



Where Should Riders Look?

THE BASIC *RIDER COURSE*SM (BRC) and the Experienced *Rider Course* SuiteSM (ERC Suite), along with other MSF Rider Education and Training Systems (RETS) training opportunities, stress the importance of riders keeping their head and eyes up when they are riding, and especially to look through turns when cornering. It is mentioned as an evaluation point in nearly all of the riding exercises.

But what does “keep head and eyes up” and “look through a turn” mean and how should riders be coached on the range? Let’s look at what the research community has discovered about the use of eyes when operating a vehicle. Be aware that most scientific research on the visual process uses car driving as the basis of experimentation. The head-based video system used to determine scientifically where a driver looks would be far too cumbersome to be placed on the head of a helmeted rider.

First You See It

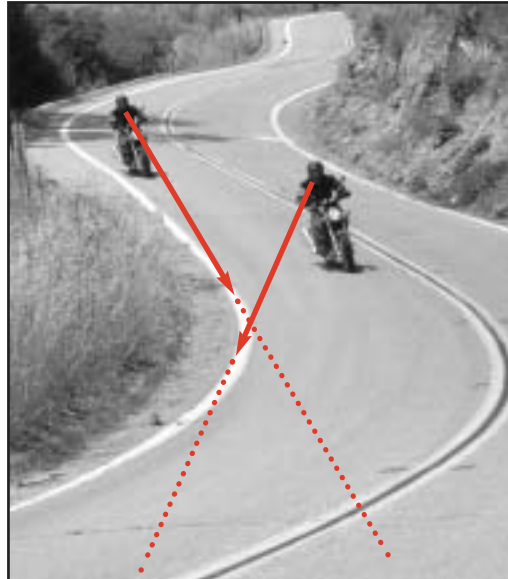
Some important research findings about vision and operating a motor vehicle were discussed in Johnson & Dark¹. They confirmed that

- visual information is the primary source of information when driving;
- attention is important in perceiving things clearly and accurately.

Information available from peripheral vision, though still in the field of vision, is scarcely processed or not processed at all. Johnson and Dark point out that attention is a necessary part of developing a visual inspection strategy, especially in planning eye movements.

Eye Movement

Saccadic eye movements are the natural, rapid, irregular movements of the eye as it changes focus moving from one point to another. Crundall and Underwood² compared the differences in the focus of attention between novice and experienced drivers. The results of their investigations suggested that when experienced drivers are driving through curves or on demanding roadways, their eyes don’t fixate on an object very often or for very long periods. The fixations



Studies show that the gaze of a rider is directed to the tangent point of the curve about 80 percent of the time. As the rider’s position in the curve changes, so does the tangent point.

being referred to are not target fixations where the eyes fixate for several moments. They refer to brief assessments of driving situations that correspond to saccadic eye movements.

Roving Eyes

Recarte and Nunes³ found that in spite of the importance of being alert and constantly scanning for potential problems, very little research was done regarding eye movements while driving. Some studies used simulated experiences and showed that visual scanning requires a time-sharing strategy. After all, the eye cannot look at two locations at the same time.

They also mention that if eye movements reflect the amount of attention that is devoted to objects or locations, then a decrease of available attention should cause a reduction of the useful field of view, which could be relevant

to safety. The lesson here is that when riding, the eyes should inspect the environment while at the same time evaluating significance, so the eyes must not fixate too long on any one spot. This is in alignment with *Rider Course* coaching to keep the eyes moving to evaluate the many factors that could affect speed, lane position, or path of travel. More than ever we know that the eyes don’t necessarily tell us what we see—we tell our eyes what to look for.

Off on a Tangent

While investigating how to engineer self-steering vehicles, Land and Lee⁴ looked at the human visual process and found little direct information to link steering performance to where the driver was looking. Using recordings of steering-wheel angle and driver’s gaze direction during a series of drives along a winding road, they found that drivers rely on the tangent point on the inside of each curve, seeking this point before each bend and returning to it throughout the bend. The gaze of the drivers was directed to the tangent point about 80 percent of the time, demonstrating the importance of this visual clue. It follows that a motorcycle operator would also find the tangent point of the curve to be quite meaningful.

Experience Does Matter

Summala and others⁵ compared how novice and experi-

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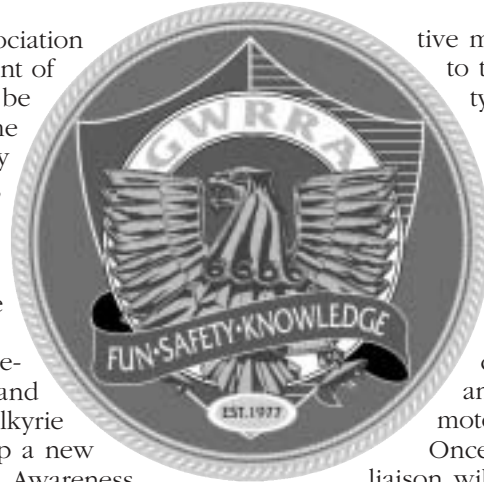
Grant Awarded to Implement NAMS Recommendations

THE GOLD WING Road Riders Association (GWRRA) is the most recent recipient of an MSF small-grant award that will be used to address recommendations of the National Agenda for Motorcycle Safety (NAMS). According to Mike Wright, GWRRA's President and Executive Director, "It is time to take an active role in helping educate other highway users that motorcycles and trikes share the road with them every day."

The GWRRA, the world's largest single-marque social organization for owners and riders of Honda Gold Wing and Valkyrie motorcycles, is using its grant to develop a new division of GWRRA called the Motorist Awareness Division (MAD). MAD will be responsible for organizing a nationwide network of GWRRA volunteers to act as motorist awareness liaisons with a goal of reducing the number of accidents and close calls that occur between motorcycles and other highway users. Since receiving the grant, Bruce and Julia Malson of Maryland have been selected as the International Directors of MAD.

Some of the GWRRA's grant money is being used to design, produce, and distribute brochures, bumper stickers, and other literature to members of GWRRA and for the development of a website devoted to motorist awareness. The website will be a comprehensive source of motorist awareness information and programs nationwide.

In addition to the creation of tangible items, a core group of GWRRA motorist awareness leaders is being established to train liaisons (volunteer chapter members) in the most effective



methods of promoting motorist awareness to those outside the motorcycling community. Once trained, liaisons will have the responsibility of sharing awareness information with motorists who have little or no familiarity with motorcycles. Liaisons will have the additional responsibilities of encouraging rider participation in rider courses and other motorcycle skill enhancement programs and educating motorcyclists on the importance of high-visibility due to a lack of awareness and pre-conceived notions among non-motorcyclists.

Once the program is established, each MAD liaison will be required to present motorist awareness information at a minimum of one non-motorcycling event annually. If you are a member of GWRRA and would like to become a MAD liaison, visit www.brucemalson.com.

The MSF has extended its small-award grant program through 2004. We are interested in reviewing proposals that address any of the 82 recommendations of NAMS. Any person, organization, or business may submit an application at any time and for any dollar amount, but generally award amounts range from \$1,000 to \$10,000.

To view the NAMS document or to download an application for a grant, visit www.msf-usa.org. The NAMS document can be accessed from the MSF News page (click on Archives) and an application is available from the Library page (or by contacting Ken Glaser at 949.727.3227, Ext. 3011 or kglaser@msf-usa.org). Help make a difference in motorcycle safety beyond motorcycle training. **SC**

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Amy Holland, Editor, can be reached via email at SafeCycling@msf-usa.org.

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The information contained in this publication is offered for the benefit of those who are MSF-certified Instructors, RiderCoaches, and Program Administrators.

The information has been compiled from publications, interviews and observations of individuals and organizations familiar with the use of motorcycles and training. Because there are many differences in product design, riding styles, federal, state and local laws, there may be organizations and individuals who hold differing opinions. Consult your local regulatory agencies for information concerning the operation of motorcycles in your area. Although the Motorcycle Safety Foundation will continue to research, field test and publish responsible viewpoints on the subject, it disclaims any liability for the views expressed herein.

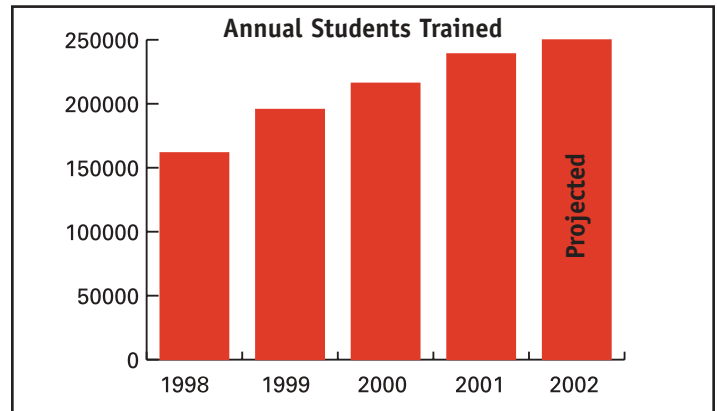
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2002 US Training Summary

THE NUMBER OF PEOPLE taking MSF training courses in 2002 showed a 5.6% increase over those being trained in 2001. While far from the biggest growth spurt (which occurred between 1976 and 1977 with an increase of 111%), this increase marks the 13th consecutive year in which the number of people trained by state programs with MSF-certified RiderCoaches and Instructors has increased.

The table below lists the number of students trained by state in 2002. Each state's total represents students trained in any of the MSF *RiderCourses* (Basic *RiderCourse*SM, Experienced *RiderCourse*, and Motorcycle *RiderCourse: Riding and Street Skills*[®]) regardless of whether they were trained by a military branch, independent program, or state program. **SC**



State	Annual Students Trained	State	Annual Students Trained	State	Annual Students Trained
Alabama	780	Kansas	880	North Dakota	649*
Alaska	688*	Kentucky	2,706	Ohio	4,796
Arizona	9,636	Louisiana	1,658*	Oklahoma	1,327
Arkansas	317	Maine	1,218	Oregon	4,917
Armed Forces Africa	557	Maryland	5,954	Pennsylvania	17,425
Arçd Forces Americas	137	Massachusetts	8,575	Rhode Island	2,762*
Armed Forces Pacific	364	Michigan	6,647	South Carolina	2,303
California	37,448	Minnesota	7,755	South Dakota	1,114
Colorado	5,673	Mississippi	512*	Tennessee	2,811
Connecticut	3,886	Missouri	2,207	Texas	20,847
Delaware	1,169*	Montana	1,129	Utah	2,047
Florida	19,411	Nebraska	1,118	Vermont	860
Georgia	4,746	Nevada	2,807	Virginia	441
Hawaii	2,689	New Hampshire	2,076*	Washington	8,058
Idaho	1,586	New Jersey	6,053	Washington, D.C.	81
Illinois	3,998	New Mexico	2,550	West Virginia	1,035
Indiana	5,258	New York	9,155	Wisconsin	7,546
Iowa	3,175	North Carolina	7,296	Wyoming	1,125

*2001 data
Data for students trained by state in 2003 will be published in the Fall issue.



2003 Learning Center Summary

THIRTY-NINE LEARNING CENTERS were conducted in 2003 with a total of 606 participants. The 2003 Learning Centers were designed as updates to discuss the Basic *RiderCourse* (BRC) experiences.

Beginning in March 2001, the first nine Learning Centers facilitated the transition to the BRC. The function and style of each year's Learning Centers have changed to best meet the demands and priorities of maintaining a vibrant rider education and training system.

The 2003 Learning Center participants were asked to complete an Evaluation Form. Only those responses comprising the largest percentages are provided here. **SC**

Learning Center Survey Summary			
<i>The best parts of the Learning Center were</i>		<i>What I'd like to see in Safe Cycling</i>	
Idea Interchange	50%	No Answer	38%
Open Discussion	13%	Extensive Educational Programs	15%
<i>The worst parts of the Learning Center were</i>		Coaching Tips	6%
No Answer	26%	Best Practices	5%
None	23%	<i>General Overall Comments</i>	
Needs More Structure	10%	Great Update	37%
<i>Comments regarding the facilitator</i>		No Answer	30%
Very Good	49%	Offer More Learning Centers	5%
No Answer	14%		
Good Moderator	12%		

The 2003 Learning Centers were held in Alaska, Arizona, Florida, Illinois, Kentucky, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Mexico, New York, North Carolina, Ohio, Tennessee, Virginia, and Wyoming.



Best Practice

THE MSF would like to encourage all RiderCoaches, DirtBike School Coaches, Program Coordinators, and State Administrators to submit Best Practices that have proven beneficial when teaching or operating various components of the Rider Education and Training System (RETS). In doing so, everyone in the motorcycle training community can benefit from your experience. If your Best Practice is published in *Safe Cycling* or on RETSORG, you will receive a \$100 gift certificate (which can be redeemed for Online Store purchases) as our way of saying thanks.

All Best Practices can be found at www.retsorg.org. If you have a Best Practice that you would like to submit, please fill out an on-line form available from the RETSORG submission link.

Here is a recent Best Practice submission:

Stretching Before Range Exercises

Riding a motorcycle is both a physical activity as well as a mental one, requiring not only a clear mind but a relaxed body too. Many students, especially ones that have never ridden a motorcycle, are nervous about riding. Having the students take some deep breaths and do some stretching exercises before beginning the range portion of the BRC seems to relax them. The following stretches only take a few minutes and can be used for any size class and with any RETS offerings.

- Mild neck stretch—forward and side-to-side (not back)
- Arm circles—forward and backward
- Waist bends—forward, back, and side-to-side
- Leg stretches
- Slight knee bends
- Thigh stretch **SC**



Tennessee Motorcycle Rider Education Program Conference

YOU KNOW SOMETHING special is happening when you arrive to a meeting and eight of the twenty vehicles in the parking lot are motorcycles even though the outside temperature is 14 degrees! Such was the case at Fall Creek Falls State Park near Spencer, Tennessee. High atop the scenic trails of the Cumberland Plateau nestled between Nashville and Knoxville, more than 150 Tennessee RiderCoaches gathered for their annual update. Tom Guerrant, state program coordinator, invited the MSF to attend and report on RETS.

Besides the awards banquet, which included recognition of Tennessee as a Category II state program award winner, the day-and-a-half conference provided three concurrent breakout sessions—BRC Alternatives, the ERC Suite, and Dealing with Difficult Students (Verbal Judo). Here are some observations from two of the sessions.

The Tennessee Motorcycle Rider Education Program is effectively utilizing the MSF Rider Education and Training System. Clearly, the notion of taking the objectives, content, and methods of a nationally-developed, field-tested, and research-based curriculum, and developing appropriate creative and effective ways to honor its standards and guidelines (the whats) while infusing creative and meaningful processes into the methods of delivery and facilitation (the hows), has been embraced by state administration, RiderCoaches, and RiderCoach Trainers.

—Ray Ochs, Director of Training Systems

activities using small groups, study questions, and appropriate creative activities), Tennessee RiderCoaches clearly showed that the juice of creativity thrives in Tennessee. Although RiderCoaches in Tennessee have been using the BRC for only two years, they have livened up portions of the BRC classroom and provided a workable alternative to the basic template that uses the Rider Handbook study questions. In short, it was a blast!

The energy and enthusiasm of the RiderCoach facilitators was obvious as everyone was given the chance to

experience what BRC students might expect when participating in fun, effective, and efficient classroom ‘instruction.’ Truly this was facilitation at its best, and hopefully you’ll see some of Tennessee’s Best Practices in a future issue of *Safe Cycling* or on the RETS Online Resource Guide (RETSORG).

BRC Alternatives

This session focused on the creative methods used by some of the Tennessee RiderCoaches and began when RiderCoaches were asked upon entering the conference room to draw from a deck of cards. The cards were used as a creative way to divide the 40-plus participants into four groups by card suit.

The room was set up as a BRC classroom in the middle (round tables, three groups of four, and items like motorcycle parts on the table to pique curiosity) with chairs around the outside. Known as the fishbowl method, each group took a turn in the middle to experience the effects of several RiderCoach-developed creative activities.

With a focus on Step 2 of the classroom segment of the RiderCoach Guide (Page 28—generate learner-centered

The ERC Suite

This segment of the conference focused on Tennessee’s approach to further expand the ERC Suite into its motorcycle safety program. It was well structured and at the same time quite creative. Persons entering the room were immediately immersed (a brain-based learning concept) in a motorcycle safety world. No fewer than 20 posters around the room contained safety slogans—motorcycle riding tips and thought-provoking questions to tease participants. Again the creative juices were evident.

Music was playing, the tables were set up for small group interaction, and color-coded name tents were uniquely used to switch group members after breaks and during topic transitions. Combining substance and creativity, the facilitators

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ScooterSchool Update

THE MSF is completing the pilot and field tests of its newest curriculum product, ScooterSchool¹ (SS1), during the months of February and March. Through a series of nine separate pilot and field tests (five involving riders of varying skill levels and the final four including both riders and MSF-certified RiderCoaches who are interested in being certified as ScooterSchool coaches), the test curriculum has gone from stapled pages full of handwritten edits to ring-bound heavyweight range cards.

SS1 is a range-only curriculum designed to teach scooter familiarization and basic riding skills such as controls, braking, cornering, and swerving for scooters of limited engine displacement. With similarities to the BRC, the ten-exercise sequence is designed to allow the rider to gain control through experience. The four-hour course (which starts with throttle use and braking; progresses to curves, stopping in curves, and swerving; and concludes with negotiating through an exercise that simulates a traffic mix) has no knowledge or skill test and is not designed to meet license waiver requirements.

SS1 is getting rave reviews from students participating in the pilot and field tests. In post-course feedback, 98.6% of all the riders who had completed the course agreed or strongly agreed that they would recommend the course to others. Novices report that SS1 is a fun course that gets them up and riding in just a few hours. Using the developmental, learner-



centered process this curriculum embraces, even people who haven't ridden a bicycle in many years have felt comfortable on their scooter.

In addition to the range cards, the SS1 Development Team is producing a RiderCoach Guide Tab, a Tips and Practice Guide, and a procedure for certifying current RiderCoaches as SS1 Coaches. All of these components will be ready for release in late Spring 2004. The initial rollout plan for SS1 is to focus on those market areas that have experienced significant growth and use in scooters.

The MSF sees a possible niche for SS1 in states where scooters can be licensed as mopeds and potential scooterists don't need a license waiver but want and need some initial training. This familiarization course also may be used as an entry into the Rider Education and Training SystemSM. A high percentage of field test participants (94.5%) said that taking SS1 had increased their interest in participating in other *RiderCourses*.

RiderCoaches who are interested in getting the ScooterSchool certification should check with their home site regarding planned use of this new curriculum. A current RiderCoach can become a ScooterSchool Coach by completing a 1.5 day update with an MSF-approved ScooterSchool Coach Trainer. Whether you're into classic, modern, retro, chopper, cut-down, mod, or rat scooters, come join us for ScooterSchool¹ starting this spring! **SC**

DirtBike SchoolSM Announcement

THE MSF HAS created a new position—*DirtBike School* Operations Administrator—which should be filled by March 1. The new Administrator will be responsible for assessing and ensuring training resources (personnel and facility) to meet the training demand for *DirtBike School*, and

will assist existing region operation staff by securing training bikes, training sites, and other necessary components. The new position will increase communication between Coaches and MSF staff while ultimately leading to an increase in training capacity. **SC**

Tennessee Motorcycle Rider Education Program Conference (cont.)

(RiderCoach Trainers J. T. Smith and Bill Gleason) used Powerpoint slides both on a large screen and as handouts for each participant. The expected results for the Tennessee program are to increase the number of ERC Suite *RiderCourses*, increase the number of current riders (those riding on permits) being trained, implement a court referral program, and improve the confidence and proficiency of RiderCoaches.

An effort to use the ERC Suite License Waiver *RiderCourse* was seen as a real boost to get more riders involved in training as well as freeing up seats in the BRC for novice riders. The MSF was struck by how different this conference was compared to those lecture/presentation days of yesteryear. Here the energy and enthusiasm was palpable as participants were involved throughout the entire session.

Imagine achieving objectives in a fun, effective, and efficient fashion. From the use of group names to computer sound effects to note transitions or 'times up' signals, the sec-

ond hand of the clock seemed to sweep all too fast to the conclusion. This was another example of adult learning at its best. To a casual observer, the facilitators didn't seem to be working all that hard; but the time, devotion, and creative energy that went into planning, preparing, and organizing this dynamic and effective session was obvious.

'Structured flexibility' is taking a standardized format (such as the study question method in the BRC or the framework of the three *RiderCourses* in the ERC Suite) and customizing course methods and administrative structure while maintaining alignment with national standards and curriculum principles. This conference demonstrated that the flexibility and adaptability of adult, learner-centered activities are not only benefiting participants in MSF *RiderCourses*, but also valuable and effective for RiderCoaches in their professional development activities. Tennessee has proven that. Way to go Tennessee! **SC**



IFZ Conference 2004

THE HEART OF the MSF's mission and vision has always been "World View; U.S. Focus." Being a principal sponsor of the Institut für Zweiradsicherheit (Institute for Motorcycle Safety) conference in Germany is one of the initiatives that reminds us of this focus.

In previous years the MSF's presentation of the Rider Education and Training System (RETS) has been met with pronounced international interest. At this year's conference (September 13–14 in Munich) the MSF will be submitting several abstracts, serving on the Steering Committee, acting

as a reviewer for submissions, and serving as co-host.

This year, the IFZ conference will focus on a broad range of topics including crash research; safety technology; environmental aspects; trends in the development of motorcycles; and rider, vehicle, and traffic behavior. A call for papers has gone out asking scientists, politicians, government employees, and representatives from the motorcycle industry to submit abstracts for acceptance into the conference program and proceedings. If you are interested in submitting an abstract, write to info@ifz.de for more information. **SC**



Bookshelf

Preventing Death by Lecture by Sharon Bowman (2001); \$15.95; www.Bowperson.com

TRAINING AND EDUCATION seem to be moving from an information-centered environment to a learner-centered format at a lightening-quick pace. A plethora of books and articles about the theory and practice underlying the benefits of learner involvement have been published, and occasionally a gem hits the target by being both practical and effective.

Preventing Death by Lecture spends little time trying to convince readers with theories or studies, but instead uses experiences all readers have lived through during the days of yesterday's schooling or corporate training sessions. The book's subtitle, *Terrific Tips for Turning Listeners into Learners*, accurately describes the focus of the book and provides 20 terrific tips that can be used to make learning fun and engaging.

The book grabs the reader's attention with its dedication: "to all of us who have experienced the following excruciating demises: death by slide presentations, death by speeches with overheads, and death by lecture." After briefly setting



the stage by suggesting alternatives to lectures, the author provides practical tips (divided into three categories: Beginning with Connections, Marking the Middle, and Closing with Celebration) on how to turn listeners into learners.

Did you ever hear someone tell you how learner-centered their presentations were only to find out they weren't? The author recognizes that sometimes trainers are not doing what they think they are and provides suggestions to discover an improved personal, learner-centered style. Some of the creative learning activities presented in this book could be adapted and integrated into the classroom portion of the BRC, and several ideas may be applied to the ERC Suite Rider Classroom Card discussions.

Preventing Death by Lecture is about the learners; about getting behind the eyes and thoughts of students in order to enhance the learning experience. According to Bowman, "The best way to make sure our listeners learn, remember, and use what we teach them, is to involve them in the learning." Should you wish to gain even more insight into how to prevent death by lecture, visit www.Bowperson.com. **SC**



MSF Strategic Planning Meeting

ON DECEMBER 16–17, the MSF Board of Trustees (consisting of representatives from member companies) met with MSF staff for a strategic planning session. The focus of the meeting was to set parameters for the long-term course of the MSF. The agenda included revision of the current mission, vision, and strategic goals. As part of their planning process, the Board members completed a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) for the MSF and engaged in a dialogue on several current strategic issues.

A Strategic Plan

- Establishes direction and parameters
- Defines goals and strategies
- Is driven by mission, vision, and values
- Analyzes current strengths and challenges of the organization
- Identifies a strategic fit between the organization's goals and capabilities and emerging opportunities

Overall, the MSF Board affirmed the MSF's focus on safety, lifelong learning through high-quality curricular products, an open delivery system, and continued regular communication with stakeholders. The two-day meeting was a very productive one that showcased the high level of commitment from MSF Board members.

The MSF is sponsored by the U.S. manufacturers and distributors of BMW, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Piaggio/Vespa, Suzuki, Vengeance, Victory, and Yamaha motorcycles. **SC**



Making Sense of Crash Statistics

AS A RIDER education professional, you may need to field questions regarding crash statistics or news reports about motorcyclist fatalities. In order to give informed responses regarding the nature of those statistics, you may choose to do a little research into the statistics that are available. Table 1 lists many sources for obtaining motorcycle crash statistics, but not all of the statistics agree.

Table 2 shows the number of motorcyclist fatalities in 2002 reported by the three most-frequently used sources for crash statistics—the National Highway Traffic Safety Administration (NHTSA), the National Safety Council (NSC), and the Insurance Institute for Highway Safety (IIHS). As you can see, even the numbers from three reliable sources differ. One reason for this is that each agency uses a different source for their raw numbers:

- NHTSA (NCSA) bases its fatality statistics on Police Accident Reports requested from the appropriate state agencies and states. Information will vary from state to state because each state has different data collection and reporting standards.
- NCS notes that they use reports from nine state traffic authorities.
- The IIHS reports that their numbers come from the Department of Transportation, of which NHTSA is a part.

Another reason for differences lies in an agency's definition of a fatality. While you might think 'fatality' is easy to define, NCS defines a fatal accident as "an accident that results in one or more deaths within one year." NHTSA defines a fatal crash as one involving "a motor vehicle traveling on a trafficway customarily open to the public, [that results] in the death of an occupant of a vehicle or a nonmotorist within 30 days of the crash."

These slight differences do not make the numbers unreliable or useless, but it is important to remember when following crash statistics to pick a reliable source and stick with it. Don't try to compare numbers across agencies using different raw data sources that rely on different definitions of a fatality. Always compare NCS statistics with other NCS statistics or NHTSA statistics with other NHTSA statistics and read the footnotes

Questions to Ask Yourself About Statistics

- Where did the data come from? Is it a reliable source?
- What reason, if any, would the source have to enhance or distort the conclusions that are based on the statistics?
- Are all the data reported—not just the favorable or the unfavorable?
- Are the data reported in context?
- Are the data interpreted properly?

to check for consistencies in the source of the raw data.

Another area of difference in crash statistics is the use of a rate or percentage rather than a raw number. Table 2 reports the number of motorcyclists who died in motorcycle crashes as raw numbers. Raw numbers don't take into account any increase in the total number of motorcyclists or the overall number of motorcycle registrations. An

agency seeking to portray crash statistics accurately across years will most likely use a rate or percentage rather than a raw number.

While interpreting these percentages it is important to note the denominator—the number used to divide the raw number. For example, some reports note rate (or percentage) per Vehicle Miles Traveled (VMT). Other times, an agency will report rate per Registered Vehicles. Table 3 compares fatality rates for 2000 for IIHS and NHTSA and shows why comparing fatality rates with each other can be misleading.

In addition, the numbers used as denominators are estimates. The VMT estimate is derived from the Federal Highway Administration's Highway Performance Monitoring System—a very complex system based on algorithms. Some motorcyclists have questioned the validity of the estimates for motorcycle miles traveled since motorcycles are greatly underrepresented on America's roadways. (In

Injury Facts, 2001 Edition, NSC states that motorcycles make up only 2% of total vehicles registered.)

While it is possible to misuse statistics to support nearly any theory, the best defense against misuse is to look at the trends over time. The current trend is that both the raw number and the rate of motorcyclist fatalities have risen over the past five years, and motorcyclist fatalities are over-represented in the distribution of fatalities by vehicle type.

MSF-certified RiderCoaches represent a major influence in attacking the rise in motorcycle crashes. The MSF, through expansion of its Rider Education and Training System, will continue to provide the highest quality research-based curricula with courses and training opportunities. Together we can make tremendous progress toward a safer ride for all motorcyclists. **SC**

Table 1: Where To Find Crash Statistic Data

The National Highway Traffic Safety Administration (NHTSA) has five divisions connected with crash statistics. Their website references many technical reports, research notes, and presentations since November 2003 on topics related to crash statistics.

NHTSA's Crash Statistics Divisions:

- Fatal Analysis Reporting System (FARS)
- National Automotive Surplus System: General Estimates System (NASS: GES)
- Special Crash Investigation (SCI)
- Crash Information Research Network (CIRN)
- National Center for Statistics and Analysis (NCSA)

In addition to NHTSA, there are crash statistics and reports published by:

- The Governors' Highway Safety Association, National Safety Council (NSC)
- Insurance Institute for Highway Safety (IIHS)
- Highway Loss Data Institute (HLDI)
- National Center for Injury Prevention and Control (part of the Center for Disease Control, CDC)
- National Transportation Safety Board (NTSB)
- Federal Highway Administration (FHA)
- Department of Transportation (DOT) for each state
- State Websites

Table 2: 2002 Motorcyclist Fatalities

IIHS	NHTSA	NSC
3,162	3,244	3,200*

*An additional 100 reported for motor scooters and motor bikes.

Table 3: 2000 Fatality Rates

IIHS	NHTSA	NHTSA
66*	66.7*	27.7**

* Per 100,000 registered vehicles

** Per 100 million vehicle miles traveled



Where Should Riders Look? (cont.)

continued from page 1

enced drivers maintain their position in a lane (“lane keeping”) using peripheral vision. Their experiments supported the hypothesis that novices need central vision (at first) for lane keeping, but with practice learn to stay in a lane using more peripheral vision. As skills become habits, considerably less thought is necessary for lane keeping.

This means that RiderCoaches should avoid having novices look too far ahead in turning and cornering while they are still learning basic control responses. RiderCoaches should adjust their coaching to accommodate the various skill and perception levels of riders.

Encourage Aggressive Use of the Eyes

Development of the MSF RETS rests heavily on principles of human learning and development. Curriculum development, field-testing, and the ultimate release of a formal course of instruction must be based on the principles of how people learn and develop perceptual and motor skills. Adherence to principles and their proper application forms the basis for decision making in terms of curriculum content and instructional methods. RiderCoaches should have a basic understanding of visual processes so they can more effectively coach riders to develop the habits of the eyes and mind that are necessary for reducing risk and enjoying the ride.

During both classroom and range sessions, RiderCoaches should encourage the aggressive use of the eyes to recognize a hazardous situation or a potential problem and be familiar with the three eye lead times (see the box at right).

Go Where You Look?

Does a motorcycle go where its rider looks? Of course not. If this were true, a rider could simply avoid a crash by looking elsewhere. If this were literally true, a rider would swerve every time a blind spot was checked or a rider looked at beautiful scenery off to the side. To cause a motorcycle to move from a straight path of travel, there must normally be some physical input—the handlebars must be moved.

The science of motor skills development suggests that learners develop gross psychomotor skills first (the learner consciously tells the nerves and muscles what to do and they react) followed by the development of finer perceptual motor skills (the brain tells the muscles what to do without any conscious thought on the rider’s part). As a rider’s gross inputs lead to improved accuracy, the brain can then consider higher-order processes such as evaluating the interaction of factors further ahead.

Target Fixation

What’s the difference between target fixation and looking where you want to go? Target fixation is when you look at a fixed point for more than a couple of seconds. This may narrow the useful field of view and in extreme cases can

become inattentional blindness.

When riders turn or corner on the range, those who fixate on a given point in the distance might miss certain factors that are important for safety, such as surface conditions or proper path of travel. Riders on the street might miss objects in their immediate path of travel. A rider should look where he is going but avoid target fixation by moving his eyes throughout an intended path of travel. Riders should also realize that mental attention increases their useful field of view.

Turning and Cornering

Where should a rider look when turning and cornering? From the visual lead perspective, at least four seconds ahead in the intended path. This is the minimum amount of time necessary to straighten and brake in the best of conditions, but of course more time and space is better.

Ideally riders would be able to look, with short and frequent glances, 12 seconds ahead through a corner to evaluate the roadway and traffic factors that could affect speed, lane position, or path of travel. Although this may be possible on a motorcycle range, common roadway environments may not allow a full 12-second search because of factors such as natural terrain, surface obstacles, darkness, and traffic.

As riders practice their skills on the range, they should be encouraged not to stare at any one cone or any one point in their path of travel (target fixation). A rider must develop the ability to gather important information and transfer it into proper and skillfully-timed motor skills. RiderCoaches should encourage motorcyclists to keep their head and eyes up and look through turns. Although riders should pay attention to

where they are going, they should not be led to believe that a motorcycle simply goes where they look.

Evaluate Your Own Riding

Riding a motorcycle safely is more a skill of the eyes and mind than of the hands and feet. The mental aspect of effectively and efficiently negotiating the traffic jungle and the variety of riding environments is the cornerstone of safe and responsible riding.

RiderCoaches may be able to gain valuable insight into their personal riding habits and techniques by reflecting on what they actually do when cornering. When negotiating corners on your next ride, notice where your attention is. How far do you look through a turn? Do you spend your time looking at the end of the curve or at the tangent point? Is it the same for all curves or do you adjust for variations? How do you divide your attention between surface conditions and path of travel? How often do you catch yourself fixating? Can you tell the difference in your awareness when

continued on next page

Visual Lead Perspective

Following Distance The two-second following distance takes into account perception time (determining the need to stop) and reaction time (reacting with the brake controls). It is a minimum following distance that works at any speed when the braking distance of a vehicle and the vehicle it is following are generally the same.

Immediate Path The four-second immediate path generally corresponds to total stopping distance and provides the distance needed for an escape should a traffic or roadway problem suddenly develop. If skilled riders have four seconds of space to the front or sides in which to stop or maneuver, they are likely to have the time (and space safety margin) to avoid a crash.

Anticipated Path The twelve-second anticipated path provides enough time for a rider to assess potential factors that could interact to increase risk.



MSF Staff Updates

New Employee

THE MSF is pleased to announce Dr. Sherry Williams as its newest staff member. Williams, who was hired as the Director of Quality Assurance and Research, received her Ph.D. in Communication Studies from the University of Kansas in 1992. Many of you may already be familiar with Williams' work as Director of the Research Division at Albert Hydeman Associates (AHA), the independent research firm responsible for the Critical Review Summary and Student Survey Analysis reports that appeared in the Winter 2004 issue of *Safe Cycling*.

As an employee of AHA, Williams was involved with many MSF projects. She was part of the team that analyzed the data gathered from the Student Evaluation Form found in the BRC Rider Handbook. She was also part of the AHA team that evaluated the BRC RiderCoach Survey, Learning Center Post Assessment, and *DirtBike* Post Assessment.

In 2003, Williams was an external member of the team involved in writing the proposal that enabled the MSF to win the recently-awarded \$1.4 million California training contract.

Williams is also an invited member of RETSDOT (Rider Education and Training System Development and Oversight Team) where she has been involved in the initial design and subsequent pilot and field testing of the new MSF curricular products. As a member of the Evaluation Team, she helped design the evaluation process and instruments for MSF curricula and assisted in analyzing evaluation data.

Prior to working in the private sector, Williams was a sole



Dr. Sherry Williams,
Director of Quality
Assurance and Research

proprietor of her own consulting business, specializing in quality process training and management training and development. Williams was employed as an instructor and assistant professor in higher education venues for over 15 years, where she taught undergraduate and graduate students.

As an MSF employee, Williams will be responsible for developing a premier nationwide quality assurance program for the delivery of rider training with some focus on the California Motorcyclist Safety Program. She will also oversee the MSF RETS Discovery Project, a \$1 million landmark multi-year rider education study jointly funded with the National Highway Traffic Safety Administration. Williams brings a wealth of expertise in program evaluation, quality assurance, and research to the MSF and we are pleased that she has chosen to be a member of the organization.

Employee Resigns

The MSF is sad to announce that Elisabeth Piper, Director of Corporate Affairs, resigned at the end of 2003. During her five-year tenure with the MSF, Piper assumed the role of spokesperson with national media, including the four major broadcast networks. Additionally, she co-developed the media training protocol that continues to shape how we represent our members' best interests. Her direction in the development of our Public Policy Guide is yet another of her valued contributions. The MSF would like to thank Elisabeth for her time and wishes her the very best in her future endeavors. **SC**

Where Should Riders Look? (cont.)

you tell your eyes what to look for instead of relying on your eyes to pick up important factors?

Check what you do when performing *RiderCourse* exercise demonstrations to see if your eye movements match up. One of the best exercises in which to check these techniques is ERC Suite Exercise 9, Multiple Curves, where it is necessary to combine the good visual process of keeping the head up and eyes moving while maintaining a proper path of travel and lane position.

Make Your Coaching More Meaningful

Coaching is powerful when riders are provided timely tips that boost them to accomplish a mental or physical skill they otherwise would not learn on their own. It's what gives riders an advantage in developing motor skills or learning the critical strategies for riding on the road. This is why it is important that RiderCoaches understand the principles of the BRC and know the *whys* and not just the *hows* of safe riding techniques.

For additional information regarding the importance of visual perception and its connection to motor skill develop-

ment and identifying important clues in traffic, visit the MSF Rider Education and Training System Online Resource Guide (RETSORG). MSF continues to expand this valuable resource in an effort to provide RiderCoach resources to promote a better understanding of the mental and physical skills of safe and responsible motorcycle operation. **SC**

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2. Crundall, David E. and Underwood, Geoffrey. (1998). Effects of experience and processing demands on visual information acquisition in drivers, *Ergonomics.* 41(4), 448-458.
3. Recarte, Miguel A. and Nunes, Luis M. (2000). Effects of verbal and spatial—Imagery tasks on eye fixations while driving. *Journal of experimental psychology: Applied.* 6(1), 31-43.
4. Land M.F. and Lee, D.N. (1994). Where we look when we steer. *Nature.* 369, 742-743.
5. Summala, Heikki, Nieminen, Tapio, and Punto, Maaret. (1996). Maintaining lane position with peripheral vision during in-vehicle tasks. *Human factors.* 38(3), 442-451.

From the Editor

ONE YEAR AGO the MSF asked me to become the editor of *Safe Cycling*. I hope you've enjoyed reading the publication as much as I have enjoyed editing it. One thing that makes a publication good is feedback

from its readers. What types of articles do you want to see? What do you want to hear more or less about? What can *Safe Cycling* give you to help you become a better RiderCoach? Tell me what you think is good or bad about *Safe Cycling* so that I can make it as useful to you as possible. Send comments to SafeCycling@msf-usa.org. —Amy Holland



MSF 2004 Learning Centers

THE MSF is planning its 2004 Learning Centers at select locations around the country. Up to ten events will be held at locations that are central to clusters of RiderCoaches so as to reach the maximum number possible. The format of these Learning Centers will be different from last year's after-dinner meetings in which early Basic *RiderCourse* (BRC) and Experienced *RiderCourse* Suite (ERC Suite) experiences were discussed.

The 2004 Learning Centers will be one-day, conference-type events for 50 to 400 participants. Participants will include RiderCoaches, RiderCoach Trainers, program administrators and sponsors, and other stakeholders who have been involved in MSF motorcycle safety and training efforts.

Dates and locations are determined in part by soliciting feedback from state program administrators so as to minimize any possible interference with ongoing state motorcycle training activities. As dates and cities are confirmed,

Potential 2004 Learning Center Locations*

Albany, NY
Pittsburgh, PA
Madison, WI
St. Paul, MN
Charlotte, NC
St. Louis, MO
Knoxville, TN

Tallahassee (or Jacksonville), FL
*Other locations (including western states) are still being planned.

administrators, RiderCoaches, and others in the local area as well as surrounding states will receive RSVP invitations.

These Learning Centers are designed to provide professional development experiences related to the RETS. Activities will include such topics as a status report of the courses and components of RETS, highlights of new curriculum products such as the SeasonedRider Module and ScooterSchool¹ *RiderCourse* (working titles), review of the revised BRC Training Aids, status of the MSF/NHTSA Discovery Project, an update on

the MSF Rider Education Recognition Program, recertification processes, and updates on the content of the RETS Online Resource Guide (RETSORG). Other topics that may be included are ethics in training, diversity, and harassment issues.

There is no conference fee and lunch will be provided by MSF. State program personnel involvement is welcome. In addition, there may be area experts present to talk about issues related to motorcycling and motorcycle safety. **SC**



The BRC Comes to California

SINCE BEING AWARDED the contract to administer the California Motorcyclist Safety Program (CMSP) late last year, the MSF has conducted 16 two-day updates to convert current CMSP instructors to BRC-certified RiderCoaches. Seven of the updates were held at Safety Center, Inc. in Sacramento and nine were held at the American Honda Rider Education Center in Colton.

The updates were conducted in the learner-centered fashion of the BRC with participants being given responsibility for their own learning early in the process. After modeling



CMSP
California Motorcyclist
Safety Program

one classroom unit and one range exercise, facilitators guided the participants through peer teaching of an entire BRC.

The updates ended with a brief familiarization of the ERC Suite and a summary of the framework and guiding principles of RETS (Rider Education and Training System).

To date, 367 instructors have completed the update and are ready to conduct the BRC and ERC Suite offerings in California. The MSF is pleased to welcome these new RiderCoaches to the growing family of dedicated motorcycle enthusiasts/coaches across the nation. **SC**



RETS Lexicon—A Specialized Vocabulary

LIKE MOST DISCIPLINES, the MSF has its own unique language—words, phrases and acronyms—that are closely associated with rider education and training. The MSF will soon post (on the RETSORG portion of its website) a RETS lexicon consisting of hundreds of specialized terms and phrases commonly used in traffic safety education and motorcycle safety and training.

While many of the terms will be familiar to RiderCoaches, some new ones associated with the principles of RETS and *RiderCourses* will be included, and the lexicon will be the basis for expanding the professional knowledge base for MSF-certified RiderCoaches.

The RETS lexicon will be a core component of the online

library. Items will include an appropriate definition as well as a brief explanation of its application in MSF programs; but this is just the beginning. As the website and the RETS lexicon expand, there will be links provided that will include further details and perhaps even include graphic representations of the meaning or related application.

As many of you know, there are five knowledge subcategories in RETSORG—safety and risk, adult learning, motor skills development, motorcycle consumer, and of course RETS-specific knowledge. With your help and involvement, the RETS Lexicon will provide a framework for continuing learning opportunities as it progressively improves the breadth and depth of RETSORG. **SC**



Government Relations

A CORE OBJECTIVE of the MSF Government Relations Office is to maintain and strengthen state motorcycle safety programs. The MSF has lobbyists in a number of states who assist the MSF in its effort to save funding by highlighting to state legislators and the Executive Branch the need for motorcycle rider education and safety programs. MSF staff directs the activities of these lobbyists. In states where the MSF does not have lobbyists, we provide comments and information to legislative committee members and state governors that stress the vital importance of these cost-effective state programs.

The majority of state legislatures convened in the beginning of January, and the following bills (some of which were introduced in 2003 and carried over to this year's session) are of interest to the motorcycle safety community.

Arizona

House Bill 2300 appropriates \$125,000 to the governor's office of highway safety for its motorcycle programs for the 2004–2005 fiscal year.

Indiana

Senate Bill 395 would allow courses offered by a motorcycle dealer to be considered approved motorcycle driver education and training courses under the state Motorcycle Operator Safety Education Program.

Maryland

House Bill 27 provides for additional penalties for failure to yield right-of-way to another vehicle if the violation contributes to an accident resulting in bodily injury or death of another person. If the violation results in injury, an additional \$500 penalty is incurred; if the violation results in death, an additional \$1,000 is incurred. When the right-of-way violation involves a motorcycle, the bill requires that all new fines collected will be used to fund the Motorcycle Safety Program.

Michigan

House Bill 5327 would require motorcycle operators 18 years of age and older to successfully complete an approved motorcycle safety course in order to be issued a temporary motorcycle instruction permit by the Secretary of State. Under current law, successful completion of an approved motorcycle safety course is only required for motorcycle operators who are under the age of 18.

Minnesota

House Bill 318 requires the Commissioner of Transportation to design and erect signs promoting motorcycle safety. The signs are to be erected as closely as possible to locations where a motorcycle fatality occurred within the past three years. The Commissioner would be required to convene an advisory committee to advise on the design of the signs and their placement. The Advisory Committee would consist of four members appointed by governor, three members (with expertise in design and placement of traffic signs) appointed by the Commissioner, one member of the House of Representatives, and one member of the Senate. The bill also provides that the Commissioner cannot erect a

sign unless it is determined that it will not result in loss of any federal funds to the state and that the cost of erecting, maintaining, and replacing the signs will be paid from non-state sources.

Mississippi

Senate Bill 2013 would establish a state rider education program. Mississippi is one of only three states without a program. Motorcycle license applicants would be exempt from the written and skills tests if they present satisfactory evidence of successful completion of an approved rider training course.

New York

Two similar bills would create a Motorcycle Safety Advisory Council in each transportation region of the state to study and report on road conditions, to recommend improvements in the highway system, and to establish a toll-free hotline to report hazardous road conditions. Each council would have 12 members, all of whom must currently hold (or have held) a New York motorcycle license. Another bill would increase penalties and set fines for persons convicted of right-of-way violations resulting in bodily injury or death. Half of the fines collected for any right-of-way violation (even those that do not involve a motorcyclist) would be deposited in the Motorcycle Safety Fund.

South Carolina

Senate Bill 629 requires the Department of Transportation to design and erect signs promoting motorcycle safety. The signs would be placed as closely as possible to locations where a motorcycle fatality has occurred within the past three years. The Department would be required to convene an advisory committee to advise on the design and placement of the signs. The Advisory Committee would consist of four members appointed by governor, three members (with expertise in the design and placement of traffic signs) appointed by the Director, one member of the House of Representatives, and one member of the Senate. The bill also provides that the Commissioner shall take no action to erect a sign unless it is determined that the action will not result in loss of any federal funds to the state and the cost of erecting, maintaining, and replacing the signs will be paid from non-state sources.

Virginia

House Bill 532 codifies current motorcycle rider safety training center program regulations into law. It also provides for private entities to conduct motorcycle safety training programs and be recognized by the state in the same manner as subsidized programs.

Washington

Senate Bill 6439 requires the superintendent of public instruction to include MSF-approved motorcycle safety awareness information in instructional material used in traffic safety education courses. This will ensure that new motor vehicle operators will receive instruction in the importance of sharing the road with motorcyclists. **SC**



Discovery Project Update

ON FEBRUARY 4, 2004 representatives from the MSF met with NHTSA project managers and researchers to kick off the joint MSF-NHTSA Rider Education and Training Discovery Project. (See *RETS Discovery Project*, Winter 2004, for more details on the project.) Through a cooperative agreement, this landmark three-year project will study crash avoidance skills at one or more training sites that are providing every course offered in the Rider Training and

Education System (RETS). In addition, the MSF will develop more curricular products and motorist awareness materials for use by the project sites and by other MSF delivery partners.

The kick-off meeting consisted of preliminary discussions of the project work plan including the study design, methodologies, and prospective participants. There is still much work to be done and more discussions will take place before data collection begins. **SC**



MSF Online Store

TO ORDER ANY of these official MSF products, visit the MSF Online Store at www.msf-usa.org or call 949.727.3227, Ext. 3023.

Range Card Holster

If you're tired of stuffing your range cards into your back pocket, you'll love our new RiderCoach Range Card Holster. The Range Card Holster is made of strong, water-resistant black nylon and sports the attractive MSF logo embroidered above a red RiderCoach insignia. The Range Card Holster can be strapped anywhere on your belt and is held in place by strong Velcro® strips. A deep pocket holds your range cards while a smaller pocket can be used for carrying writing utensils, a small snack, or even a cell phone for emergency use. \$9.



RiderCoach Guide Cover

The RiderCoach Guide Cover (RCG Cover) provides the RiderCoach-on-the-go with a convenient place to store (and transport) all the materials necessary for the classroom. Measuring 11.5" square, the RCG Cover is made of



water-resistant black nylon and features easy-to-grab zipper pulls, an embroidered MSF logo, a red RiderCoach insignia, and a convenient outside pocket for those need-in-a-hurry items.

Inside you'll find plenty of nooks and crannies for your guide, exams, videos, and more with two Velcro-secured pockets (one 2.75" x 3.75" and one 6" square), three pen holders, a clear vinyl slot for your motorcycle license or business cards, and three document pockets. And in between all those pockets, there are 3" of depth for holding books or videos. \$15.

RiderCoach Whistle

The next time you need to get attention, save your voice by using a RiderCoach Whistle. The RiderCoach Whistle comes attached to an MSF lanyard so it can be worn around your neck, or simply detach it via a quick release connector and carry it in your pocket. The



RiderCoach whistle has an attractive MSF logo on top, a compass on one side, and a thermometer on the other. \$3. **SC**