved when our 'Balance' is maintained with the extended front arm.
- In strong winds we often really accentuate **power** and pull heavily in, back and down on the boom.
- In lighter winds we might limit our **power**, but it is always a consideration.

þ FASTNOTES

- In non-blasting situations, like beachstarting or gybing where the rig is not fully sheeted in, we use the pulling *down* aspect of **power** to increase our control over the rig and help **trim** the board.
- It is advisable to have a correctly set boom to apply **power** properly. (See Gear Guide)

þ COACHING TIPS

Getting Going: Try asking your students to drop down into a Super 7 'drop and push' to find out how they can hang DOWN off the boom, rather than standing upright and pulling the boom towards them. When doing this make sure their feet are well forward and the rear leg is well flexed when dropping and pushing in their Super 7 stance.

In stronger winds **power** is critical and should be a major focus, using Stance to help ensure it is maintained.

Fast*fwd* STANCE

STANCE is how we use our body

Stance is all about how we use and angle our body to respond to the rig's pull and is probably the most important and inclusive element in the Formula.

First clearly show how a good basic or standard stance is when the body reassembles the number 7. This can be done sailing directly towards the student so that they can easily see the number 7 shape (either in or out of the harness). When this is clear, demonstrate how you would use the stance range to suit the conditions or their particular intentions.

Why do we use STANCE?

Stance brings the Formula together and it is a constant factor in successfully achieving other skills.

Applying STANCE

Like changing up and down a gear on a bike, we vary our **stance** to suit our needs. **Stance** is NOT about adopting fixed positions while windsurfing.

Stance predominantly relates to the alignment of head, hips and heels.

How we change this alignment affects the forces that our body creates. You will find that subtle movements and changing your weight distribution between the hips and heels can make a massive difference to your ability to control both rig and board.

A Standard stance (Or Standard 7)

Working through the first four elements of the Formula, you will already have established the foundations of a good overall stance. Simply put, the students body should resemble a 7. If necessary, fine tune with the following points.

- Look forward and use your **vision**.
- Keep the feet roughly shoulder width apart and position them to **trim** the board flat.
- Extended front leg and slightly bent back leg will help apply **trim**.
- Extend the front arm and upper body away from the mast to maintain **balance**.
- The rear arm, roughly shoulder width apart on the boom, predominately controls **power**.
- Use your body weight, either in or out of the harness, to resist the rigs pull and maintain **power**.

This standard 7 stance allows for variations in personal sailing styles and could also be described as a middle of the range **stance**. If the wind strength was constant, we could just cruise about in this standard stance. But windsurfing just isn't like that. We always need to adapt to changing winds and different situations by moving our body in quite specific ways. Even if this is a temporary measure and we switch back into our standard stance, it is vital to know how to move the body to react effectively, hence developing a s**tance** range.

STANCE RANGE in windsurfing

*Our **stance** message is simple and consistent, both in and out of the harness. We have already established guidelines for a standard 7, which forms the basis of our stance. Your ability to react and shift through the **stance** range to suit different situations, contributes greatly to your overall comfort, control and ability to improve.*

To find the extent of your **stance** range, you would either;

'Lift and Lock' towards a Straight 7
Or

'Drop and Dig' towards a Super 7

Acceleration – 'Lift and Lock'

'Lift and Lock' is used when we want make the most of the rigs power. This could be used to increase speed, accelerating after getting into harness and footstraps, continuing through lulls and quite often as a lighter wind planing and non-planing stance.

Straight 7

- Bring the feet closer together inside shoulder width (if out of the straps)
- Narrow the grip on the boom to inside shoulder width
- Extend the head and shoulders outboard
- **'Lift and Lock'** the hips, tightening the torso for extra effect
- If you are in the harness, try pushing the boom away with the front hand to accentuate Balance
- Direct the forces through a locked, extended body, with more weight through the toes
- Always re-check the formula

Coaching summary: '**Lift and Lock'** those hips, extend body and push through toes.

Controlling Acceleration – 'Drop and Dig'

'Drop and Dig' is used when we need to control and commit to the rig's pull or control excess speed. This could be used for stronger wind getting going, harnessing and often as a stronger wind stance blasting control stance.

Super 7

- If out of the straps widen the foot spread to just past shoulder width
- Widen the grip on the boom to just past shoulder width
- Drop the hips down by slightly bending the back leg
- Dig and weight the heels to hold rail down - pulling up on the toes if in the straps
- Roll the upper body slightly
- Pull down harder on the boom to increase **power** and improve **trim**
- Always re-check the formula

Controlling Acceleration Summary:

Coaching summary: **'Drop and Dig'** to sink the hips and weight heels on windward rail.

þ FASTNOTES

You will see in the **Getting Going** section we use a Super 7 but 'drop and PUSH' through the toes, rather than dig the heels. This is for the specific purpose of promoting planing, when it's vital to push the board forward and flat. At higher speeds we would drop and dig.

As you've discovered, the primary use of the hips in stance is either, 'lift' for lighter winds, or 'drop' for stronger winds, but they obviously can move forwards and backwards too. If that is the case, then our Balance element comes into play. So if the hips move forwards, the rig moves back, and vice versa, even if it is only done by small amounts e.g. when going for the front strap the hips sit back and the rig is kept forwards.

þ COACHING TIPS

In marginal winds demonstrate a 'Super 7' **'drop and push'** to get going, then '**lift and lock'** into a 'Straight 7' to help it accelerate or keep planing. Always really accentuate the movements to make them visible.

In stronger winds demonstrate how dropping the hips and digging of the heels during a 'Super 7', can help control the windward rail and the boards' extra speed.

It is vital that students see that there is a big range of movement and that they must accentuate certain forces and stances in specific situations.

FUNDAMENTALLY SIMPLIFY YOUR WHOLE MESSAGE WITH GRAPHIC SUMMARISED DEMOS SO THAT THE TERMS 'STRAIGHT 7' AND 'SUPER 7' ACT AS TRIGEERS TO CHANGE THE STUDENTS STANCE AND FORCES WITHOUT LONG EXPLANATIONS.

Prepare to launch

Introduce the concept of correct equipment set up for the student's boards and rigs. It is important that students are aware of how important it is to have their equipment tuned correctly to suit them and the conditions. If you get the chance you should try out their equipment to check it is rigged correctly. Get them to try yours too!

This session should also be used to explain safe launching and landing procedure.

Aim:

To make students aware of good rigging and tuning practices for their equipment and to be aware of the safe launching and landing skills required for the particular location.

Objectives:

By the end of the session students should:
- have some basic knowledge of board and rig tuning
- have an awareness of launching and landing Skills

Group Dynamics:

This is a land-based session, preparing the candidates to go afloat.

Information to be covered:
- Correct rigging technique
- Board tuning
- Launching and landing

Coaching Notes:

This session can be extended or shortened to suit weather conditions. Depending on conditions, operating area and your groups experience you may decide to run a beachstart session before going afloat.

Be aware that some of your students may not be confident at launching and landing in windy conditions or where there are groups of people. It is important that all safety angles are covered. All candidates should be in suitable clothing with harnesses.

Prepare to Launch

During the delivery of this section you should make sure that you deliver the new safety message Check, Check, Check and ensure that your students realise that they need to be proactive in taking on a responsibility to manage their own safety and to look out for others.

At this stage we are also still recommending that people only sail where there is specific safety provision provided.

- Safety Message
- Setting up your equipment

You should ensure that you teach whichever method you feel is suitable for launch on your particular stretch of water, but remember it's not a specific requirement when it comes to assessment.

Remember, keep your delivery to a minimum, the simulator is a useful tool, but Windsurfing is learnt on the water.

PREPARE TO LAUNCH

Don't forget to sail safe!

- Ø Check the conditions
- Ø Check your equipment
- Ø Check yourself

Setting up your equipment

It is imperative to check and tune equipment prior to each sailing session.

Make sure you check that;

- Mast base and extension are secure, UJ not damaged or worn
- Fin bolt is fastened tight
- Boom clamp is secure onto mast
- Outhaul and downhaul lines are secure and aren't damaged
- Uphaul is attached securely
- Footstraps are screwed tightly
- Harness and lines are fitted correctly – i.e. tightly!

Select relevant sized board and rig for the conditions and fine tune

Whilst there is no absolute set pattern for checking and setting up the gear, here is a logical way to run through the components to help establish a reliable board and rig set up.

The whole objective of Fast*fwd* gear set up is to help maintain **trim**, encourage planing and make sure the equipment is promoting good technique, comfort and an understanding of where and how each component should be set before going on the water. In windsurfing, it is impossible to be absolute, so here are the starting recommendations that can then be fine tuned to suit conditions, board choice, sailor stature and ability.

Fin

Always start with the fin. We want to make sure that the fin is large enough to help promote directional stability and planing, yet not too large to cause control difficulties at speed.

Fin Formula for Planing

For intermediate boards and most recreational boards above 110L: Take sail size x 5 + 4 = average fin size in centimetres.
(e.g. 7m x 5 + 4 = 39cm.)

For boards below 110L: Sail size x 5 + 2 = average fin size in centimetres.
(e.g. 5m x 5 + 2 = 27cm fin)

Your average fin size, give or take a cm or two, should be suitable for most situations, but you should fine tune to suit your own sailing situation using this guidance below.

Tune down in size 1-4cm: Sailing well powered up, lightweights and proficient sailors.

Tune up in size 1-4cm: Difficulty sailing upwind, getting planing, heavyweight sailors or very light winds.

For those new to the sport and using smaller sails in non-planing conditions and for more experienced sailors in non or very marginal planing conditions with large rigs, you can use the 110L plus Formula but add up to 10cm, rather than 4cm.

Footstraps

Each footstrap should be a snug fit, with the little toe just poking through. Try to always set the straps as outboard and to rearward as possible to encourage a good sailing position when planing. Using the 'placebo' non-planing forward straps near the mast base is fine for initial footstrap 'trials', but not a long-term setting.

Mast Base

Your mast base positioning should focus on maintaining **trim**. On some boards, older ones in particular, you may need to use the extremes of the range, but on most modern boards the mast base works best within a couple of centimetres of the average settings given below (measurements are taken at right angles from the tip of the tail to the centre of the mast base pin).

For most boards between 110L and 220L - approx range 130 -145cm.
Average mast base position - 135cm from the tail.

For boards below 110L - approx range 125 -135cm.
Average mast base position - 130cm from the tail.

Move the mast base forward (usually 1-5cm from average setting) if the tail is sinking, the board is bouncing, constantly luffing or often when using a larger rig (7m+).

Move the mast base back (usually 1-5cm from average setting) if the nose is ploughing through or hitting chop, or if the board feels unresponsive at speed.

Remember, the sole aim is to keep the board flat, so regardless of ability, sail size, conditions, volume or age of board, **trim** is your objective, priority and guide. So if the board is comfortable, staying flat on the water and the mast base is close to the guide, then that is great.

Boom Set Up

Because we are usually encouraging planing, we need the boom height to be right when we move back on the board. A boom set too low reduces early planing, control and seriously destroys stance. To ensure a correctly set boom, it is best to use the back of the board as your guide. Holding the rig up on the beach is inconsistent due to the different surfaces that you might use and misleading should you then move the mast base position.

Check boom height by connecting the rig to the mast base and laying it back along the board so you can set the underside of the boom in relation to the tail.

Here is a guide to the range of settings to suit most heights on windsurfers. In general, it is far better to set the boom higher rather than lower in your height range. This helps to promote the down force in our **power** element of the formula, makes better use of the harness and encourages a more effective stance.

Boom Height Setting Guide

With middle finger placed on the very end of the tail, a hands span would cover the range of sailor heights.

Sailors between 5'0"-5'7" would have the underside of the boom within a three inch range of the tail.

So a sailor of 5'7" would probably have the underside of the boom just touching the very tip of the tail.

Sailors between 5'7"-6'3" would have the underside of the boom up to 3 inches past the tail.

In non-planing situations on boards above approximately 160L, the boom might not need to be so high. In this case it is possible to gauge the boom against the body when standing on the board. Having the boom at 'top of shoulder height-chin' (give or take a couple of centimetres), is a good non-planing setting, but once again, higher is better than lower.

Harness Lines

Harness Line Widths

The harness line buckles should be fixed securely and set approximately a hand's width apart. You can go narrower if you wish, but this does require very good positioning and can make the rig a little more manoeuvrable/ twitchy.

Harness Line Length Range

Elbow to watchstrap shortest length (usually favours seat harness users)
Elbow palm for longest setting (usually favours waist harness users)

NB. Yes, you need a slightly LONGER line for WAIST harnesses!

Harness Line Positioning

It is impossible to state exactly where the harness lines should go. Fine-tuning on the water is always the final adjustment. However, here are two guides that have been around for many years and work as an approximate range for potential harness line setting.

REMEMBER THESE ARE JUST BEACH SET UP GUIDES. On the water fine-tune by placing both hands on top of the lines when blasting along sheeted-in and seated in the harness. If the front arm pulls move them forward. If the back arm pulls, move them back. Do this fine adjustment until rig is sheeted in and arms are pain free!

Rule of Hands:

Favours marginal-comfortably powered days. Despite the simplicity, counting clenched hands down the boom to match the sail size is fairly accurate on most sails between 5-7m, especially in marginal-comfortably powered conditions. So for a 5m, count five hands down the boom as a starting point for the FORWARD harness line fixing. If you were on a 6m, then you would count six hands down the boom. In well powered situations the lines would possibly go slightly further back than this. Those with small or larger hands might want to gauge up or down slightly.

Rule of Thirds:

Favours very well powered up sailing. Run a tape measure from the clew to the middle of the mast. The rear harness line fixing goes one third of the way down the boom. This is generally for medium to well powered up conditions, high booms and is generally the most rearward setting you would go for.

Harness Fit
A well-fitted harness is more comfortable and means that your movements between your 'straight' and 'super 7' stances will be more effective in the harness. Many people buy harnesses too big or have then too loose. It should fit snugly with very little spreader bar movement.

Sail Tuning
Always check and fine tune outhaul and downhaul settings to suit the conditions.

Daggerboard
As soon as the wind is suitable to get planing the daggerboard should be retracted.

Getting Going

Use a simulator to show students how the formula is used to create a more efficient and dynamic body position to encourage early planing in both light and strong wind.

Aim:

Encourage the students to use the formula to get the board planing earlier in both light and strong winds.

Objectives:

By the end of this session the student should be able to:

- Introduce a Super 7 '**drop and push'** to help acceleration.
- Explain stance range to maintain planing

Group Dynamics:

This is a relatively short session (depending on conditions) with an Instructor demo on the simulator, followed by Instructor demo on water and a water based session with student practice and Instructor feedback.

Information to be Covered:

- Super 7 **Drop and push**
- Straight 7 **Lift and lock**

Exercises or Follow-up Work:

- Experimenting with sailing line, accentuate feet and body positions

Learner Support Material:

Instructor Guidance Notes

APPLYING THE FORMULA

We can now use the formula to achieve essential aspects of the sport. The whole concept is that the formula provides the basis of your actions and then you add in specific detail relevant to the topic.

You should find the formula guides you and acts as a diagnostic system if things go wrong.

Fast*fwd* Getting Going

Getting going requires quite a specific process that is adapted to suit either lighter wind early planing, or stronger wind control.

Using the Formula to **Get Going**

VISION Look forward to maintain a sailing line across the wind.

In marginal planing conditions you can look and head downwind between 5-15 degrees to help promote early planing.

In stronger winds you can look and head upwind 5-15 degrees to dramatically improve control and make hooking in easier.

TRIM No matter what the wind, it is vital to get the board flat and really push through the toes of the forward facing front foot. It is better to have a flat board heading slightly upwind, than being tail down off the wind.

In light winds the forward facing front foot can come as far forward as the mast base and the back foot can be placed just in front of, between, or just behind the front straps. Whatever prevents the tail from dragging.

In stronger winds, or on very wide high volume boards, the back foot can come as far back as the rear straps. Only do this if the tail doesn't sink or drag.

BALANCE Really extend the front arm to push the mast forward. This allows the body to oppose the rig and lean back. The lighter the wind, the more the front arm is extended to force the rig forward.

POWER Pull down quite hard on the boom and sheet in. This improves Trim and encourages the body to drop (to pump, keep the rest of the body still (just use the backhand and extend front arm at the end of each pump to prepare for the next one).

STANCE Initially really accentuate a Super 7 '**Drop and Push'** style rather than **'Drop and Dig**' (see Fastnotes). Adopting a low-hipped Super 7 position allows you to push through an extended horizontal front leg to drive the board forward.

Once the board starts to plane
In lighter winds, or if you have control, shift towards a Straight 7 by **'Lifting and Locking'** to keeps the head well behind the hips and improve early planing/acceleration before and after hooking in.

In stronger winds, move further back and to windward on the board as it accelerates.
Shift towards a Super 7 Stance by **Dropping and Digging** to control the increased speed and prepare to harness.
Once going, run through the Formula to maintain speed and prepare for harness and footstraps.

þ FASTNOTES
The reason why we Drop and PUSH to get going is because the board is NOT planing and therefore the windward rail doesn't need heel pressure to prevent it lifting. So pushing through the toes or ball of the front foot really helps maintain Trim and drive the board forward.

Harness

This session is split into two parts. The first looking at the different harnesses available and the correct set up of harness lines; the second is looking at the use of the harness. The mechanics of using the harness is simple so concentrate on the use of the Formula to maintain sailing line, board speed and power control in and out of the harness.

Aim:

To get students to hook into the harness lines and commit weight to the rig whilst running through the Formula to maintain a suitable sailing line.

Objectives:

By the end of this session students should be able to:

- control **'power'** in and out of the harness
- take the weight off their arms
- use their **'stance'** range for board and rig control

Group Dynamics:

Starting with a session on different harnesses and the correct set up of harness lines, followed by a simulator demonstrating how to use the harness and apply areas of the formula to encourage correct technique. Depending on group size and weather conditions, it may be appropriate to get the students to try the technique on the simulator before going afloat.

Information to be covered:

- Types of harness
- Set up of harness lines
- Hooking in and out
- Use of sailing line
- Stance range

Coaching Notes:

Encourage the use of larger sails.

Exercises or follow-upwWork:

Experiment with sailing line to control power and bring rig closer to body. Practice hooking in while using the formula.

Encourage heading upwind to hook in, especially in stronger winds or if well powered.

HARNESSING

*The objective is to hook in to the harness line, commit our body weight to the rig, maintain **power** and take the weight off the arms.*

Our Aims:

- To hook in, use a short pull on the boom to swing the line towards you whilst simultaneously lifting hips.
- Whilst you might briefly glance at the line, try to use your Vision and look forward again as soon as possible.
- Once hooked in, sit down in the harness to keep pressure down in the line.
- USE THE HARNESS - hips, not hands!
- Re-establish stance

Applying the Formula

VISION Look forward to hold a steady course. Don't stare at the harness line.

To control excess speed, avoid catapults, or to help bring the harness line to windward before hooking in, look and head upwind.

TRIM Position feet to stabilise and **trim** the board flat.

BALANCE Extend the front arm and oppose the rig's position with the body.

POWER Use the back arm to sheet the rig in, back and down.

STANCE Your **stance** obviously changes during the actual hooking in process, but it's essential to resume a suitable Stance to accommodate the rig's pull.

In light winds the stance would probably shift towards a Straight 7 by **'Lifting and Locking'** before and after hooking in.

In stronger winds we need to emphasise **power**, so shift towards a Super 7 by '**Dropping and Digging'** to pull down on the boom to keep the harness line to windward before and after hooking in.

Footstraps

This session is split into two parts. The first will look at the correct set up of foot straps. The second is how to use them. The mechanics of getting into the foot straps is simple so spend your time concentrating on effective coaching helping them to maintain a good sailing direction, speed and power control to get into them. This will involve use of the simulator and an on water session. All areas of the formula can be used here.

Aim:

To use the foot straps without losing speed or control and holding a comfortable course.

Objectives:

By the end of this session, students should:

- Have the knowledge of how to use, and demonstrate the use of, the front and back footstraps maintaining a comfortable sailing line whilst using key elements of the Formula, specifically the **counter balance** element.

Group Dynamics:

This session should start with a look at strap set up followed with a simulator session and then on to the water. On water sessions will require enough wind to plane. If however, the wind is too light a lot of valuable information can be covered.

Information to be covered

- Position and set up of straps
- **Balance**, weight transfer
- **Counter balance** andfFormula Dynamics
- Early planing and control of course direction

Coaching Notes:

A beam to broad reach can encourage early planing and close reaching for stronger winds to aid control.

FOOTSTRAPS

We now run through the Formula to use the footstraps.

You will find that being able to move the feet in confidence without unsettling the **trim** relies very heavily on the **balance** and **power** elements in the formula.

Using the formula in footstraps

VISION Look forward to check and maintain a stable sailing line across the wind. Look and head upwind if going too fast. Avoid looking down at the straps too much, this disrupts technique and often leads to catapults or suddenly spinning into wind.

TRIM Position feet to stabilise and **trim** the board flat. Always place the foot next to the strap before trying to slide it into the strap.

BALANCE Extend the front arm to maintain your distance and always **counter balance** the bodies movement with the rig – this is the main factor for successfully finding the footstraps.

POWER Ensure plenty of weight goes down through the harness to maintain **trim** and help take the weight off the moving foot.

STANCE In light winds you would favour a Straight 7 **Lift and Lock** style stance before and after going for the strap.

In stronger winds you would favour a Super 7 **Drop and Dig** style, to really focus on pulling DOWN on the boom to maintain **power** and **trim**.

Whilst these elements alone will go a long way to steady and set everything up for the footstraps, the following sections will give you the finer details for moving each foot.

Main Focus For Front Footstrap Actions: 'body back – rig forward'

*Getting into the front strap impacts heavily on the **balance** element of the Formula. The body must sit back to un-weight the front foot, therefore the rig must remain, or be moved forward to compensate.*

As always run through the formula to support the detail.

VISION Sail across the wind, or slightly upwind if travelling too fast.

TRIM Place the back foot just behind the front strap to stop tail from sinking in lighter winds.

TRIM Place the back foot between the straps in stronger winds.

TRIM Slide the front foot just forward of the front strap.

BALANCE To release the front foot, sit back over a bent back leg and oppose this movement by keeping, or shifting the rig forward to **counter balance**. BODY BACK - RIG FORWARD!

ACTION Slip the front foot in to the strap.

POWER & Throughout, try to keep the weight in the harness and resume the relevant

STANCE **Stance** to match the demands of the rig as soon as possible.

Once in the strap, swiftly re-establish your **stance** and run through the formula. When settled it's time to go for the back strap.

Main Focus For Back Footstrap Actions: 'rig back – body forward'

Getting into the back strap evolves heavily around the **balance** element of the formula. The body must lean forward to be able to un-weight the back foot, therefore the rig must remain, or be moved back to compensate. As always, run through the Formula to support the detail.

VISION Try to always look forward and not down at the back strap, as this tends to make you head upwind too sharply.

TRIM Place the back foot just in front of the back strap.

BALANCE Rake the rig back and head upwind, the stronger the wind the further into the wind you should go. This controls speed and allows the body to lean forward and un-weight the back foot without the fear of being pulled over the front. RIG BACK / BODY FORWARD!

POWER As the foot slips into the back strap, keep sinking down in the harness to maintain control, **trim** and take some weight off the back foot.

STANCE Once in the back strap, quickly resume a stance to adapt to the wind strength, possibly bearing away to increase speed.

Run through the Formula to maintain control, speed and comfort and eliminate problems.

þ FASTNOTES

When going for the back strap, make sure the students head and look upwind before going for the back strap!

Catapults and sudden luffing usually occur because the set up and sailing wasn't right first. It is vital to continually work through Formula and stick to the very basics of what each element means. At the crucial moment it's all about creating a **counter balance** to be able to fearlessly and effectively un-weight either of your feet.

On lower volume boards in strong winds, it is sometimes possible to heavily sink the tail to reduce speed and try to get into the straps before the board actually planes. In this very specific case, the body temporarily crunches right down and back to hang off the boom and sink the tail. To **counter balance** and stop the board from luffing the rig is kept forward as the feet are slipped into the straps. Remember, this only works in seriously powered situations off the plane on lower volume boards. Once in the straps, the body uncoils to accelerate.

Blasting Control

Start with a short recap on stance and stance range before going into the specific Formula use to maintain control at speed. This should be a short session if conditions on the water are good. This section should cover light as well as strong wind control. Use simulator based sailing scenarios as a fault analysis and Q and A opportunity when delivering this section. Whilst on the water you should concentrate on sailing course and stance range to promote control.

Aim

To show how the formula can be used to improve board and rig control in a variety of conditions and to increase acceleration and board control.

Objectives:

By the end of this session, students should:

- Have the knowledge of how to adapt their stance to suit different wind and water conditions by using their full stance range.

Group Dynamics:

This session is Instructor led around the simulator and on the water with Instructor demo and student trial with the Instructor regularly feeding back to the students.

Information to be covered:

- Use of the formula while blasting, acceleration and board control through stance range.

Coaching Notes:

If the sailing conditions on the water will not allow the students to blast properly it is probably more beneficial to spend a longer period of time on the simulator with students having a go.

It is also a great idea to set up a physical example of **stance** range by setting up a tug-of-war. Students can then experience how changing the alignment of their body rather than using their arms improves their ability to resist the pull of someone opposite them.

Blasting Control

Using the Formula for Blasting Control

When blasting along in the straps and harness, we should always make sure we maintain good **vision**, **trim, balance**, **power** and **stance**.

As situations and conditions change, we have to fine-tune each element to maintain comfort and control. Small accentuations in our actions make a massive difference to our technique and control.

You'll find your Stance range plays a pivotal role when adapting to changes in water state and both board and wind speed. Here are a few typical scenarios you could encounter:

Blasting Control Situations in Marginal Winds

Scenario: Losing speed? Headed upwind too much or just slowed down?

Answer: Acceleration Straight 7 '**Lift and Lock'**

VISION Look and head slightly off the wind running through the remainder of the formula.

TRIM Push through the toes to drive the board flat and off the wind (especially the front foot).

BALANCE Front arm really extends mast forward. Body leans back to **counter balance** and create drive.

POWER Maintain weight in the harness and keep sheeted in.

STANCE Shift quickly towards a Straight 7 by '**lifting and locking'** the hips. Whilst doing so really accentuate the action of tightening the torso, extending the body and pushing through the toes to create more drive.

When up to speed again, switch into a relaxed Standard 7 and resume your intended sailing line.

Big Lulls

Scenario: If you see or hit a massive lull, good **trim** and accentuating **counter balance** is paramount. To **trim** the board flat, the upper body must lean right forward, sometimes slightly bending the front leg to accentuate the forward lean. To **counter balance**, the rig is kept in a raked back position, sheeted in to maintain **power**.

Blasting Control Situations in Stronger Winds

Scenario: Wind and speed increases? Board starts bouncing around too much over chop?

Answer: Controlling Acceleration – Super 7 **'Drop and Dig'**

VISION Look and head slightly upwind running through the remainder of the formula.

TRIM Dig the heels down and pull up on the toes in the straps to really lock the windward rail down.

BALANCE Keep a good distance from the mast with a strong front arm.

POWER Accentuate pulling in, back and DOWN on the boom to help Trim.

STANCE ‘**Drop and Dig’** towards a Super 7 Stance. Really accentuate sinking the hips down in the harness to emphasis **power** and dig those heels down on to the windward rail to improve **trim**. Sometimes this requires the upper body to hunch slightly.

When speed is controlled, switch back into a relaxed Standard 7 and resume your intended sailing line.

Large Chop and Spin Out

Scenario: At high speeds, in choppy water or small waves, often the boards nose may lift out of the water or ‘spin out’ (fin loses grip). This is caused by either neglecting elements of the formula (in stance Controlling Acceleration section), or heavily weighting an over straightened back leg. The moment you feel the nose lift or the tail lose grip, heavily flex the back leg and pull sharply/ snap the tail right in under the body. The bigger the chop and the higher the nose lifts, the more the back leg is flexed. In extreme cases, anticipation and also bending the front leg will enable you to control the most savage situations.

þ FASTNOTES

Diagnosing faults

Catapults usually occur due to:

Poor Vision:	Sailing too far off wind going for the harness or footstraps
Poor Balance:	Leaning the body and rig forward at the same time
Poor Power:	Not committing to the harness enough or sheeting the sail out too much

Stalling or Luffing usually occurs due to:

Poor Vision:	Looking down at the board, footstrap or harness line – Gear gazing
Poor Trim:	Straight over weighted back leg, or too much weight on the heels in light winds
Poor Balance:	Pulling the rig too close to you or leaning body and rig towards the tail at the same time

Steering

Steering in this session concentrates on changing direction to alter course or to avoid an obstacle, however, it will also form the basics for steering into and out of a tack so keep this in mind for the tacking session. Concentrating on **vision** and **counter balance** as key areas to be covered, however, remember to check all other areas of the formula as you go through. Your session should cover steering in and out of the harness and footstraps and will work equally well regardless of the conditions.

Aim:

To introduce the concept of **counter balance** and improve **stanc**e to suit different conditions while changing direction.

Objective

By the end of this session, students should:

- be able to effectively change the boards direction using their vision and **counter balance** and **stance**

Group Dynamics:

This session is split between the simulator and the water. This should be followed with Instructor demos afloat and student practice on the water with the Instructor giving continual feedback.

Coaching Notes:

Remember this session is the fore runner to all transitions

NON-PLANING STEERNG

You'll find that **vision**, **trim**, **counter balance** and **stance** equally play a large role in encouraging the board to turn.

Non-Planing Steering Upwind:

Altering course, preparing to get going in stronger winds, or when preparing to tack.

VISION Look upwind.

TRIM Weight heels on windward rail, especially the back foot.
As the board heads into wind, bring both feet forward again.

BALANCE Extend front arm and rake the boom down and back to assist turning.

POWER Pull in and down on the boom with backhand.

STANCE Use a Super 7 to initiate the turn, then come forward and upright into a Standard 7 to **counter balance** the raked rig.

Non-Planing Steering Downwind:

Altering course, encouraging planing in lighter winds, or entering or exiting a non-planing carve gybe.

VISION Look downwind.

TRIM Extended front leg and push hard through toes of front foot.

BALANCE Extend front arm and angle the mast forward.

POWER Whilst pulling down on the boom, sheet the clew in to help 'twist' the rig forward.

STANCE Wide gripped, '**drop and push'** Super 7, sinking the hips down and back towards the tail to **counter balance** the forward leant rig.

PLANING STEERING

When planing in harness and footstraps, it only takes very slight change in foot pressure to alter direction, so maintaining the rest of the formula and adjusting **trim** has a huge effect on turning at speed.

Steering Upwind When Planing:

Reducing Speed and preparing to tack.

VISION Look upwind

TRIM Pull up on toes and weight both heels, especially the back foot.

BALANCE Extend front arm and slightly raking rig back towards the tail.

POWER Sheet the boom in down and back with extra force.

STANCE Use a Super 7 to initiate the turn, then come forward and upright into a Standard 7 to **counter balance** the raked rig as the board turns into wind.

Steering Downwind When Planing:

Increasing speed and preparing to gybe.

VISION	Look downwind
TRIM	Push hard through toes of front foot, ease pressure on back foot.
BALANCE	Extend front arm and keep mast forward.
POWER	Sheet the boom in and keep weight down in harness.
STANCE	In marginal winds favour a Straight 7 with an extended front leg. In stronger winds favour a Super 7 with an extended front leg and heavily bent back leg.

TRANSITIONS

For essential transitions like tacking and gybing, we rely heavily on Vision, plus two key Fast*fwd* skills – **counter balance** & some very specific footwork.

Counter balance is our ability to always oppose the position, forces and movement of the rig with our body.

Footwork is our ability to pivot the body 180 degrees, whilst transferring our weight from one foot to the other as we move across the board. We call it 'shifting & switching'.

Counter Balance

When it comes to transitions we refer to the **balance** element of the formula as **counter balance**. This is because the rig and body are constantly opposing each other's movements as we carry out a transition. We still maintain both rules of **balance**, but really emphasise **counter balance**.

Rule 1: Always keep the rig clear and away from the body by extending that front arm.
We might compromise this objective mid-tack, but we re-establish it quickly.

Rule 2: If the mast/rig moves one way, the body moves in the opposite direction.
Always oppose and **c**ounter **balance** the rigs position, forces and movement with our body. This is fundamental to successful tacks and most other transitions.

Counter Balance example for a tack:

Rig is leant back, the body leans or moves forward to **'counter balance'**
Rig moves across the board, body opposes the rigs movement to **'counter balance'**.
Rig is put forward, body leans or moves back to '**counter balance**'

(See gybing section for more counter balancing)

Footwork 'Shifting and Switching'

Fast*fwd* 'footwork' is a simple and easy system that allows you to shift your weight and Switch your feet during the crucial part of any transition where you move from one side of the board to the other.

Mid-tack we 'Shift the hip over the front foot that's wrapped around the mast base'
'Switch the back foot toe to heel BEHIND the front foot'
'Shift the new rear hip and back foot down the board, dropping and pushing into a Super 7'

þ FASTNOTES

Improving your 'Shifting and Switching' footwork is the key to making tacks smoother.

Flex the knees and really accentuate shifting the hip over the front foot.

1. Get the switching foot as close to heel to toe as possible.

2. **Drop and Push** into a Super 7 as smoothly and quickly as possible.

As you progress, this movement becomes natural, and especially with tacks, a very quick action.

(See gybing section for more shifting and switching)

Tacking

Split this session between land and water, however, the time split will depend on the ability level of the group and the on water conditions. A good understanding of the skills is required before going afloat. At the same time there is no substitute to going afloat. This session should focus on how our **vision**, **counter balance** and footwork create the tack. A good land demo with clear group understanding is vital. This can be achieved with dry land practice. The tack can be broken down into three sections, entry, mid and exit.

Aim:

To increase the speed and effectiveness of the students' tacking ability

Objectives:

By the end of this session, students should:

- be able to use the Formula for faster and more effective tacking in a range of conditions.

Group dynamics:

Start with dry land delivery of tacking followed with on water exercises and Instructor feedback.

Resources required:

- Rig/board without fin to be used on land
- Suitable equipment to go afloat.

Information to be covered:

- Steering upwind and downwind
- Foot work
- Counter balance
- Dynamic tacking

Fast*fwd* Transitions, Tacking

We have suggested a very reliable and adaptable tack that can be used in light winds, transferred into stronger winds and lower volume boards. Tacking relies heavily on **vision**, **counter balance** and Footwork. It is vital to emphasise that these skills form the basis of the tack. Get these working well and the rest of the detail is far easier to learn.

It is impossible to remember a whole sequence of instructions, so to improve your students' tacks just work through one element/skill at a time. Start off by just demonstrating and asking them to concentrate on **vision**. When **vision** is working, introduce and emphasise **counter balance**, then finish off with footwork when your students are ready for more information.

As always, minimise the information by concentrating on these 3 key skills; **Vision / counter balance & footwork,** then just drop in a little detail when it's needed.

VISION	Look where you want to go!	
	Entry:	Look upwind when entering the tack.
	Mid-tack:	Head turns to look down the board to spot old backhand going on to new side of boom.
	Exit:	Head then spins to look forward to initiate footwork and improve the exit.
COUNTER BALANCE	Oppose the rig's position, forces and movement!	
	Entry:	Rig back, body forward, accentuate as board heads into wind.
	Mid-tack:	Mast and body cross over, rather than body going round an upright mast.
	Exit:	Rig is leant forward as body sinks back into a super 7 on new tack.
FOOTWORK	Simple 3 Step movement to shift and switch the feet!	
	Entry:	Front foot wraps around the mast base.
	Mid-tack:	Shift and switch the feet when the board is into wind.
	Exit:	Step back down the board and into a drop and push Super 7.

Here is a full tacking sequence example using the Formula and specific actions, supported by some specific detail.

Tack Entry	**Super 7 'drop and dig'**
VISION	Look and sail upwind using steering technique to initiate the tack.
TRIM	Weight heels on windward rail, especially back foot.
BALANCE	The front hand drops down onto the mast, the rig rakes back and body starts to come forward to accentuate **counter balance**.
FOOTWORK	The front foot moves forward and wraps round mast base to prepare for the **Shifting and Switching**. The back foot and backhand can edge forward to continue the **counter balance.**
Mid-Tack	**'Shift and Switch'**
VISION	When into wind, the head turns to spot the old backhand crossing over onto new side.
FOOTWORK	At the same time the feet **Shift and Switch** and the old front hand releases.
BALANCE	During the **Shifting and Switching** the mast opposes the body's movement and crosses over to leeward to **counter balance** as the body moves to windward.
Tack Exit	**Super 7 'drop and push'**
VISION	The head keeps turning to look out of the tack.
BALANCE	The rig is leant forward with the new front arm as the body moves back down the board into a Super 7 to **counter balance.**
FOOTWORK	The new back foot must step right down the board to **counter balance** the forward rig and enable the student to bear away and getting going skills to sail away.

It is also possible to tack by going 'boom to boom' with the handwork. Provided the rest of the key elements of the formula are working, this is a perfectly acceptable and effective way to tack. We have suggested the 'mast to boom' handwork method because this works in all conditions and actually helps to accentuate **counter balance** which is key to successful tacking.

STANDARD CLINICS

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Beachstarts

This session requires some specific launching site requirements. Check to make sure that you have sufficient water depth for the fin and that the water depth does not drop off too quickly. This session can start with an introduction to the beachstart on the shore or on water with Instructor demo, followed by student practice and feedback from the Instructor.

Link this session in with other on water skills, that will lead on to good board control and perhaps onto deep water beachstarts depending on ability.

Aim:

Introduction of improved launching and landing skills leading ultimately to the waterstart.

Objectives:

By the end of this session, the students should be able to:

- To launch without the need to uphaul their rig.
- Slide the mast clear of the water.
- Use balance and power to steer, control and generate lift from the rig.
- Understand specific body movements to reduce weight on the rig.

Group Dynamics:

This session could be run as part of an intermediate course or as a specific session/clinic. It could be run as a one to one or group session.

Information to be Covered:

- Light wind, strong Wind
- Shallow water big fin
- Deep water

Exercises or follow-up work:

This session can be linked with other skills where the student is asked to repeatedly return to the shore, re-launch and where ever possible practise on both tacks. Your students are therefore continuing to practice the beachstart whilst improving on other skills.

BEACHSTART

Getting going without the need to uphaul.

Beachstart and Waterstart Skills:
In keeping with the Fast*fwd* ethos, we emphasise skills that not only develop good beachstart technique, but that are also transferable into waterstarts . Here are three main skills that can be broken down and demonstrated both on the water and even on land.

Rig Elevation or 'Sliding and Guiding':
Elevate the rig out of the water by positioning the mast across the wind. Get a good distance from the mast by extending the front arm. ALWAYS slide the mast, guiding it across and over the head, to windward before lifting. Never lift the mast straight up.

Combining Balance and Power 'Rig Twisting':
Before coming up onto the board, we generate lift by forcing the front hand up and forward, as the backhand sheets the boom in above our heads. This creates a twisting action that creates power and lift, which needs to be accentuated, especially in lighter winds. Only when our head is moving right in towards the mast base and the rig is more upright do we pull down on the boom.

Specific Vision and Trim 'Nose Over Toes':
Bending the back leg and rolling the head, forward and inboard below the boom and towards the mast base, is paramount for both beach and waterstarts. The front foot only comes up onto the board well after the **'Rig Twisting'** and '**Nose Over Toes'** actions have started. This should be demonstrated on the shore by trying to pull people up into a imaginary sailing position from a seated position on the ground. They will only be able to be pulled up if they roll their head forward and bend their legs. If they pull on the arms and keep the legs straight they cannot be lifted or pulled up so easily.

Using the Formula & Specific Skills in Beachstarts:
After '**Sliding and Guiding'** the rig, steer the board across the wind by varying **balance** and **power** to apply pressure through the mast base and direct the board. Like using a set of handle bars, push through the front arm and pull on the back arm to force the rig forward and turn the board away from the wind. Push through the rear arm and pull on the front arm to lean the rig back and help turn the board into the wind.

VISION	Stand near tail of board, looking up towards the mast base. In light winds position the board across the wind. Keeping the rig quite high. In stronger winds position the board slightly upwind. Keep the rig low until initiating the rig twist.
TRIM	Position back heel to **trim** board flat (usually mid way between front and back straps) angling the foot slightly forward to encourage the body to move up the board and not across it.
BALANCE & POWER	The 'Rig Twisting' action initiates the rig elevation and creates lift, so accentuate it through the move.
SPECIFC STANCE	Simultaneously really accentuate the '**Nose Over Toes'** action as you roll forward, flexing the back leg to come up the board.
SAILING	Once up on the board your stance initially resembles an extremely rolled Super 7.
STANCE	Drop and push underneath the boom to help acceleration. As the body stands up shift towards a **stance to accommodate the rigs power.** Once sailing, run through Formula to re-establish control.

þ FASTNOTES

- Try to avoid lifting the hips, straightening the back leg or bringing the head up above the boom.
- Particularly with the front arm, extend, rather than flex throughout the move.
- Try to come up the back of the board forwards towards the mast base, rather than across the board.

The Non-Planing Carve Gybe

Although time will need to be spent ashore learning the basic technique it is important to maximise the amount of time on the water. Once on the water, start the session with a demonstration and break the skill down section, perhaps Entry, Mid and Exit.

Aim:

To introduce the student to a simple gybe that can be used in non-planing conditions and planing conditions and one that forms the platform for learning the Planing Carve Gybe.

Objectives

By the end of this session, students should be able to turn the board round by Gybing and breaking down the skill.

Vision, **counter balance**, **stance** are the prime elements from the formula, plus the gybe specific skills of footwork - shifting and switching and the rig rotator mid to end of gybe.

Group Dynamics:

This session could be run as part of an intermediate course or as a specific session/clinic. It could be run as a one to one or group session. Start with dry land delivery of gybing followed with on water exercises and Instructor feedback.

Resources Required:

- Rig/board without fin to be used on

Information to be Covered:

- Vision – Super 7 **'drop and push'** entry.
- **Counter balance** & **shift and switch** through the mid section of the turn.
- **Vision & rig rotator**
- **Vision** super 7 '**drop and push'** exit.
- Skill progress from non planing to planing conditions

Coaching Notes:

In the early stages, just concentrate on one skill at a time and practice footwork and rig rotators on land and as separate skills.

GYBING

As you are now aware, Fast*fwd* develops skills that are transferable into more advanced areas of the sport. Gybing is a classic case where it's very important to introduce concepts and specific skills that can be practiced in lighter winds and then applied to stronger winds.

Using the Formula for a Non-Planing Carve Gybe – 'NPCG'

Vision, counter balance and the 'drop and push' Super 7 stance actions are an integral part of successful gybing. You then add in your **Shifting and Switching** footwork and the rig rotator to complete the skills base and establish a reliable gybing technique.

VISION Look into, through and out of the turn (rather than at the feet or hands)

C/BALANCE Oppose the position and movement of the rig. So if the rig moves one way, the body moves the other and visa versa. This forms the framework for the Entry, Footwork and Rig Rotator actions plus the exit.

STANCE Accentuated Super 7 'drop and push' is used for both the entry and exit of the gybe.

Additional skills to concentrate heavily on:

FOOTWORK
Use your **'shifting and switching'** skills to change the feet mid-gybe. Keep the body low via bent back leg and pull down on the boom for extra stability.

'Shifting and Switching' in Gybing

- Shift the hip over the back foot with the toes right on the inside rail.
- Switch the front foot heel to toe IN FRONT of the back foot.
- Shift the weight down onto the new back foot by bending the new back leg.
- The new front foot steps up the board as the hips drop back into a Super 7 'drop & push' stance.

RIG ROTATOR
The Rig Rotator is used mid to end of gybe when the rig is released and the clew sweeps over the nose, so that the rig can be sheeted in again on the new side.

'Rig Rotator' in Gybing
The front hand slides down towards the mast and the backhand slides towards the clew.
As the backhand is released, the rig is rotated towards the back of the board. The new front hand grabs the boom and then draws the rig forward. It is vital to keep the mast moving continuously in a scooping action, rather than trying to hold it bolt upright like a door.

Using the skills above we can form the basis for a very versatile and effect gybe for all conditions.

Gybe Entry Super 7 'drop and push'

VISION Look downwind.

C/BALANCE Rig forward, body back sinking towards a super 7 'drop and push' stance to bear away using our downwind steering skills.

þ FASTNOTE
To set up, the back hand reaches down the boom to help pull the clew close to the rear shoulder. The toes of the back foot go on the leeward rail, just in front of the back strap. The front foot should be positioned a wide step forward, just behind the mast base.

Mid Gybe Footwork 'shift and switch'

VISION Very important to continue to look through and out of the turn!

C/BALANCE Maintain a good distance from the rig and lean the mast out of the turn – Try to keep the clew sheeted in close to your head, so that the rig is approximately 90 degrees to the board. It looks like the rig is splitting the board in half.

FOOTWORK Shift & switch the feet as the board reaches or just passes the downwind stage of the gybe. Once the feet are switched, remain momentarily clew first and lower the hips into a Super 7. Weight the back foot and lean the rig out of the turn to continue through the gybe and prepare for the rig rotator.

þ FASTNOTE
The lighter the wind the more the mast is leant out of the turn and the later the rig is rotated. For extra stability and power control, pull down on the boom, especially when clew first.

Gybe Exit Rig Rotator and Super 7 'drop and push'

VISION Accentuate turning the head to look and lead your way out of the turn. This also tells you if the board is on the new sailing line and ready to rotate the rig.

RIG ROTATOR Only as the board starts to come out of the gybe, do you use the rig rotator.

STANCE Emphasise the super 7 'drop and push' stance, dropping the hips to coincide with the rig rotator.

þ FASTNOTES

To avoid over complicating things, go through each gybe working on just one skill at a time. Essentially Vision, Super 7, **shifting & switching** and the Rig Rotator are the skills to really focus heavily on, demonstrate and practice separately. Always link everything back into **counter balance** as this creates stability and improves **trim**.

Planing Carve Gybes
Planing gybes use these exact same skills, but with a few subtle differences. The Super 7 entry is more outboard and there is considerably more pressure applied to the inside rail during the shifting and switching stage. Also the rig is not leant out of the turn as much and is released slightly earlier due to the extra turning speed of the board.