



Cambridge University Combined Boat Clubs



Lower Boats Captains' Course

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Overview

- Useful information from CUCBC
- Rules of the River
- Coaching guide
- Safety & legal requirements
- Equipment



www.cucbc.org

- Flag
- Lighting times
- Rules, coxing guidelines, code of practice
- Calendar of events



Mailing Lists

- contacts@lists.cucbc.org
- Sign up at www.cucbc.org/lists
- Useful announcements
 - Flag
 - Races
 - Information from CUCBC



When am I allowed out?

- Lights
 - 15 minutes after lighting down (sunrise) and 15 minutes after lighting up (sunset)
 - Need a white light on both bow and stern
- College crews may not boat after dark (lighting up/down times defined on website)



When am I allowed out?

- No novice crew may be on the water before 07:30 or within 15 minutes of lighting down (whichever is later)
- Only University crews and those in the top 2 divisions of the May Bumps may row below Baitsbite
- No college crews on the water before 11:00 at weekends (in term time)



Is it safe to boat?



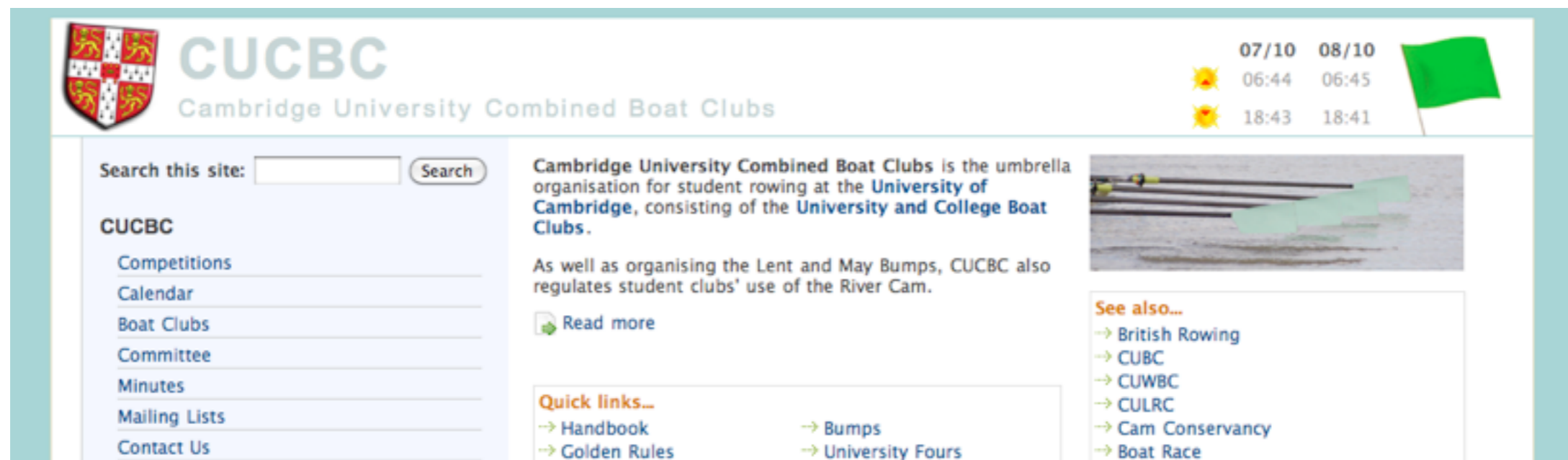
Is it safe to boat?

- Wind
- Stream
 - Can your cox/crew control the boat?
- Fog
 - Can you see where you're going? Lights?
- Ice
 - More than 10cm from bank?



The Flag

- Set by CUCBC
- Defines which crews are allowed to boat given the conditions
- On the website – www.cucbc.org



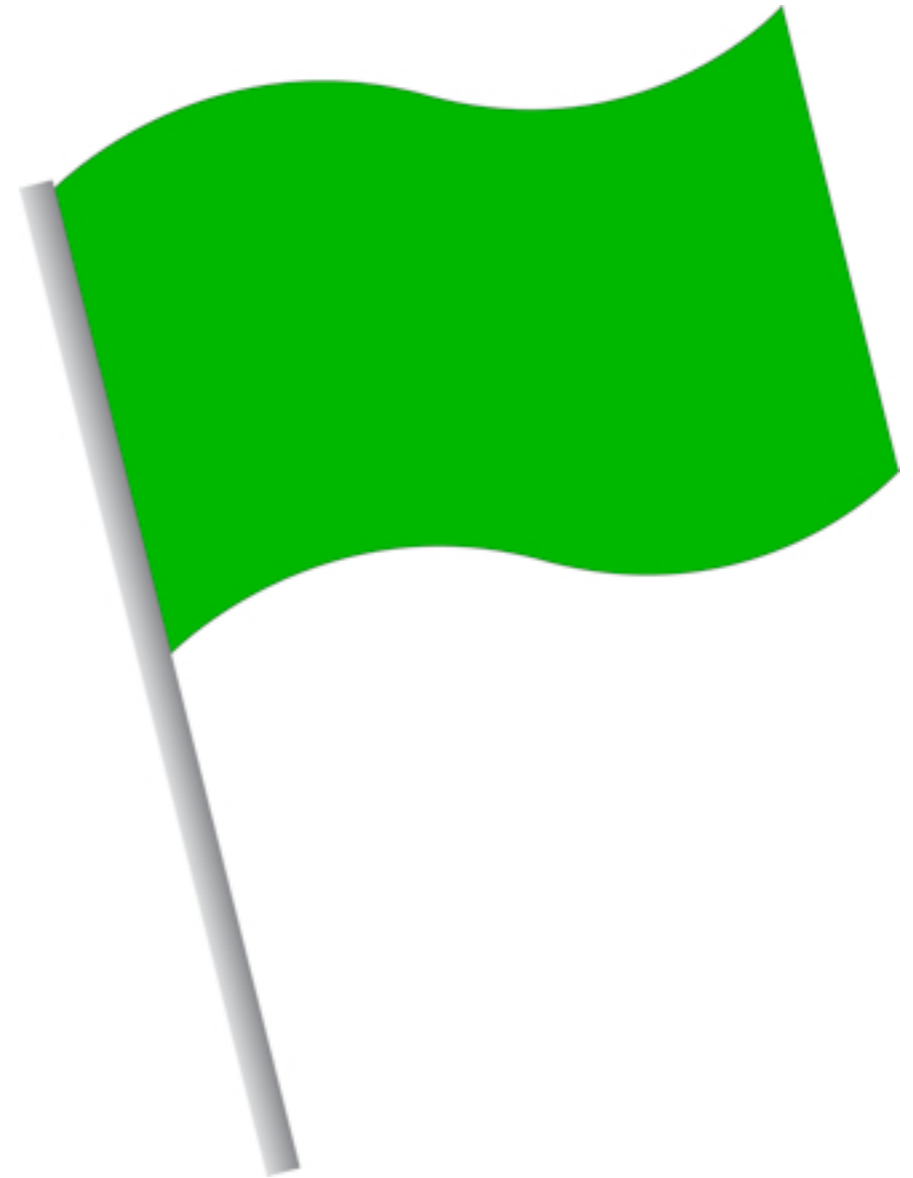
The screenshot shows the homepage of the Cambridge University Combined Boat Clubs (CUCBC) website. The header features the CUCBC logo (a shield with a cross and four lions) and the text "CUCBC Cambridge University Combined Boat Clubs". To the right, there is a weather forecast for 07/10 and 08/10, showing sun icons and times: 06:44, 06:45, 18:43, and 18:41. A green flag icon is also present. Below the header, there is a search bar with the text "Search this site:" and a "Search" button. A navigation menu lists "CUCBC", "Competitions", "Calendar", "Boat Clubs", "Committee", "Minutes", "Mailing Lists", and "Contact Us". The main content area contains a paragraph describing CUCBC as the umbrella organization for student rowing at the University of Cambridge, consisting of the University and College Boat Clubs. It also mentions organizing the Lent and May Bumps and regulating student clubs' use of the River Cam. A "Read more" link is provided. Below this, there is a "Quick links..." section with links to "Handbook", "Golden Rules", "Bumps", and "University Fours". On the right side, there is a "See also..." section with links to "British Rowing", "CUBC", "CUWBC", "CULRC", "Cam Conservancy", and "Boat Race". A small image of rowing oars is also visible.



The Flag

Green

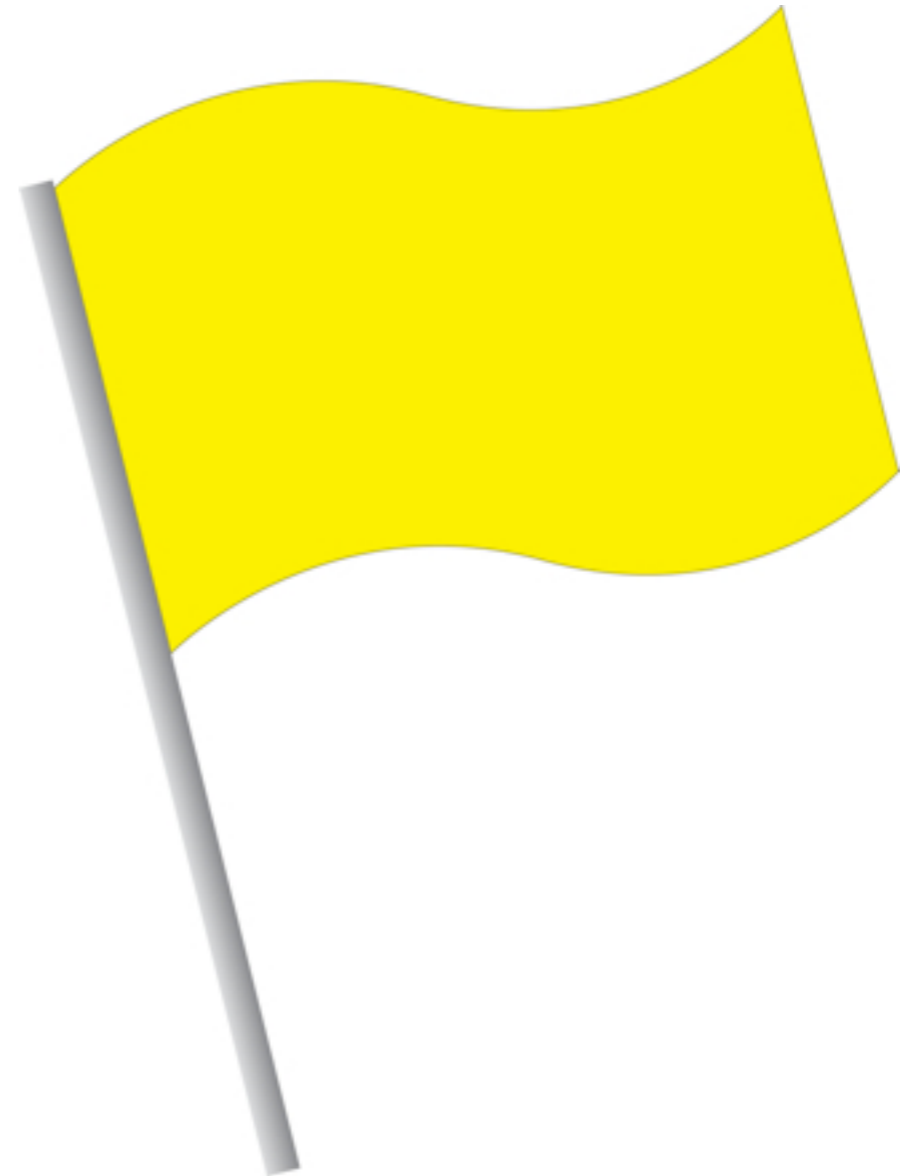
- No restriction on which crews may boat



The Flag

Yellow

- 1st Boats
- Crews in top 2 (men) or 1 (women) divisions of May Bumps (no novices)
- Smaller boats made up of members of these crews



The Flag

Red

- No crew may board



The Flag

Red/Yellow

- University Crews
- Tub Pairs (above Chesterton)



Is it safe to boat?

- Flag is a guideline
- At the end of the day, it is up to you whether to boat
- Do you think it is safe?
- Can your cox and crew handle the conditions?



**The first outing of a
novice crew must be
with an experienced
COX**



Coxes must wear a lifejacket!

- British Rowing requirement
- For their safety
- Coxes will not be able to swim so well if cold and wearing a lot of layers!
- It must be done up properly and on top of all other clothing!
- £50 fine if you don't have one!



**All novice crews must
have a coach on the
bank**



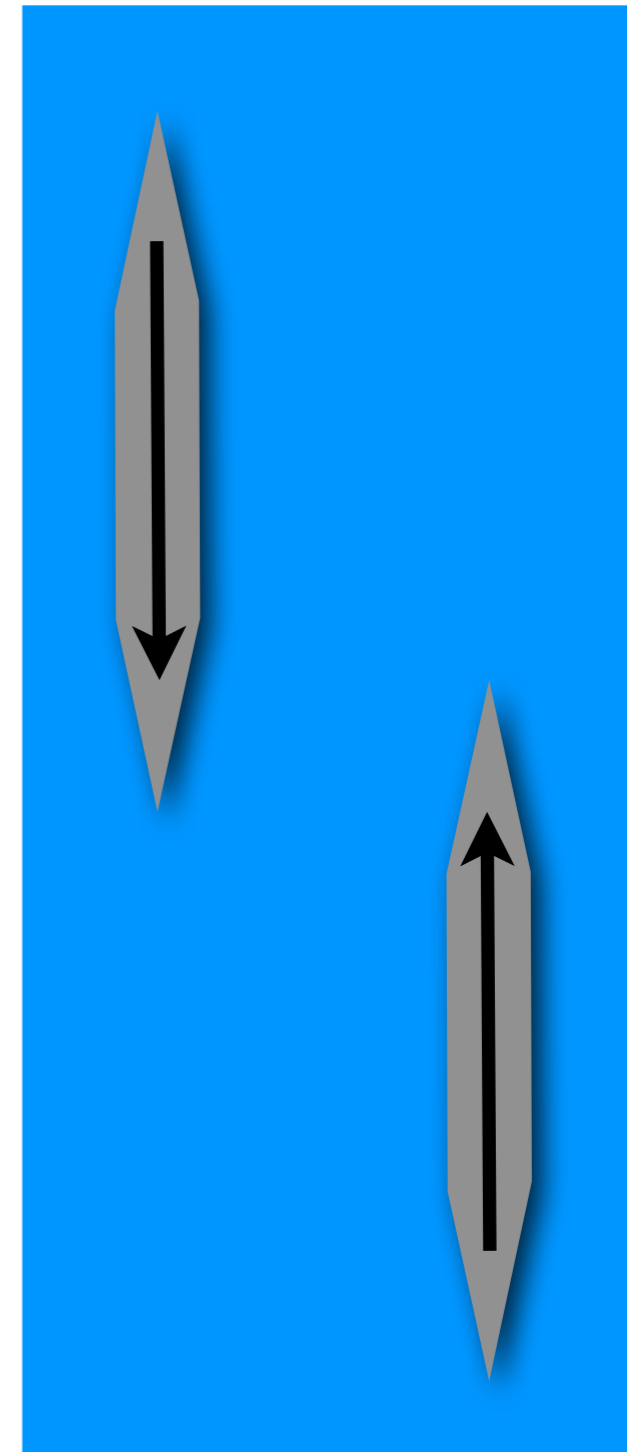
Keep the noise down!

- Before 07:30
 - No coaching from the bank
 - Keep use of cox boxes to a minimum
- Upstream of the Railway Bridge
- No loudhailers before 07:30



Navigation

- Navigate on the right
- (if you are facing forwards)
- Except between the crossover points where you navigate on the left

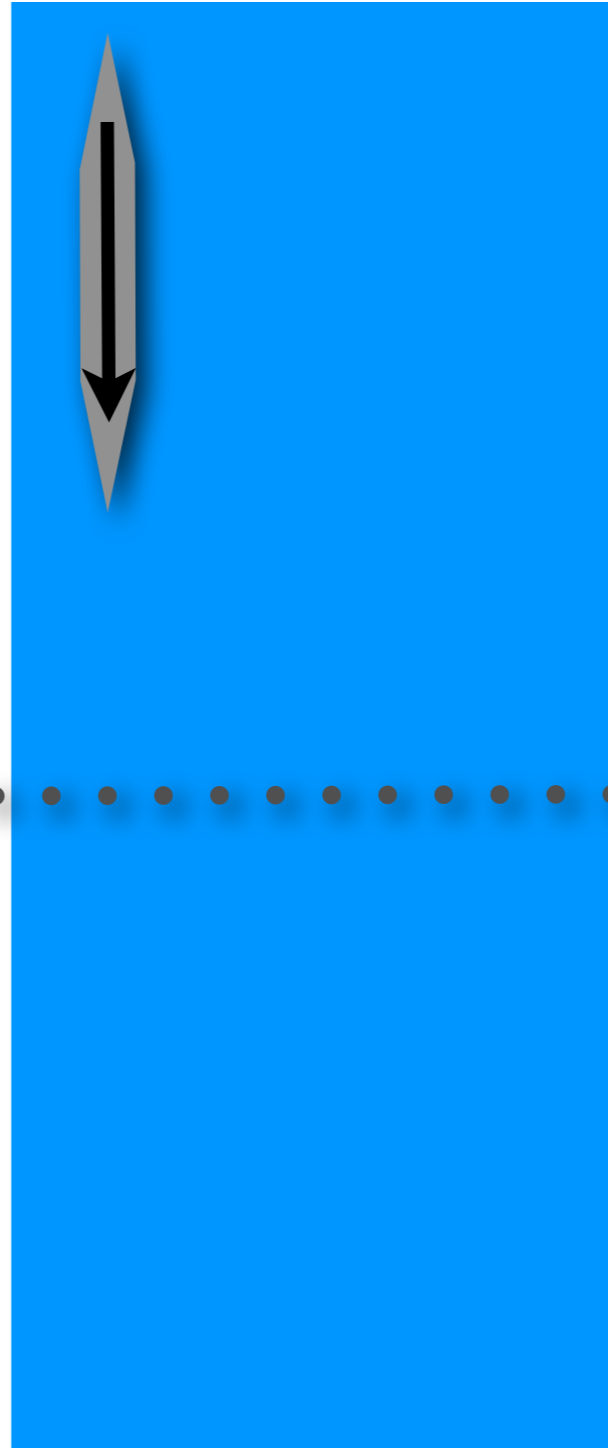


Crossover Points

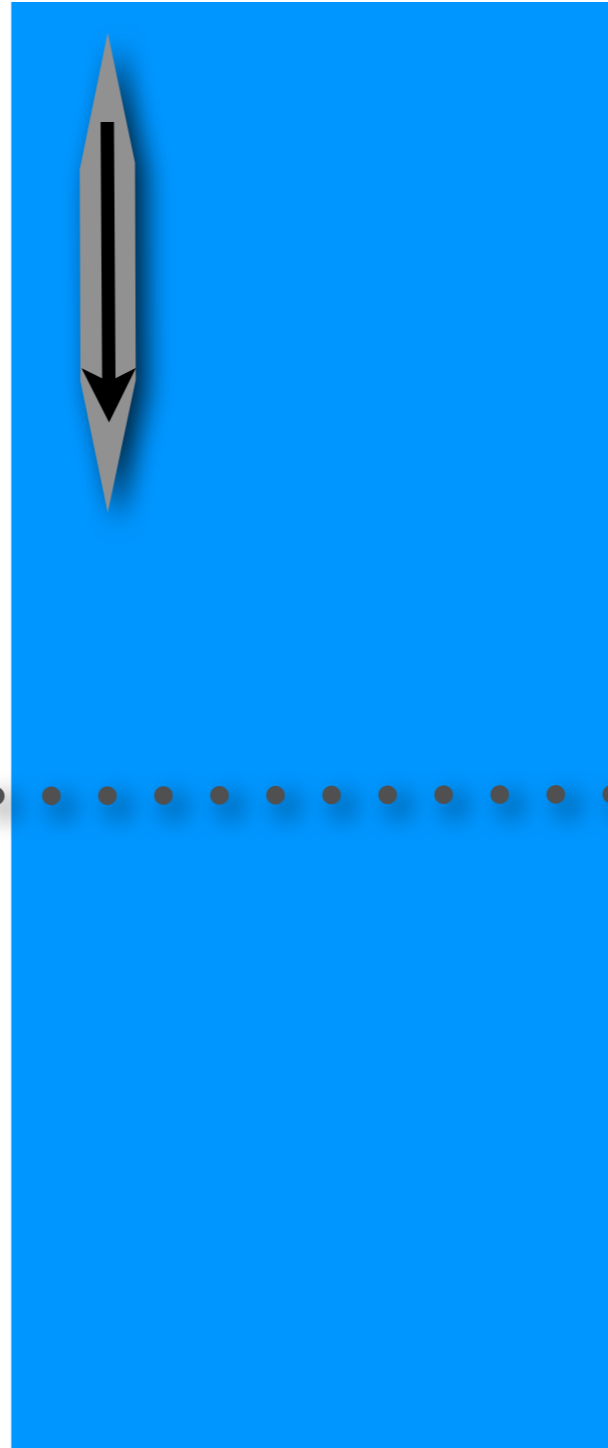
- Between crossovers, navigate on the left
- Change sides
- Crews coming upstream have right of way
- If another crew is crossing – STOP



Crossover Points



Crossover Points



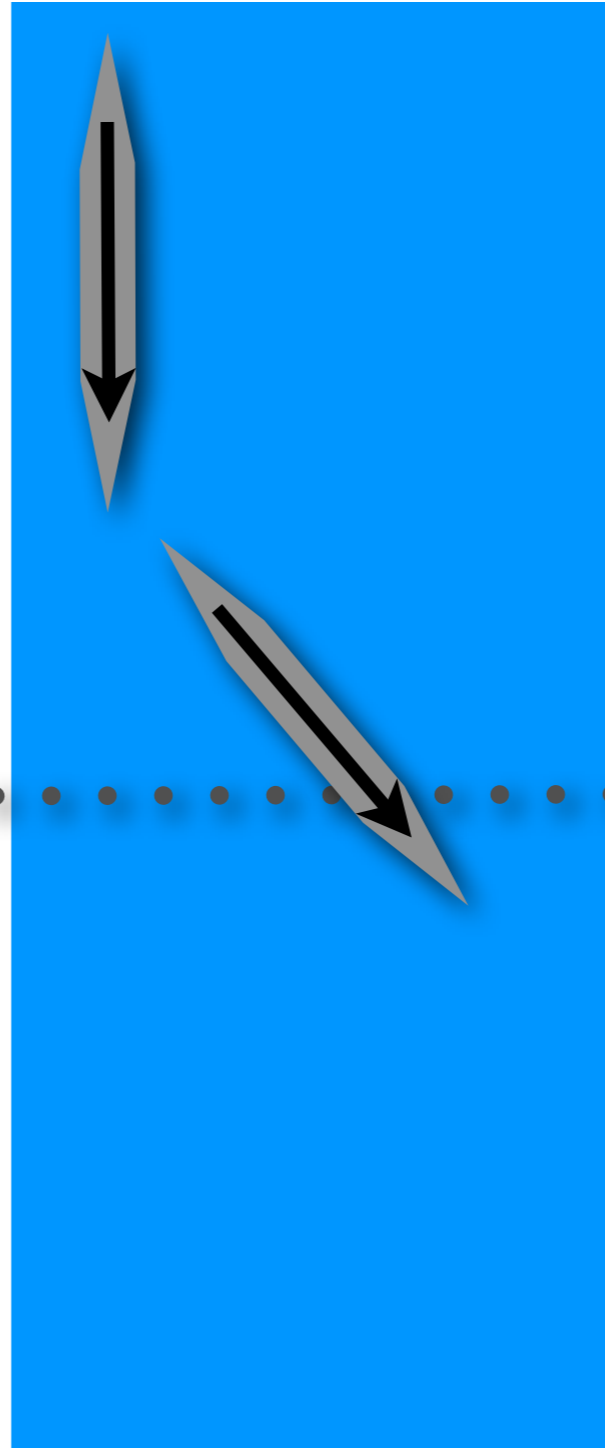
Downstream



Upstream



Crossover Points



Downstream

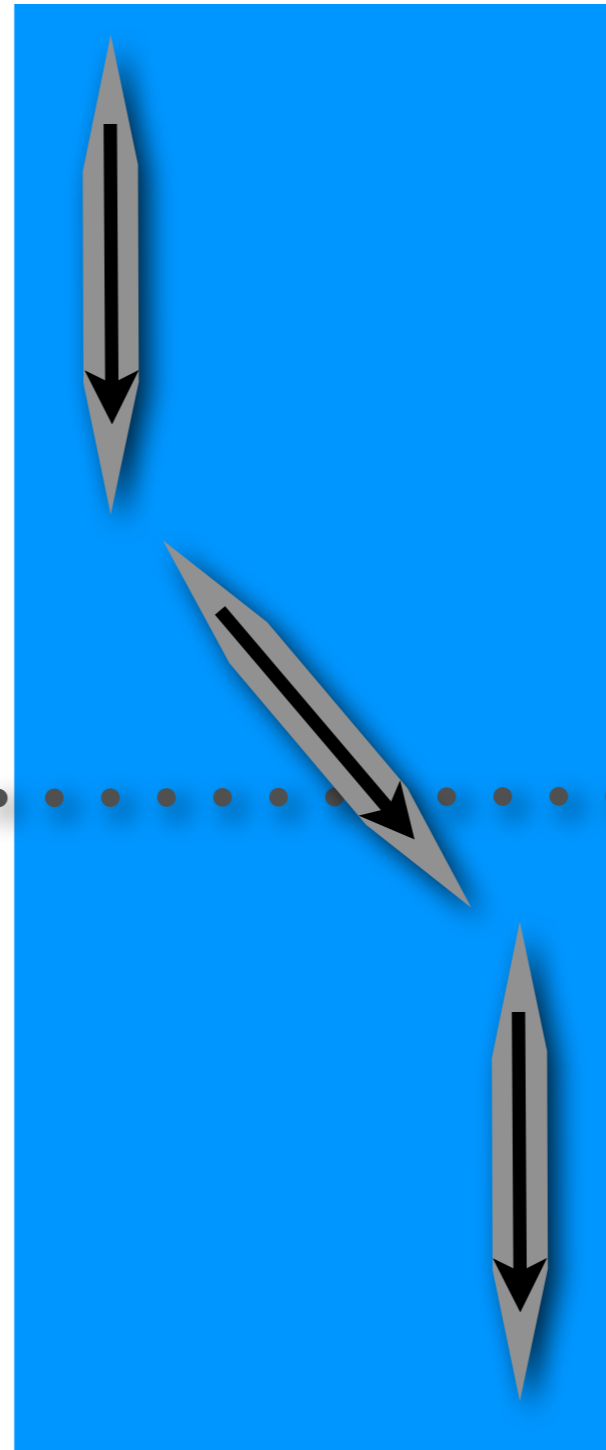


Upstream

- Cross straight over
- Do not stop on the crossing point



Crossover Points



Downstream



Upstream

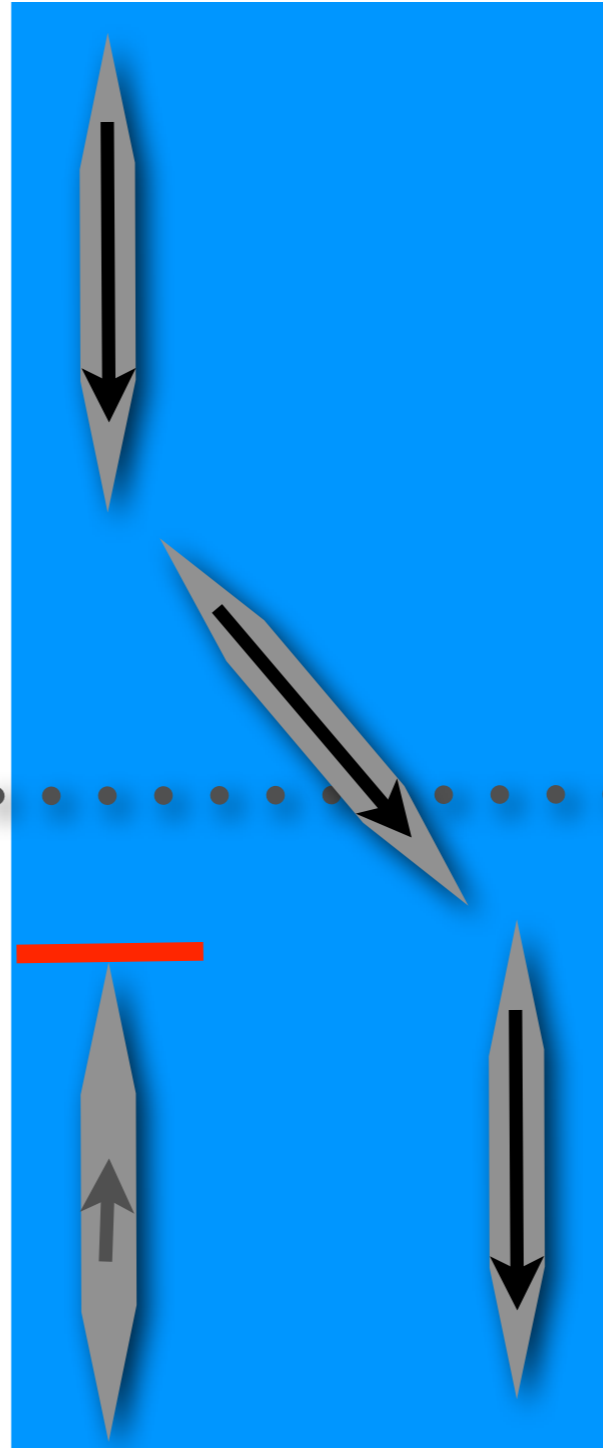
- Cross straight over
- Do not stop on the crossing point



Crossover Points



Downstream crew waits for upstream crew



Downstream



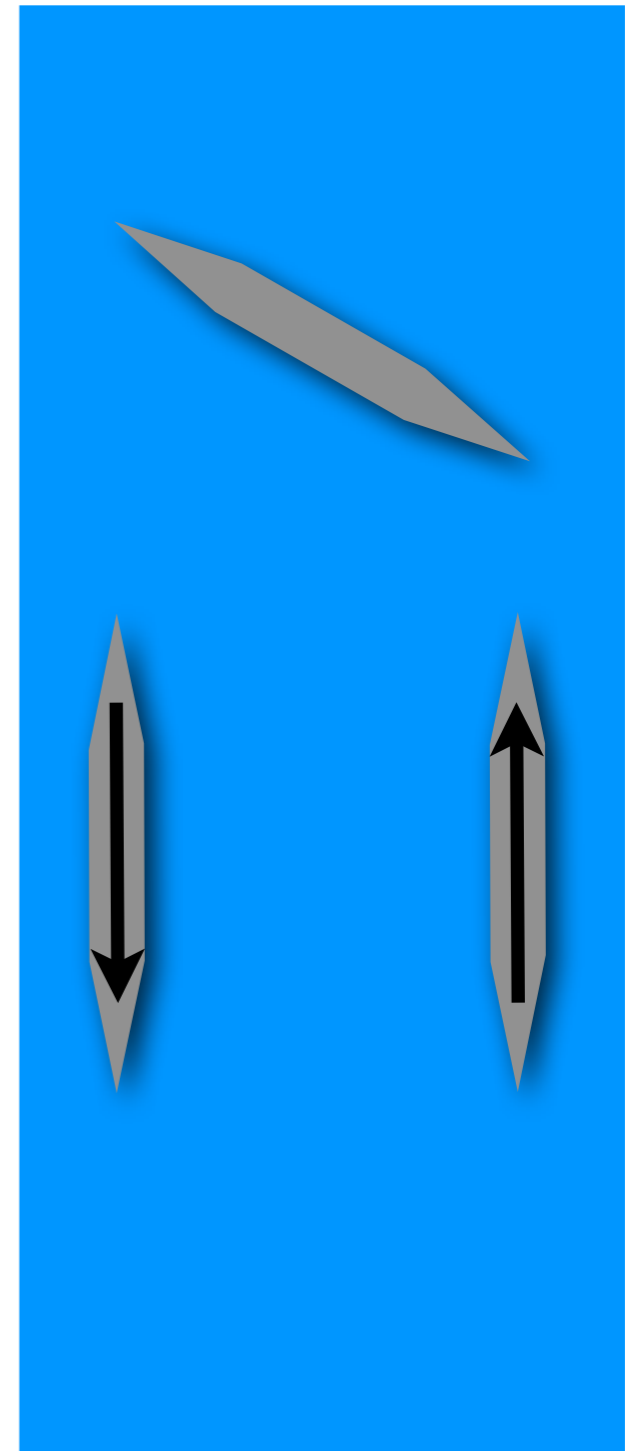
Upstream

- Cross straight over
- Do not stop on the crossing point



Spinning

- Never spin in front of a crew (in front or behind)
- Do I have enough room?
 - The Cam gets narrow!
- Spin quickly
- Once round, get to your side of the river ASAP
- Don't sit blocking the river!



Overtaking

- Slower crews should let faster crews overtake
- Overtake only if safe to do so
 - No crews coming other way
 - Not on corners (incl. under Railway Bridge) or at crossover points



Overtaking

- Ask other crew
 - “XXX, may I come by please”
 - Wait for response: “Come by, YYY”
- Get past them and back to your side as quickly as possible





Coaching Novices





Why row?



Before the first outing...






Before the first outing...

- Equipment and jargon
- Understanding coxes' commands
 - **HOLD IT UP**
- Getting boat off rack properly
- How to carry boat and blades
- Adjusting stretcher position
- Getting in and out of boat properly






Technique

<p>1. Stretch</p> <p>Occurs from finish position</p>	<ol style="list-style-type: none"> 1 Hands lead out with loose grip on oar (feathered). 2 Let go of tension in knees, but DON'T SLIDE yet. 3 Handle continues to move away, drawing arms then upper body. 4 Forward stretch comes from HIPS. (Shoulders forward but loose). 5 Upper body is forward & weight moving to bow/stoke side. 6 The weight of the oar carried is being in the hands. 	
<p>2. Control</p> <p>Occurs during recovery</p>	<ol style="list-style-type: none"> 1 Body loose; weight between seat and feet. 2 Shoulders relaxed in sockets. 3 Upper body position now ready. No change until blade in water. 4 Allow boat to slide under you, lifting knees towards chest. 5 Handle and seat travel together. 6 Once near your ankles, handle starts to rise, blade squaring. 7 Compression of legs by boat nearly complete. 	
<p>3. Entry</p> <p>Occurs at end of recovery</p>	<ol style="list-style-type: none"> 1 With blade fully square, handle rises until spoon covered. 2 Body posture unchanged, though weight is leaving seat and 3 Moving up onto the feet. 4 Blade is buried by the time you are up on your toes. 5 Torso is tall but not rigid posture. 6 Body is on balance ready to connect. 	




Technique

<p>4. Push</p> <p>Occurs at beginning of stroke</p>	<ol style="list-style-type: none"> 1 PUSH down from legs causes spoon to engage body weight. 2 Hips are light on seat (also engaged to spoon). 3 Hip connection forces Back to engage pressure. 4 Arms are left hanging off handle. 5 Lats fill out because of this pressure. 6 Body weight is suspended between feet/hands/spoon. 	
<p>5. Draw</p> <p>Occurs in front of pin (i.e. 1st half of stroke)</p>	<ol style="list-style-type: none"> 1 Leg push continues, driving hips to bows. 2 This keeps Back fully engaged. 3 Back opens dynamically to augment legs. 4 Arms still straight but have full pressure from legs/back. 5 Leg & Back angles opening and accelerating powerfully. 	
<p>6 Pull</p> <p>Occurs behind pin (i.e. 2nd half of stroke)</p>	<ol style="list-style-type: none"> 1 Legs into final third of push. 2 Back pulling hard on handle (via arms). 3 As handle travels in past knees, arms break. 4 Arms add to legs and back increasing handle speed. 5 Pulling with both hands (like bench pull). 6 Keep pushing into toes, pulling handle to chest. 7 Push and draw into own rigger. 	



Technique

<p>7 Release</p> <p>Occurs at finish of stroke</p>	<ol style="list-style-type: none">1 Push and draw keeps weight up, out of boat.2 As acceleration stops, oar drops you and boat into water.3 Spoon uncovers itself. Allow puddle to detach from spoon.4 Use momentum to push handle down and away from body.5 Inside hand feathers oar once clear of water.6 All tension is released from body ready for recovery.	
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Coaching

- Demonstrate the technique
 - Full technique
 - Then building up in stages from arms only
- Easier to learn first on erg
- Build it in to a training plan...
 - Co-ordinate between coaches!



Stage I

- Learn about overall boat safety
- Basic technique
- Use and effect of oar (grip, feathering & squaring, handle heights and change of direction)



Session 1

- Tour of boathouse, introduction to equipment, safety
- *Warm-up and stretching exercises*
- Getting boat on and off of rack
- Carrying boat and putting it on the water
- Adjusting stretcher positions
- Getting in and out of the boat
- Pushing off and landing the boat
- Messing about/confidence exercises – tapping/balance



Warming Up



Warming Up

- Cardio
 - Short erg – also reinforces technique
 - Short jog/run
 - Something more involved...



Warming Up

- Cardio
 - Short erg – also reinforces technique
 - Short jog/run
 - Something more involved...
- Stretching
 - Reduce risk of pulled muscle
 - Improve flexibility
 - Quads
 - Hamstrings, glutes & calves
 - Shoulders

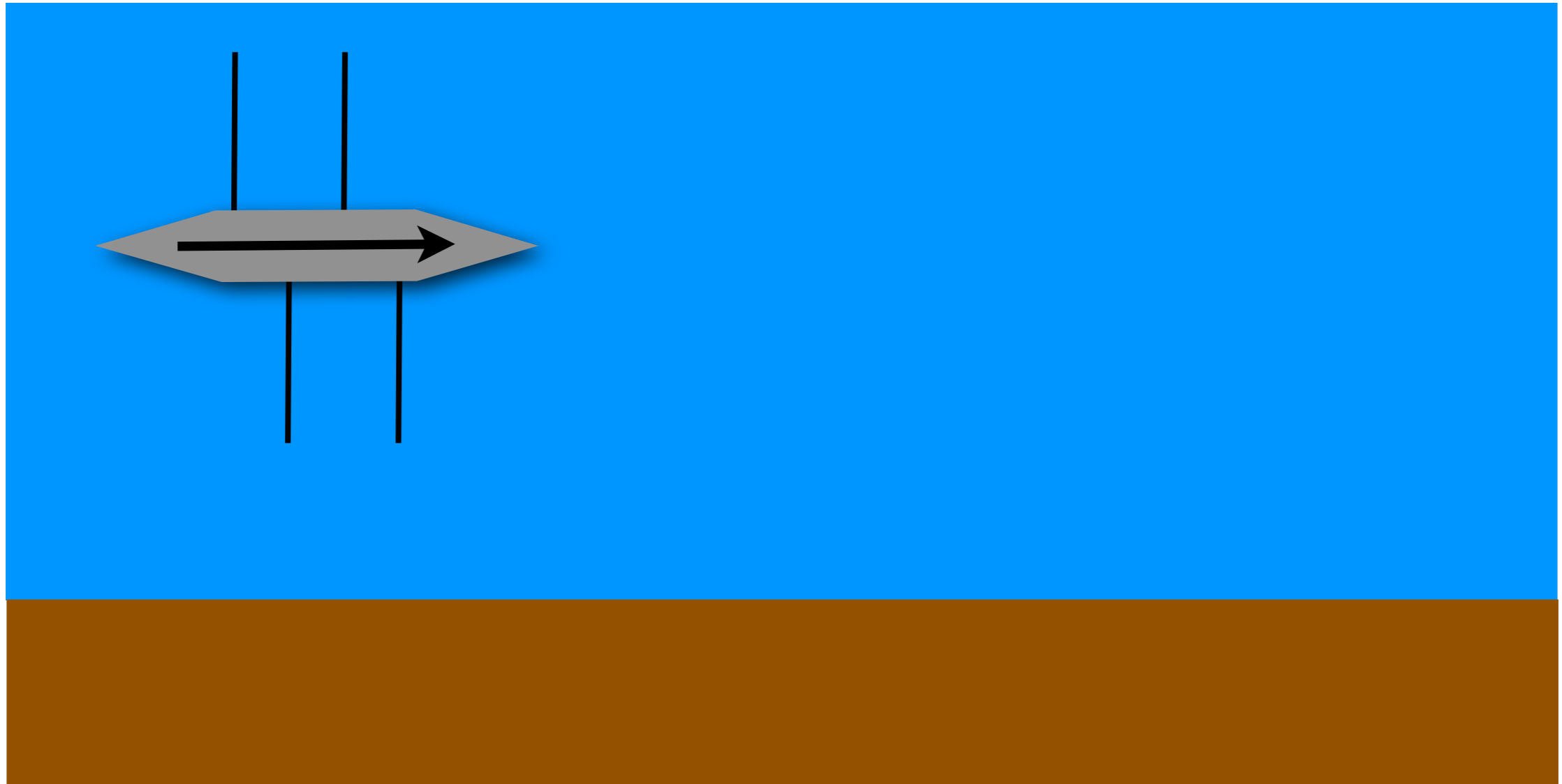


Parking

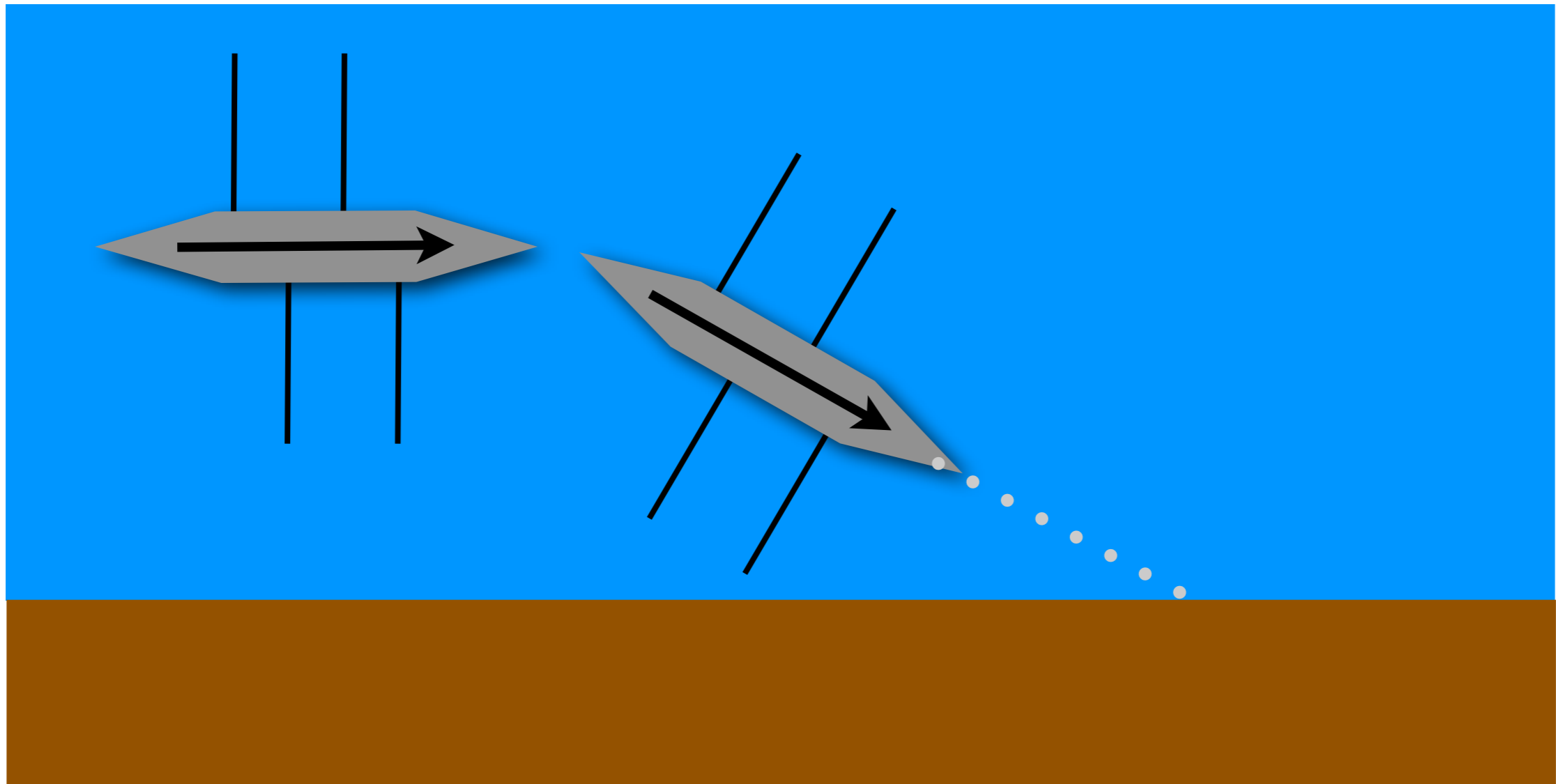
- Takes practice to get it right
- Point bow to where cox wants to end up
- Take it slowly – bow four or pair
- Crew lean out from bank and bank side (usually bow side) rowers lift blades
- Gently take run off in stern on water side (usually stroke)



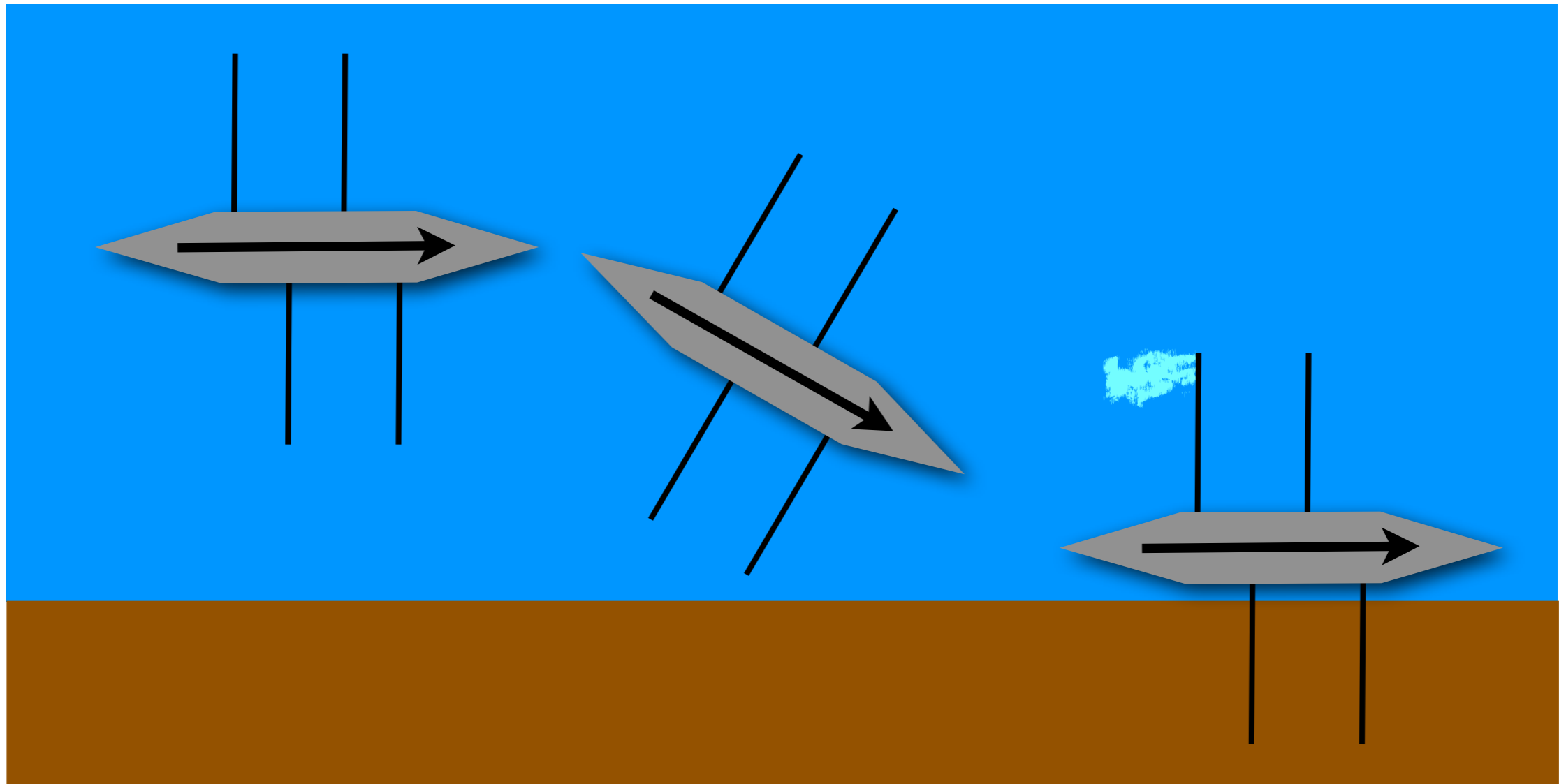
Parking



Parking



Parking



Session 2

- *Warm-up & stretching exercises*
- On the ergo
 - Explain drive phase (push, draw, pull, release)
 - Execute drive phase
 - Explain recovery phase (hands, body, slide)
 - Execute recovery sequence
 - Building up and putting it together
 - *Correct faults*



Stage 2

- Rough co-ordination of oar/scull
- Grasp of boat manoeuvrability



Session 3

- *Warm-up & stretching exercises*
- Correct posture on seat
- Proper grip of handle
- Independent roles of each hand
- Confidence that boat will not capsize as long as blades are held on to
- Correct blade profile through water, with & without slide
- Turning boat around

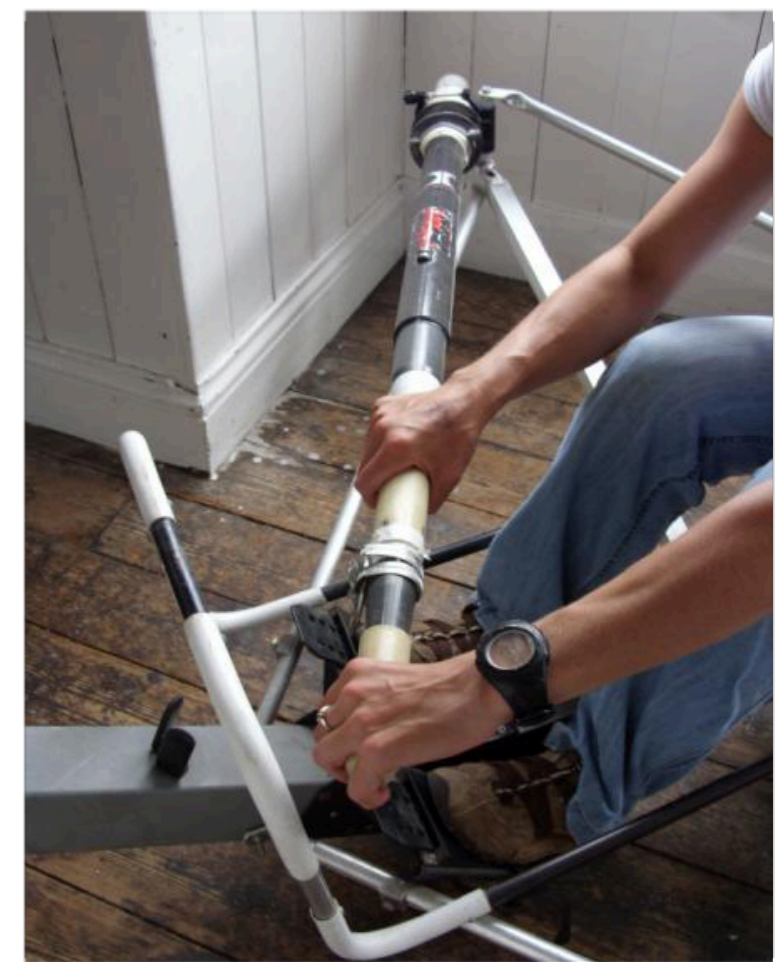


But...

- Before you go anywhere...
 - How to stop the boat
 - HOLD IT UP!
 - Easy all
 - Stopping at arms away



Gripping the Handle



Outside Hand



Outside Hand



Feathering



Squaring



Stage 3

- Refining co-ordination of the rowing stroke
(without much power)



Session 4

- *Run through & clarify Stages 1 & 2*
- *Warm-up & stretching exercises*
- Explain direction change at front and back end of stroke
- Execute drive phase & recovery sequence (build it up)
- Execute changes of direction (entry and release)
- Put it together
- *Correct faults*



Session 5

- *Recap Session 4*
- *Warm-up & stretching exercises*
- Stopping, backing down and turning around
- Balancing the boat
 - After paddling and backing down (blades clear)
 - Paddling with blades off the water
- Hand co-ordination - reiterate independent roles of each



Session 6

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Full strokes, executing drive and recovery phase
- Arms only. Use of arms during draw phase.
Relaxed, loose shoulders. No shoulder movement
- Arms only. Handle profile using both arms and outside arm only



Session 7

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Adding exaggerated use of upper body to arms only (swing from the hips, straight back)
- Handle profile using outside arm only
- Set up rolling through fours continuous paddling (stern four, middle four, bow four)



Session 8

- *Recap recovery and separate task for each hand*
- *Warm-up and stretching exercises*
- Explain slide and how entry is the last part of the recovery
- Exaggerated use of upper body (single strokes then continuous)
- Bring in the slide, one stroke at a time (just the drive phase, one stroke at a time)



Session 9

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Legs only rowing
- Legs and body
- Complete drive phase (single strokes to arms away)
- Continuous square blade, full slide rowing
- *Correct faults*



Stage 4

- Further refining rowing technique
- Changes in pressure
- Improvement in rowing rhythm



Session 10

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Rowing square blades
- Improve use of arms rowing arms only, varying pressure
- Progress to rowing in sixes then all eight by the end (blades feathered on the water)
- No variable pressures rowing all eight



Session 11

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Square blades
- Bring in slide. Half slide then full slide
- Vary pressures at each stage
- All eight, feathered blades on the water



Session 12

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Build up stroke from arms only to full slide.
Incorporate this into the warm-up
- Rowing all eight, feathered blades on the water



Session 13

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Variable pressures, keeping the ratio as the pressure comes up
- Improve ratio and rhythm, entry and release at varying pressures



Session 14

- *Recap previous sessions*
- *Warm-up and stretching exercises*
- Timing – every part of the stroke together
- Single strokes to arms away
- Handle heights, keeping lateral pressure and balance
- Rowing all eight, feathered blades off the water



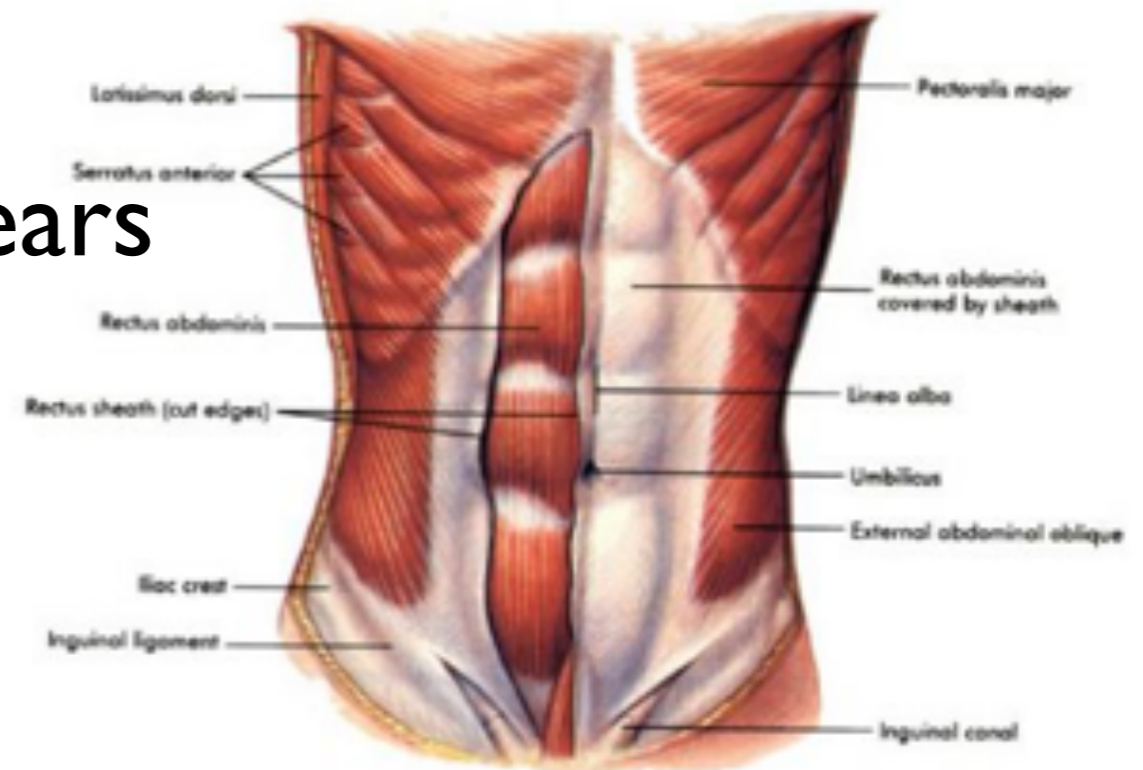
Land Training

- UT2 – strength/endurance
 - 60-80% MHR
 - 60-90 min
 - e.g. long erg (not too hard), run
 - More fun in groups
 - Keep it enjoyable and don't start off too hard
- UT1 – endurance
 - 80-85% MHR
 - 30-45 min
 - e.g. 10k erg, 5k erg
- AT – Endurance training
 - 80-90% MHR
 - 20-30 min, 10min pieces
 - e.g. fartlek
- Strength
 - Weights – proper instruction!



Core Stability

- Important to transfer force from legs to handle
- Where is my core?
 - Hold nose and clear ears
 - ...those muscles!
- Lots of exercises!



Coxes



- Don't forget, you will need coxes too!
- Don't neglect them
 - Coach them and give them advice
 - Coaching from senior coxes
- Get them involved in coaching
 - What to watch out for, drills
- CUCBC Novice Coxes' Talk





Coaching Guidelines



How to Coach

- Be positive
- Briefing and debriefing
 - What are we doing today? Why?
- ‘Compliment sandwich’
 - You’re doing _____ well
 - I want you to try _____ to help _____
 - But overall it’s coming on nicely



How to Coach

- Coach the whole crew and individuals
 - Names or numbers?
- Work on one thing at a time
- Explain why you're doing something (to help _____)



When to Coach

- Depends on athletic ability
- Beginners:
 - Will not be able to listen, think and change while doing
 - Coach when they have stopped
 - Maybe get them to try it out
 - Reinforce with calls while moving again



When to Coach

- More advanced athletes
 - Able to listen, think and change while doing
 - Concise calls while moving
 - Reinforce with discussion when stopped



Be Considerate

- Don't stop in front of other crews
- Crew chat after spinning and pulling in
- Be patient
 - Everyone has to learn!



Congestion

- The River will get busy
- Try to avoid morning outings (before 9am) where possible
- At busy times, no less than half crew at half slide
- Keep the traffic moving



Moored Boats

If you collide with moored boat:

1. Blades in!
 2. Back down with stern pair if possible
 3. Push off fenders (or tyres)
 4. If no fenders, push off above water line
- Apologise!





Avoiding Injury

Through bad rowing...





Avoiding Injury

Through bad rowing...

...or should that be bad coaching?



Don't over compress or overreach

- Don't rush or bounce into frontstops
- “ratio”
- “trundle, trundle, trundle”



Strong core at the catch

- To avoid bum-shoving
- Back strain



Your legs are your strongest muscles!

- Use them the most!
- Missed catch leads to early finish
- Lean back too far and draw up really high to compensate
- Back strain



Keep your back strong but comfortable

- Not slumped
- Not bolt-upright



Keep wrists flat

- Wrists flat during the drive phase
- Extract before feathering to avoid force on bent wrists
- “Elbows above wrists at the finish”
- Sore wrists – time off necessary



Relaxed neck & shoulders

- Not overreaching at the catch
- Relaxed shoulders round the finish
- Sit back. Let the arms spin away with the shoulders still



Keep contact with footplate

- So you don't need to use hamstrings to haul yourself up the slide
- Weight through the feet – balance
- “Imagine holding coins under the balls of your feet”



In short...

Relax!

- If you're tense, you won't let the stroke happen naturally.
- Injury is more likely and you can get into crazy habits like leaning away from the rigger





Coaches and Safety



Role of the Coach

- To be responsible for the safety of the crew at all times
- To identify and respond to risks
- To exercise common sense & diligence
- To be courteous to other river users and members of public on the towpath at all times

Coaches have a duty of care



Neglect

- Cold exposure and poor clothing
- Dehydration
- Excessive work
- Reckless behaviour and incompetence



Reckless Behaviour

- Disobeying the navigation rules
- Going out after dark/in fog
- Blind overtaking
- Tailgating scullers
- Rowing too fast for the conditions
- Getting too close to the weir
- Aggression

Reckless behaviour is dangerous and will be penalised heavily with fines and potentially training/racing bans



Vital Skills

Learn how to

- Stop your crew
 - normally
 - in an emergency
- Spin quickly
- Use a throwline



Coaches' Kit

- Throwline
- Space blanket
- Mobile phone

- Toolkit
 - 10mm spanner, 13mm spanner, screwdriver, tape



Procedures

- Ensure all rowers and coxes can swim 100m in light clothing (consent form)
- All coxes must wear a lifejacket
- Encourage cox to carry a mobile phone
- Be prepared to call the emergency services in case of emergency/serious criminal cases



If someone gets injured...

- Keep them warm
- Allow them to choose whether to drop out or row home gently to keep warm
- If in doubt, drop them out
- If ribs hurt when breathing/laughing, it is a stitch or cracked rib – shouldn't row until better
- Tell them to see a physio
- Monitor training until they're better



Cold Exposure

- Symptoms
 - Shivering
 - Pale or blue
 - Incoherent
- Remedy
 - Warm & dry clothing
 - Remove from water if immersed
- Major risk
 - In the winter
 - When waiting at the start or finish of a race
 - In bad weather when clothing is wet
 - Bring warm/dry clothing



Exhaustion

- Do not exceed 2 hours
- Take water
- Take particular care in hot weather



Stay with the boat!

- British Rowing guideline in the event of capsizing
- Emphasise this from the start
- Swim to the bank with the boat
- In case of cold, drape person onto boat to reduce heat loss
- Getting back into the boat – capsizing drill



Dealing with Trauma

- First aid
- Have a mobile phone – dial 999
- Seek help
- Know the ambulance access points
- Keep them warm



Incident Reporting

- Keep a record for insurance, personal injury claims, information gathering
- Complete the British Rowing incident report and send a copy to committee@cucbc.org
- Report
 - What happened (including boat names/ numbers)
 - Weather
 - Witnesses (get contact details)



Are you insured?

- Yes, if you have British Rowing membership
- Yes, if you are a member of College
- Yes, if you are on College business (and there is a written record)

If you're not insured, you may be in trouble





Equipment

Think of a boat as a vehicle: would you drive — or teach your friend to drive — if you thought the car would fail its MOT or had a loose wheel?



Why should I care?

- Training disasters / racing disasters?
- Crews do not know how to look for breakages
- Crews incorrectly adjust the boat, damaging it
- Take an interest (and wash the boat!)
- Teach your novices about the equipment...



Quick Check

1. Hull
2. Hatches
3. Bowball
4. Riggers & gates
5. Seats
6. Heel Restraints, shoes, stretcher
7. Steering
8. Oars



Hull

Problems

- External
 - Gel coat flakes off (often from impact with debris, hoe extends)
 - Holes from riggers/debris (water gets in honeycomb)
- Internal
 - Deck cracks, structural collapse
 - Wooden areas rot/delaminate
 - Footplate track screws pull out



Hull

Action

- Teach crew where to step
- Teach coxes to avoid debris
- Problem of getting handle jammed through saxboard
- Check hull when wiping boat down
- Tape as a temporary measure
- Get it fixed (ask your boatman)



Hatches

- Hatches maintain floatation chambers
 - Safety requirement
- Must be secure and attached

Problems

- Seats can catch on them
- Can be loose, cracked or missing

Action

- Tighten it
- If cracked or missing, quarantine boat and report to your boatman



Bowball



- Essential to cover sharp point of bow

Problems

- Missing
- Insecurely attached
- Nearly ripped off

Action

- Fit back on properly (screwed, not just add more tape)
- If missing or badly damaged, quarantine the boat



Riggers & Gates

Problems

- Riggers
 - Missing bolts
 - Bolt plates about to pull through hull
 - Cracked/broken welds
 - Bent frame
- Gates
 - Worn
 - Missing spacers
 - Not free moving
 - Rattling/noisy
 - Pitches out

Action

- Check top nut is tight
- Check bolts are tight (but not crushing the hull!)
- Inform boatman if they keep loosening
- If the gate breaks, the outing is cancelled!
- If the rigger's bent, consider if the pitch is out/it is unrowable



Seats

Problems

- Comes of slides
- Sticks
- No rating

Action

- Is it the rower or the seat?
- Control the slide!
- Missing slide ends (can use tape)
- Comes of laterally – damaged chassis
- Holding knees down too long
- Clothes caught in wheels
- Slides need cleaning
- Wheels worn out or need cleaning
- Missing magnet



Heel Restraints

- Hold heel to base of footplate to allow escape in the event of capsize
- Heel should not rise above where sole is fixed to footplate
- Do not boat without them!

Problems

- Loose
- Missing
- Broken/frayed

Action

- Tighten
- If missing or broken, quarantine boat until replaced



Shoes & Stretcher

Problems

- Shoes
 - Screws loose
 - Fabric separating from sole
 - Sole cracked
 - Velcro not working
 - Missing release string
- Stretcher
 - Slips with pressure
 - Angle wrong
 - Broken welds

Action

- Tighten loose bolts
- Replace missing bolts
- Tape fabric but never tape feet into shoes
- Replace release string
- If it keeps slipping, report to your boatman
- Report broken welds



Steering

Problems

- Rudder lines
 - Handles not fixed
 - Pulley wheels worn – cuts through wire
 - Sleeve worn
 - Chocolate blocks loose
- Rudder & fin
 - Should operate evenly left & right
 - Should be whole & straight
 - Fin should be secure

Action

- Tighten chocolate blocks
- Report worn parts

- Report any faults with rudder & fin – don't make it worse!



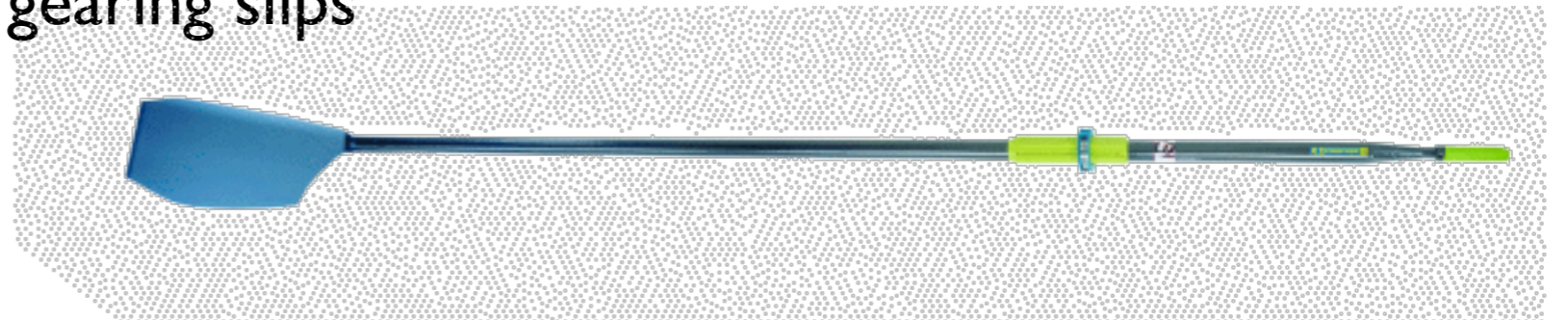
Oars

Problems

- Spoon
 - Layers/chunks missing
- Loom
 - Holes/cracked/splintered
- Button, collar & wear-plate
 - Missing wear plate – no lock against gate
 - Button loose – gearing slips
 - Button thin – can crack
 - Collar worn – gearing slips
- Handle
 - Loose

Action

- Report worn or broken parts to your boatman
- Tighten button and handle
 - Match gearing with others in the set



Some things are best left!

- Rigging
 - Heights, pitches and gearing
- Wheels
- Bowballs
- Wiring
- Hull damage

Talk to your boatman!





Thank you

Any questions?

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