



CAIRNS CYCLING CLUB

WORKSHOP NOTES

BASIC GROUP RIDING

Version 1.2 (draft)
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INTRODUCTION

In order to ride in a cycle race, the skills and knowledge relating to riding in a bunch are essential. Without them riders cannot hope to ride safely.

This document will cover some basic knowledge necessary for bunch riding. It will provide information on some of the ways that riders can ride together, but will not cover such things as when or why to use a particular method. The focus will be on providing the basic level of information necessary to prepare riders to ride in a group safely.

When riding in a group riders should always be mindful of the need to comply with the road rules. Important points include, but are not limited to:

- keeping as close as practicable to the left;
- riding two abreast, apart from when overtaking, in which case three abreast is the limit, and;
- not causing an obstruction to traffic.

ADVANTAGES (AND NOT) OF GROUP RIDING

Being with other riders is inevitable while riding a scratch race. That accepted there can be significant advantages to riding with others. Primary among these is the potential reduction in energy usage due to reduced wind resistance when following other riders. The vast majority of energy used in propelling a bicycle is taken up overcoming wind resistance. Being in a tight, well ridden formation can cut energy usage by about 25%.

However riding in a group can be a trial if riders do not conduct themselves properly. Constant speeding up and slowing down, frayed nerves, unnecessary energy use, or a dose of road rash can result. Even one or two people in a large group can cause problems far out of proportion to their numbers.

Differentiation of activity within the group

For the purposes of this document at times there will be differentiation between the “group” and the “working group”. Often a group of cyclists will comprise riders who are taking turns on the front, and those who are following and not taking part. The proportions of each vary according to the circumstances.

For the purposes of this document the “working group” will refer to those who are actually rotating through, taking turns on the front. Reference to the “group” will refer to all the riders.

PACELINE RIDING

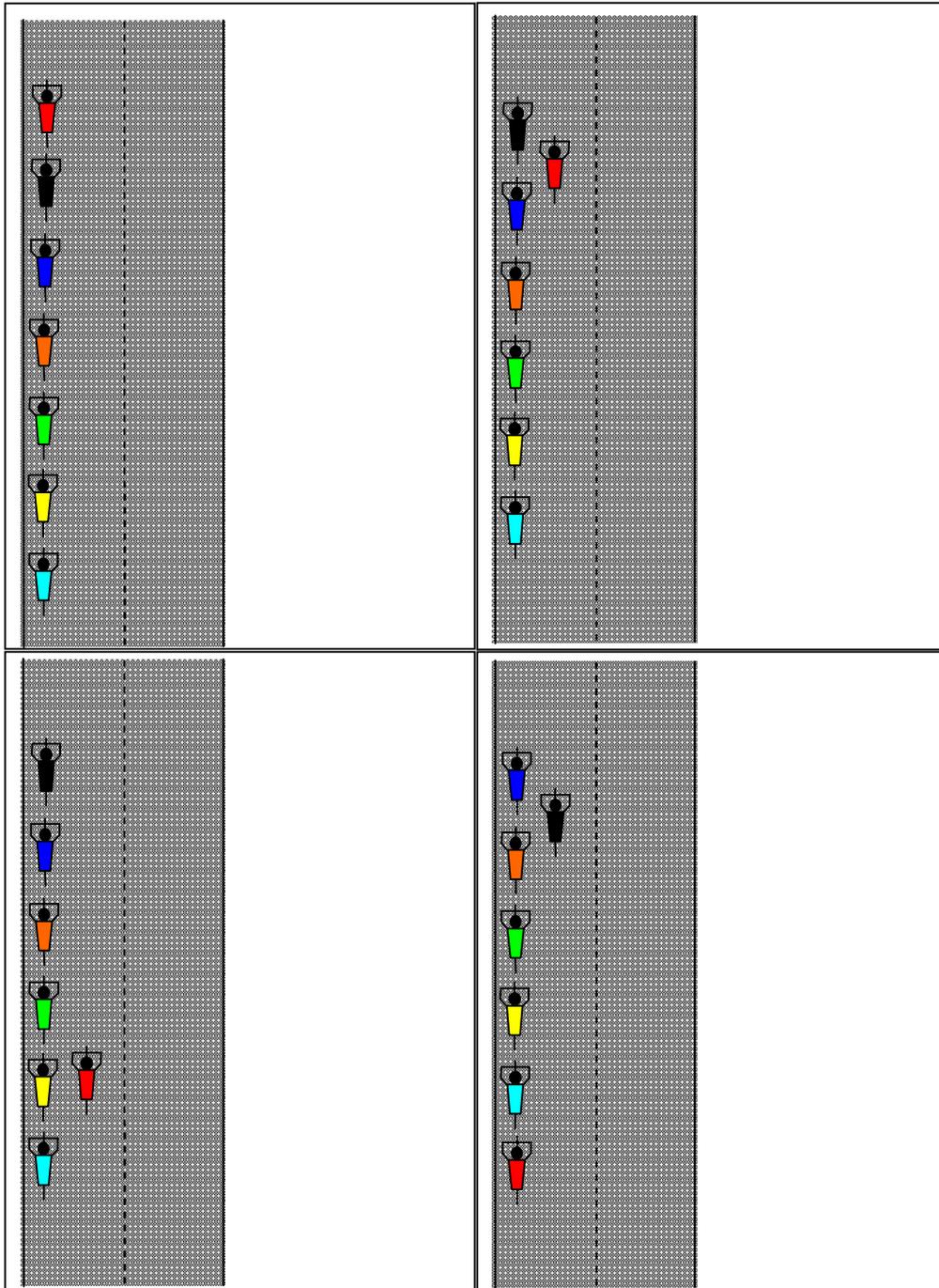
A paceline is a line of riders working together. Each rider takes a turn on the front breaking the air for those that follow, before pulling off, and moving to the back of the group. They then make their way forward again as other riders finish their turn and come to the back.

Not every member of a group is necessarily involved in a paceline, and you can often see a group of riders sitting behind a paceline drafting off them.

This section will only concern itself with some basic paceline riding, and shall not cover more complex formations or discuss the whys and wherefores of different options.

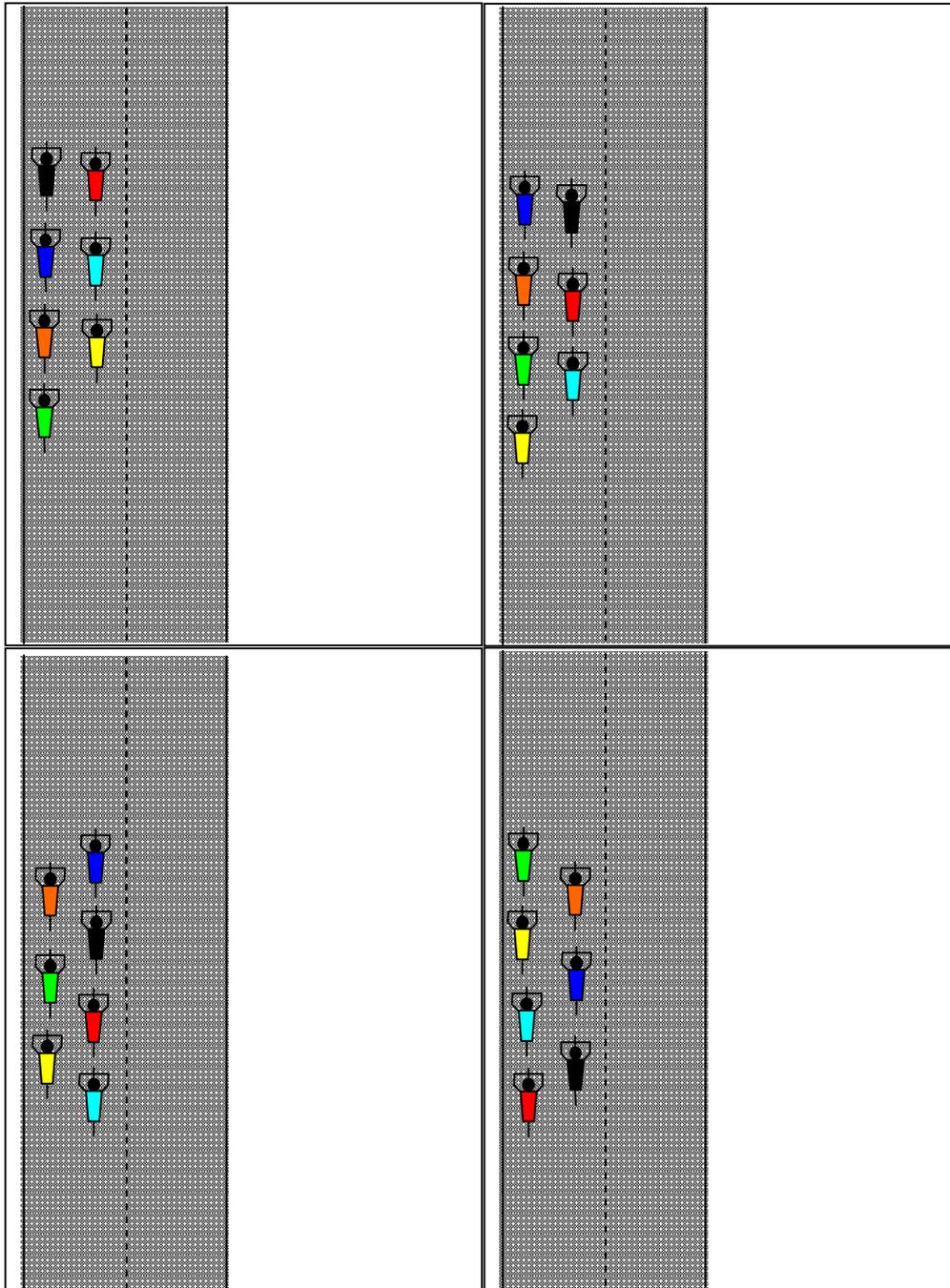
SINGLE PACELINE

The single paceline is the simplest configuration. A moving line of riders take turns on the front. After their turn, the front rider moves aside, slows slightly, and goes to the back of the group. As other riders finish their turn and go to the back, the other riders are shuffled forward in the group until they are at the front again.



DOUBLE PACELINE

There are two configurations commonly called double paceline. The first involves two lines of riders riding side by side. After having done their turn, the front riders pull off, one to the left and one to the right. They then slow and move back to the rear of the bunch. Since this configuration involves riders being four wide, it is not a legal way to ride on roads in Queensland. As such it is not a configuration acceptable for use in club events, and will not be discussed further.



The second configuration is sometimes called the circular, or rotating paceline, as well as the double paceline. It is similar to the single paceline, except that there are two rows of riders, one in which the riders are being shuffled forwards, and the other where they are being shuffled back. Having reached the front of the line, a rider will

do their turn and then move over and slow slightly. As they drop back the rider that has come to the front will move over in front of them and also start to drop back, shuffling another rider to come forward.

The process looks something like a conveyor belt, with one side conveying forward, and the other side returning. This is a more difficult configuration to keep going than the single paceline.

LEADING

Being on the front of a group may feel liberating to many new riders. Without riders around them, they often feel free to relax. For a short time they are without the risk that something that they do could cause problems for other riders.

This is an illusion. The front riders in a group exert a huge influence over what occurs behind them. They are in reality the eyes, brain and engine, controlling a lot of what happens, (even if they can't see it). In order to avoid causing problems for those behind, riders in the lead need to take care in what they do.

Look ahead

Riders on the front have the best view of what is going on around them. As such they need to be the senses of the group. They must look ahead and plan how they are going to lead the group down the road. Where there are potential issues they also need to communicate these to the other riders.

But more than just seeing potential problems and being the eyes of the group, the lead riders need to also be the brain, thinking about the best way for the group to negotiate them. They are not just at the front of the group. They are effectively leading it. To do this they must be aware of what is ahead of them, and planning for the other riders.

An important consideration in this is that following riders don't have as good a view, and won't get the same time to react. A pot hole that is easily avoided by the leaders can be unavoidable for those behind because they don't get the time to avoid it. In planning how to lead the group, the front riders must consider this.

Ride steady

Riders on the front should be steady and predictable in what they do. The smoother the leaders, the smoother and safer it is for everyone behind them. They should not make any sudden accelerations (unless they are attacking), or decelerations. Brakes should not be used except in emergencies, or very lightly after the group has been given plenty of warning about what is going on. This may be through hand signals, verbally, or a combination of both.

Slowing

If you need to take off speed (for instance before a corner), let following riders know what you are doing, sit up and use your body in the wind to slow you gently. If brake applications are necessary keep them light and steady.

Uphills

If you hit an uphill, you don't have to maintain the same pace, but should be aiming to keep at least the same pedal pressure. Do not suddenly stop pushing. Coming into a

headwind is the same. Keep pushing on the pedals, but don't feel compelled to maintain the same speed. Just don't stop.

Downhills

On downhills keep pedalling gently. The riders behind have lower wind resistance, and so will tend to accelerate more. If the front riders pedal gently down the hill, riders behind will have less need to use their brakes to avoid running into them.

Changing line

Leaders should be smooth, slow, steady and deliberate in their movements. They should avoid sudden changes in line. In training they should spend some time focussing on riding smooth and straight.

Cornering

Take smooth and consistent lines through corners. Riders changing lines in corners can cause significant difficulties for those behind them.

Focus and take care

The front is the most important position in the bunch, setting the scene for what is going on behind. To ensure the safety of those behind, the leaders need to remain focussed. A wrong move by those at the front can result in a fall, and maybe a whole lot of angry riders wanting to put the boot into you as they crash over the top.

The front is not the place for having a drink, stretching, hunting around in your pockets, or passing food or drink to other riders. Less risky things, (such as having a drink), should be done towards the back of the working group. For things higher in risk you should consider moving towards the back of the bunch.

Mine's bigger than yours

Riding on the front of a bunch is not a competition. It is highly unlikely that a rider will win a race because they rode on the front longer and/or harder than the other riders. Often riders who hog the front actually slow the group as they tire and slow, and by breaking the group's rhythm.

If you see the need to accelerate, do it gently. If you want the others riding with you then don't ride in a way that has you opening gaps and leaving them behind.

COMING THOUGH

As a rider pulls off the front of a paceline, the next rider is said to "come through". In some ways this is not the best way to describe it as it implies the rider has to do something. The process is more like being shuffled forward, with the rider coming to the front doing nothing but holding their pace.

Holding their pace is an important thing for the rider coming through to do. But all too often this doesn't happen. A rider has been sitting behind another, conserving their energy, and feeling good. All of a sudden the road opens up in front of them as the lead rider peels off, they feel good, the urge to accelerate grabs them, and away they go. They will suddenly feel the wind resistance, and the bite in their legs. Their pace will slow, and they will suffer for a while before peeling off, often to repeat the process the next time they find themselves at the front.

At best they waste their efforts because the others just continue at the same pace, and the energy that they have expended has achieved nothing. At worst the other riders will follow the acceleration, then have to decelerate as the front rider tires, and then have to find their rhythm again once the errant rider has pulled off.

Be conscious of the speed before coming through. Even have a quick glance at the speed and aim to hold it. If there is a need to bring the pace up, then make the change very slowly. But whatever you do, it should be smooth and steady.

SWAPPING OFF

When a rider is finished their turn on the front, they need to swap off. This involves pulling to the side, and making room for other riders to come past. The movement should be steady and deliberate, and may be accompanied by a flick outwards of the elbow on the side that riders are to pass on to indicate what you are doing.

If riders coming off the front are moving to the left, then the distance they can move is limited by the edge of the road surface. As such the width between riders is determined by the passing group. When riders are pulling off to the right, then they determine the width. In this instance it is important that they only go wide enough to allow the other riders free passage. Staying tighter gives larger advantages, especially in windy conditions. Riders should also always be mindful of the legal requirement to stay as close as practicable to the left.

FOLLOWING

Watch where you are going

Even though you are in the group, you should still be able to see something around you, even if your vision is not ideal. Don't fall into the trap of only looking at the rider or wheel in front of you. Rather, riders should aim to look "through" those in front of them. In this way they can still see something of what is going on ahead on the road and in the group.

This is where the greatest danger is. It's almost certain that a touch of wheels will result in the rider behind going down, not the rider in front. As such riders should be focussed on what is happening in front of them.

Avoid overlapping wheels

One of the great dangers in riding in a group is overlapping wheels with the bike in front. In conjunction with a change in direction by the bike in front, you could see your front wheel pushed out from underneath you. It is inevitable that wheels will get overlapped at times. As such it is essential that bike movements be kept smooth and steady to give other riders time to react.

If a differential in speed leads to the risk that you will touch or overlap the wheel in front, try moving gently away, preferably to the outside of the line of riders you are in. In this way you can give yourself some room, and you put yourself in a position that the wind hitting you will wash some speed off. If you end up coming part alongside the rider in front, let them know that you are there. Just a quick, "I'm on your right", or such like lets them know that you are there.

If you are in a position where you can't change your line and need to brake, keep this feather light. You only want to take off a little bit of speed. If you slow too much you'll end up with those behind you overlapping your wheel.

Communicate risks

Riders in bunches are subject to the concertina effect, where each successive rider has less time to react to situations than the person in front of them. Therefore it is imperative that potential risks are communicated to the group in a timely fashion to give everyone the time and opportunity to avoid them.

Maintain control

While riding in the bunch, hands should be kept in easy reach of the brakes, and in a position that assures good control over the bicycle.

The road rules require riders to maintain at least one hand on the handlebars at all times. The rules of cycle racing require riders to keep two hands on the bars unless there is a valid reason, such as eating or drinking. The rules state that removal of hands without a valid reason will result in penalty.

Under most circumstances it should be acceptable to take a hand off the handlebars to have a drink, or something to eat so long as focus was maintained on riding. Riders should practice removing and replacing their bidons without looking while they are on training rides so that this is second nature in a race.

Hunting around in pockets, passing food or drink to other riders, or stretching should be done at the back of the bunch.

Be smooth in your actions

Everything that a rider does in the group will affect those behind them. Just like those leading the group, riders in the bunch need to be smooth and steady in their actions, and avoid sudden changes in speed and direction.

If there's a sudden change in pace in front of you, try to avoid passing the problem back. If there is room, consider pulling a little to the side and slipping up the side of the rider in front rather than hitting the brakes. This gives more time and space to the rider behind for them to avoid passing the problem back and causing a concertina effect. When you do this make sure that you let the person you are pulling up beside know that you are there.

The further forward you are in the group, the more important it is to break the chain and stop the concertina. The smoother those in front ride, the smoother the group will be. This is especially important when you are wanting the group to move quickly, such as when in a breakaway, or when trying to pull a break back in.

YOU GO WHERE YOU LOOK

Have you ever been able to see something that you really wanted to stay away from, but seemed powerless to stop yourself from going straight to it? Or have you had the opposite experience, thinking that you were going to hit something and not knowing how you missed it?

The most common source of problems like this would be the wheel in front. Have you ever overlapped the wheel in front, and then felt powerless to move away when

the other rider has started to change their line? It's as if you are drawn to it like a magnet. Later you may struggle to understand what happened.

Chances are that the reason had something to do with a simple rule of thumb – You tend to go where you look.

The natural tendency is to align yourself with what you are looking at. That's fine if you want to go there, but not so good if it is something you want to miss. Once you understand this, the reasons you have hit or missed things start to become clear. You probably seemed powerless to steer away from the things you wanted to miss because they worried you so much you couldn't take your eyes off them.

And the times you missed things and don't know why it was probably because you were looking where you should go rather than at where you shouldn't. All this is easily said, but using it to your advantage is somewhat harder. Things happen fast, and you usually don't have time to think about whether or not you're looking in the right direction to give you the best chance of getting out of trouble.

But forewarned is forearmed, and if you are aware, the knowledge might keep you out of trouble one day.

BEWARE THE “DROP KICK”

Even new riders quickly understand the idea of throwing a bike at the line in a sprint. By the rider's weight being pushed backward, the bike is thrust forward. However not so obvious is what happens when riders suddenly jump out of the saddle.

Not only does a rider's centre of gravity go up when they rise from the saddle, but it also goes forward. When a rider leaps violently from the saddle, this forward movement has the opposite effect on their bike, which goes backwards relative to the rider behind. This action is nicknamed “drop kicking”. It is exacerbated if getting out of the saddle causes a loss of momentum, or the rider is unable to maintain their cadence when they rise.

To avoid “drop kicking” riders behind, don't leap out of the saddle. Instead lift yourself gently as you push on the pedals. Don't stop applying force to the pedals, and definitely don't freewheel. The motion should be a smooth lift rather than a violent thrust. The entire movement should be smooth and controlled. You shouldn't need to pull yourself up with your upper body. Rather your upper body should just support you.

To avoid losing momentum when you get out of the saddle, ensure that you are in the right gear, and the cadence right for riding out of the saddle before you stand up.

THE FINISH

If you wish to figure in the finish, you need to get into position long before you get to the final sprint. Don't expect that you can just charge down the outside or onto the wrong side of the road to get yourself around the group and into position for the run into the final sprint. The road rules apply, even if these aren't convenient for your finish due a lack of planning or fitness.

If you have failed to get yourself into a position to figure in the finish without having to resort to illegal manoeuvres, then you have to accept whatever place you get. If you want to figure in the finish, then get yourself into the right position and hold it until

the final run for the line. This may mean planning and manoeuvring beginning many kilometres from the finish line

On the run in to the sprint riders should keep their bike movements steady and deliberate. Don't dart across the road to grab a wheel. If it is a good wheel to be on, chances are someone is already on it, and you run the risk of causing an accident. Look and think before doing anything drastic.

Once the sprint starts, riders are required under the rules to hold their lines. You must run a line parallel to the edge of the road, and you may not move to block someone, or impede their progress.

EQUIPMENT SAFETY

It is the responsibility of riders to ensure that their equipment is safe for themselves and other riders. The following should be of particular concern.

- Bar ends should be plugged
- Tyres should be in good condition, and firmly attached to rims
- Cleats should be in good condition and hold feet to pedals firmly
- Bidons should be securely held in cages
- Wheels should be approved by administering bodies for use under the rules of cycling.

If you have any doubt about the safety of your equipment, you should remove yourself from the group as quickly as practicable and safe. Something as simple as pulling your foot from the pedal, or dropping a water bottle can cause an accident.

Don't put yourself or others at risk. If you think you have a problem get out of the way, and stay out of the way. Remember, if you cause an accident through unsafe equipment, then you may be liable.

A FINAL WORD OF WARNING

While club racing tends to be fairly relaxed, riders need to understand that they may from time to time be riding with cyclists with varying cycling backgrounds, especially at open events. Some of these people may have high expectations of those they ride with, and will find inappropriate behaviour in the bunch intolerable. Their response to this may vary between a stern word, to "accidentally" running the offender off the road.

No one will ever own up to it, but you can rest assured that a number of people that have this kind of "accident" befall them have upset someone with their riding.

Riders need to be aware of what is going on around them, and not do things that other riders may view as potentially dangerous. Just because you have been doing something and not had an accident yet doesn't mean that it's safe. Think about the potential consequences of what you do.

When riding in a group you are not only responsible for your own safety, but also the safety of those that you are riding with. Take this seriously and everyone will have better and safer racing.