

Introduction

Being an experienced rider and new to RIO Cycling Club, you may or may not have been introduced to or participated in structured paceline riding. The RIO Saturday group rides tend to take advantage of the more formalized style of double paceline riding. There are many special techniques used when riding double paceline and the follow document tries to describes some of the more important techniques you will find being used on the typical RIO Saturday group ride.

Double Paceline

Unless a single paceline is called-for by the rider leaders, RIO typically forms a double paceline for group rides. Riders maintain side-by-side spacing as well as tight front to back spacing in order to maximize drafting efficiency, overall group safety and forward progress. The paceline stays to the right of the roadway with just enough room to provide for the leaders to rotate to the back.



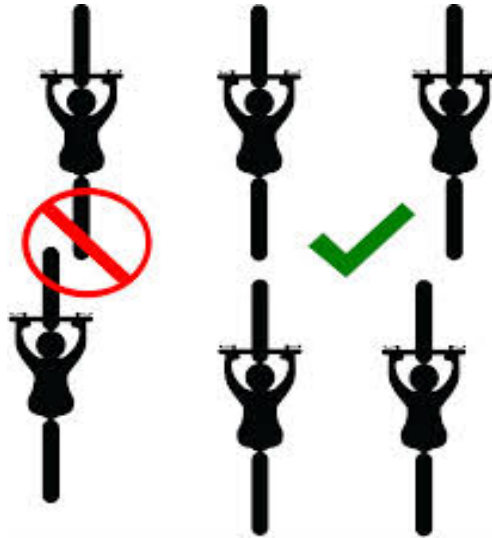
RIO double paceline formation

- **Group Pace**

There are many things that affect the overall pace (speed) of the paceline: wind, grade, group size, rider fitness/experience, etc. Once established, it is up to each individual leader pair (pilot/copilot) to maintain the overall pace. Plan on 'taking a pull' that maintains the pace with little slowing AND allows you a safe, recoverable rotation to the back. The group keeps moving deliberately and consistently at this pace while minimizing individual rider fatigue. A good rule of thumb is to plan for one-mile pulls (or even much less is okay depending on fitness/experience) to maintain overall forward progress of the group. Rotate back well before the pace slows or fatigue sets-in.

- **Spacing/Placement**

Riders should try to maintain a close comfortable side to side spacing as well as front to back. The best drafting position leaves less than a wheel space between your front tire and the wheel in front of you. Try to avoid looking directly at the wheel in front of you in favor of a view directed down the road. Comfort comes with time and it might be better to spend some time at the back of the paceline in order to improve your comfort in a tight paceline.



Overlapping wheels can be dangerous! Offset based on wind direction.

- **Path...Spacing...Speed**

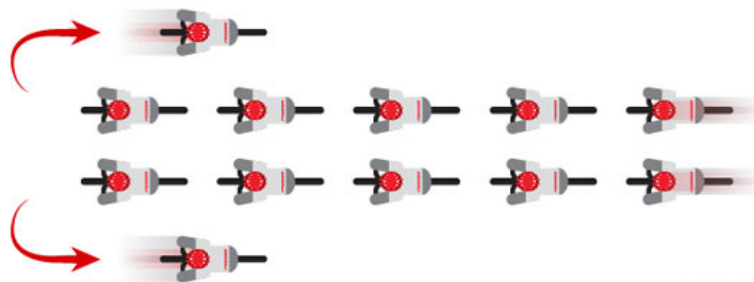
- Hold a deliberate line.
- Maintain side to side spacing with the adjacent rider.
- Control speed with very gradual changes if necessary.

- **Rotation**

While leaders are rotating back, stay tight, maintain speed, and hold a solid line to allow the leaders to move to the rear quickly and safely.

DOUBLE PACE LINE

Riders line up in pairs



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Paceline holds a tight, consistent line while leaders rotate back.

- **Pass Signals Early (Hand and/or verbal)**

Passing a signal well in advance of the hazard gives the best chance of making it all the way to the back of the paceline with plenty of time for each rider to react. Many riders make the mistake of waiting to see the hazard themselves before passing the signal. Trusting that the signal is valid and passing it back gives the entire paceline a good chance of missing the hazard.



Signals are deliberate and passed well in advance!

- **Accordion effect and recovering dropped rider(s)**

Successful ride leaders anticipate overall group pace changes due to hills, traffic signals, or changes along the route and make small changes in speed to maintain the entire paceline progress. Slowing slightly at the onset of a hill keeps the group from spreading out too much while increasing pace on the decent ensures good spacing for speed and reaction time between riders.

Requesting “Ease Up!” well BEFORE gaps get large helps to establish a solid group pace. If you find yourself (and others) gapped or dropped, try to settle into a recoverable pace either alone or as a group to close the gap. Hopefully the paceline will slow as well. Work together, as individually sprinting to close the gap simply extends the problem to your mates.



Has a gap developed? What's the best way to recover?

Leading the paceline (taking a pull)

Leading the double paceline can be exciting and exhilarating with a bit of responsibility. You may look forward to your turn in the rotation or you may want to quickly rotate out. Either way, there are a few pointers that will help to make your time at the front more successful.

- Front left can be thought of as the pilot, with the front right as copilot.
- If not comfortable leading the group, it's not a problem, just take a shorter pull and rotate back sooner.

- Check group speed just before taking a pull to ensure consistency. Maintain this speed and rotate back well before tiring or slowing and certainly at the agreed time/distance.
- Be ready to grab the last wheel or be dropped.
- Steering the ship... the really loooooong ship!
 - Plan ahead for paceline changes
 - Maintain a pace that keeps the group together
 - Controlled, deliberate, assertive leading will keep the group moving along together and safely.



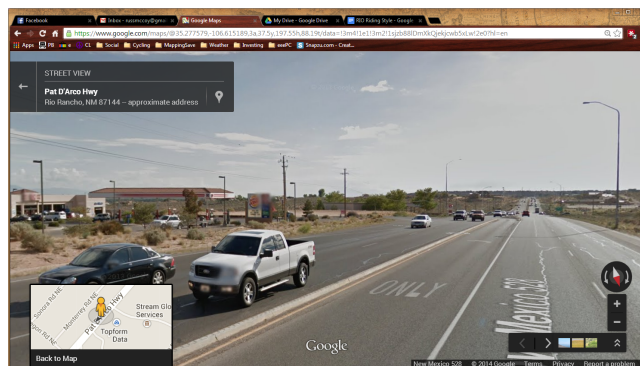
Steering The Ship: How much space and time is needed for all riders in this paceline to react safely?

- Rotating back safely
 - Pilot/copilot agree and coordinate.
 - Aim for a safe, comfortable zone long enough to accommodate the entire rotation.
 - Pilot/copilot rotate back together.

Critical Areas (examples)

The following critical areas tend to be problematic for the paceline and are worth noting.

Crossing 528 to the gas station <better photo needed>



Try to stay on shoulder as long as possible. Cross 528 to turning lane quickly and together.

- **The Roy Road Round-a-bout** <better photo needed>



Fig - Try to stay to the far right of the outer lane. Stay together.

- **Broadway crossing I25 on-ramp** <better photo needed>



Try to stay on shoulder as long as possible. Cross 528 to turning lane quickly and together.

- **Bernalillo Main Street and Rio Grande crossing**

Maintain a tight double paceline anywhere along Bernalillo Main street and crossing the bridge over the Rio Grande until the wider shoulder is reached.

- **Tijeras Canyon west crossing I40 on-ramp** <photo needed>

Maintain a tight group. Try to stay on to the right as long as possible. Cross Old Route 66 just before the I40 on-ramp and quickly move to the shoulder on the overpass.

RIO has a NO DROP policy on Saturday rides

There is one rule on Saturday rides: No one gets dropped. No one wants to get dropped, right?

- Avoid gaps - Help the ride leaders set an appropriate pace for the group. Announce "Ease Up" if the pace is too high.
- Recovering the dropped rider/s - Dropped rider(s) work together to recover the gap while the front group slows. Sometimes recover the gap is not necessary when a re-grouping point is near.
- Flats, mechanicals, etc - Loudly call out "FLAT" to signal riders around you. When it is safe, gradually start slowing and moving to the right of the road.
- Regrouping points - Sometimes it makes more sense to recover dropped riders at the various re-grouping points along the route if the group is close.

Safety: Us vs. Them

Although the double paceline riding style can be much safer overall for cyclists, we all know that vehicle drivers can get annoyed and/or aggressive. Unfortunately, just as when riding individually, sooner or later we will be honked-at, flipped-off, or otherwise accosted. No matter what, RIO riders must take the 'high road' when dealing with drivers in these situations.

- Vehicles (being metal and bigger) ALWAYS win.
- Try to somehow communicate directly with drivers well in advance of any conflict.
- We are but a small school of fish in the river of traffic.
- Friendly wave is always appropriate no matter what 'they' do.
- All your individual cycling skills apply here as in the group.

ADDITIONAL INFORMATION: The follow comes from RoadBikeRider.com newsletter Issue No. 613

[Paceline Rules to Remember](#)

Last week, one of our regular contributors, **Rick Schultz** (whose terrific foam roller primer and Product Review runs today in **News & Reviews**) wrote **Jim Langley** and me with a question about paceline rules. Specifically, Rick asked if there are any hard-and-fast rules about rotating based on wind direction.

Rick, like most (but not all) of us, is a very experienced rider. But the fact is, we can all use a reminder from time to time of all the intricacies that add up to safe, fun road riding. And with spring (we hope and pray!) right around the corner, we're apt to be doing more group riding soon. Heck, even the pros crash in pacelines on occasion. (So maybe even they would benefit from a refresher, too!)

I should also say that both Jim and I replied to Rick's email, and that this paceline primer includes a combination of advice from me, Jim, and **Coach Fred**, by way of the Coach's **Solutions to Road Cycling Challenges** eBook.

A paceline is a pact. When you form up into a paceline, you've made an implicit agreement and a promise to everyone else in the group. The agreement: You'll work together, safely and steadily, to further the group's goals. The promise: That you know the basic rules of paceline riding and that you're alert and ready to ride together.

No false moves. The essence of paceline riding is predictability. Any abrupt moves or unexpected actions dangerously disrupt the paceline. If a rider near the front gets squirrely, the reactions can radiate through the paceline like a sports crowd doing the wave.

Don't get grabby on the brakes. If you're getting too close to the wheel in front of you, soft pedal to let your bike slow slightly, then smoothly resume applying power. If that's not enough, feather the brakes lightly. Never grab them. Or move over gradually till you're slightly out of the draft, and sit up slightly so your chest catches more air. You'll slow gently and regain the correct spacing to the next wheel.

Follow the leader(s). The leaders or riders in front determine which way to rotate depending on the wind and traffic, usually. If the wind is from the side, you would want to rotate into it – if traffic allows. If the side wind is strong, riders may overlap wheels in the formation known as an echelon (assuming there's enough space on the road, and traffic allows for it). If the wind is straight on, you rotate on whichever side is safest, based on traffic. In many cases, traffic alone will dictate the rotation side – regardless of wind direction. It should be easy to just follow what the leaders set as the "rules." And, if they know what they're doing, it'll be the most efficient way to ride down the road, and the fastest, too.

Keep some safety space. Unless you're riding with cyclists you know and trust, there's no need to ride just inches from the wheel you're following. Allowing a gap of 2 feet or so gives you room to maneuver in case of mishaps or obstacles in the road. This is especially important on organized and other rides where you're likely to form up with riders you don't know, and can't necessarily trust like you can your buddies.

Look up the road. Don't fixate on the rear wheel just ahead. Look around that rider and up the road so you can anticipate things (turns, potholes, traffic) that may cause a reaction by those ahead of you. Let the lower edge of your peripheral vision monitor the gap in front of your wheel.

Protect Your Wheel. Touching wheels with the bike in front of you is one of the leading causes of crashes in a paceline. And you will crash, not the rider in front of you! Protect your wheel. But if you do happen to touch wheels, don't panic. Remember to turn into – not away from – the wheel you're rubbing, as you ease off the pedal pressure to fall back just enough to get clear of the wheel you're following. Then smoothly apply power to get back to your proper position. If you do this right, the rider in front of you might not even realize you've touched.

Don't Get Distracted. Most crashes in pacelines are caused by distractions outside the paceline. For example, a dog running from a yard toward the line, which causes riders to lose focus. The key thing is to always remember that the biggest hazard is that rider in front of you, not anything on the side of the road or up the road or behind you. Your job is to pay attention to that rider directly in front of you.

Ride in the drops. Doing so keeps you in the most aero position, which helps with the overall energy savings you'll reap, and the overall efficiency of the paceline – the reasons you ride in a paceline. But riding in the drops has the added benefit of protecting you from being "hooked" by another rider's bar. As riders are moving back down the line, or sometimes in a double paceline, there's the chance of being hit from the side and getting your bar hooked by someone else's bar – which can take you down in an instant. In effect, riding in the drops, you "seal off" the bar ends with your arms, making hooking impossible.

Communicate! Pacelines are often quiet, except for double pacelines rolling at a conversational pace. When groups are going faster—and the danger is greater—let your fellow riders know what's going on. There's no need to shout out obstacles. Merely pointing at them is sufficient. But if there's a question about the next intersection, or a turn, it's far better to tell, or ask, than to guess.

Don't increase the pace on your pull. The biggest mistake novice riders make is getting all psyched up when they hit the front and increasing the speed several miles per hour. This opens gaps between riders and could blow some of them off the back. It makes the paceline ragged and wastes energy as riders have to surge to close gaps. Granted, it can be tough to know how hard to pedal when you're suddenly feeling the wind. But the solution is easy: Take a quick glance at

your computer when you're the second rider in line. When the leader pulls off, simply maintain that speed (assuming there's no wind or terrain change).

Don't take monster pulls. There's no reason to sit on the front for 10 minutes, trying to impress everyone but exhausting yourself. Generally, give up the lead after 1-3 minutes and let other riders have some fun. Sometimes, though, a couple of riders may be much stronger than the others. Then it might be appropriate for them to pull for 5-8 minutes while the rest take short pulls or none at all. Discuss this so everyone knows what's going on.

You're the eyes and ears at the front. As the lead rider, you're the eyes and ears of the group. You are responsible for the whole group's safety. You must point out road obstacles and watch for traffic at crossroads, shouting a warning if necessary. Try to be an "early warning system," keeping in mind that a shout may take several seconds to trickle down the line, and may be "lost in translation" along the way.

Responsibility at the back, too. When you rotate to the back of the paceline, you still have a special responsibility. It's your job to check behind periodically for approaching traffic and calling out "Car back!" when a motorist is approaching. If the group is in a double paceline on a narrow road, someone will yell "Single out" or "Single up," and the double paceline will form into a single line so the motorist can pass safely.

But when there are no traffic concerns, being last in line is a privileged position. Because no one is behind you to be disrupted by your actions, now's the time to take a drink or sit up and grab a snack from your jersey pocket. Need to remove a vest or peel your arm warmers? Do it while at the back.

No aero bars! Aero bars are fine for time trialing or long solo rides where they help you cut through the wind and take pressure off your hands. But aero bars are unwelcome in pacelines. A cyclist using aero bars in the paceline is less steady, and hands are far from the brake levers. They present particular dangers, both to themselves and to the other riders – and they should self-select out of pacelines.