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RIDERS

# SAFETY ARTICLES BY VIN HAYES



# WHAT'RE YOU LOOKIN' AT?

Safetyart19.pdf

In the past, we have had a few discussions about optics and visual skills applicable and important to motorcycle riding. Let's revisit some of the finer points in this month's newsletter and, hopefully, bring in some newer information that could help you to improve your own skills. Of course, we use all of our senses when riding, but our vision is certainly most prominent and is essentially active pretty much 100% of the time. As I've said before, your eyes can only see and focus on **WHAT THEY ARE LOOKING AT**. While riding a motorcycle, your success, your very survival is most dependent on visual ability and performance. **SCAN** – We've touched on this previously but it certainly bears repeating as it is likely the most important function to promote a safe ride and avoid any mishaps or accidents. We are all aware that it is most important to constantly keep our eyes and focal points moving at all times. A fixed stare guarantees that you will miss most visual inputs all around you as you zip along the road. Developing a functional and repetitive scan will assure you the greatest opportunity to see the most visual cues. Has your left turn signal been flashing for the last 10 miles? Were you suddenly shocked when that redneck pickup just zoomed by you on your left? Did you miss that girl in the bikini sunbathing by the side of the road? If you were utilizing a continuous, proper scan, you likely wouldn't have missed any of those. Go to our website, [www.areagleriders.org](http://www.areagleriders.org) and click on the tab for "Safety Articles" and read the article on "Situational Awareness". To review, there are 6 items in a proper scan and you should spend about 1 second on each item to fulfill the sequence and then repeat it over and over again. Here is what it should look like: **FORWARD-LEFTSIDE-FORWARD-RIGHT SIDE-**

**FORWARD- LEFT REAR- FORWARD**

**RIGHT REAR- FORWARD- INSTRUMENTS. REPEAT, REPEAT, REPEAT! FORWARD** – Whether you are on your own or riding in a group of any size, your forward focal point should be about 150 yards up the road looking "through" the vehicles directly in front of you. Your field of vision should provide you with a cone of focus of roughly 60 degrees assuming that you don't **STARE**. Normal optical physiology dictates that you will see moving objects much sooner and accurately than fixed or static objects. Obviously, the more things you are able to see up ahead, the greater prepared you will be to avoid them or to initiate braking. A common error in group riding is to **STARE** at the rear of the bike in front of you. That is **DANGEROUS**, you have clearly eliminated roughly 80% of the visual cues available. **LATERAL** – As mentioned above, it is just as important to **SCAN** the area just ahead and on both sides of the road. In your lateral **SCAN** your focal point should be about 75 yards just ahead and to the side. This is undoubtedly your best opportunity to spot a deer or a dog alongside the road and be prepared to avoid it or initiate proper braking. This lateral **SCAN** also enables you to see debris or roadkill which could pose an issue for you or the riders behind you. Remember, you can't see what you are not looking at. **REARWARD** – Checking both rear-view mirrors regularly allows you to monitor traffic approaching from the rear. In group riding, you should continuously be aware of how many bikes are behind you in order to maintain group integrity. **HAPPY TRAILS**

# SITUATIONAL AWARENESS

It has been clearly documented many times that the cause of the overwhelming majority of motorcycle accidents is simply stated; INATTENTION, either yours or another operator. Let us spend a few moments analyzing that concept and seek to establish procedures and techniques to minimize it if not eliminate it altogether. Situational awareness is obviously the state of maintaining a constant, functional understanding of the totality of the dynamics of the environment in which we operate. As a motorcyclist, it should come as no surprise that our ability to perceive and deal with the thousands of ever changing external factors is considerably more important and more demanding than it would be while driving a car. Regardless of the speed at which we are riding, all of the external stimuli are coming at us fast and furious. We all know from experience that, while driving an automobile, looking away for a few seconds is generally no big deal, we've all done it safely. But on a motorcycle a second or two of distraction or inattention can be deadly.

What is your perception quotient? How much do you see and how often? What are you looking at? What is your personal ability to pick up visual cues and quickly analyze and interpret them? There are hundreds of things going on all around us while we ride and someone who is exceptionally talented and perceptive may pick up only 80% of them. As in most other aspects of motorcycling, it always comes down to TRAINING and PRACTICE. We need to learn the best techniques to quickly and accurately perceive the dynamics of our surroundings and practice those techniques on a regular basis. What's the road condition? What's the level of the ambient light? Does my bike have any mechanical shortcomings? What's the traffic density. How does my riding skill compare to others in the group? What is my state of mind and physical condition? If you've just had a bad lunch and you have to ride another 90 miles with a bellyache and a cramping bowel, your awareness and capabilities are seriously diminished.

One of my previous articles, dealt with visual aptitude. In it I had encouraged everyone to develop a good, functional scan. If your focal point lingers on any object for more than one second, you are seriously degrading your situational awareness and risking a sad outcome. As you keep your eyes moving constantly, you are multiplying the number of inputs to your sensory perception and situational awareness. The more you take in visually, the more likely you are to pick up signs of impending danger. If you don't see it, you are very unlikely to react to it in time. Let's have a look at some specific examples.

**DEER** – If you see a deer alongside the road or standing in the road, you would obviously hit the brakes and/or swerve to avoid it. If you have a collision with a deer, it is likely that you never saw it. Deer are not invisible; you didn't see it because you weren't looking at it. As you ride along, either alone or in a group, develop your scan so that you get a thorough look at both sides of the road every few seconds. Don't stare at the bike in front of you. Your focal point should be 150 yards straight ahead looking "through" the vehicles in front of you and 100yards ahead on both sides of the road.

**SIDE ROADS** – If a vehicle pulls out in front of you from a side road, it is usually simple enough to avoid it. If it is dangerously close, that is usually because that driver never saw you. His inattention is just as dangerous as your inattention. With a proper scanning technique, more often than not, you will have the ability to see that potential hazard early enough to properly react and avoid any danger. Remember, you can't see what you are not looking at. As I've mentioned, the surest, quickest way to see if he is going to move out into your path is to draw a bead on his front wheel; that's is your first and most accurate indication of movement.

**LAYING IT DOWN** – No doubt, you've heard many motorcycle war stories where someone was involved in a collision who said, "I just had to lay it down". The vast majority of motorcycle safety experts heartily disagree with this technique. It is strongly recommended to stay upright with the bike in the case of a collision with another vehicle. Bottom line; the bike is going to be totaled either way. If you lay it down, your body will suffer a greater impact and may very well slide underneath the other vehicle – not good. If you stay with the bike, it should absorb a great deal of the impact before your body does. I once read an article written by a retired CHP motorcycle cop who discussed this scenario. His strong recommendation is to, in the last split second before impact, rise up forcefully on the pegs. That way, when impact occurs, you will likely get launched onto the roof of the other vehicle and end up on the road behind it. That is considerably more survivable than crashing face first into the windshield. Certainly good advice from an expert and worth some thought. It goes without saying that your survival factor goes way up if you are wearing a full complement of protective gear. Riding in a tee shirt, shorts and flip flops is always going to have a sad outcome. As an adjunct to this collision scenario, if you've gone off the road and the impending impact is with a tree, it is surely your best option to get off the bike and take your licks in the brush.

**LOOK AHEAD** – One of the most common accidents in group riding is when a motorcyclist runs into the bike(s) ahead of him. This obviously occurs due to a lack of situational awareness. Your visual attention was elsewhere when the bike ahead slowed or came to a stop. No matter how good your brakes are, they won't help you if you don't have the awareness to know when they are needed. Pay attention, look ahead.

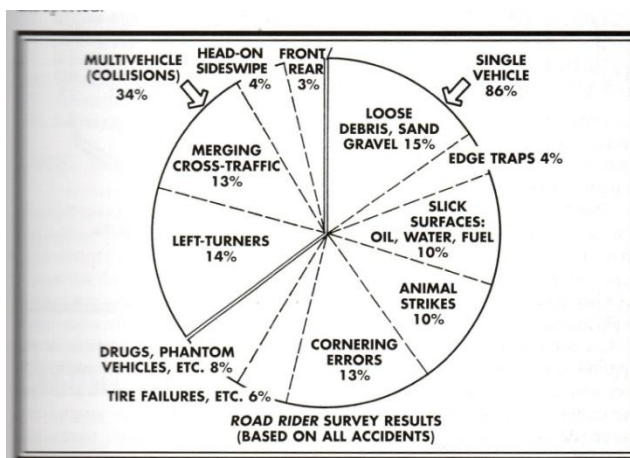
**KNOW YOUR SURROUNDINGS** – We recently had an incident where a bike had to come to a complete stop at the side of the road due to stopped traffic ahead. It was a two lane country road with a pretty severely crowned effect. As he stopped his bike at the right edge of the pavement, he dropped his right foot to support the bike. Because of the slope of the pavement, by the time his right foot hit the ground, the bike had already leaned over too far to be saved and he went down. No harm but a bit of cosmetic damage to the bike. The lesson here is that, if he had chosen to support the bike with his left foot (on higher ground), this would have been a non event.

**SITUATIONAL AWARENESS – Know where you are, know where you’re going, know your surroundings, know what is out there waiting to get you. In a previous article where I listed some applicable aviation axioms, an important one on the list was, “Those who are not in complete, continuous control of the aircraft are passengers”.**

**DON'T BE A PASSENGER!**

## **GUANO HAPPENS**

For this month’s article we are going to give our attention to the statistics and circumstances concerning motorcycle accidents. Many in our group have had the sad experience of suffering a crash or accident while on a motorcycle, some rather minor and some terribly severe. Hopefully, we can ponder the following information and hopefully work to prevent the next crash or minimize the eventual damage. We all have varying opinions about how dangerous motorcycles are but it goes without saying that the likelihood of serious injury or death is nearly ten times higher on a motorcycle than in an automobile with a steel cage, a seat belt and multiple air bags. While we all hope to never be involved in a motorcycle accident, let’s look at some statistical analysis with the hope that we can optimize our chances to prevent or avoid an accident.



First of all, whoever made this pie chart can’t add to 100. The section referencing “single vehicle” accident should obviously be 66%. This chart reflects combined statistics of both urban and rural accidents. Clearly, single vehicle accidents occur about twice as often as accidents involving another vehicle. That variance reflects two important factors which are subject to location and environment. When we are riding in the city/town where there are considerably more other vehicles, we tend to be more watchful and more careful of our surroundings. When we ride out in the more rural areas, most of us tend to ride a bit riskier on the open road. The clear majority of single



vehicle motorcycle accidents involve some form of loss of control due to inattention or poor technique in turns or road debris. Notice on the multivehicle section of the chart the high percentage of accidents involving left turns. This includes left turns by opposing vehicles as well as improper left turns executed by the motorcyclist. While we all endeavor to enjoy the ride and get home safely, a sudden accident and the possibility of serious injury can crop up in a split second. Beware and be prepared. Next month we will review the proper procedures necessary at the scene of an accident.

Here is a little questionnaire to help you determine your own personal safety quotient. Check it out and see your total score. It may suggest to you that you may need to make a few changes. Hopefully, you can score near 70. If your score is less than 50, you probably need to make some changes.

### Quiz Time

Okay, now that I've rambled through a few of the statistics, put on your thickest skin and tally up your personal score. The numbers are weighted in an approximate relationship to the statistics.

	<b>Add</b>	<b>Subtract</b>
1. Have motorcycle license	10	
2. Commercial driving license	5	
3. Learner's permit, no license	2	
4. License revoked		10
5. No motorcycle license		10
6. Less than six month's experience		2
7. Twenty-five to thirty-six month's experience		5
8. More than forty-eight month's experience	8	
9. Taught by friends or family		2
10. Self-taught		2
11. Passed Motorcycle RiderCourse	10	
12. Passed Experienced RiderCourse	10	
13. No training within last five years		5
14. Sometimes ride after drinking		20
15. Never ride after drinking	20	
16. Often ride in city traffic		5
17. Mostly ride 250 to 500cc		2
18. Mostly ride 750cc or larger	2	
19. Can name twenty common surface hazards	5	

	<b>Add</b>	<b>Subtract</b>
20. Know technique to cross edge traps	5	
21. Practiced quick stops this year	5	
22. Not practiced quick stops this year		5
23. Frequently use countersteering	5	
24. Don't understand countersteering		5
25. Rider age under twenty-seven		5
26. Rider age over forty	5	
27. Always wear armored riding gear	5	
28. Usually wear only denims		5
29. Always wear approved helmet	5	
30. Seldom wear approved helmet		5

## IT'S YOUR TURN

In this essay we are going to discuss proper and effective turns on a motorcycle. Obviously, there are noticeable differences between two-wheeled and three-wheeled bikes. I will try to highlight those as we go along. No doubt, you feel that you've heard all of this many times before but we are going to dig deeper into the physics and dynamics of turning. We'll consider turning radius, centripetal vs centrifugal force, gyroscopic precession, angular vectors, scientific stuff, with the hope that you will become noticeably more proficient in negotiating any kind of turn after this analysis.

**RSS** – On most highways that we ride, there will be a sign prior to the turn with a Recommended Safe Speed for that turn. I would certainly not encourage any unsafe or risky practices but, bear in mind, the RSS, like most highway regulations, is calculated to accommodate the most incompetent dumbass out there. If the speed limit is 55 MPH and the RSS is 40 MPH, do you really think that Mario Andretti would be unsafe taking the curve at 60 MPH? A reasonably proficient motorcyclist should be well within safe limits to take the turn at RSS times 1.5. For a three-wheeler simply adding 10 MPH to the RSS should certainly be comfortable.

**ENTRY** – Every well executed turn begins with a proper entry. Anytime you get into a turn and risk going over the center line or leaving the paved surface, it is almost certain that you began the turn with a poor or late entry. The critical items are; **SPEED**, **POSITION** and **SIGHT LINE**. Approaching the turn, roll off the throttle to slow to the desired speed, use brakes if necessary, **BRAKING WHILE IN THE TURN** is an absolute emergency maneuver. Position your bike to the outside of the turn, then look and lean to the apex of the turn then slide back to the outside as you complete the turn. As you enter the turn, your sight line should be well ahead of you, looking as far beyond the apex as is visible.

A well executed turn begins from the outside, aims to the inside and glides back to the outside. For a right turn, enter from the left edge of the lane, input the necessary angle to aim for the apex of the turn (the right edge of the lane midpoint in the turn) while looking well ahead. To exit the turn, gradually decrease the turn angle and slide back out to the left edge of the lane. It is important to monitor the throttle throughout the turning maneuver. Roll off the throttle some to enter the turn. Once the turn angle is established, you may need to add a little throttle to maintain the driving forces in the turn. As you exit the turn, roll on sufficient throttle to accelerate back to cruising speed.

Here is a graphic depicting the proper execution of a right turn.

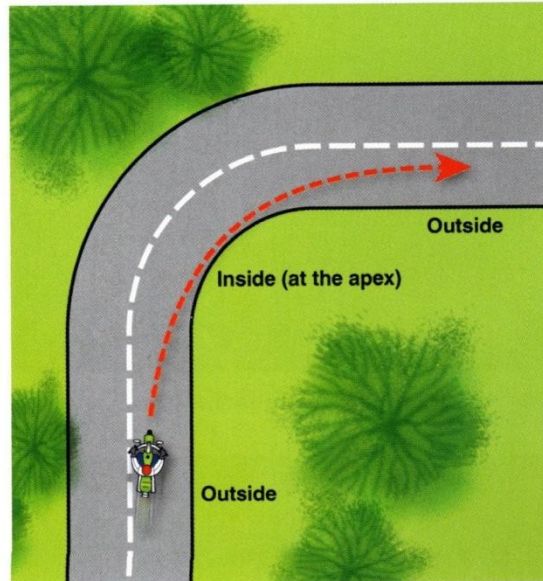


Diagram 14-1: Simple, constant-radius turn

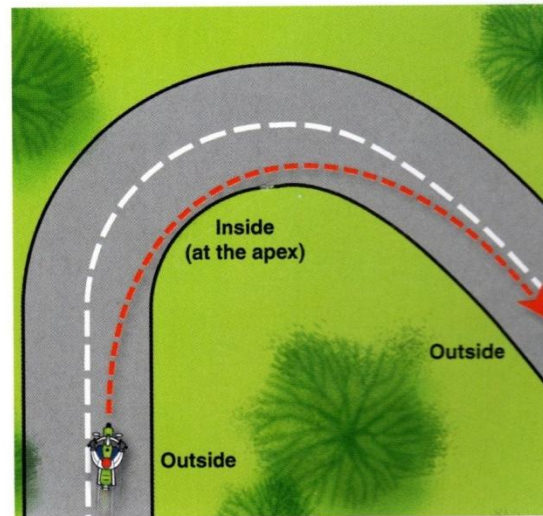


Diagram 14-2: Increasing-radius turn

**CENTRIPETAL FORCE** – This is where there is an absolute difference between a two-wheeler and a three-wheeler. On a two-wheeler which is leaned into the turn, the forces are applied downward on the vertical axis of the bike adding G forces to the suspension and the tires thereby increasing frictional contact with the pavement. That's a good thing. On a three-wheeler, the forces are exerted perpendicular to the vertical axis toward the outside of the turn thereby inducing the bike and the rider to tip to the outside. This is a bad thing.

**WEIGHT SHIFT** – Another major difference between the two-wheeler and the three-wheeler is the proper distribution of weight in relation to the centripetal forces in the



turn. For the two-wheeler in a serious turn, shift your butt to the outside edge of the saddle in order to maintain the lean angle. DO NOT lean your body. Keep your spinal axis in line with the bike's vertical axis. Leaning your body actually counters the leaning forces of the bike. For a three-wheeler in a serious turn, you want to LEAN your body weight to the inside of the turn in order to counteract the forces trying to flip the bike, even to the point of having your butt slide off the inside of the saddle.

**TIRE PROFILE** – This is another noticeable difference between two-wheelers and three-wheelers. Motorcycle tires are designed with a rounded bottom surface which makes the least contact with the pavement when driving straight. As you lean the bike into the turn, you are actually adding more tire surface to make contact with the pavement. On a three-wheeler, the flat bottom tires have the greatest contact when driving straight and less contact during a turn due to the centripetal forces which tend to “lift” the tire.

**GYROSCOPIC PRECESSION** – This applies to the front wheel of a motorcycle and also a trike but does not really come into play with a Spyder. At 60 MPH your front wheel is rotating at 800-1000 RPM creating a gyroscopic effect meaning it resists any forces away from the vertical. Thus, a positive input of force is necessary to initiate a turn. On a two-wheeler, the bike leans as a result of this input. On a trike, the wheel obviously doesn't lean but it wants to come back to vertical rotation so it requires continued input of force to maintain the turn.

**GROUP RIDING** – Because we generally ride in a staggered formation, you may wonder about the best way to integrate the proper turning techniques discussed above. Quite simply, if approaching a gentle turn (sweeper), you can easily make the turn while maintaining your stagger. When approaching a sharper turn (twisty), abandon the staggered position and execute the proper outside-inside-outside technique to finish the turn and then slide back into your proper staggered position while accelerating back to cruise speed. The common failure to accelerate out of the turn will cause the group to get all strung out.

Hopefully, you have picked up a few tidbits here so that you can work to improve your ability to negotiate better turns. As with any other endeavor of performance, the best road to improvement is PRACTICE, PRACTICE, PRACTICE.

## WHAT GEAR ARE YOU IN

We've all heard the oft-repeated acronym ATGATT, All The Gear All The Time. Let's dig a little deeper to study exactly what that means.

**ALL THE GEAR** obviously refers to a complete set of riding gear: helmet, protective, long sleeve jacket, gloves, reinforced pants or leggings and sturdy, protective boots.

**ALL THE TIME** means anytime, every time, not only for long trips or day rides. Many motorcyclists have sustained serious injury, even death, while just running a quick errand.

### **THE GEAR**

**HELMET** – The most protective helmet is a DOT approved full-face model with sufficient, approved padding secured by a double D ring strap. Half helmets and quick disconnect fasteners are asking for trouble.

**JACKET** – A proper jacket must be constructed of material that provides a good degree of protection against scraping and abrasion. Protection against the elements is variable depending on the weather. The best jackets should include embedded padding/armor for the shoulders and elbows. Thick leather provides the best protection but sturdy, ballistic nylon can provide nearly as much protection and is much more adaptable.

**GLOVES** – Most motorcycle gloves provide proper protection against abrasions for the hands and fingers. Defense against cold and rain are obviously quite important as well. The best gloves also include a 3-6 inch gauntlet to protect the wrists.

**PANTS/LEGGINGS** – Once again, sturdy leather provides the best protection against abrasion but most ballistic nylon pants also include armored protection for hips and knees. Denim jeans will definitely give way quickly during a slide on asphalt.

**BOOTS** – Sturdy leather boots that come up over the ankles are mandatory. Anything less is surely inviting injuries to ankles and toes. Steel-toed boots may seem to provide extra protection but there have been instances where, in high impact accidents, the steel insert actually added to injuries.

### **GOING DOWN**

There are two types of motorcyclists; those who **HAVE** gone down and those who **WILL** go down.

1. You can avoid the discomfort of wearing a helmet but your cranium won't like it  
**WHEN YOU GO DOWN.**

.2. You can wear a half-helmet (brain bucket) but your ears and face won't like it  
**WHEN YOU GO DOWN.**

3. You can ride in a tee shirt, or no shirt at all, but your arms and elbows won't like it  
**WHEN YOU GO DOWN.**

4. You can ride in jeans or shorts but your knees and hips won't like it  
**WHEN YOU GO DOWN.**

5. You can ride in chaps to be cool but your ass won't like it  
**WHEN YOU GO DOWN.**

6. You can ride in sneakers or soft hiking boots but your feet and ankles won't like it  
**WHEN YOU GO DOWN.**

7. You can ride without gloves or cutoff gloves but your fingers won't like it  
**WHEN YOU GO DOWN.**

#### **A PERTINENT STORY**

About 25 years ago, my son was working as a paramedic for an ambulance company in the suburbs north of Denver when they received a call to an accident in the area, a single guy on a single motorcycle. It was a beautiful, warm day in late Spring. This guy lived in a typical suburban neighborhood. He was going from his house to visit a buddy less than half a mile away to show him some new additions to his bike. Because he was going such a short distance within the local area, he just jumped on his bike wearing a tee shirt and shorts and headed off on his bike. He rode 300 yards to turn left on the main entry road and another 500 yards to turn right into the street where his buddy lived. In the tight right turn, he hit the collection of road sand that normally accumulates at the sides of the roads. He was traveling less than 25 MPH when he instantly **WENT DOWN** on his right side. Because he was close inside the right turn, he smashed his head on the high curb at the corner. When my son arrived, he was certain the guy was dead as he could see brain matter on the sidewalk.

So there you have it. Just a quick errand on a beautiful sunny day!

#### **ALL THE GEAR ALL THE TIME**

## **DON'T PRESS YOUR LUCK**

Admittedly, we've all had this unhappy experience a time or two. You are happily cruising along a nice country road enjoying the beautiful weather and the scenery, sharing the ride with all of your moto buddies. You come upon a fairly demanding right hand turn but, regretfully, you initiated a pretty incompetent entry. Halfway through the turn, you have no option but to slide across the center-line to finish the turn and get back to your proper position. Once settled back in normal cruise, the thought occurs to you, "Geez, I sure am LUCKY there was no one coming the other way in that turn". Undoubtedly, your next few turns will be very well executed.

Let's face it, the reason that you just avoided a very serious or fatal accident is nothing other than **JUST PLAIN DUMB LUCK!** So let's have a little chat about LUCK. It seems that good luck and bad luck come to us equally throughout our adventures in life. We tend to bemoan the bad luck and praise the good luck, in a most natural way. In the above mentioned scenario, you could have executed that turn perfectly but then been hit by an oncoming semi that was cutting the corner inside the center-line. That would certainly be considered **BAD LUCK**. Obviously, most instances of luck, good or bad, are capricious and unpredictable.

As a serious and experienced motorcycle rider, what can you do to minimize the occurrence and influence of luck to ensure a safe and successful ride? Like most of our performance on motorcycles, it usually comes down to **TRAINING** and **PRACTICE**.

Was it **UNLUCKY** that you ran out of gas in the middle of nowhere? No, it was dumb.

Was it **UNLUCKY** that your rear wheel slipped out on a damp road? Perhaps you need to check the tread on your tires more often. Perhaps you need more **PRACTICE** on wet roads.

Was it **UNLUCKY** that you hit a deer? Perhaps you need more **PRACTICE** on developing an effective, rapid scan of the road ahead.

Always make yourself open to more **TRAINING**. Continually **PRACTICE** safe and conscientious procedures and maneuvers whenever out on your bike.

An old Golf maxim: The more I **PRACTICE**, the **LUCKIER** I get.  
Remember, "An **OUTSTANDING** aviator is one who uses his **OUTSTANDING** judgment to avoid situations that may require his **OUTSTANDING** skills.

## AT THE SCENE

In all the years and the thousands of miles that our group has been motorcycling throughout Arkansas and all around the U.S., it is quite remarkable that we have not experienced a serious accident or major injury. While dumb luck may have a part to play, I am confident that our success thus far is greatly dependent on the group's competent leadership, our advanced riding skills and the overall safety consciousness which is practiced regularly by everyone.

That being said, let us take a deep dive into the correct and proper procedures that we should exercise should a serious accident or crash occur during one of our group rides. The simplest form of accident would likely be a single bike running off the road perhaps in a turn on a road with no shoulder. Next up would be two or more bikes crashing into one another which may or may not involve one or both leaving the pavement. Worst of all would be an incident where a bike is involved in a collision with another vehicle. That clearly would involve a greater likelihood of injury as well as the legal aspects to be considered. In any of these cases, the following procedures should serve well as a guide for the group. Let's assume that we have a group of 12 bikes riding on rural roads here in Arkansas and someone runs off the road. Per our standard procedures, the following bikes should pull off the road immediately and the nearest bike ahead should move ahead and get notification to the ride leader. Obviously, there are many permutations concerning the relocation of bikes and riders. We surely don't need all 12 bikes and riders at the accident scene so the leader needs to find a safe place nearby for the group ahead to loiter while the situation is evaluated.

1. The first priority is to secure the scene. Someone needs to step up to be on-scene commander and designate two people to be road guards, one a few hundred yards ahead of the accident and one a few hundred yards behind the accident staying there to provide an alert to oncoming vehicles.
2. Quickly assess the condition of the victim to determine if there are any serious injuries present, i.e. broken bones, serious bleeding, unconsciousness. If that be the case, do not attempt to move or disturb the victim rendering only methods of comfort. Immediately call 911 to get the EMT's on their way. In a remote area with poor cellular coverage, this may require someone to ride to the nearest suitable location to make the 911 call. Do whatever is necessary to communicate an EXACT location to 911 dispatch. This may involve GPS coordinates, mile marker number or nearest town. Make certain that the area is clear enough (two car lengths) to make room for emergency vehicles. If the victim ends up being transported via ambulance, make sure to recover the key to his/her bike before the ambulance departs.
3. If the victim's injuries are clearly very minor, i.e. some scrapes and bruises with little or no bleeding, then we can administer minor first aid (gauze, band-aids anti-inflammatory drugs). At this point, the concern is to make every effort to retrieve the



bike and determine if it is safely operable. If the group has been split up, it may be necessary to re-join in order to have sufficient hands available. The decision needs to be made within the group whether to continue the route or return home or to break up into segments.

4. If the accident involves another vehicle, call 911 immediately and request law enforcement as well as EMS identifying the exact location. Set up the road guards, clear the area and administer first-aid as necessary. In this situation, make every effort to locate the motorcyclist's license, registration and insurance papers as well as any form of roadside coverage he/she may have. The on-scene commander must take responsibility for any necessary communications with the driver and/or occupants of the other vehicle(s). It is important to make every effort to take care of our rider and his/her bike but we want to be sure to have "all our ducks in a row" when the police/sheriff arrive. Survey the scene, try to determine what happened and how, be prepared to answer questions and try not to be defensive about "motorcycle prejudice".

5. During the confusion that will no doubt ensue during the events described above, the ride leader is going to be hard-pressed to put all the pieces back together. Hopefully, the group did not get terribly dispersed as a result of the accident. Obviously, it would be best if everyone was able to communicate via mobile phones. When that is not practical, shuttle trips back and forth from the scene may be necessary to reorganize the group. Depending on the seriousness of the accident, it is best to organize the minimum number of people necessary to operate at the scene while the rest loiter at a paved, open area nearby under the guidance of an appointed leader.

6. In order to keep mayhem to a minimum, everyone needs to understand that we have all just experienced a form of trauma and keeping our cool at this point is the surest way to prevent a mishap from turning into a disaster. Undoubtedly, the group has been split up into two or three parts. Some are acutely involved in managing the scene, others may be miles away and have no idea what has happened. Leadership is highly important at this time and true leaders must have a clear head and a reasonable understanding of what the situation requires. We began this ride as a group and now, due to this accident, supporting one another in the group is of the highest priority. Proper communication within the group is absolutely vital at this time and establishing proper means and methods of communication will surely make the event more endurable and less traumatic. If we strive to regularly communicate these protocols within the group before we start out on a ride, then the group will have a higher probability of enduring a mishap with a minimum of damage.

# VISUAL APTITUDE

When you were a kid, your parents likely told you that it is not polite to stare. Now, when you are riding your motorcycle, staring is a very bad idea and can be quite dangerous. Let's take a look at a thorough review of what your eyes should be doing while riding a motorcycle.

**DON'T STARE** – It is a common error when riding within a group, riders have a natural tendency to stare at the license plate of the bike immediately ahead. It needs not be said, that an established fact of human physiology, is that your eyes can only see and focus on where they are aimed. We all have varying degrees of peripheral vision but true visual acuity only occurs within a small cone directly in line with your aim point. When you stare at one point for any length of time, you block out anything outside that cone and, the longer you stare, the smaller the cone becomes.

**SCAN** – Here is some more pilot lingo. In order to maintain total awareness of your surroundings, it is imperative that you develop a constant, well-managed scan. On a motorcycle, your primary focus is an area straight ahead about 150 yards which allows you to see “through” the bikes or cars ahead of you and pick up any visual clues in the road ahead. Here is an example of a good, functional scan with 85% of your focus straight ahead, with your eyes moving constantly: **AHEAD - RIGHT SIDE - AHEAD - LEFT SIDE - ,AHEAD -RT MIRROR – AHEAD – LT MIRROR – AHEAD – INSTRUMENTS – AHEAD**. No matter what is happening, you will get to see it in less than two seconds.

**BLIND SPOT** – Where the optic nerve exits the eyeball in the back of the retina, there is an absence of visual receptor cells, hence a blind spot. When your eyes stare and are unmoving, whatever is in that blind spot, is literally invisible. Another good reason to keep your eyes moving constantly.

**REAR VIEW** – All street bikes have two rear view mirrors. You need to be constantly aware of what is behind you. When group riding, it is necessary to maintain a constant awareness of the number of bikes behind you so that you can determine right away if someone drops out. Keeping up a good SCAN should easily facilitate this. The best time to check the bikes behind you is coming out of a curve onto a straightaway or on a downhill straight segment which enables you to see the bikes quite a ways back. **DO NOT STARE** in your mirror! I once totaled my bike by running off a curve while checking on the bike behind me.

**SIDE ROADS** – When you approach a side road or a driveway, and you see a vehicle waiting to enter your road, the absolute best way to determine if it is going to move out, is to look directly at its front tire. That will be the fastest and most accurate indication that it is moving.

**BLOCKAGE** – When you are riding behind a vehicle that is tall or large enough to block your view ahead, it is prudent to double your normal following distance to allow you time to react to any sudden changes.  $MPH \times 1.5 = FPS$ . If you are doing 60 MPH that means you are traveling at 90 feet per second. Thus, a 1 second reaction time (if you're lucky) uses up 90 feet.

## THE HEAT IS ON

As we are all well aware, here in the deep south July and August are the hottest months of the year when temperatures can often climb well over 100 during the afternoon. Most of us will likely be riding at least twice a week during the summer, either alone or in our regular groups. In your car, you can relax and enjoy the comfort of the wonderful air conditioning. While riding a bike, you are utterly exposed to the environment and the slip stream in which you are riding has very little cooling capability when the ambient temperature is very high. Additionally, the protective gear that we ALWAYS wear (ATGATT) tends to restrict the body's normal function to evaporate sweat in order to maintain a normal body temperature. Excess heat can effect our body's performance in various ways but the two prominent types of heat-related illness are HEAT EXHAUSTION and HEAT STROKE. With heat exhaustion, your body temp is too high (above 100) and you need to take on lots of water and get cooled down soon. Heat stroke is an absolute emergency which requires professional medical attention immediately. Suffering from a heat-related illness while riding a motorcycle is definitely a recipe for disaster.

**HEAT EXHAUSTION** – Body temperature over 100, profuse sweating, weak and rapid pulse, nausea or vomiting, dizziness or fainting.

**HEAT STROKE** – Body temperature above 104, rapid heart rate, not sweating, hot and dry skin, loss of consciousness.

We must all be aware of heat-related illness as we ride throughout the summer. Keep well hydrated and continuously monitor your own condition while being vigilant and observant of the physical condition of others in the group.

On a totally different subject, go to this link:

<https://www.revzilla.com/common-tread/viral-video-could-this-crash-have-been-avoided>

Please read the excellent analysis of this accident before watching the videos. It is full of learning points and admonitions about group riding and situational awareness. You may have to log on to YouTube or Google as the videos are age restricted (SCARY).

## ALL OF A SUDDEN

It was not a dark and stormy night! Actually, it was a clear, warm, sunny, Sunday afternoon, the 9<sup>th</sup> of August, 2015, as I was traveling eastbound on US Rte 66 halfway between Peach Springs and Seligman, AZ. I was leading a group of 14 bikes and a Mustang convertible on a 14 day Wild West Tour for EagleRider motorcycles. We were on day 3 traveling from Laughlin, NV to Grand Canyon, AZ. I had an eclectic group; a few Germans, a few Brits, a number of Brazilians and 2 guys from New Zealand. Among the Brazilians was a young guy who was with his parents and their best friends from back home. His mother and the other woman were driving the Mustang.

It is a common practice with EagleRider, on these longer tours, to give the riders a chance each day for a "Free Ride". Normally, we all travel in a solid, staggered group but the free ride gives folks a chance to ride on their own and have the opportunity to take in the scenery. The leader goes on ahead and leaves them to depart on their own after 15-20 minutes. The van driver/sweeper follows the last bike to be sure that everyone makes it to the rendezvous point. In this case, I briefed everyone at our regular rest stop in Hackberry and headed the 62 miles to Seligman where we were scheduled to stop for lunch at the famed Roadkill Cafe, a regular Rte 66 tourist haven. There was nowhere else to go but straight on Rte 66 where I'd be waiting at the Chevron station for our fill-up before lunch. It was VERY fortunate that we were on a free ride at this point, as you will see.

In north central AZ, Rte 66 is a nicely paved and well marked two-lane highway with a 65 MPH speed limit. So I was cruising along at 65 on the brand new Indian Roadmaster that EagleRider provided, somewhere between Peach Springs and Seligman. The highway had a long, gentle climb in both directions with a gravel side road off to the south side. Just as I crested the rise, a Toyota Tacoma coming westbound ALL OF A SUDDEN took a sudden left turn right in front of me in order to enter the side road. The driver was a seventeen year old girl driving her grandfather's truck and had her younger sister and her grandmother riding with her. According to the police report, she made a really dumb move about 20 seconds earlier. She knew she was going to make that turn but she had two dually trucks behind her so she pulled over to the shoulder to let them pass and initiated her left turn just as they passed her giving her no chance to see oncoming traffic, ME. While the Tacoma was partway through the turn, I hit it dead center and spun the truck around more than 180 degrees as the Indian and I careened off to the right and into the ditch along the eastbound side of the highway.

Any details I might be able to provide all come from eyewitnesses and the 2 police reports. Personally, I don't remember a thing since going through Peach Springs and my memory did not kick back in for about three days. Obviously I was wearing a full compliment of riding gear, without which I would have been a certain fatality. I landed about 10 feet from the bike and no one knows if I rode the bike in or I went flying through the air. Remember that I mentioned the young man from Brazil? Turns out, he's been in the U.S. a few years since he finished medical school and was currently an ER Doc at a large hospital in Manhattan, NYC. Miraculously, he was the first of our

group to arrive at the accident scene and his heroic actions quite possibly saved my life. When the ambulance and EMT's arrived, he took command and told them what to do and what not to do. When the State Trooper arrived, he insisted that he call in a helicopter because the local hospital in the Navajo Nation was insufficient and I needed quick transport to a level one trauma center. The chopper arrived after the EMT's did their life-saving work and they took me from the ambulance to the chopper wearing nothing but my jockey shorts and my helmet. They flew me directly to UMC Trauma Center in Las Vegas. Very sadly, the last to arrive was the van driver who, just so happens, is my younger brother. He has told me many times what a crushing blow it was for him to arrive at what he knew was an accident and find his brother lying in the ditch all twisted up and bleeding. I've reiterated many times that, at that moment, he was surely in more pain than I was. After leaving the van at Grand Canyon, he took a bus to Las Vegas where I was at UMC trauma center and stayed there with me the full 18 days. It just so happens that, on this occasion, we were conducting parallel tours; there was a second group about an hour behind us. The leader of that group took charge of all 29 bikes and two vans and got everyone to Grand Canyon that evening.

## MY HIGHWAY OPPOSITION

Notice all the bikes in the background



The trauma inventory report from UMC is 24 pages long so I'll just give you a quick rundown of my injuries. The expert team of trauma surgeons there felt quite confident that I likely would have died if I had been transported to the local Navajo hospital. My brother arrived from Grand Canyon about 10 PM and my son and daughter arrived from Denver around 11. Liz managed to get there the next morning (flying from LIT is generally non-accommodating). Another great blessing in all of this; I have a longtime buddy from United Airlines who lives in Henderson, NV and he was able to house my family for the 18 days I was at UMC.



Obviously, I had multiple, serious injuries the worst being to my left foot and right elbow. A quick list: both ankles broken, left foot crushed, right elbow utterly dislocated with the ulna protruding out the back of my elbow, left pneumo-thorax, a few broken ribs, left clavicle dislocated through the skin and multiple concussive events. As I said, I don't remember anything until about three days later. They got right to work trying to rebuild my left foot. Photos of the destroyed bike indicate that the left footboard folded up around my foot as the left side of the bike smashed into the Tacoma's bumper. There are 5 metatarsals between the ankle and the toes. All five were broken and separated; the surgeon said there were dozens of pieces. They used 3 metal plates and 5 screws to get it all back together. There are 5 major bones in the ankle, the largest one being the Talus which hooks into the lower leg bones. The Talus in both ankles were dislocated and the left one was also fractured. When you see me get off my bike and walk away gingerly, now you know why. The orthopedic surgeon was quite sure that, if I hadn't been wearing sturdy motorcycle boots, I likely would have lost my foot. About the right elbow; all the experts have surmised that, when I hit that truck at 65 MPH, I instinctively locked both arms to brace against the hand grips. Because of the angle of impact, at the instant of collision, the front wheel snapped violently to the right pushing thousands of pounds of force through my right wrist and against the elbow joint. The forearm consists of the radius and the ulna both attaching at the bottom of the humerus to form the elbow joint. Unlike most movable joints in the body, the elbow is kind of free floating to allow for twisting and turning. There are very few orthopedic surgeons who will even touch an elbow because the success rate is so low. The surgeons at UMC put my elbow back together and casted it but, in less than a week, it was obvious the bones had dislocated again. Back in Arkansas, I had two more surgeries to rebuild it. At best, it has about 75% function. Liz was concerned that I was not quite right in the head (in addition to being heavily drugged) so she insisted that they give me a CT Scan of the brain. Sure enough, they found two brain lesions that they were confident would ultimately heal themselves. So far, I am still pretty good at math and I can find my way home.

## THE MORNING AFTER Liz's first sight of me!



It's important to note that, during this tour, I was an official employee of EagleRider thus all of the medical expenses were covered with the Workers Compensation insurance at EagleRider. You may recall the mass shooting at a concert in Las Vegas a few years ago. Nearly all of those victims were transported to UMC. While there we discovered that it is a first class trauma hospital and a not so good medical facility once you leave the ICU. After 18 days, the insurance authorized an air ambulance to fly me and Liz to LIT where I was transferred to Baptist Health Rehab Hospital, a truly excellent facility. They cared for my injuries and prepared a program of PT and rehab. Thankfully, they hooked me up with the preeminent elbow surgeon in Arkansas and he re-did my elbow reconstruction after the UMC job fell apart. He had to do a third surgery about 8 months later because the insurance company dropped the ball on the necessary PT. That's another story.

It was nearly 4 months before I could walk at all. I spent 9 months working at PT three times a week. I am certain that I cost the insurance company so much money that they eventually didn't want to talk with me any more. I'm guessing that it cost them \$7-800,000. If you ever want a helicopter med-evac, you'd better have good insurance. My ride to Las Vegas cost \$56,000.

All in all, I am happy to be here and very satisfied to be back on the road on my bike. I suppose that many of you may have numerous questions about the specifics. I have no qualms about sharing and I'd certainly be willing to fill you in on all the details. Enjoy your rides and remember ATGATT!

#### A CELEBRATORY MOMENT 6 MONTHS LATER

