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BCU 2 Star Award

N.B. This article covers the Open canoeing section of the BCU 2 Star Award and is based on using open canoes.

The Two Star award is designed for improvers and covers more advanced paddling skills including moving the boat sideways, preventing a capsize and rescue techniques.

The award is divided up into four parts:

A. Personal paddling skills B: Safety and rescue skills C: Safety, Leadership & Group skills D: Theory

A: Personal paddling skills:



Sharing the load!

Lifting and carrying:

Open canoes are not necessarily heavy but they are bulky, so good lifting technique is as important as ever when handling them. Good lifting technique is simply about using a few basic principles. There are a couple of words we can use to jog our memory every-time we are about to lift something:

SAFE:

S Stop – before lifting:

A Assess - the situation:

F Formulate - a plan of how to safely lift the equipment – discuss this with your paddling partner

E Execute - that plan

Another word that is a useful check before we lift something is:

LITE:

L Load - Look at the load

I Individual - Can the individual(s) safely lift the equipment?

T Task - Is this a reasonable task?

E Environment - Is the environment safe. (i.e. go round slippery banks rather than over them if necessary).

The following principles are also very helpful when thinking about lifting:

Wherever possible:

1. Always share the load.
2. Keep the spine in line
3. Slide and glide rather than lift if possible
4. Make sure the load is properly balanced.

Always work on the basis that we only have one back so protect it!!

N.B. Consider investing in a canoe trolley – they are worth their weight in gold!

Canoe trolley photo – to follow.

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Lifting the canoe from the ground onto a car roof rack with two people

- With a straight back, squat down at each end of the canoe, and lift the boat up to waist height.
- From this position, turn the boat up side down
- Keeping a straight back, lift the boat to a height just above the roof rack
- Place one side of the canoe onto the roof rack and slide the boat on.
- Lifting the boat off the roof of the car - Repeat the above in reverse order

N.B If you are thinking of purchasing an open canoe, boats made from a material called “Royalex” are much lighter than boats made from polyethylene. They therefore make an excellent choice for couples where weight can be a critical factor, when either carrying the boat or lifting it onto the top of a car.



Launching an open canoe – two people:

- Carry the boat to the water's edge
- At the water's edge, lift the boat up from the centre, one person on each side.
- Holding onto the 5m line attached to the end of the boat, lower one end into the water.
- Working together, 'feed' your hands up the gunwales, and then gently drop the other end of the boat into the water.
- Don't forget to hang onto the end of the line.
- Bring the boat along side the bank, and with one person holding it steady, the stern paddler should get in and sit down. Remember to apply equal pressure on each side of the canoe whilst getting in.
Stern paddler holds the canoe steady whilst the bow paddler gets in.

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Swiveling to side:



Good forward paddling technique:



Vertical paddle:

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Forward paddling - Tandem:

Tandem forward paddling:

- Compared to most kayaks, open canoe hulls cover a much greater surface area of water, so setting the boat up - “trimming the boat” - is very important.
- When paddling forwards, the bow of the boat needs to be slightly higher in the water than the stern. When tandem canoeing, the lighter paddler can paddle from the front of the boat, or we can move kit around in the boat to achieve the same effect.
- When two people paddle an open canoe there is often a tendency for the boat to veer off towards the bow paddler’s side. To understand good forward paddling technique it is important to understand both good individual stroke work and the relationship between what each paddler does.

Principles of good individual forward paddling technique.

- Swivel on the seat towards the side you paddle on.
- Twist your body from the waist and push your “on side” shoulder (the one on your paddle side), forward.
- Hold your top hand on top of the paddle vertically above your lower hand.
- Pull the paddle back through the water by untwisting your body.
- Recover the paddle by slicing it out as it passes the seat.

Things to note:

- The paddle should be vertical throughout the power phase of the stroke.
- The paddle should follow the centre line of the boat and not the gunwale.



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Principles of good tandem forward paddling technique:



Paddling in perfect time:

- Both paddlers should paddle in perfect time with each other so the bow paddler needs to set the paddling rate.
- The bow paddler must develop a feel for what is happening at the stern because the stern paddler often has to apply a combined power and steering stroke to keep the boat straight.
- Good communication is important; if the stern paddler needs the bow paddler to slow down they need to say so!
- The stern paddler cannot see right in front of the boat So the bow paddler needs to let the stern paddler know if anything is right in front of the boat.
- The stern paddler needs to let the bow paddler know if they need help steering the boat.
- There is only one Captain in the boat and that is the stern paddler!
- Swapping positions helps each paddler to understand better what effect their paddling has on one another.

Steering the canoe on the move: - tandem

Because the stern paddler has more leverage than the bow paddler when paddling forwards, there is a natural tendency for the boat to veer off towards the bow paddler's side. To correct this, the stern paddler must learn to combine a steering stroke with each power stroke.

There are two ways of doing this, by using a stern rudder or a J stroke.



Thumb pointing upwards:

Stern Rudder:

- The stern paddler does a normal power stroke followed by:
- At the end of the forward paddle stroke, leave the paddle blade trailing in the water just behind the hips.
- The blade edge should be pointing vertically upwards and the paddle shaft should be parallel with the centre line of the canoe.
- Either pull or push the paddle towards or away from the canoe to adjust the steering.

Things to note:

If it helps, support the paddle shaft against the edge of the canoe.
The paddle blade should be completely under water.
Your thumb on the paddle handle should be pointing up.

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Thumb pointing downwards:



J- Stroke from above:

Steering the canoe on the move:

J Stroke – stern paddler or solo paddler

- Another method of keeping the boat running in a straight line is the “J” Stroke.
- Do a normal power stroke and, leaving the paddle blade in the water, roll your top hand over so your thumb points downwards. Bring your top hand just inside the gunwale as required.
- The steering effect comes from the water pushing on the drive face of the blade whilst it is being held away from the canoe. The drive face will be pointing away from the boat.
- The blade angle at this stage should be not quite vertical, with the upper wrist twisted down at a comfortable angle.
- The pressure on the lower arm, which is holding the blade away from the boat, can be eased by gently levering off the gunwale as required.

Turning strokes – tandem:

The most efficient way to turn an open canoe quickly whilst on the move, is to combine different strokes at the bow and stern.

Stern sweep/Bow rudder – turning towards the bow paddler’s side.

- The stern paddler performs a 90-degree stern sweep. (See 1 Star).
- The bow paddler performs a bow rudder – see description below.
- Twist on the seat towards the paddle side.
- Rotate the paddle so that your forearm is in front of and just above your head – your thumb on the paddle handle should be pointing down at this point – see picture.
- Lean forward and place the paddle blade in the water about 30 degrees from the centre line of the canoe. The blade edge should be vertical in the water.
- Hold that angle, and the force of the water rushing onto the drive face of the blade will turn the canoe.
- N.B. The faster the boat is moving, the less angle you will need between the paddle shaft and the centre line of the canoe. Start with small angles and increase the angle until the pressure feels right, and then hold that angle. With experience you will set the angle first time.



Sweep stroke:



Bow paddler - bow rudder:

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Start of bow draw:



Finish of bow draw:

Turning strokes – tandem - continued:

Stern sweep/bow draw turning towards the bow paddler's side.

The stern paddler performs a 90 degree stern sweep, starting at right angles to the seat and finishing at the stern of the boat.

The bow paddler performs a bow draw.

The set up position is the same as the bow rudder – see above.

Draw the paddle blade forwards in an arc towards the front of the canoe. At the end of the stroke, slice the blade out backwards to recover.

J stroke – Sweep stroke - turning towards the stern paddler's side.

The **Stern paddler** performs a J stroke allowing the stern to turn, at the same time, the **Bow paddler** performs a sweep stroke.
No pictures – please see J- stroke description and picture above.

Reverse sweep/cross deck bow rudder – turning the boat towards the stern paddlers side.

The **Stern paddler** reverse sweep, (see 1 Star Article)

The **Bow paddler** performs a:

Cross Deck Bow rudder:

- Lift the paddle all the way across the front of the boat.
- Lean forward and place the paddle blade in the water on the opposite side of the boat, about 30 degrees from the centre line of the canoe. The blade edge should be vertical in the water with the drive face pointing forwards.
- Hold that angle, and the force of the water rushing onto the drive face of the blade will turn the canoe.
- N.B. The faster the boat is moving, the less angle you will need between the paddle shaft and the centre line of the canoe. Start with small angles and increase the angle until the pressure feels right, and then hold that angle. With experience you will set the angle first time.



Cross deck bow rudder:
(Picture shows solo paddler).

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Thumb hooked over gunwale:



Blade levered out from under boat:

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Bow paddler –cross deck stroke.
start:



Bow paddler –cross deck stroke.
Finish:

Moving sideways:

Moving the boat sideways using the basic draw stroke has been covered in our BCU Open Canoe 1 Star article – please refer to this if you need to.

We are now going to concentrate on moving the boat sideways using prys and cross deck draws.

Prys: Tandem – One paddler performs a pry the other paddler performs a draw stroke.

- Place the paddle in the water with the paddle shaft vertical and the drive face towards the boat.
- Whilst holding onto the paddle shaft, hook the thumb of your lower hand over the gunwale and then rotate the paddle through 90-degrees by twisting your top hand forwards.
- Push your top hand away from the boat and slice the blade under the hull of the canoe.
- Roll your top wrist back and lever the blade out from under the boat by pulling with your top hand.
- Repeat this several times .
- Tandem paddlers – one paddler does a draw stroke the other paddler performs a pry on the other side of the boat.

Moving sideways:

Cross deck draw strokes:

Tandem – One paddler performs a cross deck draw stroke. The other paddler performs a draw stroke.

- Without changing your hand position, lift the paddle across the boat and place it in the water on the opposite side. The drive face should be facing the boat.
- Keeping the paddle shaft vertical, pull the paddle towards the boat.
- When the paddle shaft is nearly touching the gunwale, roll your top wrist forwards and slice the paddle away from the boat. Let the paddle shaft swivel in your lower hand.
- Rotate your top wrist back and repeat the stroke as often as is needed.



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Stern paddler - "Body upright support stroke"

Preventing a capsize:

I'm going to steer away slightly from conventional wisdom here and talk about two different types of support strokes based on years of experience paddling open canoes on grade 2, 3 and 4 white water.

What type of support you use will depend on whether your body is over the gunwale or not. If your body is upright but the boat is off balance, i.e. you have edged or allowed the boat to edge, you can use what I call a "body upright" support stroke.

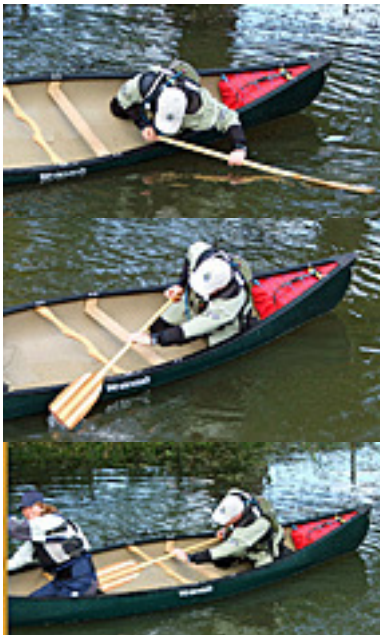
Body upright support stroke –Body must be upright!!

- Wedge yourself tightly in the boat – preferably kneeling.
- Push down on the water the using back of the paddle blade and at the same time, apply weight to your opposite knee (if you are kneeling).
- Recover the paddle by rolling your wrist back and slicing the paddle up.

Body over the gunwales support stroke:

The critical difference here is that our body is out-side the gunwale so we need to get our body weight back above the boat rather than just get the boat itself back on balance.

- Once again we need to be wedged in the boat – kneeling.
- With your body as low down as possible let the paddle blade hit the water.
- Raise the forward edge of the blade and scull the paddle forwards as quickly as possible.
- When you reach the side of the boat, lift the paddle off the water and swing both the paddle and your body across the boat to the opposite gunwale.
- Make sure you keep your body low throughout this manoeuvre.



Stern paddler - "Body over gunwales support stroke"



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Bow paddler – draw stroke as support:

Using the draw stroke as a support:

- If the boat is capsizing away from the paddle side, use a powerful draw stroke to bring it back on balance.
- When tandem paddling, one paddler will use a support stroke, and the other paddler will use a draw stroke.



Canoe strapped down onto roof rack.



Canoe strapped down at rear.



Canoe strapped down at front onto tow hitch

Securing the canoe to a car roof rack:

- Open canoes are best transported upside down on their gunwales.
- If your car has roof rails, set them as far apart as possible.
- Strap the canoe onto the roof rack using a pair of 4 metre straps.
- Using another pair of 4m straps, strap the bow and stern of the canoe down to a tow hitch at the front and back of the car. (I use a tow hitch at the front and the tow bar at the rear).
- Some cars have built in tow hitches; some cars have one supplied with the spare wheel/jack kit. If you need two, purchase another from your local car dealer.

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Capsize and self rescue – Tandem:

Self rescue – climbing back into the boat.

For this type of self rescue to work successfully, it is helpful if the canoe has properly fitted and inflated air bags or buoyancy wedges at the bow and stern.



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- Capsize the canoe and swim to each end of the boat – remember to hold onto your paddle.
- Hold onto each end of the up side down canoe and kick your legs as hard as you can to raise your body as far up in the water as possible.
- Push the boat upwards and flip it upright.
- Both paddlers should now swim to the middle of the boat and hold onto the centre of the boat.
- Gently place your paddles in the boat.
- One paddler now holds the boat steady by grabbing the gunwales either side of the yoke.
- The other paddler climbs in the boat from the opposite side.
- If the boat still has lots of water in, it may be necessary to bail it out before helping the other paddler back in the boat. If this is the case it is important to do this as quickly as possible to minimise the amount of time the other spends in the water.
- The paddler in the canoe now balances the boat by leaning on the opposite gunwale while the other paddler climbs in. Help them climb in if necessary.



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Peer rescues:

There are two main types of peer rescues, the x-rescue and the curl rescue.

The X – Rescue:

- Approach the capsized canoeist(s) and get them to hang onto the stern of your boat and place their paddles in your boat.
- Position your boat so that either the bow or stern of the capsized canoe is at right angles to your boat and just in front of you.
- Reach down under the water, grab the gunwale with one hand.
- Gently roll the boat over slightly until the “air lock” is broken.
- Roll it upside down again and pull it across both gunwales until it is balanced across your boat.
- Turn it the right way up and slide it back into the water.
- Hold onto the gunwale and get the paddler(s) to climb back into the boat from the opposite side.
- N.B. Take care not to hit the paddlers hanging onto the rear of the boat whilst performing these manoeuvres.



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Peer rescues:

The curl:

- Approach the capsized canoeist(s) and get them to hang onto the gunwale of your boat on the opposite side to their boat.
- Get their boat along side yours, reach down with both hands and grab their upturned gunwales either side of the yoke.
- Lift gently until their boat is floating on edge in the water.
- Keeping a straight back, stand up in your boat and lift and roll their boat out of the water balancing it on the side of your gunwale.
- Once it is empty, quickly flip it over on to its hull.
- Hold onto their gunwale and get the paddler(s) to swim round to the opposite side of their boat and climb in one at a time.
- Alternatively if you don't want them to swim round to their boat, get them to climb into your boat one at a time, and then move across into their boat.



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Specific solo techniques:

All the above techniques can, where appropriate, be used for solo paddling. However, there are two strokes which are very useful for just solo paddling.

The C – Stroke:

This is used to get the boat moving from standstill and is very effect in solo situations.

- This stroke simply involves combining in sequence, a bow draw, following by a short power stroke under the hull of the canoe, followed by a J-stroke.
- Set up in the deep bow rudder position and perform a deep bow draw
- Link this simultaneously with a power stroke under the boat.
- Continue to bring the blade out from under the boat and link this with a long J- stroke.
- It should form the same of a “C” in the water, hence the name.

Outside pivot turns:

This stroke combines a cross deck bow draw with a forward sweep stroke.

Cross deck bow draw component:

Set up as per for a cross deck bow rudder - (see above).

Then draw the paddle blade forwards in an arc towards the front of the canoe.

When the paddle blade is about to hit the side of the canoe, lift it up and over the front of the boat and link the stroke with a sweep stroke.





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Safety, Leadership & Group skills:

This covers the planning and execution of journeys.

Subjects covered will include:

- Start – finish locations
- Weather conditions and how this might effect the journey
- Kit lists
- Emergency procedures

- Description of the river or lake
- Anticipated hazards
- Transport

Theory:

Listed below is a list of typical questions that a Two Star paddler should have some knowledge of:

Equipment:

- What do we mean by “chill factor”? Why is it important to wear a buoyancy aid?

Safety:

- Why are some weirs dangerous? Why should we avoid trees?

Hypothermia/First Aid:

- What are the signs of hypothermia? How do we prevent hypothermia in the first place?

Access:

- What is meant by a navigation? On which side of the river should we paddle on?

Environment:

- If you found pollution, what would you do? How do we avoid damaging banks?

Planning:

- What information would you need to gather to arrange a simple river trip?

And that’s it for the Open Canoe part of the BCU Two Star syllabus. If you have any questions or feedback on this article, please do contact us. Please feel free to use these notes to develop your own personal paddling skills or as a coaching aid but please note they are the copyright of Kent Canoes.

Our thanks to Jo Kenny who bravely paddled with Grant and Martin Ballington for the photos.

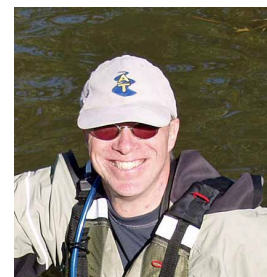
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