

Rider Choices Save Lives: How the Motorcycle Safety Foundation (MSF) is Challenging Riders to See more, Think more, and Learn more!

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A Presentation to

Women in the Wind - 2013 Summer Nationals
Crystal City – Arlington, VA
June 2013

The presentation gives an overview of how the Motorcycle Safety Foundation has been focusing on producing programs for smart motorcyclists who want to have some serious fun since 1973! Our programs utilize past and current research in the fields of traffic safety, psychology, adult learning, and motor skills development. The presentation summarizes previous and current research in the area of perception and conspicuity, including the most important conspicuity mechanism – the motorcyclists' awareness, judgment and strategies. The MSF's work on advanced behavioral-based training designed to significantly improve a rider's perceptual capacity and her strategic conspicuity is reviewed. In addition, a general update of MSF programs and services is provided.



Rider Choices Save Lives: How the Motorcycle Safety Foundation (MSF) is Challenging Riders to See More, Think More, and Learn More!

Dr. Sherry Williams
Director, MSF Quality Assurance & Research

See More!

- And BE SEEN more!

Conspicuity (con-spik-CUE-i-tee):

A term used to define the condition of being "visible", "easy to notice" or "obvious"; the ability of an object to draw attention to itself, even if no one's actively searching for it. Rider conspicuity, therefore, is the ability of a motorcyclist to draw attention to themselves, even though other drivers may not be actively looking for them.

“I didn’t see the motorcycle.”



2 vehicle, at fault:
MC: 30-70%
OVD: 30-70%

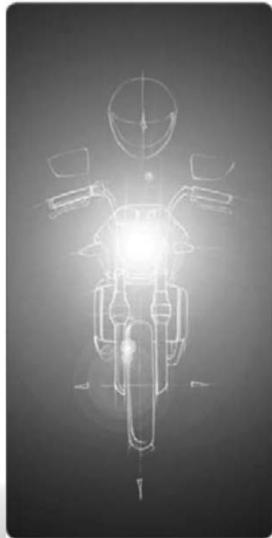
Man drives into a rockslide:

http://www.youtube.com/watch?feature=player_embedded&v=qBmE92n5mEI

Conspicuity: Lights



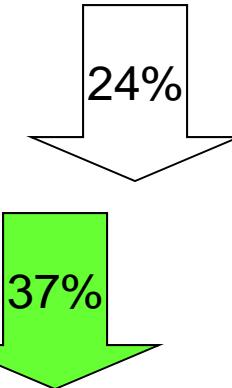
- Day time lights – small effect
- T-shape recognized faster



Conspicuity: Gear



- White helmet lowers risk compared to black
- Reflective or fluorescent gear lowers risk
 - Hurt report
 - Consider the age of the report (1981)
 - Population proportion of neon – white gear compared to black
- Some inconsistencies



Conspicuity: Motorcycle



- Motorcycle
 - Reflective material on frontal area studied



- Contrast & Context
 - High contrast needed in low salience condition
 - Object/Background dependent
 - Hole et al. (1996): the contrast between motorcyclists and background plays a considerable role in motorcyclists' conspicuity.



The Limits of Conspicuity: Cognitive Conspicuity



Has an emergency vehicle ever snuck up on you?



What is the make up of a typical highway traffic scene?

- Expectation-dependent
 - Langham et al. (2002) suggest that even highly conspicuous objects (like a police car with flashing lights) will not be identified quickly enough as a potential hazard if a driver's expectations are not equal to the actual traffic situation.
 - Common objects (89%) versus uncommon objects (48%)
 - Car drivers who are also licensed motorcycle riders are involved in fewer car-motorcycle collisions than car drivers who do not hold a motorcycle licence (Magazzù, Comelli and Marinoni, 2006).
- Little crash data is currently available on this issue.

A Rider-Based Solution, CHOOSE Strategic Conspicuity

- Awareness
- Judgment
- Strategy
 - Adaptable to situation
- Self Reflection leading to Rider Improvement
- Many possible responses under a motorcyclists control – most are not skill based.

Improving Awareness / Perception

http://www.myvidster.com/video/249582/The_monkey_business_illusion

the invisible gorilla

We truly are arguing that directing our eyes at something does not guarantee that we will consciously see it.

the invisible gorilla



And Other Ways Our Intuitions Deceive Us

Christopher Chabris and Daniel Simons

the invisible gorilla

The problem is not with the limitations on motor control, but with limitations on attention resources and awareness.

the invisible gorilla



And Other Ways Our Intuitions Deceive Us

Christopher Chabris and Daniel Simons

You're riding down the road.

What do you see in this scene?









"I have the right-of-way."

Agree or Disagree?

Our eyes don't necessarily tell our brain what we see; rather our brain tells our eyes what to look for.

An organizing schema





The screenshot shows the homepage of the MSF website. At the top left is the MSF logo. To the right are links for "Naturalistic Study of Motorcyclists", "The New MSF CORE Curriculum", and a "MSF Update" section for Washington DC on 3-31-10. Below the logo is a navigation bar with links for RiderCourse Info, Library / Safety Tips, Host An Event, MSF News, MSF Products, RiderCoach Info, Training Site Support, State Laws and Reports, Donate to NMSF, and Contact/FAQ. A search bar is also present. A message "Version Espanola Aquí!" is displayed above a map of the United States with state outlines. A callout box highlights "Armed Forces Locations". Below the map are instructions for finding a RiderCourse: "Click on your state above", "Call (800) 446-9227", and "Select from the list below". A dropdown menu shows "Find a RiderCourse". A large number "5,571,445" is displayed, with the text "Students have graduated from MSF RiderCourses since 1974. 400,000 motorcyclists enroll in our courses each year." To the right, there are four video clips: "Welcome to the Ride" (5 min), "Basic RiderCourse Highlights" (5 min), "Group Riding" (10 min), and "Common Road" (3 min). A red circle highlights the "RIDER PERCEPTION CHALLENGE!" section at the bottom right, which includes a "Click Here" button and information about a training class offered by the Foundation.

Version Espanola Aquí!

Armed Forces Locations

3 Ways to Find the RiderCourseSM Nearest You:

- Click on your state above
- Call (800) 446-9227
- Select from the list below

Find a RiderCourse

5,571,445

Students have graduated from MSF RiderCourses since 1974. 400,000 motorcyclists enroll in our courses each year.

Key Messages:

1. Get trained and licensed
2. Wear protective gear -- all the gear, all the time -- including a helmet manufactured to the standards set by the DOT
3. Ride unimpaired by alcohol or other drugs
4. Ride within your own skill limits
5. Be a lifelong learner by taking refresher rider courses

Free Safety Tips for Car Drivers & Motorcyclists

Ian Ziering Talks About Motorcycle Safety:

Welcome to the Ride
5 min - Discover the diverse aspects of street motorcycling. Welcome to the club!

Basic RiderCourse Highlights
5 min - Explore our hands-on, 15 hour, Basic RiderCourse training program.

Group Riding
10 min - Learn about riding formations, pre-ride meetings, hand signals, and more. [Host an Event](#)

Common Road
3 min - Learn how car drivers can share the road safely with motorcyclists.

Left-click image to play; right-click to download.
You may use the above video clips for your own projects.

RIDER PERCEPTION CHALLENGE!
Test the limits of your perceptual abilities.

Click Here ➔

Take a hands on, half-day training class for entry-level scooter riders offered by the Motorcycle Safety Foundation®

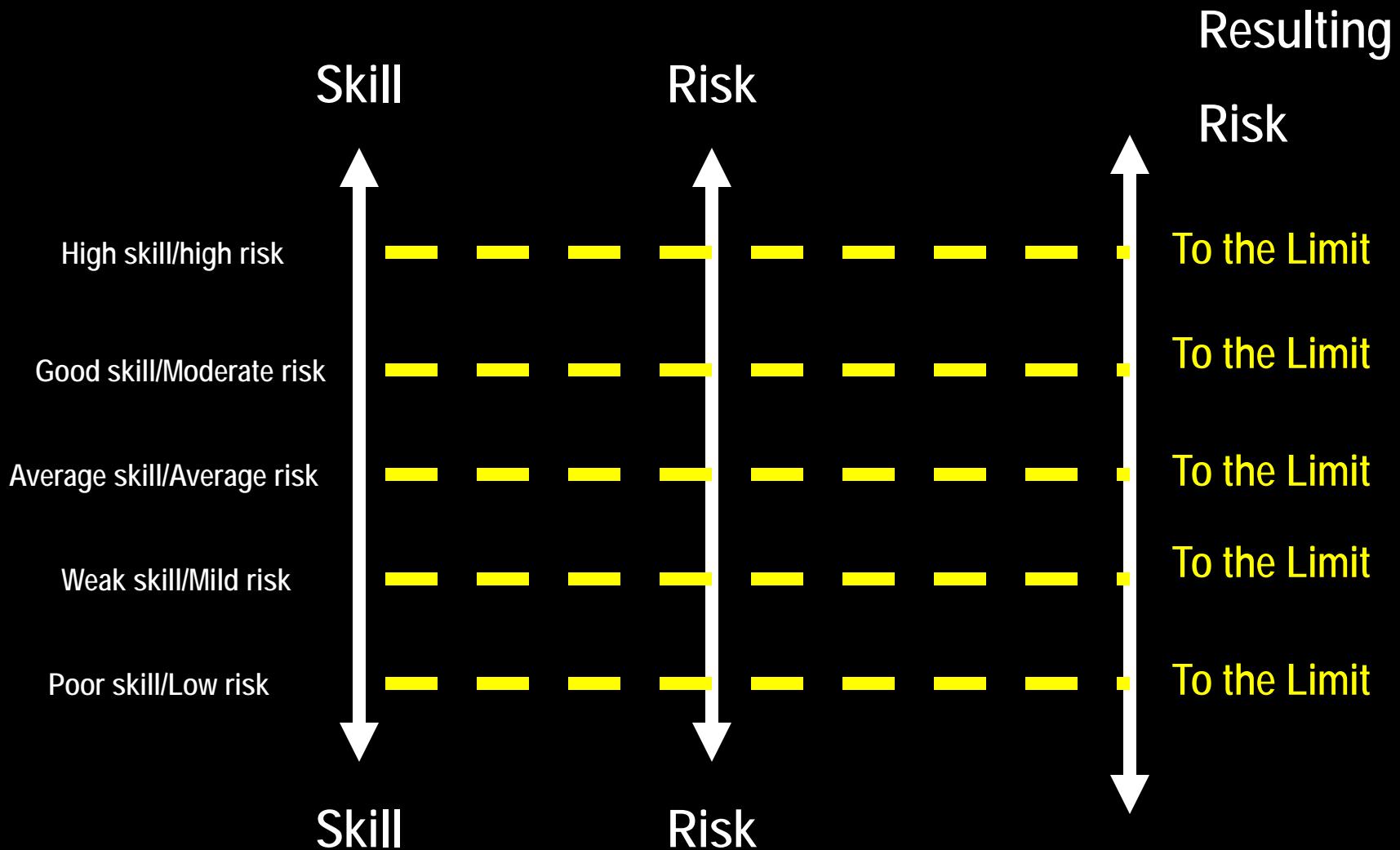
Visit Website ➤

Think More!

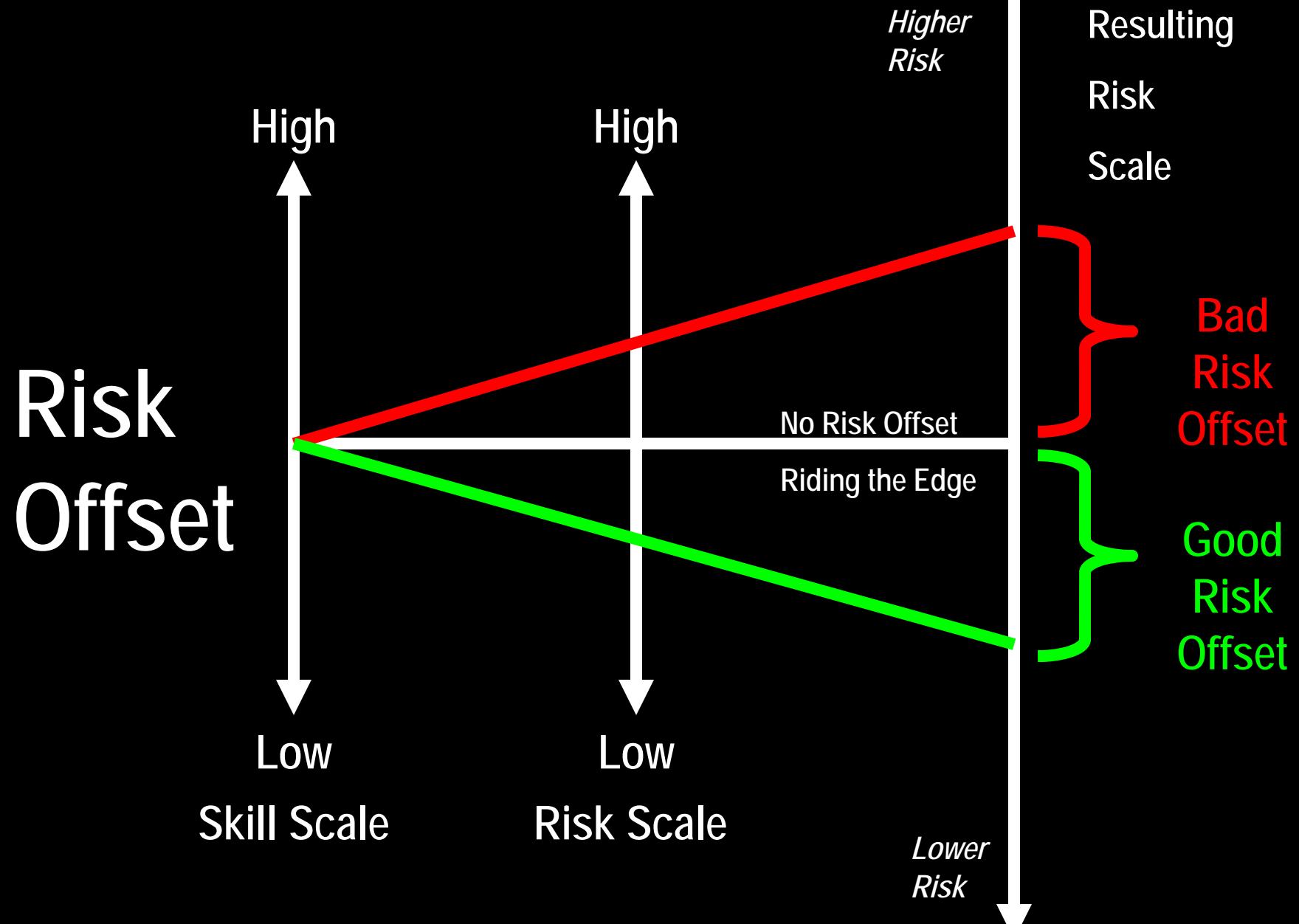
- CHOOSE to:
 - Engage in Self Assessment
 - Employ a Riding Strategy
 - Be Aware of Risk Factors
 - Manage Risk

- Serious About Safety
- Safe Riding versus Risky Riding
 - It is fairly easy to distinguish between safe behavior and risky behavior.
 - Sometimes the choice to behave safely or otherwise is easy to see, but difficult to make.
 - A rider's approach to safety (could be called attitude) often is more exposed by what a rider does versus what a rider says.
 - Safe riding behavior involves both a general attitude about safety, but more importantly it reveals itself in the moment-to-moment choices a rider makes.

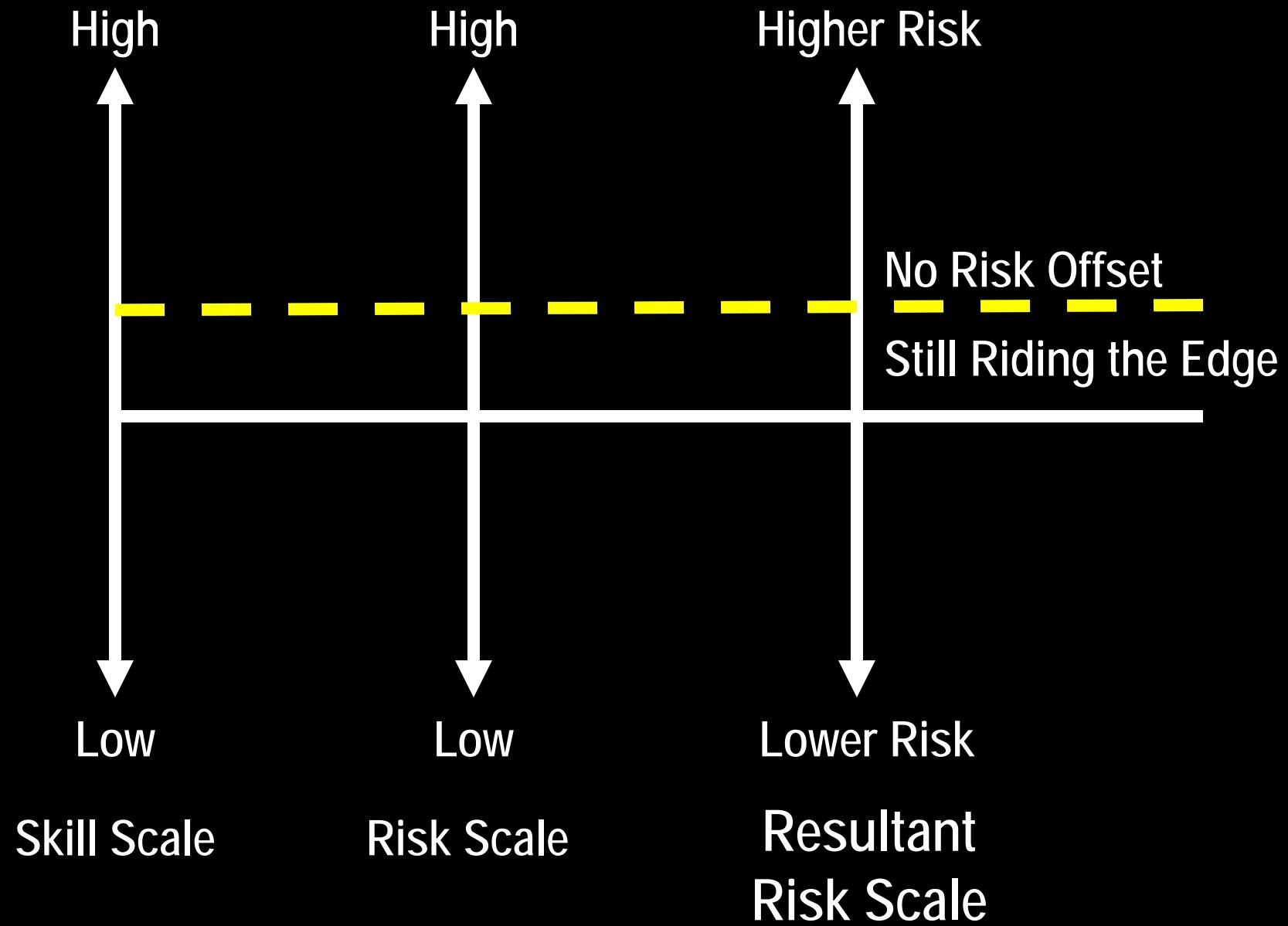
Self Assessment: Skill and Risk



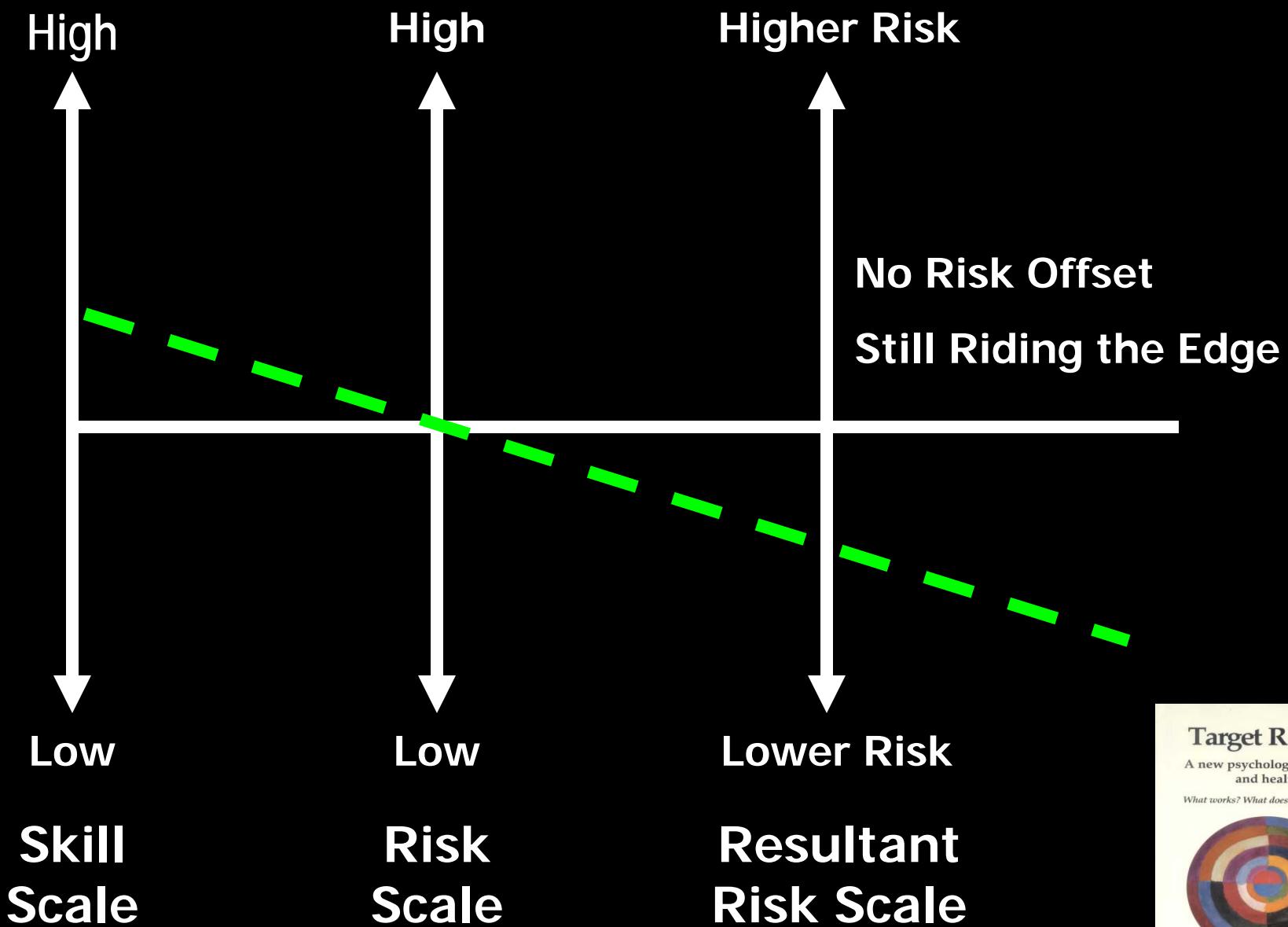
Overall & Moment-to-Moment



Value of safety training if higher risks are taken?



Value of safety training!



Are you a Level IV Rider?

Level 0 = Self taught and/or rides without a license

Level I = Completes a learn-to-ride course & licensed

Level II = I + Completes additional courses

Level III = II + Reflects on experiences

Level IV = III + Lifelong learner & subconsciously safe

A Level 4 Rider



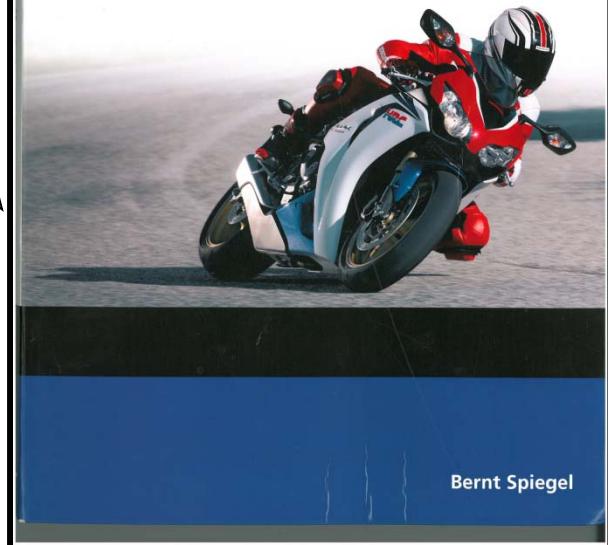
The Upper Half of the Motorcycle

Improvement requires a constant intent to improve.

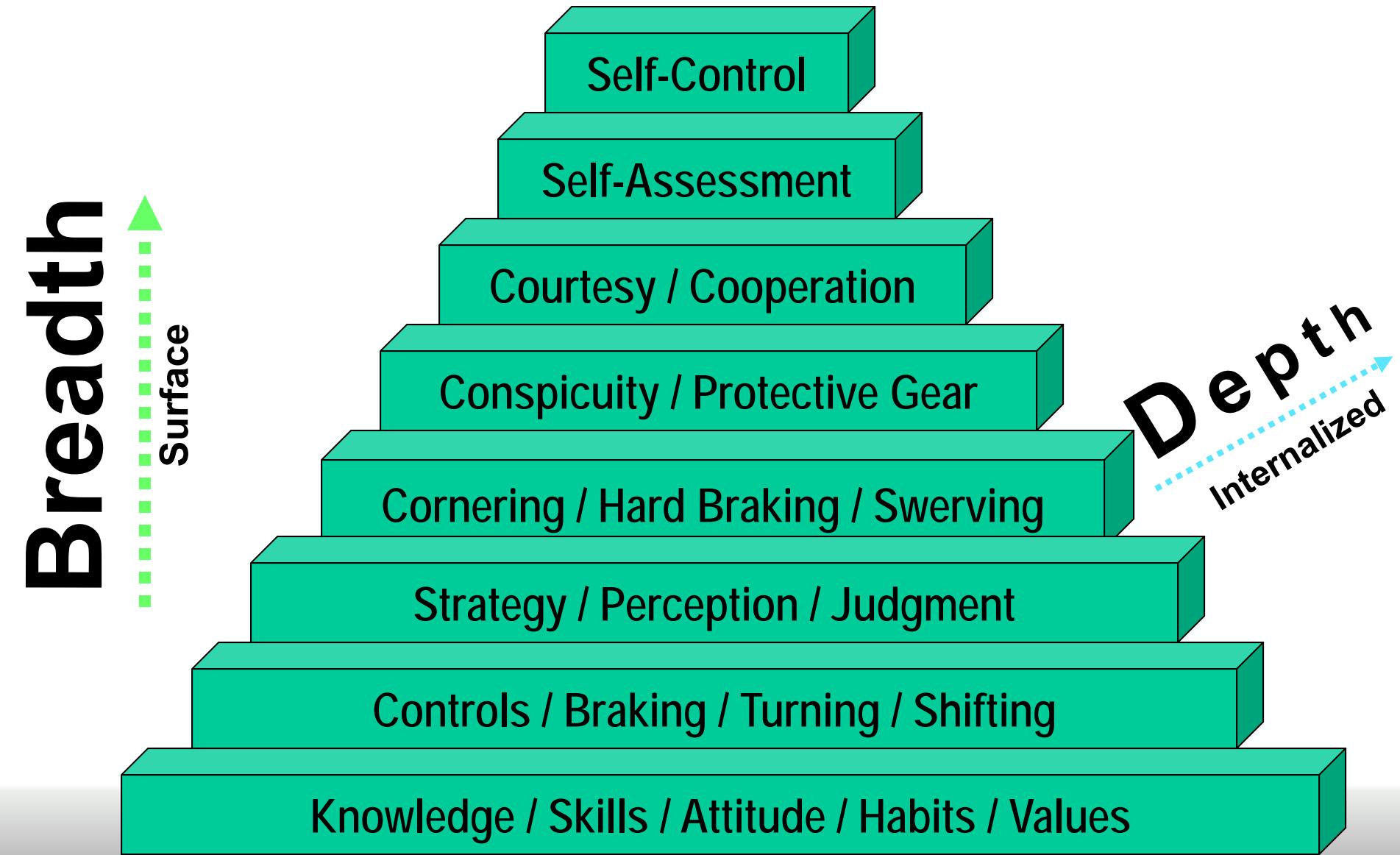
The implementation and maintenance of this intent is a task that requires the utmost in rational control, which is a *duty*—a “*leadership duty*”—of *the conscious self*.

**The Upper Half
of the Motorcycle**

on the unity of rider and machine



Self Assessment: Competencies & Abilities



Learn More!

- Choose Lifelong learning
 - One course is not enough
 - It's not an inoculation
- Safety Renewal is the key

■ ■ ■ **Last year MSF curricula were used to train over 500,000 riders (6 million riders to date)**

Thanks to...

- 9,499 certified *RiderCoaches*
- 275 certified *RiderCoach Trainers*
- Over 10,000 certifications
- 1,102 RERP Sponsors managing 2,691 sites
- State, Military, Other Administrators



MSF RETS



Learning-to-Ride

Basic RiderCourse (BRC)
Standard
Expanded
Small Group
Tutoring
Skills Practice
Formal Remedial Training

Basic RiderCourse 2
License Waiver
Skills Practice

Street RiderCourse 1

Basic Bike Bonding RiderCourse

Returning Rider BRC

3-Wheel BRC

Scooter BRC

Improving-the-Ride

Street RiderCourse 2

Advanced RiderCourse

Safe Motorcyclist Awareness and Recognition Trainer (SMART)

Ultimate Bike Bonding RiderCourse

MSF Kevin Schwantz RiderCourse

Street RiderCourse 3

Specialized Programs

Introductory Motorcycle Experience

ScooterSchool: Introduction to Scooters RiderCourse

Military Motorcycle RiderCourse

Military SportBike RiderCourse

DirtBike School: DirtBike BRC

Trail Riding RiderCourse

State Education Programs

Online Programs

Host-An-Event

Intersection – Motorist Awareness

Share the Adventure – Group Riding

Street Smart – Rider Perception

Riding Straight – Alcohol Awareness

SeasonedRider – Aging Awareness

Introduction to Motorcycling – Non-Rider Awareness

Essential Core

Basic RiderCourse
Street RiderCourse 1
Basic Bike Bonding RiderCourse

Expanded Core

Essential Core plus

Street Smart – Rider Perception

Advanced RiderCourse

Street RiderCourse 2

Recommended Core

Expanded Core plus

Ultimate Bike Bonding RiderCourse

MSF Kevin Schwantz RiderCourse



Rider Perception

SMARTrainer

Basic Bike-Bonding RiderCourse

Ultimate Bike-Bonding RiderCourse

Street RiderCourse

3-Wheel Basic RiderCourse

Scooter Basic RiderCourse

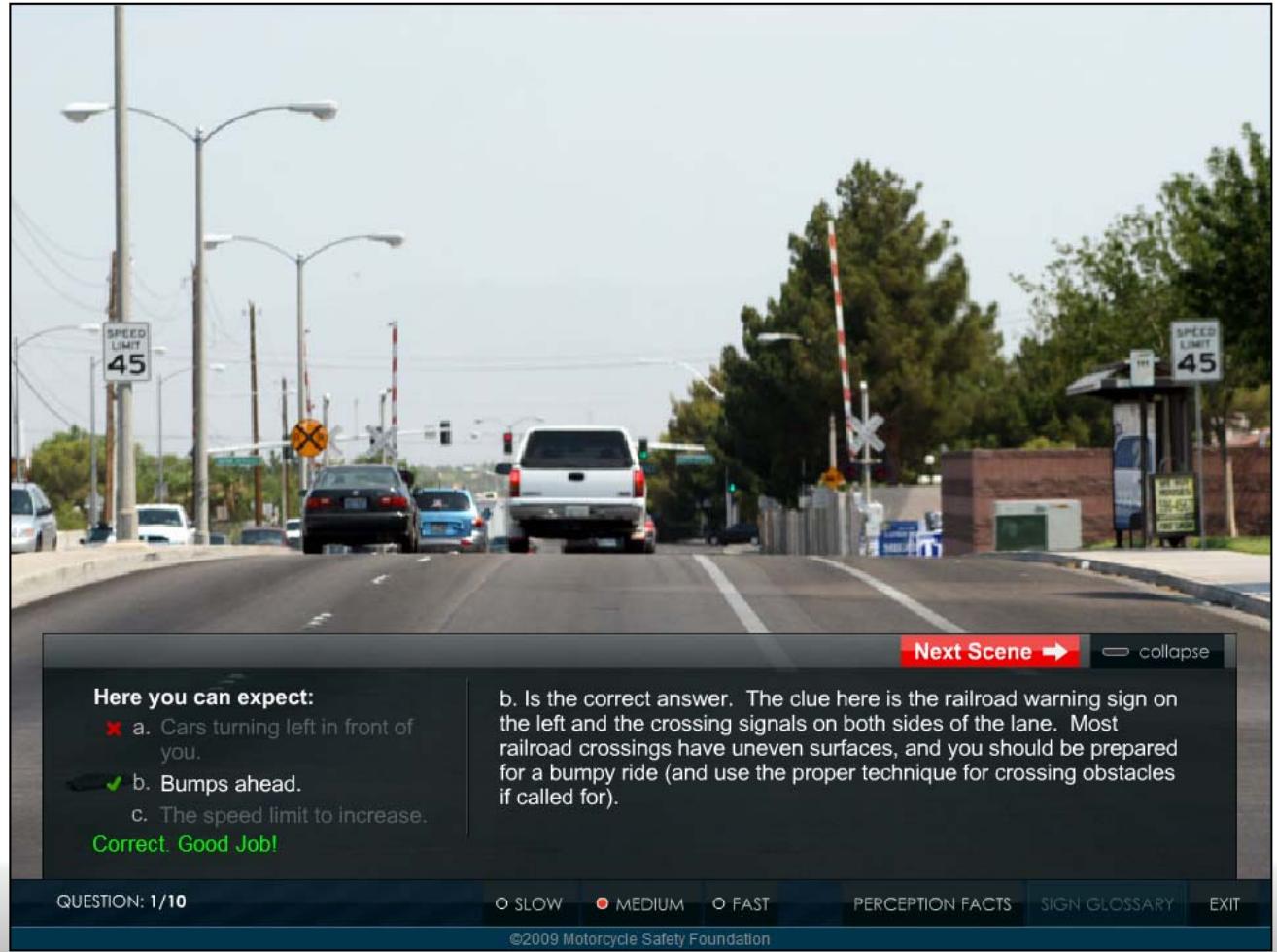
Military Sportbike RiderCourse

Advanced RiderCourse

||||| Rider Perception

Modern visual technology

Improves rider's perceptual skills



Here you can expect:

- a. Cars turning left in front of you.
- b. Bumps ahead.
- c. The speed limit to increase.

Correct. Good Job!

QUESTION: 1/10 SLOW MEDIUM FAST PERCEPTION FACTS SIGN GLOSSARY EXIT

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SMARTainer



Hazard perception

Risk management

Play back and coaching

■■■■■ ***Basic Bike-Bonding RiderCourse***

■■■■■ ***Ultimate Bike-Bonding RiderCourse***

Drills on skills

Slow speed
focus

Fine motor
skills





Street RiderCourse (SRC 1, SRC2)



Light residential
riding

Light suburban
traffic

Complex traffic
situations

||||| **3-Wheel Basic RiderCourse**

Same concepts as Basic *RiderCourse*, now applied to 3-wheel motorcycles



////// *Scooter Basic RiderCourse*

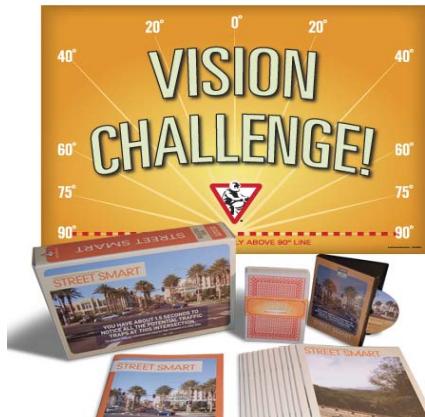


Same
concepts as
Basic
RiderCourse,
now applied
to scooters

■ ■ ■ **Modular-type courses provide:**

- More breadth and depth
- Multiple points of entry and renewal
- Individualized coaching
- Segmented learning opportunities
- Distributed practice





Intersections – All Roadway Users

Share the Adventure – Group Riding

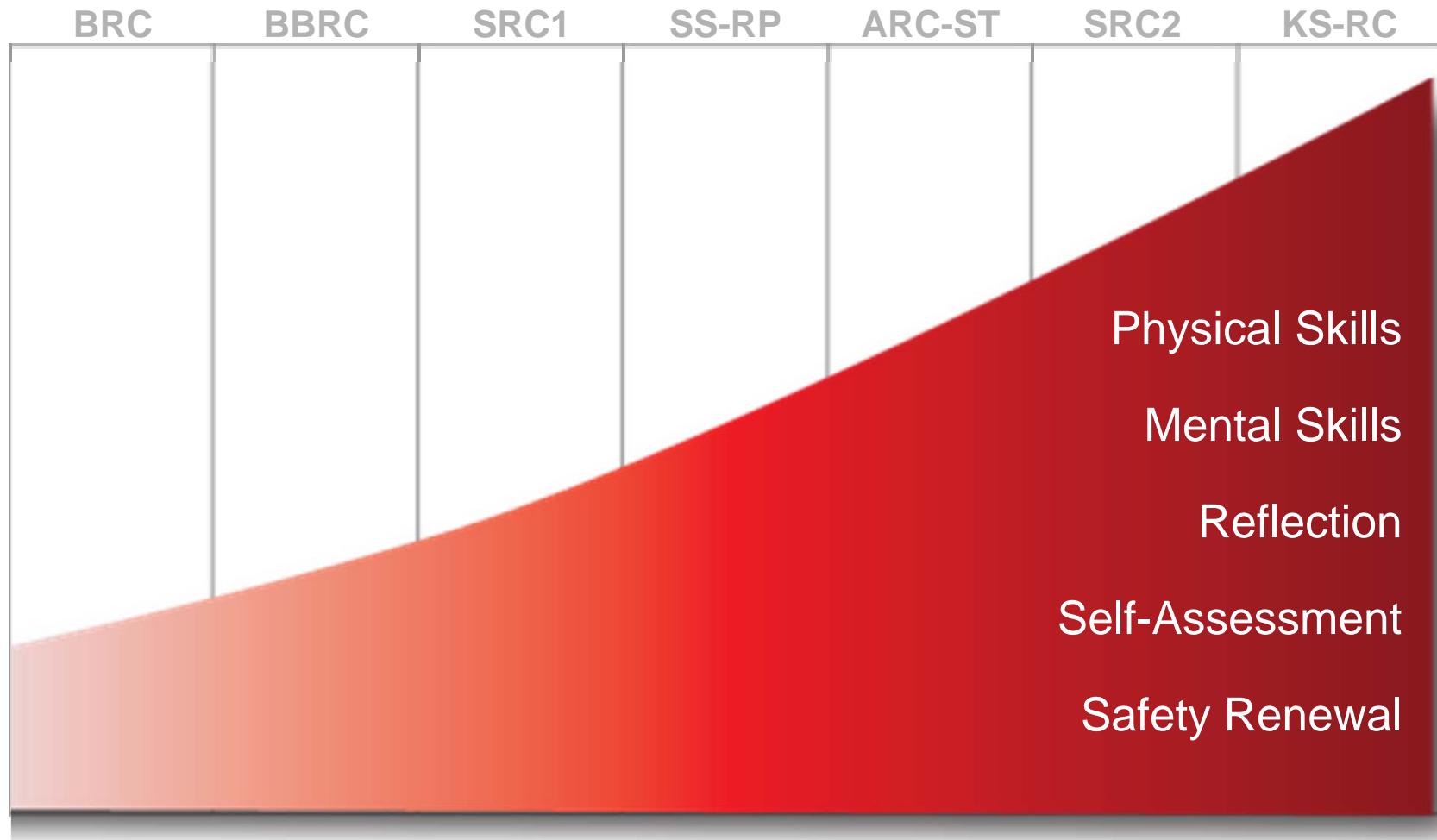
StreetSmart – Rider Perception

Riding Straight – Alcohol Awareness

Seasoned Rider – Aging Awareness



Developing the Whole Rider



 ***Continuum of Learning***

Motorcycle Safety Foundation Education Technology



Tim Buche Motorcycle Safety Foundation

Tim is President and Chief Executive Officer of the not-for-profit trade associations: the Motorcycle Safety Foundation (MSF) 501(c)(6) and National Motorcycle Safety Fund (NMSF) 501(c)(3).

The Motorcycle Safety Foundation promotes lifelong learning for motorcyclists and is the premier, internationally recognized developer of the comprehensive, researched-based, Rider Education and Training System. The MSF actively participates in government relations and safety research, creating curricula, licensing tests and materials for rider safety education, and oversees a network of more than 9,500 MSF RiderCoaches worldwide. The world's first, large-scale naturalistic study of 100 motorcyclists is underway in three states and in collaboration with the Virginia Tech Transportation Institute. The MSF contracts to manage five state motorcycle safety programs with combined budgets of more than \$8 million and tuitions paid to training providers of about \$18.6 million.



ON THE ROAD



Tim Buche

- On-line
- Rider Education & Training
- iBooks
- iTunes U
- Research
- Future Projects





Engaging. Interactive. Online. Educational Delivery Systems.

MSF eCourse



About the MSF eCourse



On-line content delivery of an extensively reworked interactive rider handbook containing interactive modules, videos, graphics, voice over and text; all broken into chapters which have gated tests and cannot be skipped unless the user passes each test with a score of 80% or better.

A screenshot of a computer screen displaying the MSF Basic RiderCourse eCourse. The interface has a black header bar with the MSF logo and "Basic RiderCourse" text. Below the header is a video player showing two hosts, a man and a woman, standing in front of a motorcycle. The man is identified as "Gunner Wright Actor/Motorcyclist". To the right of the video player is a sidebar with "Course Objectives" and a brief welcome message. At the bottom of the screen are navigation buttons for "NAV HELP", "GLOSSARY", and arrows, along with a progress indicator showing "Course page: 1.1".

On-line learning is a widely accepted means for cognitive learning and the delivery of educational material. The MSF BRC eCourse stands alone as a learning tool and works in conjunction with the newest Basic RiderCourse. It is expected to take the average student 3-4 hours to complete. The student can save their work and return at any point. Upon successful completion the student receives a completion certificate.

Access Anywhere



- » There are a number of scenarios for which the eCourse provides value:

- As a precursor to the newest Basic RiderCourse
- As a supplement to the existing Basic RiderCourse for those individuals who wish to learn more
- As an orientation tool for new riders seeking information about riding who will ultimately end up taking a hands-on course or not
- As a refresher course for *returning* riders who wish to brush up on safety concepts
- As a refresher course for *existing* riders wishing to brush up on safety concepts

The screenshot displays the MSF Basic RiderCourse mobile application. At the top, the title "Basic RiderCourse" is visible next to the MSF logo. A navigation bar includes "MENU" and "Basics for Emergencies". The main content area shows two video thumbnails of a rider on a motorcycle navigating turns. To the right is a sidebar menu with sections like "Course Introduction", "Motorcycle Types", "Controls and Equipment", "About Basic Operation", "Preparing for Ride", "Risk and Riding", "Basic Street Strategies", "Strategies for Common Riding Situations", and "Basics for Emergencies". Under "Basics for Emergencies", there are links for "Section Overview", "Braking Systems", "Emergency Stop in a Straight Line", "Emergency Stop in a Curve", "Front Tire Skid", "Rear Tire Skid", "General", "Special Riding Situations", "Rider Impairments", "Ride Preparation", and "Conclusion". At the bottom of the screen, there are navigation controls for "NAV HELP", "GLOSSARY", and arrows, along with "Course page: 9.4" and an "EXIT" button.



Engaging. Interactive. Online. Educational Delivery Systems.

MSF iBooks exclusively for the iPad





Rider Choices: An effective discussion tool to help a friend or family member have a serious conversation with a prospective motorcycle rider about a safe way forward. From risk management principles, to training, motorist awareness, personal protective gear, and even a 'Contract for Safety' that both parties can sign to affirm the wise choices the parties agree to. Rider Choices facilitates a meaningful discussion, one that can lead to an informed decision about whether to ride.

Intersection Share the Road: This book is intended to increase awareness of motorcyclist and scooter riders on the roadway. It illustrates potentially hazardous situations through the eyes of different types of motorists and illustrates why intersections in particular can be so dangerous. The main theme is that all motorists, regardless of their driving experience or the type of vehicle they drive need to be aware of motorcyclists sharing the road with them.

Intersection Leaders

Guide: This course is designed to assist those interested in preparing for and facilitating a group discussion about all aspects of drivers and commercial drivers sharing the road with motorcyclists.





Engaging. Interactive. Online. Educational Delivery Systems.

Apple iTunesU courses by MSF



An Adventure in Motorcycle Physics

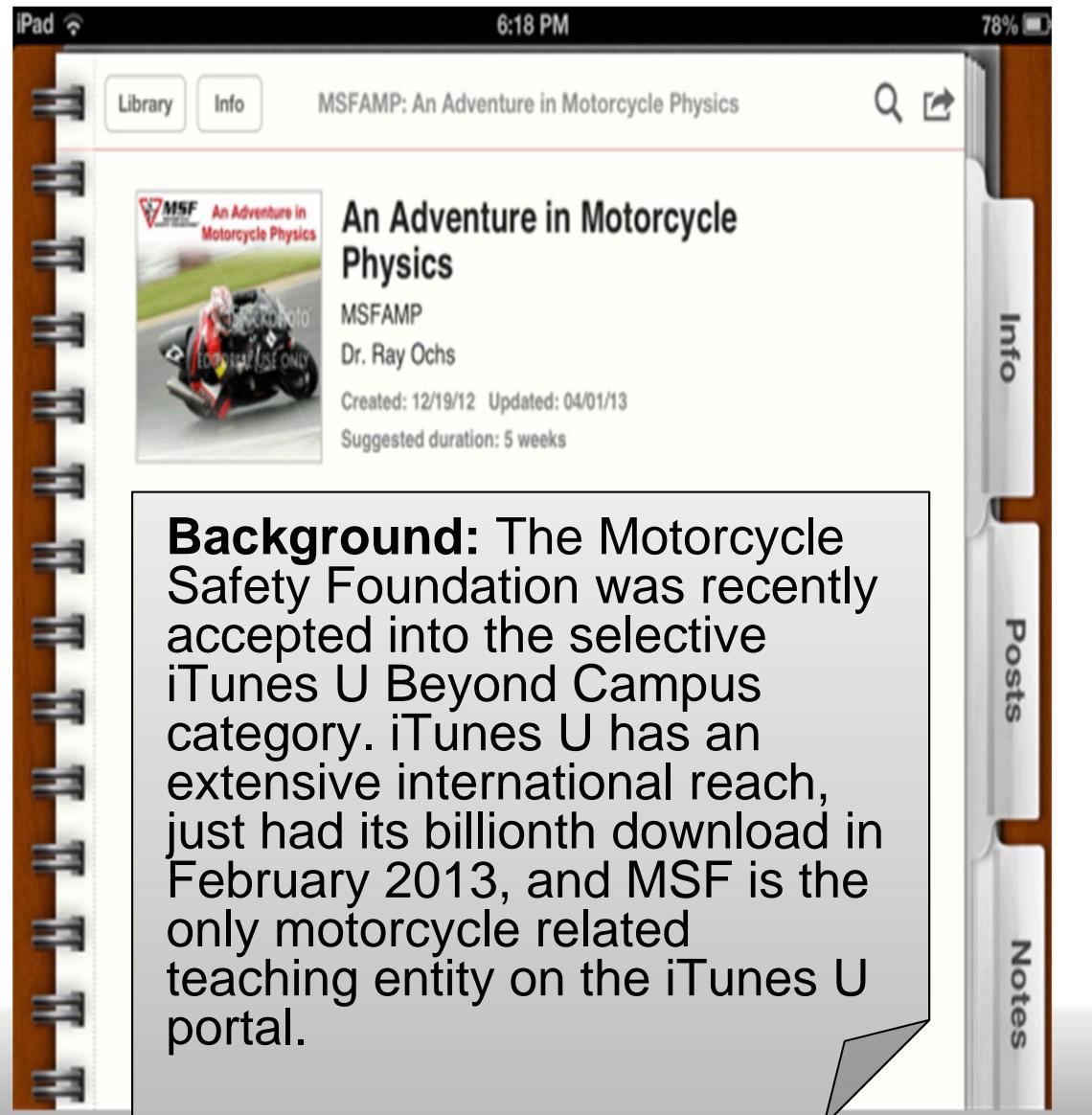
Writers on Writing

Cars: Past, Present, and Future

An Adventure in Motorcycle Physics:

A structured self-paced five week course made up of materials taken from the Motorcycling Excellence book which is comprised of various contributors, and videos from the 'All about Motorcycling' DVD. At the end there is an interactive 20 question final exam which scores the student. People who enroll in the course can reach out to the instructor, Dr. Ray Ochs, with questions and comments.

This is one of MSFs most unprecedented opportunities to reach hundreds of millions of current and potential motorcycle riders with safety related messages, awareness campaigns in an entertaining and engaging way.

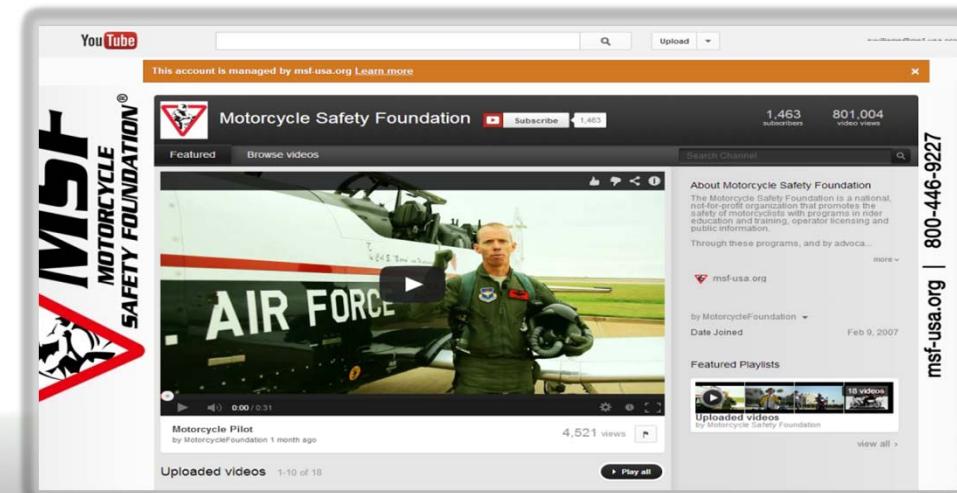
A screenshot of an iPad displaying an iTunesU course page for "MSFAMP: An Adventure in Motorcycle Physics". The screen shows a thumbnail image of a motorcycle rider, course title, author (Dr. Ray Ochs), creation date (12/19/12), update date (04/01/13), and suggested duration (5 weeks). The right side of the screen has a vertical sidebar with tabs for "Info", "Posts", and "Notes". A large text box on the right contains the following text:

Background: The Motorcycle Safety Foundation was recently accepted into the selective iTunes U Beyond Campus category. iTunes U has an extensive international reach, just had its billionth download in February 2013, and MSF is the only motorcycle related teaching entity on the iTunes U portal.



Engaging. Interactive. Online. Educational Delivery Systems.

MSF YouTube



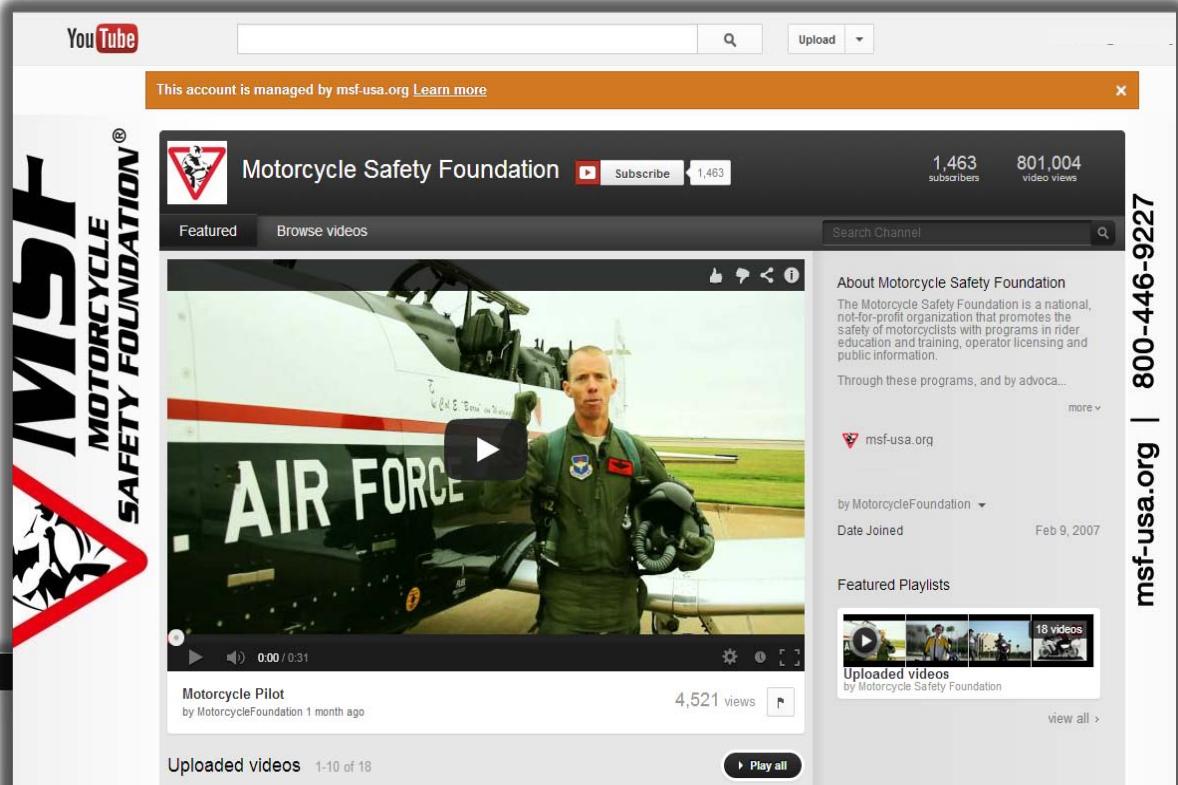
The screenshot shows the YouTube channel page for the "Motorcycle Safety Foundation". The channel has 1,463 subscribers and 801,004 video views. A video titled "Motorcycle Pilot" by "MotorcycleFoundation" is currently playing, showing a man in an Air Force flight suit standing next to a helicopter. The video has 4,521 views and was uploaded 1 month ago. Below the video, there is a link to "Uploaded videos" and a "Play all" button. On the right side of the channel page, there is a sidebar with the text "msf-usa.org | 800-446-9227".

YouTube Videos by MSF



- 18 videos
 - 1250 subscribers
 - Over 750,000 video views

“Fools Gear/Cool Gear” based on the MSF’s popular safety poster of the same name, communicates a serious message in an entertaining manner



MSF Key Messages

- See More!
- Think More!
- Learn More!
- Take Responsibility for Your Own Safety.
- Get trained, licensed & obey the law
- Wear protective gear
- Ride unimpaired
- Ride within skill limits
- Be a lifelong learner



Our Member Companies

We stand behind our work.



Motorcycles



 HONDA

 KTM



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 SUZUKI

 TRIUMPH

Who's in your corner?