

Group Riding Guidelines for Street Bikes

Group Riding: Why?

There are several advantages for motorcyclists who ride street bikes in a group:

- a group is usually more visible to other drivers than a solo rider;
- other vehicles can predict what a rider in a group will do because all members generally maintain fixed positions and fixed intervals between riders;
- in case of a mechanical problem or an accident, help is available immediately to the rider. A member of the group may carry a cell-phone. Usually some riders in a group are trained in First Aid and CPR. They are often aware of safety information and accident management procedures that non-riders may not know -- for example, not to remove the helmet of a downed rider unless breathing is inhibited, where to find particular medical information for a downed rider; how to manage an accident scene to prevent complications, etc.; and
- it can be a lot more FUN!

In addition, motorcyclists tend to learn a great deal from each other about their sport. Planned stops along the way offer a fine opportunity to socialize and to share valuable tips and techniques.

Group Riding: Why Not?

Group riding is not for everyone. It requires a certain level of skill and self-discipline. It restricts an individual rider's options as to speed, changes in route, and lane positioning. To attempt to ride in a group without having good basic riding skills and a good sense of what others in the group are likely to do -- and what they expect you to do -- is an invitation to an accident, one that may involve damage and injuries to more than one bike and one rider. It is also a matter of personality, in that group riding requires good communications, courtesy among riders and a willingness to look out for the safety of others while riding your own ride. Those who don't wish to ride in a group but who wish to arrive at the same destination as their friends may serve as a scout if they have a CB radio, or they may just prefer to travel solo and meet up with their friends at the day's end.

Rules: Who Needs Them?

The following guidelines for riding in a group are not gospel. There are situations in which they don't apply. Some organizations may have different terms for these concepts, as well. These guidelines have been tested for many miles, however, in clubs whose members ride all brands and models of motorcycles, and they have sound safety rationales to support them.

If you as a rider find yourself in a group which does not follow these guidelines, you can usually find someone who will explain what rules that organization follows, if any, or how they differ from what you learn here. At most responsible group rides, a riders' meeting will be held prior to departure, in order to clarify what is expected of all the riders who are to participate. If you find yourself uncomfortable with the riding style of a group at any time, DROP OUT. Your safe arrival at your destination is far more important than conforming to rules you don't like or don't understand.

People who ride in a group usually appreciate knowing what they are expected to do, and what to expect from others who are taking part in a hazardous sport in close proximity to them. Road Captains and those who frequently ride lead or drag are particularly urged to become familiar with these terms and guidelines in order to explain them to other riders who may show up for a scheduled ride without having any group riding experience.

Some Common Group Riding Terms

Pack: a number of motorcyclists who ride together, generally without maintaining fixed positions or distances between bikes. Packs are occasionally seen with 20-50 motorcyclists in a single formation.

Group: a small number of motorcyclists who ride together maintaining a generally fixed distance between bikes and maintaining fixed positions within the formation (usually no more than six per group). On rides in which participation by a large number of motorcyclists occurs, it is common to have riders divided into several groups and to name them Group 1, Group 2, etc. This facilitates radio communication when several groups are listening to the same broadcasts and traffic coordination on the same CB channel.

Road Captain: a person who devises group riding rules or guidelines for a club or chapter of a motorcycling organization, who communicates these guidelines to the club, and who generally plans and lays out group rides.

The Road Captain may or may not ride lead for a particular ride.

Lead Bike: a person who rides in the most forward position in a group and who relays information to all other riders in the group via hand signals and/or CB communications. The Lead Bike determines the group's direction, speed, choice of lane, and formation. He or she often must make quick navigation decisions in the face of road hazards, changes in road surface conditions, poor signage, construction and other obstacles while maintaining control of his or her bike and communicating to those following. It is the responsibility of the Lead Bike to select a Drag Bike with whom communications will be coordinated during a ride. If there are three groups on a ride, there will be three Lead Bikes. If at all possible, the Lead Bike should be equipped with a CB.

Drag Bike or Sweep: a person who rides in the last position in a group and who relays information to the Lead Bike regarding the other riders in the group, traffic patterns, equipment problems, etc. he or she observes. The Drag Bike must secure a lane for the rest of the group during lane changes into faster traffic (move first to block oncoming traffic) and close the door (move to block passing traffic) when a lane is lost in a merging lane situation. Usually this is the most experienced rider in a group, for the Drag Bike is the rider who stops to assist a rider who has mechanical trouble, loses control, or drops out of a ride for some other reason. The Drag Bike should be prepared to render aid to a downed or disabled rider in a group while communicating the problem to the Lead Bike and others in the group. If at all possible, the Drag Bike should be equipped with a CB and, preferably, will have a co-rider who can assist with communications or traffic control if a serious problem arises. If there are three groups on a ride, there will be three Drag Bikes. The rider in this position is sometimes called the tailgunner.

Cage: any vehicle that is not a motorcycle, but particularly an automobile.

Four-wheeler: any vehicle that is not a motorcycle except an 18-wheeler, a hack or a trike.

Group Parking: a formation in which all bikes in a group follow the Lead Bike in single file into a parking lot, making a U-turn such that they can all line up next to each other in the space available with the rear of their bikes against the curb or edge of the lot, the front tires pointing outward.

Parade formation: a formation in which all the motorcyclists in a group ride two abreast.

Single file: a formation in which all the motorcyclists in a group ride in one track of a lane.

Slot: any position within a group of riders in the right track of a lane, farthest from oncoming traffic.

Staggered formation: a formation of motorcyclists in a group in which the Lead Bike rides in the left track of a lane, the next bike in the right track or slot, and the next bike in the left track, and so on. Bikes in a group generally maintain a minimum interval of two seconds travel time between bikes in the same track, and one second travel time between each bike in the group. In a staggered formation, a rider still commands and may ride in the entire width of his lane as needed. Group riders may also ride single file or two abreast. The Drag Bike may ride in the left or right track depending on the number of bikes in the group. It is preferable for the Drag Bike to ride in the left track, so as to have the same visibility line as the Lead Bike.

Station keeping: maintaining a fixed position and interval within a group of riders but not riding as Lead Bike or Drag Bike. Riders without a CB usually ride as station keepers in the middle of a group. Positions within a group are initially assigned by the Lead Bike based on the experience level of the rider, particularly his or her group riding experience.

Track: the zone of a lane in which a rider maintains his position in a group. A lane of traffic is divided into five zones: the left track is the second zone from the left, the middle of the lane (generally not used) is the third zone, and the right track is the fourth zone from the left. Two zones on the sides of a lane serve as margins. A rider may vary his path of travel from his normal track as is required by a road hazard or by an incursion into the group's lane by other vehicles.

Two abreast: a formation in which the members of a group ride adjacent to each other in pairs, used when riding in parade formation. Used after stopping at signs and traffic signals so that riders can get through an intersection quickly and together if possible. When departing from a stop, the rider in the left track normally pulls out before the rider on the right, returning to a staggered formation.

Road Captain's Job: Preparing for a Group Ride

When a number of motorcyclists are invited for a group ride, the riders and their co-riders gather at the appointed time and place, often without knowing their specific destination or route from that point on. The Road Captain for that ride will have a route in mind and will usually have pre-ridden the route within the past week in order to look for construction and road surface problems and other situations which might affect the safety of those who are to participate. The Road Captain will appoint or volunteer experienced riders to serve as Lead Bike, depending on the total number of bikes and the number of groups required. Each Lead Bike will then select a person to ride as Drag Bike for that group. The other riders will determine which group they are going to ride in, and if there is an inexperienced rider along, will usually ask the Lead Bike to make suggestions on group positioning. The Lead Bike should determine roughly the experience level of each rider in his or her group before departing, putting the rider with the least experience in group riding immediately in front of the Drag Bike in the slot position. If the last open position before the Drag Bike is not a slot, the least experienced rider should be in

the last slot position available, away from oncoming traffic.

The Road Captain will usually provide a Route Memo or will have copies of maps or directions to give the members of the group (this should be supplied to the Lead Bikes if not to all riders), and will have a rough idea of times and distances to be traveled, suggestions for rest stops, food and gas, etc. The Road Captain will hand out emergency medical information forms and release of liability forms for sponsored rides, to be filled in and signed. He or she will then conduct a short riders' meeting to establish that each group has a designated Lead and Drag Bike, to review group riding guidelines briefly, to alert the riders of potential hazards, to discuss communications within and between the groups, to review hand signals if there are riders without CBs, and to answer any questions about the ride. The Road Captain may or may not lead a group himself, and in fact may not accompany the riders at all once the ride is underway.

If there are several groups of riders, the Road Captain expects all Lead Bikes to follow the route which has been laid out and not to initiate changes in the route except in an emergency. In case of problems that require emergency personnel or re-tracing a route to find a disabled rider or part of a group which has gotten lost, it is much easier to locate the person(s) sought if all groups follow the same path to their common destination. It is not unusual for groups of riders to be separated by several miles and to find themselves out of CB range from other groups during a long trip or in heavy traffic. It is also not unusual for groups to break up briefly in traffic, requiring a station-keeping rider to serve as Lead Bike or Drag Bike for a fragment of a group, for a short time.

Rider's Job: Preparing for a Group Ride

Riders are expected to arrive on time at the departure point with a full tank of gas, in proper attire for the conditions, and physically ready to ride (potty stop made, medications packed if needed, sober and alert). Motorcycle endorsements and insurance should be up to date, and the bike should be in street-legal condition. The Road Captain may ask a rider not to join a group ride if these basic conditions are not met (for example, if a rider is drunk or a bike is mechanically unfit to ride).

If a rider brings a co-rider (a passenger) for a group ride, he or she is expected to manage and attend to that passenger's needs personally, before the riders' meeting. The following guidelines are suggested for preparing a co-rider for a group ride:

Do not permit a co-rider to mount the motorcycle until all riding gear is on and fastened securely (beware of outside pockets!). The co-rider should not mount until the rider is seated and holding the motorcycle vertically, and then not until the rider nods that he or she is ready for the co-rider to get on. The co-rider should avoid contact with hot exhaust pipes, wiggling out of position once seated, and shouting or making sudden movements of the upper body during the ride. The passenger's feet should remain on the pegs or floorboards designed for them at all times, until disembarking.

A co-rider needs to know generally what he or she should and should not expect in terms of comfort and safety considerations. If the co-rider wishes to communicate with the rider, the rider should explain how to do this: by thumping on the rider's head? Intercom? Shouting in the rider's ear? Will the co-rider be responsible for copying hand signals given by the rider to others in the group?

Suggested jobs for the co-rider during the ride: Watch out in traffic for anything that may detract from a safe ride: two pairs of eyes are better than one. Do not assist the rider by leaning in turns, but look over the rider's inside shoulder on curves. Wave at all other bikers, children, anyone who shows interest in the riders, and law enforcement officers on their feet. And -- smile!

In group riding, if the rider (with or without a co-rider) wishes to slow down or stop during the ride, for any reason whatsoever, he or she may drop out of the ride. If at any time a co-rider becomes uncomfortable during the ride and wants the rider to slow down or stop, for any reason whatsoever, the rider should be prepared to do so as quickly and as safely as possible. It is courteous to notify or signal to the other riders in the group before doing this unless it is not convenient or possible to do so. Unless the Drag Bike clearly understands the reason for a rider's decision to drop out, normally the Drag Bike will notify the Lead Bike of a problem and will stop with the rider who is stopping, to render aid if needed, or to determine his intentions about rejoining the group ride.

Normal Group Riding Maneuvers

Entering Traffic

When the Lead Bike for each group sees that all riders are helmeted, sitting on their bikes, motors running, and ready to depart, he or she will check for traffic and enter the roadway. Usually the Lead Bike will not attempt to exit a parking lot unless there is room for all or most of the group to follow immediately. If the group is split, the Lead Bike will normally take the slow lane and keep the speed relatively low until the group can form up in the positions the riders will keep for the duration of the ride. This may mean traveling slower than surrounding traffic, to encourage four-wheelers to pass and allow the group to form up. Occasionally this cannot be accomplished until the group has made a lane change or entered a freeway, depending on where the entrance ramp may be.

Regardless of the Lead Bike's signals, a rider is responsible for his or her own safety at all times.
Ride Your Own Ride.

Once all members of the group are together, the group will take up a staggered formation and will stay in it most

of the time during the ride, unless the Lead Bike signals for a change or the need for a change is obvious. Reasons for changing out of a staggered formation could be a passing situation or poor road surface (single file), dog or other animal charging the group (split the group), or coming up to a traffic signal (two abreast while waiting for a light).

Changing Lanes

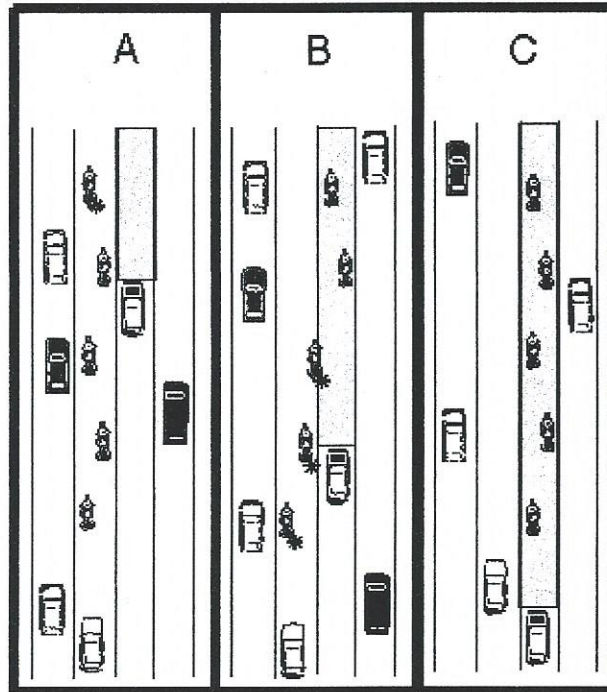
When a group of motorcycles is changing lanes, many safety considerations come into play. Should every rider move into the adjacent lane at the same time? If not, should the Lead Bike go first, or should the Drag Bike move first to "secure the lane"? When the Drag Bike radios to the group that the lane is secured, is it really? What if another vehicle sees a gap in traffic and tries to cut into the group? If part of the group gets separated from the other riders, should everyone change relative positions (tracks) so that the new Lead Bike is now riding in the left track? The recommended procedure for a group lane change depends on how the surrounding traffic is moving at the time. The goal for the bike which moves first is to create a gap into which the other bikes can fit.

Regardless of what other riders in the group are doing, each rider must personally check to see that the new lane is clear of traffic before entering it.

Changing Lanes as a Group

There is virtually no time (absent an emergency) when a group of riders should all move at the same time into a different lane, in regular traffic conditions. The wide gap required for a whole group to move is difficult to find in heavy traffic, and if it exists, it will be an invitation for other drivers to jump into it, perhaps while the group might be moving. Additionally, such a maneuver could be interpreted as "parading", which may arguably not be covered under some insurance policies.

Changing Lanes into Slower-Moving Traffic



In most jurisdictions traffic laws prescribe that, on a road in which there are two lanes of traffic moving in the same direction, the lane on the right will be the slower lane. If a group of motorcyclists is going to move into the slower lane from the faster one, the first bike in a group which moves is responsible for creating a gap into which all the following bikes can fit. This is accomplished by maintaining a constant speed in order to enlarge the gap after the first bike moves. Each bike moving in succession should also be aware of this dynamic. Thus, the group moves from first to last. (An exception is the Drag Bike, which may move on its own for reasons explained later.)

The first bike to move under these conditions will be the Lead Bike. The maneuver is accomplished in this way: the Lead Bike signals for the lane change and announces to the group via CB and/or hand signals that the group is moving to the right, front to back. Then, after checking by actually turning the head to see that the new lane is cleared of traffic sufficient for one bike to safely enter it, the Lead Bike moves across the tracks of the current lane, taking up a position in the left track of the new lane where the Lead Bike usually rides. By maintaining the maximum speed which the traffic in that lane will allow, the Lead Bike creates a gap into which the next bike in the group can insert, moving into the right track there. Each succeeding bike follows this pattern: signal right, move right in your own lane, head-check, enter new lane, maintain speed to create gap, and take up regular position (left or right track) in the new lane.

The Drag Bike in this pattern is normally the last to enter the new lane, unless "closing the door" was possible. As

the bikes move quickly and re-form their group, it is rare that a four-wheeler will move up into the gap in the new lane. If a cage moves into the gap, the next bike to move must tuck in behind it and wait for the group ahead to slow up, encouraging the cage to pass. When the cage passes the slower forward group, the whole group can re-form into a normal riding configuration.

Breaking Up is Hard To Do

If a lane change results in the group's changing formation -- the bike which was unable to move into the new lane slows down and becomes for a time the Lead Bike for the left lane, while the rest of group moves ahead in the slower lane -- or, the bike which was unable to move right is forced to PASS the slower group -- should the new Lead Bike take the left forward track?

Ordinarily, no. Only if the group breaks into two obvious sub-groups and becomes separated for a substantial period of time should the "new Lead Bike" move into a new track to the left, if that has not been that rider's normal position. Otherwise, this will be only a temporary break in formation, and the riders will quickly enter the new lane and re-form as usual behind the Lead Bike, in the positions they had originally.

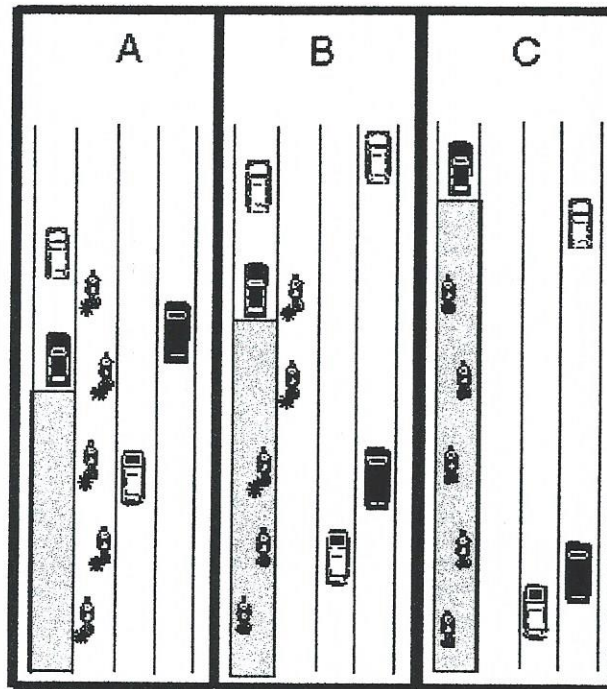
Why doesn't the "new Lead Bike" change tracks? Because during any period in which the bikes are changing tracks, the spacing between them is cut in half, drastically reducing the reaction time and space available to the rider in case the bike directly ahead of him becomes a problem. In a lane change, this period is fairly short. If the "new Lead Bike" shifts position and all the bikes following attempt to adapt to the new configuration by changing to a different track, they will then have to change back when the original group re-forms. There is no real reason to put the riders in additional jeopardy this way in order to have the "correct" formation, just for short periods.

Forcing all the bikes in the rest of the group to change track position is especially hazardous in the case of a new group rider who has become accustomed to riding in the protected "slot" as opposed to facing oncoming traffic in the exposed left track position. In most cases, anyone who is riding in a group will quickly adapt to this change of conditions and track positions, but there may be times when a new rider who is trying to learn this whole concept will be very uncomfortable changing tracks. The Drag Bike should pay special attention to inexperienced riders under these conditions.

This pattern may occur not only during a lane change, but also during a passing maneuver or when a group gets separated in traffic because of signal lights and traffic flow.

The Drag Bike will usually notify the Lead Bike and the rest of the group after a brief separation by one or more riders that the group has re-formed by saying, "We're family."

Changing Lanes into Faster-Moving Traffic



The same basic lane-changing principle for entering slow-moving lanes also applies when a group is entering faster-moving traffic where at least two lanes of traffic are moving in the same direction; that is, moving from the right lane to the left. The first bike to move creates a gap for the remaining bikes. Since traffic is pulling away from the group as each member enters the lane, this maneuver is done back to front.

The maneuver is accomplished in this manner: The Lead Bike signals for a lane change and announces to the group via CB and turn signals that the group will be moving to the left, back to front. Then the Lead Bike asks the Drag Bike to "secure the lane" to the left to which the Drag Bike should normally respond with "Stand by." All

station-keeping bikes maintain their position while this occurs, putting their own turn signals on to indicate the move to be made. The Drag Bike then moves first when a space in the lane to the left opens up and radios to the Lead Bike and the group, "The lane is secured."

No one is to change lanes at this point, however! First, each rider must make certain the lane is clear by actually turning his head to insure that there is no other vehicle still approaching the group in the left lane. If a vehicle is still moving up beside the group, the Drag Bike will usually say, "After the red truck," or "After the station wagon," etc. Whether or not a warning is given by the Drag Bike (who may have other concerns with the traffic to his rear), each rider must do a head-check before entering a faster-moving lane.

The second bike to move will be the one in front of the Drag Bike. That rider moves across the tracks of the current lane, does a head-check, changes lane and then takes up a position in the track of the new lane where he was originally riding. By dropping to a speed slightly slower than the rate at which traffic in that lane has been traveling, each bike creates a gap into which the next bike forward can insert. Each rider follows this pattern: signal left, move left in your own lane, head-check, enter new lane, maintain (slower) speed to create gap, and take up regular position (left or right track) in the new lane.

The Lead Bike in this pattern is normally the last to enter the new lane. As the bikes move quickly and re-form their group, it is rare that a four-wheeler will move up into the gap in the new lane. If a cage moves into the gap, the next bike to move must wait for the cage to pass, so that a gap appears again. Then the maneuver can be completed and the group can re-form into a normal configuration.

Passing

On a busy two-lane road, oncoming traffic typically prevents a group from passing a slow-moving vehicle while in formation. Each member of the group must accomplish two lane changes in order to pass, and this usually is done on an individual basis.

Regardless of what a rider is told by others in the group about oncoming vehicles, each rider must personally check to see that the oncoming lane is clear of traffic before entering it.

If oncoming traffic requires the group to pass individually, the Lead Bike will signal the group to move into a single-file formation and will announce that the group members are to pass the vehicle one at a time. The forward members of the group will gradually position themselves in single file in the left track to prepare to pull into the oncoming lane. The Lead Bike will usually wait for a gap in oncoming traffic that is big enough for more than one bike to pass, but this is not always possible. When a safe interval is observed, the Lead Bike will put its left turn signal on and pull into the oncoming lane. After passing the "obstacle," looking in the rear view mirror for clearance and actually turning the head to be sure the lane is clear, the Lead Bike then signals that it is moving into the right lane and does so, taking its normal position in front of the slower vehicle(s) in the left track. The Lead Bike must then maintain or even slightly increase its speed.

As with a lane change to the right, each bike should be aware of the need to create a gap into which the next bike in succession can fit after overtaking an obstacle. For this reason, each bike should maintain speed after passing, until the Drag Bike has passed and the group has re-formed.

Special care should be taken when passing not to focus on distant oncoming traffic to the point of establishing "target fixation." The rider should continue to scan the environment for hazards and should plan escape routes in case of the unexpected; for example, the "obstacle" may come to life again when he sees motorcycles passing him and may accelerate while the rider is still in the oncoming lane, exposed to additional risk.

After he has passed the slower moving vehicle, the Drag Bike will usually notify the Lead Bike that the group is intact again by saying, "We're family."

Number One Rule (The 'Prime Directive')

In a group ride, the primary job for every rider is to **not hit the motorcycle in front of him.**

Spacing Out

Especially on less-congested rural backroads, the riders in a group may spread out to create larger intervals between motorcycles. This allows a rider to relax a bit, to enjoy the scenery and the ride. If no four-wheelers are trying to pass the group, this is fine. However, the riders should remain close enough to each other to be able to see hand signals being passed back from the Lead Bike. Also, if a group is at maximum size (eight bikes is usually the limit) and the riders spread out too much in hilly terrain, CB communication between the Lead Bike and the Drag Bike may be severely tested or lost. The Lead and Drag Bikes cannot work together if they can't communicate.

It is possible that a rider will also "space out" in terms of losing his concentration and will forget to practice safe riding strategies. If the rider has become too fatigued to ride properly, the Drag Bike will usually notice this first and will advise the Lead Bike that a rest stop is needed. If a rider is not riding safely enough to avoid endangering others in the group (because of lack of experience, medical problems, fatigue, or some other reason), the Lead Bike will usually discuss the problem privately with that rider at the next stop. If a problem cannot be solved reasonably in this way, the Lead Bike has absolute discretion to request that a rider leave the

group and is entitled to expect the group to support this decision. In the case of a mechanical or minor medical problem, it is not unusual for another rider to accompany the distressed rider to get help. Sometimes if the Lead Bike just re-assigns the riders to new positions within the group, this is enough to bring a spaced-out motorcyclist back to a state of alert awareness.

Checking Out The Curves

On any stretch of curvy road and in any corner, a group may ride in single-file momentarily, to enable each rider to corner at his own speed and to have as much room as possible for maneuvering. This is especially important to riders with little experience in a group, as they may "wobble" or be nervous about making turns with another bike to their side or riding close behind them. This is an accepted variance to staggered formation; usually the Lead Bike will not signal for single-file at each turn but will expect the riders to choose their own path of travel.

Odd Formations and Maneuvers

Odd formations may be necessary in group riding when there is a member of the group which is not a standard, two-wheel motorcycle -- an "odd duck." This includes three-wheeled motorcycles ("trikes"), bikes with a sidecar ("hacks"), bikes towing a trailer, or four-wheelers.

In each case, other than for four-wheelers, it's a good idea to place the odd duck at the rear of the formation, in the last available slot. The group should also allow extra clearance and reaction time for a bike towing a trailer. Instead of a one-second interval between that bike and the next, and a two-second interval between it and the bike directly behind it in the same track, these minimum times should be doubled. For trikes and hacks, it is not so important to position these riders in a slot, but it is still a good idea, because these vehicles do not handle turns in the same way a motorcycle does. If a rider has difficulty handling an "odd duck" vehicle, the bike following it may need extra time to react, and the "odd duck" should not worry about being hit from the rear by a group member while he solves his problem. If there are several bikes towing trailers in a group, they should generally be riding at the back of the group, even if they are not all in slot positions.

When a four-wheeler is a part of a group, it should trail the group behind the Drag Bike. It helps if the four-wheeler is equipped with a CB radio. Additionally, that vehicle should drive with its headlights on at all times, to enable the Drag Bike to distinguish it from other cages if possible.

Hand Signals

Certain hand signals are optional in group riding: turn signals on the bikes ahead will usually advise a rider without a CB that a turn is coming up, for example, and hand signals in a turning situation may actually add to the danger for some. However, other hand signals are extremely helpful to the rider who has no other means to communicate.

The most important two hand signals for a non-CB equipped rider are these: pointing to an obstacle in the road, warning the rider to avoid it; and pointing to the tank. The rider who has no CB should be advised that, no matter what his reason, if he points to the tank on his bike, he will be telling those following him (especially the Drag Bike) that he needs to stop as soon as possible. This may be because he needs fuel; because he wants to make a "potty stop"; because he is having a mechanical or equipment problem; because his co-rider is uncomfortable; because he has a medical problem; because he is having a crisis of confidence; or for any other reason at all. Such a signal will be relayed to the Lead Bike. If a convenient place is available, the Lead Bike may orchestrate a stop by the whole group. If not, the affected bike can count on the Drag Bike to stop with him to try to help him.

Other hand signals may be useful to bikes not equipped with a CB during a group ride. These include:

- *Back off* -- Palm of left hand shown to group, pushing motion toward rear of bike
- *Ready to ride* -- "Thumbs up" high enough in air to be visible to Lead Bike
- *Single-file formation* -- One finger points to the sky on top of the helmet (sometimes entire flat hand at 90 degrees to top of helmet)
- *Slow down* -- Left arm is held out straight, then goes up and down
- *Smoky alert* (police or emergency vehicles) -- Hand taps top of helmet several times
- *Speed up or close ranks in formation* -- Left arm makes "windmill" sign
- *Staggered formation* -- First finger and little finger point to the sky on top of the helmet ("Hook 'em, Horns" sign)
- *U-turn* -- Left hand makes circle in air over head

Universal 'Caution/Warning/Danger' Signal

Though it is not, yet, a universally agreed to signal, it should be. That is, whenever a rider observes a potential threat, or wants to announce that he may need to change speeds quickly, that rider is obliged to tap his front brake lever twice in rapid succession. Any rider following that bike needs to do two things when he observes that signal:

- slow down in order to widen his following distance
- repeat the signal to insure that bikes following receive the warning

In the event that no emergency or rapid speed change is needed or occurs within a minute or so of seeing that signal then all bikers can assume the potential emergency has passed and can resume normal speeds and spacing. Nothing was lost yet everyone took defensive postures, just in case. That, after all, was the purpose of the signal in the first place.

Exceptions to Normal Guidelines

The often-heard rule, "Ride Your Own Ride," means that any guideline for group riding can and should be ignored when it doesn't make sense. Determining whether this is the case and acting prudently is each rider's individual responsibility at all times.

Under normal circumstances, the Lead Bike will choose a lane, will determine the speed at which the riders are to travel, will suggest the formation which makes maneuvers most safe, and will navigate.

Common exceptions to these guidelines occur with a rider who is not yet experienced with group riding. If a maneuver looks too dangerous or awkward for the new rider to complete safely, he or she should do what he needs to do to protect himself and avoid an accident. This may mean passing up a turn or taking it very slowly, or parking somewhere not with the group, or going more slowly through a curve than the riders ahead of him.

Each rider commands his entire area within a lane and may move to left or right in it as required.

Another exception: the Drag Bike may not travel in the same path as the rest of the group. If, for example, a two-lane road is narrowing so that a lane is about to be lost, the Drag Bike will frequently "close the door" by moving out of the group's staggered formation into the lane which is soon to disappear. This is to prevent a four-wheeler from trying at the last minute to pass part of the group and then have to cut into it when the pavement runs out. Even if the riders near the back of the group observe that the Drag Bike is no longer in the position where he has been riding most of the time, they should maintain their own place in the group.

Rubber-Band ("Yo-yo") Effect

Reaction time for a motorcyclist when confronted with an unexpected threat is, on average, about one second. If the need to react is anticipated (such as when a turn has been announced), then riders can usually react within about half a second after the bike ahead begins to react. When a group of riders change speeds very gradually, however, it usually takes two or three seconds for a rider to recognize this and begin to change his speed to maintain his position in the group.

This doesn't sound like much time, but experienced group riders manage their risks reasonably well with a minimum one-second interval between each bike and a minimum two-second interval between bikes that are traveling in the same track. When the group has more than six bikes in it, however, gradual changes in speed within the group can become tricky.

When a Lead Bike begins to accelerate, the second bike doesn't instantly start to travel at the faster rate. Instead, a gap grows between them while the second bike is reacting -- and it continues to grow until the second bike is fully up to the increased, stable speed of the Lead Bike. Clearly, once the speeds are the same, the gap will remain the same size. However, since most groups prefer to keep a one-second minimum interval between bikes (two seconds between bikes in the same track), the new gap caused by the Lead Bike's acceleration may be larger than is desired. When this occurs, the second bike must go faster than the first one for a brief time in order to "catch up."

If we assume that the Lead Bike speeds up from 60 to 70 mph over a period of two seconds, the second bike will have to ride at 75 mph for two seconds (after his reaction time passes) in order to close the gap. Then he will take another one second to decelerate back to 70 mph to create a gap of the proper size.

If there were only two bikes in the group, this example is easy to follow. But when the group is larger, and the bikes involved are riding further back in the pack, the "rubber band" effect can be especially dangerous to all bikes from the middle of the group to the Drag Bike.

For example, the third bike in the group has this problem: About two seconds after the second bike has begun to accelerate, the third bike responds. Now, however, the second bike is moving at 75 mph rather than at 70 mph like the Lead Bike. The third bike must use even more effort to catch up to the second bike than the second bike did to match his speed to the Lead Bike's new speed, if the gap is to stay relatively constant. He will have to move at 75 mph for four seconds, not two, to catch up. The fourth bike will have to accelerate to 80 mph!

In a group of only six motorcycles, the last one will find the gap between himself and the fifth bike has grown to 143 feet before it begins to close, once he starts to speed up, given these average reaction times. And it will be at least 11 seconds after the Lead Bike first began to accelerate before the sixth bike does so.

Now, imagine what happens in the group if, while this is taking place, the Lead Bike must apply his brakes! This rubber-band effect becomes extremely important if the Lead Bike happens to make an abrupt and major change of speed at certain critical moments, such as when approaching a sharp turn or a tricky curve.

The rubber-band effect can be reduced by following these guidelines:

- Lead Bike changes speed more gradually
- Lead Bike announces speed changes over the CB radio
- All riders watch farther ahead than just the bike immediately in front of them in order to notice and to react quicker to changes in speed
- All riders restrain the impulse to "crank it up" in order to quickly re-establish normal spacing
- Lead Bike does not increase speed within 15 seconds of entering a curve which may require braking or some slowing down to maneuver it safely
- All riders abandon the one-second spacing rule when riding twisties
- Groups should not be larger than six bikes per group if even one rider is not experienced at group riding. Groups should never be larger than eight bikes: break the groups down into smaller ones.

This problem has been described with respect to the acceleration of the Lead Bike. When the rubber band effect is considered in reverse -- that is, when the Lead Bike is suddenly braking -- these tips on how to avoid the rubber-band effect can be even more important. Those who ride as Lead Bike for their group should be aware of the importance of avoiding sudden changes in speed if at all possible, so as to reduce the risks to those following.