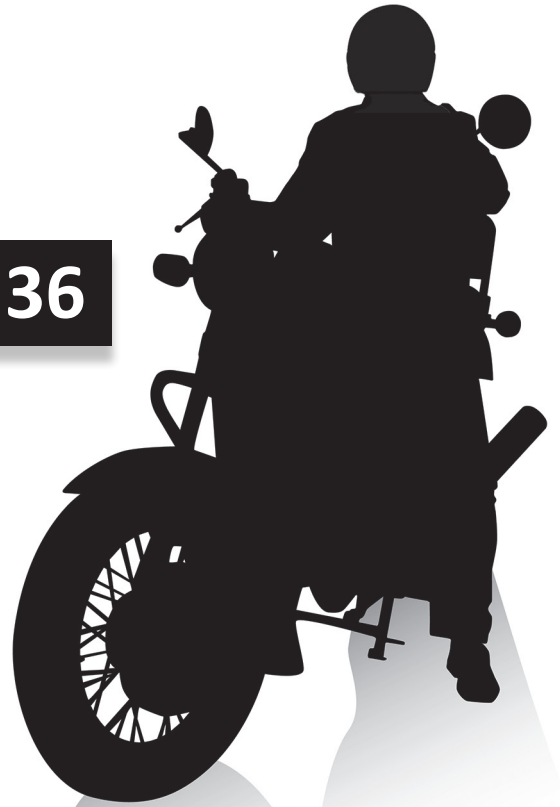




Motorcycle Mentorship Module 36

Advanced Training for Motorcyclists





Warning: Incorrect or inaccurate information could lead to tragic results on the road. If a question arises that is not covered in the guide and you don't know the answer from your own experience and training, simply state, "That is a great question, I'll get back to you with the answer."

Your Service Safety Center will help with these types of questions should they arise. Their numbers are as follows:

US Army Driving Directorate: **334.255.3039**

USMC Safety Division: **703.604.4459**

US Navy Shore Safety: **757.444.3520 x7165**

US Air Force Safety Center: **505.846.0728**

USCG Safety Division: **202.475.5206**



Preface

About: The Defense Safety Oversight Council (DSOC) Motorcycle Mentorship Modules are a set of thirty six (36) facilitation modules designed for the purpose of increasing rider knowledge on various aspects of riding and providing additional capability for self-policing within peer groups. The modules are intended as a mechanism to further decrease motorcycle related mishaps and fatalities within Department of Defense (DoD) by encouraging riders to talk, live, and think about the topic.

Using the Module: The module content enclosed is intended as a facilitation guide to assist you with discussing the topic. However, it is still critical to use your skills and talent to engage participants and develop “buy-in” on this subject from your group. To maximize this, motivate and moderate your participants, control the accuracy of participant feedback, and be mindful of their time.

Page	Section
2	Facilitation Guide – A brief overview on conducting a facilitated discussion of a topic
3	Module Overview – This section provides the facilitator a synopsis of the topic, learning objectives, and the suggested environment, props, and handouts for conducting the module
4	Module Discussion Introduction – This section provides guidance to the facilitator in opening up the discussion and getting participants talking about the topic and their relevant experiences
4	Discussion Areas – This section provides various discussion topics, sample facilitation questions, and factual information for the facilitator to lead the discussion
6	Wrap-Up – This section provides guidance to the facilitator on wrapping up the topic discussion
7	Feedback Form – A feedback form to be given to all participants for their feedback on the module discussion
8	Resources – Additional resources and definitions to assist the facilitator in preparing for and conducting the topic facilitation
N/A	Handouts – Figures, pictures, diagrams, etc. to assist the facilitator to better demonstrate a topic idea

Facilitation Guide for DSOC Mentorship Modules

It is recommended that this Mentorship Module be conducted in a facilitation style. Using the information provided in this Mentorship Module, you, as the facilitator, will lead a discussion on the subject. *You should not be conducting a lecture!* The facilitator's role is to help with how the discussion is proceeding. Participants will have much more "buy in" and connectivity with the information if they have input. One of your roles as the facilitator is to control the accuracy of the input and control the time. From the Mentorship Module, generate questions which will lead to group discussion. The more you let the group participate, the more success you will have.

Competencies of a Facilitator:

- Prepare prior to the event
- Make sure everyone gets a chance to participate and help members to express themselves
- Ask rather than tell
- Honor the group, display respect for the members, and acknowledge participant contributions
- Ask for others' opinions
- Listen without interrupting
- Demonstrate professionalism and integrity

The key characteristic distinguishing facilitation from other types of leadership, like scripted training, is that the outcomes are never predetermined in a facilitative setting. Although the background information provided with this Module remains the same, the result will depend on the participants, the knowledge and experience they bring, and the information that they feel they need to take away. The group uses the activities provided by the facilitator to unlock expertise, ensure thorough discussion, stay focused and reach decisions that are better than those any individual could come up with alone.

At the beginning of each Mentorship Event, discuss why the participants are there and what they will receive as a result of participating. Adults have limited time and they want to know "What's in it for me?" A facilitator should make training fun. Encourage humor and laughter in your Mentorship Event.

Principles of Adult Learning:

- Adult Learners want material that is relevant to them. "What's in it for me?" "What will I get out of this that will make a difference to me?"
- Adult Learners come to training events with varying amounts of experience. They like to share their experiences. If you have minimal or no motorcycle experience, you can still draw from your group.
- Even if you have motorcycle experience, you should draw from your group because people tend to remember what "they" said longer than what you said. Information that they "own" is more valuable to them.
- Facilitators are not always subject matter experts; nor do they need to be. Facilitators may draw on the existing knowledge of the participants and the information provided in these Modules.

Section I: Module Overview

Time Frame: One 30-40 minute facilitator-led discussion

Level of Prior Knowledge: The facilitator should understand basic to intermediate level skills required to safely ride a motorcycle. Facilitator should identify the advanced training opportunities available in the area and schools/opportunities included in the Resources List at the end of this module.

Synopsis: Initial motorcycle training is necessarily limited to basic techniques. Certain simple concepts are introduced initially to safely teach a skill or technique that may be modified later and during intermediate training—such as cornering techniques. Advanced skills and techniques require rider mastery of basic riding before the rider is introduced intermediate or transitory rider skills such as: advanced rider posture or braking strategies. The tools taught in basic training classes such as the Motorcycle Safety Foundation Basic RiderCourse (BRC), MSF Basic RiderCourse II (BRC2 – formerly known as the Experienced RiderCourse or ERC) are basic in nature while the Military Sport-bike RiderCourse (MSRC) and Advanced RiderCourse (ARC) add necessary intermediate skills required for rider preparation for advanced training such as professional on-road instruction or track schools.

This tiered, building block approach to Basic, Intermediate, and Advanced motorcycle rider training provides riders with skills and knowledge that improves crash avoidance and desirable behaviors when responding to hazardous environments and situations. This module will presume that attendees have established intermediate skills and wish to take their abilities to the next level by identifying advanced skills possessed by superior riders; additionally, the facilitator may suggest advanced training opportunities available to the participants.

Learning Objectives:

- Participants will understand why there is a need for advanced training.
- Participants will understand the various skill areas that benefit from continued training.
- Participants will know what advanced training opportunities are available in their area and the advantages of each.
- Participants will know where to go for additional education about advanced riding techniques.

Suggested Environment/Props/Handouts:

This module can be facilitated in any comfortable environment. Handouts should consist of a contact list of advanced training opportunities available within the general geographical area or, at a minimum, utilize the attached resources page for contact information and examples of advanced motorcycle training opportunities; recommended reading, websites/forums and other resources and information.

Section II: Module Discussion

Introduction: Discuss risks that novice or under-skilled riders face and the possible consequences. Encourage a brief discussion about motorcycle crashes that the participants may have witnessed. Lead discussion toward what might have been done differently in those situations to avoid the mishap.

“In a crisis, you don’t rise to the occasion. You sink to the level of your training.”

— John Rennie, Editor, Scientific American. September 2000

Suggested Discussion Areas:

Discussion Area 1: Advanced Skills and Their Benefits

Introduction: Beginning riding classes are designed to provide riders the skills to ride in a straight line, turn, shift and brake. Intermediate training refines this skill-set into a more complete rider capable of dealing with more intricate and/or dangerous situations. While these skills are appropriate, and indeed describe the majority of riders, Advance Training either takes these skills to a higher level or replaces them entirely with new and more refined skills to enable the rider to maneuver the motorcycle with a high level of precision and control. We will explore some of the specific skill areas that highly skilled riders and road-racers exhibit. In addition, we will discuss how advanced riders use these skills to reduce the potential for crashes and ‘near-misses’.

Facilitation Questions:

- What are some advanced riding techniques for cornering, braking and negotiating turns? (Items 1, 2, 3, 4 below)
- Why would you lean your body further into the turn rather than simply increasing motorcycle lean angle? (Item 3 below)
- What are some of the advantages of leaning your body further into the turn? (Item 3 below)
- Why would it be important to know how to stop quickly in a turn? (Item 4 below)
- How do you define effective braking? (Item 4 below)
- What do you do differently when it comes to cornering and braking in situations where the available traction is limited? (Items 2, 3, 4, 5 below)
- What can you do to more effectively manage time and space in traffic? (Item 5 below)
- What other skill areas came up from the discussion?

Advanced Techniques:

- 1. Trail braking:** Note that a very common misconception is that Trail-Braking involves using the rear brake only in a turn. The generally accepted definition of Trail-Braking is a motorcycle braking technique where the brakes are used beyond the entrance to a turn and are gradually released up to the apex of the turn. An advanced rider can use the technique of “trailing off” the braking pressure after turn-in has begun. This allows for more refined suspension stabilization, more acute traction management, and a less abrupt and more accurate final corner entry speed adjustment.
- 2. Late Apex:** Within the context of motorcycling, the apex of a turn is referred to as the point where the motorcycle is closest to the inside of the corner; not necessarily the center of the corner. Because of a motorcycle’s need to lean to go through corners and the risk associated with excessive lean angles or extended lean duration, it is desirable to limit both lean time and angle as much as possible. Therefore a popular technique is to delay the apex, the point where the vehicle is closest to the inside of the corner, then lean quickly to the angle necessary to negotiate the turn and returning to upright as quickly as is feasible.
- 3. Advanced Riding Posture:** Proper body position while cornering can have positive effects no matter what kind of bike you ride. A body position that is slightly forward and in toward the turn will allow the motorcycle to have less of a lean angle. Less bike lean angle means better traction and more ground clearance. Proper cornering posture starts with the balls of the feet on the foot pegs and works up from there. Seating position should be established before the turn because moving even a few inches while mid-turn can have a big effect on suspension, weight distribution and handling. Moving slightly forward and hugging the tank is a good place to start. This also helps keep weight off your hands and wrists on the bars. Arms and shoulders should be relaxed and hands should have a light but complete grip. The head and shoulders should move slightly into the turn with the chin oriented near or over the inside wrist.
- 4. Threshold braking or limit braking** is a technique most commonly used in racing, but is also one of the two practicable skills most likely to save an on-road motorcyclist’s life. Maximum braking should be practiced regularly and routinely for on-road motorcycles. Threshold braking is defined as the ability to slow a vehicle at the optimum rate using maximum braking without skidding. The technique involves the rider controlling the brake pedal and/or lever pressure to maximize the braking force developed by the tires. The optimal amount of braking force is developed at the point immediately prior to the wheel beginning to slip. In other words, the tires are at the “threshold” of losing traction. Braking beyond the slipping point causes the tire to slide and the friction adhesion between the tire and road surface is reduced. The aim of threshold braking is to keep the tire from slipping while applying maximum braking force and it is this delicate balance point that an advanced rider using threshold braking tries to maintain. These principles are just as true in situations of limited traction such as rain-slick roads.

[**Note:** A good place to practice is on a motorcycle training range or parking lots not used during the weekend. If using an abandoned parking area stay on the lookout for traffic that may suddenly enter the lot. It is always best to have a partner to help watch out for unexpected hazards entering your practice area.]
- 5. Scanning** is a term for constantly shifting visual focus from one area of concern for the rider to another; keeping one’s eyes moving, and continually changing awareness of surroundings. Too often, people become ‘lazy’ about constantly updating their assessment of threats in their vicinity. Being more aware of surroundings allows a rider to better manage time and space margins to avoid or prepare for hazards

Discussion Area 2: How to Develop Skills and Find Training Locations

Introduction: Every region has different skill development opportunities, clinics and classes. Some of these incorporate a closed parking lot, a track environment, an off road component or even an on-street experience. Here we will discuss local opportunities from participant members with past experience and provide information about the various training schools, seminars, riding workshops and track days available within a reasonable drive from the host location.

Facilitation Questions:

- Where can you go to learn about group training?
- Which of the rider's skills would most likely benefit from advanced training?
- What are the real-world advantages of taking advanced training classes?
- Invite a discussion about any advanced training that the participants may have previously taken.
- Discuss advantages/disadvantages of local classes by reviewing the experiences of the participants with advanced training providers.

Facilitator Facts:

1. The attached resources list has a number of schools and websites to visit for more information on advanced training opportunities.
2. All motorcycle riding is a combination of four skills: Riding in a straight line, turning, shifting and braking. Rider competency with these four skills varies considerably but even the most accomplished rider can benefit from good instructional training and practice.

Wrap-Up:

Invite participants to share how this discussion has changed their view of their current skill levels and their need or desire for more advanced training. What advanced training courses are of interest to you? Are you considering signing up for an advanced training course? Would anyone consider coordinating an advanced training opportunity for the group?

Distribute copies of the DSOC Motorcycle Mentorship Module Evaluation form to all participants and request that they deliver or mail the completed form to the Command or Command Safety Office for processing.

Remind everyone to ride safe, and see you at the next Mentorship Meeting.

DSOC Motorcycle Mentorship Feedback Form

Presenter Name:

Date:

Topic/Title:

Unit Number:

Please review each statement below and check the response that closely matches your experience in the Mentorship Module today:

1. Please rate the presenter's performance:

Prepared Not Prepared Engaging Not Engaging Led Discussion LECTURED

Comments:

2. I was given opportunities to participate in the module's discussion

Never Only Once 2-4 Times Many Times Throughout Discussion

Comments:

3. With regard to my personal riding experiences, this discussion was:

Relevant Not Relevant Interesting Not Interesting

Comments:

4. This discussion topic has provided me with specific learning points that I can use to be a safer, better informed rider

None One Idea or Fact 2-4 Learning Points 5 or More

Comments:

5. I would be interested in participating in other Motorcycle Mentorship Module discussion topics

Never Again Willing to Try Another Module Would Like to Do Modules Regularly

Comments:

Thank you for your participation. Please make note of any other suggestions or comments below (continue on the back if needed):

Deliver or mail this completed form to the Command or Command Safety Office for processing. Please do not return this form directly to the Module Presenter.

Resources

Continued Reading:

Christensen, Loren (1998). *Far Beyond Defensive Tactics – Advanced Concepts, Techniques, Drills and Tricks for Cops on the Street*. Boulder, CO: Paladin Press

Code, Keith (1983). *A Twist of the Wrist* (Vol. I). Glendale, CA: California Superbike School, Inc.

Code, Keith (1993). *A Twist of the Wrist* (Vol. II). Glendale, CA: California Superbike School, Inc.

Condon, Ken (2009). *Riding in the Zone*. Conway, New Hampshire: Whitehorse Press

Hough, David (2010). *Proficient Motorcycling : the Ultimate Guide to Riding Well*. Irvine, CA: Bowtie Press

Hough, David (2012). *More Proficient Motorcycling: Mastering the Ride*. Irvine, CA: Bowtie Press

Ibbott, Andy (2006). *Performance Riding Techniques – The MotoGP Manual of Track Riding Skills*. Newbury Park, CA: Haynes North America, Inc.

Ienatsch, Nick (2003). *Sport Riding Techniques: How To Develop Real World Skills for Speed, Safety, and Confidence on the Street and Track*. Phoenix, AZ: David Bull Publishing

Motorcycle Mentoring Module #36: Advanced Training for Motorcyclists

Motorcycle Safety Foundation, (2005). *The Motorcycle Safety Foundation's Guide to Motorcycling Excellence*, 2nd Edition. Irvine CA: Whitehorse Press

Parks, Lee (2003) *Total Control – High Performance Street Riding Techniques*. St. Paul, MN: Motorbooks International

Websites to visit:

California Superbike School:
<http://superbikeschool.com/>

Kevin Schwantz School: <http://www.schwantzschool.com/index.cfm/p/courses>

NESBA Track Days: <http://www.nesba.com/>

Police Rodeo Style Courses – check by state

Ride Like A Pro: <http://www.ridelikeapro.com/>

Stayin' Safe – Advanced On-Road Rider Training:
<http://stayinsafe.com/>

Total Control Advanced Riding Clinic – Lee Parks School: <http://totalcontroltraining.net/>

Wheels-in-Motion – list of training sites by state:
<http://wheels-in-motion.com/USA.html>

Yamaha Champions Riding School:
<http://www.millermotorsportspark.com/riding-school/yamaha-champions-riding-school>

Cornerspeed: <http://www.cornerspeed.net/>

Cornerspin: <http://www.cornerspeed.net/>

American Supercamp:
<http://www.americansupercamp.com/>

Forums, Blogs, etc.

Beginnerbikers.org: <http://www.beginnerbikers.org/>

Faster Safer: <http://fastersafer.com/>

Motorcycle Training Forum:
<http://motorcycle-training-forum.com/>





ACKNOWLEDGMENTS

This module was developed collaboratively through the Defense Safety Oversight Council's (DSOC) Private Motor Vehicle Accident Reduction Task Force (PMV TF), Service Safety Centers, Line Leaders, Military Riders, National Safety Council, and the Motorcycle Safety Foundation. The DSOC wishes to recognize the organizations and the Service Men and Women who made this Motorcycle Mentoring Module possible.

Some of the principal contributors to this effort include the following:

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Major General Margaret Woodward, USAF, PMV TF Chair
Colonel John "Odie" Slocum, USAF, PMV TF Vice-Chair
Major Alejandro Ramos, USAF, PMV TF Executive Secretary
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Captain Richard D. Jones, US Naval Safety Center
Mr. Walter Beckman, US Army Ground Driving Task Force
Mr. Peter Hill, HQMC SD, PMV-2 Working Group Chair
Mr. John Waltman, HQMC SD
Mr. Dave Kerrick, US Naval Safety Center
Mr. Don Borkowski, US Naval Safety Center
Mr. Bill Parsons, USAF Safety Center
Mr. Mark Erpelding, USAF Safety Center
Mr. William Walkowiak, USAF Safety Center
Mr. Arthur Albert, USAF Safety Center
Mr. Dale Wisnieski, USCG Traffic and Recreational Safety
Ms. Wendy Medley, US Joint Bases Subject Matter Expert
Ms. Debra Ann Ferris, National Safety Council
Dr. Ray Ochs, Motorcycle Safety Foundation
Ms. Karen F. Nelson, Concurrent Technologies Corp.
Mr. Robert A. Gardiner, Concurrent Technologies Corp.
Mr. Steve Kurtiak, Global Support Services
Mr. Zack Sionakides, Cape Fox Professional Services

