# SMART RIDE

A Special Supplement to Sea&Shore 2011

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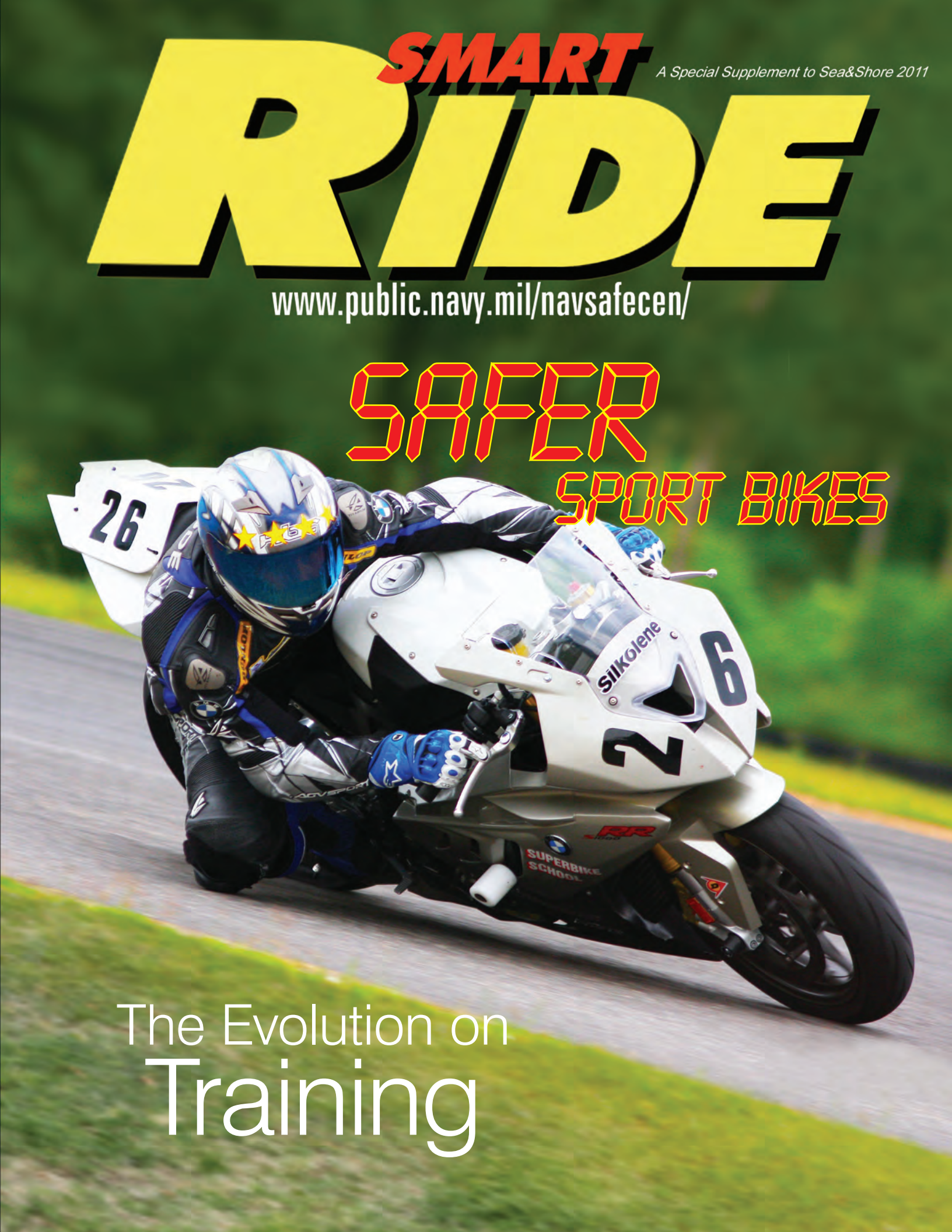
## SAFER SPORT BIKES




## The Evolution on Training


**A Special Supplement to *Sea&Shore***

*Smart Ride* is a special Issue magazine resulting from a close partnership with the Motorcycle Safety Foundation, a not-for-profit organization promoting motorcycle safety and awareness. This publication can never take the place of time, experience and practice on the roads. It is critically important that every rider take an approved motorcycle safety course and continue the training continuum throughout his or her riding life!

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## Let's Ride...



Cover: photo courtesy of California Superbike School.

# EDITOR'S NOTEBOOK

Motorcycle riders in the Navy and Marine Corps continue to do great things, bringing the accident and injury rates down and taking responsibility for training and mentoring new riders. Great job! We all know that the loss of a trained and ready service member is a tragedy, but in this era of constrained resources, it's more important than ever that we take care of each other.

There are lots of examples of riders doing just that in this year's magazine. Check out the cover story by Dylan Code of the California Superbike School. He's been a huge advocate for smart, successful riding, and he shares his perspective on innovations in sportbikes that help to make them less risky.

You'll also find some cringe-worthy stories from some folks who had to learn the hard way about the importance of following the rules. It's always easier (and less painful) to learn from someone else's mistakes.

One of the biggest changes in this year's magazine is that we've added a new, and better yet, completely unpaid member to the SmartRide staff. His name is UT1(SCW) Clinton Waldorf, a SEABEE stationed in Rota, Spain. He is this year's Fleet Editor. Clinton has been tireless in his advocacy for motorcycle riders in the Navy and Marine Corps. He believes you deserve the best training opportunities and that training is an ever-evolving topic that can and should change with the needs of the riders. He provided a great deal of material for this edition of the magazine and has worked with motorcycle safety experts here at the Naval Safety Center. Thanks for all your hard work Clinton!

I would also like to say a big thank you to everyone who submitted a story for this magazine. You are all taking ownership of this resource and it wouldn't be much good without you. I encourage everyone who rides to consider submitting an article. Tell us about your close call on the road, or the crash that made you realize the importance of PPE, or even about a great ride that made you fall in love with motorcycling all over again. Those of you who have attended track training – tell us about it!

Submitting your stories and photographs is as easy as sending an email to april.phillips@navy.mil. If you'd like to be next year's Fleet Editor, feel free to apply for that job as well.

Whether you ride a cruiser, a sportbike, or something in between, I hope you have a great riding season. Have fun, ride smart, and keep the rubber side down.

*April Phillips*

# Rodeo, Stand Down, Round Up?

## Whatever You Call It, Make Sure It's Good Training

BY CLINTON WALDORF, Fleet Editor

In my 10 years of riding motorcycles I have attended my share of these Motorcycle Safety Stand Downs, Safety Rodeos, Safety Roundups, whatever you want to call them. These events have advanced in effectiveness and have proven to reduce the number of motorcycle fatalities in recent years. I've seen everything from the typical training videos in the base theatre, to riding around the MSF Training range, to the gold standard of having Keith Code's California Superbike School working with the USMC. Other motorcycle professionals have provided training to other branches. The relevance and usefulness of motorcycle training has evolved during the past 10 years, and it makes me wonder what's the next stage in this evolution?

But first, let's get back to what we're going to call our annual training events. Should it be called the Motorcycle Safety Stand-down? No! The definition of a stand down is, "a suspension and or relaxation from an alert state or state of readiness." We don't want to do this! The purpose is to create an alerted state, and improve our readiness. Let's stop calling this what it is not.

What about a Safety Roundup? This term makes me think of the process of gathering animals into a corral and holding a muster. Well, we are getting closer. We do gather our riders together for an event every year and usually hold a muster. However, that doesn't tell us anything about the purpose of the training.

Lastly, consider the term Motorcycle Rodeo. A rodeo is a cowboy event that is based on tasks required for ranching, and developing the skills to fit the needs of the climate and terrain of the region. In our case, the motorcycle rider is the cowboy, and this is the type of event we riders are shooting for to improve our skills and develop younger riders. Now we're talking!

However, there can be no doubt that riders need something more specific. The way I see it, organized track days are the next step in the evolution of motorcycle training for the military.

Realistic training is what the military always strives for. That's why we have General Quarters drills on ships, and why we plan for any contingency on the job by training the way we fight. We need to apply this concept to motorcycle training as well. All the classroom training in the world and time on the same MSF range cannot compare to what the track environment can provide. I know this first hand, because I have attended two of the top riding schools available, the Yamaha Champions Riding School and the California Superbike School. I learned more in those few days of instruction in the track environment than I did in more than 10 years on the streets or by attending any of those basic level courses.

The track offers the ability to make mistakes in the most realistic environment with little to no consequence, and that's how we learn and improve. For example: What is it like having to heavy brake from 75 to 30mph and then negotiate that corner? What happens when you get it wrong?

On the track you simply run the corner wide and learn how and why that just happened. The street is no place to learn from your mistakes when you're facing head on traffic and road debris. Mistakes like that offer certain death on the streets. The track allows that reality to sink in while reducing the consequence. This is the direction we need to be heading.

WHEN I TALK ABOUT TRACK DAYS, people always ask, "What if I don't ride a sport bike?" It does not matter! The principals are the same no matter what you are riding. Just because you don't ride a sport bike does not mean track day training isn't for you. In fact, this training can be even more relevant to cruisers. For the most part, these motorcycles have decreased lean angle and decreased braking capabilities. So, if your bike is less capable than the modern sport bike, you would want to learn how to become better at these important skills.

Next thing I hear from riders is, "The riding gear is really expensive." Oh really? How much did you pay for your exhaust and latest and greatest modifications? It probably cost the same as a good set of leathers and protective gear. Most of all, it's worth it!

Simply stated, the next evolution in motorcycle safety training is the track day. Many duty stations are already leading the way and good on them for taking the next steps in our evolution. Others need to follow the lead because I truly believe it's the most realistic and safest training we can offer our Sailors and Marines. ■

# (Un)Licensed to Ride …

BY AWF3 JOSEPH ADAMS, VR-58, NAS Jacksonville, FL

The day was clear, sunny, and warm: the perfect day to take my motorcycle for a ride. I thought it would be fun to take the bike and follow some friends to a birthday party.

I thought I was good to go. I had taken the required basic motorcycle safety course. I had all the PPE required by the military in order to ride.

What I didn't have was a valid motorcycle license and insurance.

Although the rider course instruction manual and my instructor had made it perfectly clear that both of these items were absolutely mandatory in order to ride, I decided that since I had been riding for a while and (most of the time) I obeyed all the traffic laws, that I didn't need the trouble or expense of a license and insurance.

So, I put on all my PPE and followed my friends, who were in a car, to the party. On the way, I decided to show off a little bit with small wheelies. We ended up on a small, private, commercial business road with very few cars in sight. I decided that I was going to accelerate very hard and do another wheelie. When I accelerated and the bike started to come up I slid back on the seat, causing me to roll the throttle all the way to the rear.

Needless to say, the motorcycle came straight up and bounced off the sub-frame, throwing me off the back. A friend in the car in front of me said that I flipped end over end about three times, then rolled on my side for about 150 feet.

I ended up fracturing both my ankles and my knee, I had road rash all over my body, and two holes in my leg that still aren't healed two months after my accident. If I had not been wearing all of my protective equipment, I am certain I would not be here to tell this story.

So now, not only do I have to heal from my accident, I also have to deal with the repercussions of not following the law. Aside from the Navy's punishment to deal with, I have to deal with the loss of respect and trust throughout my command.

I've had to go through several weeks of physical therapy and pay hundreds of dollars out of my own pocket to fix my motorcycle.

To all of you that think you will not get caught, or those of you who have been riding your whole life and think you will not wreck, I am here to tell you that it just isn't worth it. Trying to look cool for your friends, violating civil laws, and disobeying military regulations will only end badly for you.

Too many lives are lost every year on motorcycles, so don't let your name become a statistic. It is simple to purchase insurance and get your license, so don't be stupid like I was and have to learn these lessons the hard way. We all know what we're supposed to do, but we need to have the honor, courage, and commitment to do the right thing even when no one is watching. ■

# Safer SPORT BIKES Have Arrived!


BY DYLAN CODE
California Superbike School

HOW WOULD YOU LIKE TO CUT YOUR CHANCES OF CRASHING A MOTORCYCLE IN HALF?
WHO WOULDN'T?
HOW COULD THAT BE DONE?
EASY: RIDE A SAFER MOTORCYCLE!

Believe it or not, a safer motorcycle has arrived. Plus, it's fun to ride and plenty powerful; actually, right now it's the most powerful sport bike in the world. The bike is the BMW S1000RR. While the Navy and Marine Corps aren't endorsing any brand, I did want to tell you about these advances, and let you know that other manufacturers are following suit. The more you learn about the safer technology, the smarter you'll be when you're choosing the must-have features for your next bike.

At the California Superbike School, we travel to tracks around the USA to train riders in a true racetrack environment. This year we switched from a Japanese 600cc sport bike to the new BMW 1000cc sport bike. When news of

Photo courtesy of California Superbike School.


Dynamic Traction Control set for “rain.”

our switch to the 1000’s got out, many speculated that far more of our students would be crashing on track due to all that power.

Guess what actually happened? We compared last year’s safety statistics to the same period for this year with the new bikes and found we have less than half the crashes with the same number of riders. Why so few crashes on a more powerful bike? Simple: it’s safer. Why? Because it’s smart.

Bear with me for a quick history lesson. These major leaps in performance came from a more innocent time in the 1970’s. Back then you had street bikes and then you had race bikes. Race bikes were made in small quantities at the factory for one purpose – going fast on a closed circuit. They did not have lights, mirrors or even a speedometer – and they were expensive. In the mid-70s a small class was introduced at the national races that fielded modified street bikes. They called it “Superbike.” The Superbike class was more or less a sideshow at the national races, but it gained popularity quickly, partly because spectators liked the idea that they could buy and ride the same models they saw raced at the track. This boosted sales and soon the motorcycle manufacturers were building street bikes that resembled and performed like race bikes. They wanted their bike to win, so spectators would buy it. Soon the saying became “Win on Sunday, sell on Monday.”

FAST FORWARD TO PRESENT DAY and anyone can walk into a dealer and buy, in essence, a race bike. Because they are street legal, they are called sport bikes. The competition between manufacturers to build the ultimate street legal race bike has been hot and heavy for years. The losers in this competition have been the untrained riders and others who have been treating the public roads like a racetrack.

Manufacturers have shown what remorse they can, but what are they supposed to do, make a slower bike and sell none? The solution was to make a safer motorcycle, and this has been accomplished by BMW at the beginning of 2010 when they released the S1000RR. Admittedly, with 183 horsepower at the rear wheel it doesn’t sound safe. Actually the safe part is in its electronics.

The available electronics package on this bike is comprised of two key elements:

1) Dynamic Traction Control.
2) Race-spec Antilock Braking System.

The Dynamic Traction Control (DTC) is basically every rider’s dream come true. There are many different aspects to DTC, but in a nutshell it keeps the rear wheel from losing traction from over-acceleration or slippery conditions. The system has front and rear wheel speed sensors. If it detects the rear wheel rotating faster than the front, the ignition system will soften the power output to restore traction. Should the slide persist it will then alter the fuel delivery to further soften power output. Information is sampled from the sensors thousands of times per second. Additionally, you can adjust from the hand controls how sensitive the traction control is. For example, there is a setting called “Rain” which will soften the power delivery if the slightest hint of a slip is detected by the sensors. I put this to the test and rode the S1000RR across a grass-covered area in first gear and suddenly twisted the throttle wide open. I was amazed to find that the rear wheel did not lose grip or spin at all. I then went to a paved area and the bike accelerated promptly, but only when it sensed there was traction available.

Another key part of the DTC is a pair of electronic gyros that monitor lean angle within two degrees of accuracy. Power delivery is coordinated with lean angle. This means the further the bike is leaned, the gentler the power output. As the bike is brought from leaned to straight up and down, power becomes more and more available. A rider grabbing a handful of throttle at a

steep lean will not receive full power until the sensors find the traction available.

It also has adjustable "wheelie control" that will set the front end down if it gets too high to keep the bike from accidentally flipping over backwards.

There are five different modes of sensitivity:

"Rain" for wet or low traction conditions.

"Sport" for dry street conditions.

"Race" for racetrack with supersport-type tires.

"Slick" for racetrack with non-grooved "slick" race tires.

"DTC off" disables traction control completely.

The rider can choose the relevant setting for the current riding conditions and environment.

The other key aspect to the safety package is the Race ABS. The "Race" part of the name comes from the fact that most racers do not prefer to use ABS due to the lack of feel and control during hard braking. BMW's racing research and development created a very refined version of antilock braking that allows for excellent feel and maximum stopping power in critical conditions.

Aside from this ABS feature, the gyros on the BMW can detect a front end flip from heavy use of the front brake. Most people call this an "endo" which is short for end-over-end. If the bike detects the rear wheel coming off the ground, it will modulate brake pressure just enough to set it back down while braking is continued. What's more

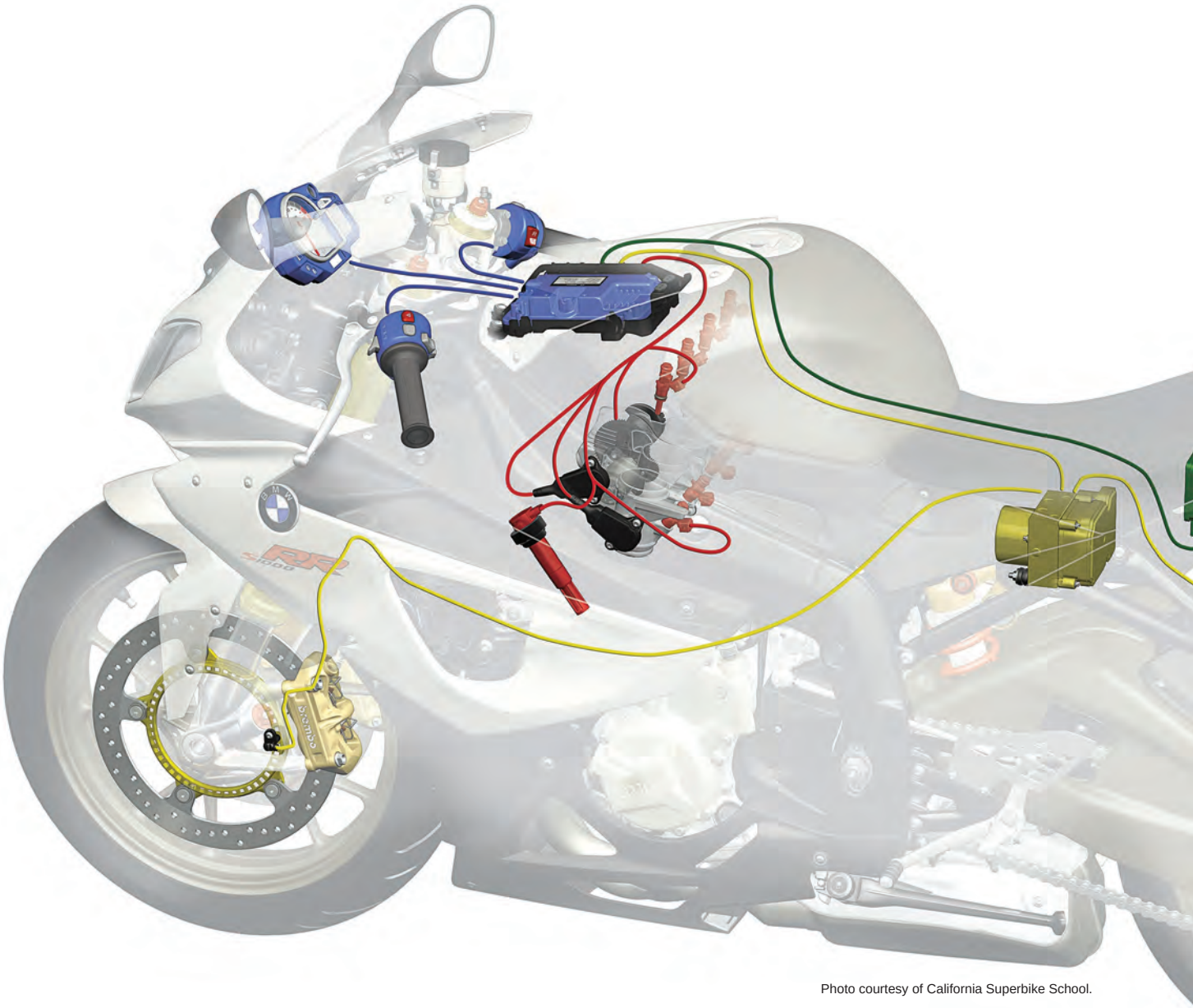
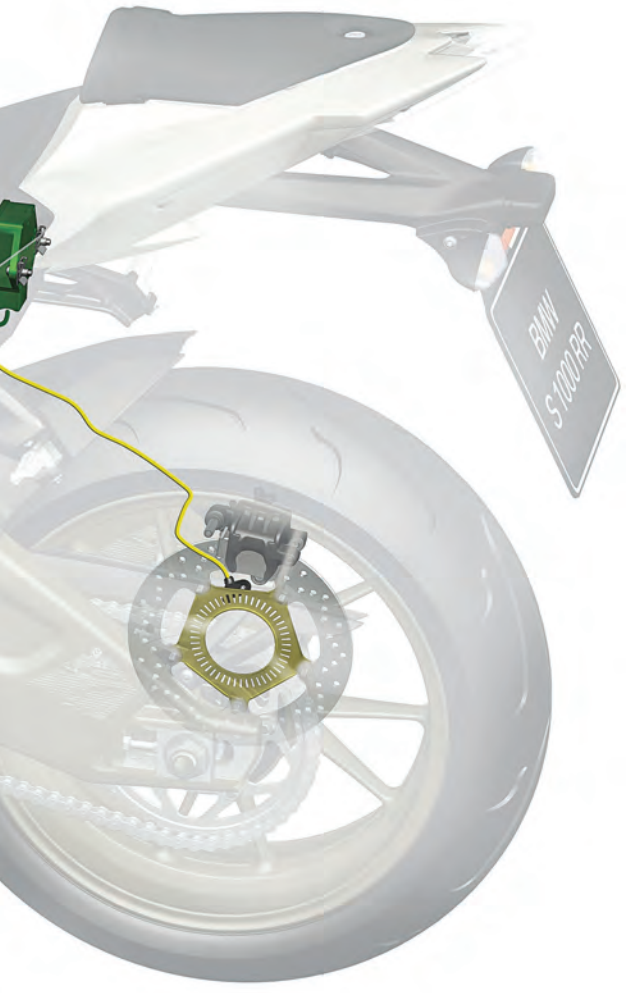


Photo courtesy of California Superbike School.

Photo courtesy of California Superbike School.

Advances in braking systems can help avoid “endos.”




is the front and rear brakes are linked: when only the front brake is applied, a small amount of rear braking is automatically applied for you. The sensitivity of the ABS is adjusted depending on which mode the traction control is set at. Additionally, if desired, the ABS can even be switched off just like the Dynamic Traction Control.

What does this all add up to? As I stated earlier, it adds up to a safer motorcycle. Decades ago, aviation experts employed electronic systems to override pilot inputs that are detected as unsafe. This type of technology being integrated into motorcycles has been long overdue, but now that it is here, it’s already saving riders. Regular ABS is not new to street bikes, but Dynamic Traction Control that coordinates braking, power delivery, roll and pitch all in one package – that’s the best risk management news for motorcyclists in a long time.

What about limits and confidence? Many people have voiced concern that riders would become lazy and rely on the electronics to save them and get soft with their skills. I feel that to be the opposite and I’ll tell you why. So many riders wonder where the limits of traction are. How much can you lean it? How hard can you brake? How much throttle can the bike handle? This bike tells you. When the traction control has to intervene, it notifies the rider by means of a white LED on the dash. That’s the bike telling you: “Hey buddy, that was too much throttle – I had to step in and save you.” Right there the rider feels the limit without overstepping it. The same is true with the Race ABS. When it intervenes, you feel a very light pulse in the lever. Again, in this instance the rider feels when maximum braking is taking place. These are excellent learning tools.

Of course the bike is not crash proof. Too much lean or too fast for a corner and the tires simply can’t cope. Nothing will ever take the place of solid training, sharp skills, and smart riders. But technological advances like these are good tools. We’ve now had dozens of days at the track where not one rider went down on this bike, even when the riders were challenging the limits. That’s good news for everyone – except those who make a living repairing crashed bikes, selling replacement parts and trying to put the riders back together. This is a giant leap forward in motorcycle technology and already other manufacturers are following suit. ■

# ROAD KING *vs* TRACTOR TRAILER

## This is one competition you just can't win.

BY CHRIS FIELD, MSgt. USMC, Ret.

This is the story of how I about got taken out by a tractor trailer one morning last December on my way to work. I was on Highway 17 right in front of the back gate of Marine Corps Air Station New River.

I had just turned onto the highway, heading for Camp Lejeune at 0600, and I saw a row of reflective lights in the left turn lane. Then they disappeared as a set of headlights went across my field of vision headed into the back gate of the Air Station.

Then all I saw was a white wall of tractor trailer.

I was still accelerating, but I quickly grabbed some brakes, slid on the front tire for about 20 to 30 feet, searched for an exit, then hit the brakes again as the cab of the truck had already passed through the traffic islands. The trailer must have been the longest allowed, as it was still in the median. All I could see was the bottom of the trailer (at chest level), trailer landing gear, and the spare tire cage hanging down under the trailer.

With nowhere else to go I had to lay it down. The left side of the bike and I slid on the crash bars and up under the truck. All I saw were sparks.

I hit the ground on my cell phone (which is still working fine but deeply scratched). As I slid and rolled, the right handlebar and mirror hit the bottom of the trailer and flipped the bike back over to the right side and continued to slide hitting the curb of the outbound lane of the base, and then it slid across the road into the median.

I jumped up and screamed toward the truck that amazingly, continued on toward the gate! A passer by stopped to make sure I was alright and helped me put my bike up on the kickstand. Then I took off running to the gate guards to get the MPs and stop the truck.

Lucky for me (note the sarcasm) it was 1 December and there were all new guards on the gates and no one knew what to do. As the sentry was calling the MPs, the truck was being inspected at the inspection station that is parallel to the street where the gate is. It felt like five minutes went by as I was pacing back and forth outside the guard shack (adrenaline pumping) but the sentry finally came out. I asked him if someone was coming and he said "I'm not sure."

Just then I was looking through the guard shack and saw the truck pulling out of the parking lot. So I took off running through the ditch and wood line to the inspection lot to try to stop the truck. There were three Marines sitting there as I told them what happened and they said "We need to call someone."

Just then an MP car pulled into the lot. I jumped in the car with him and we went out to the crash scene. As we were going out the gate he realized they had to call the county and/or state to coordinate the off base wreck.

Forty minutes later, the state trooper arrives, gets my story and then asks the MP if he had details on the truck. He had to get it from the log book at the inspection lot, but the info was bogus – a bad phone number and a license plate to the trailer, but not the cab.

At least the MP noticed that the truck driver was heading to the commissary, so he went to see if he was still there. He wasn't, as over an hour had passed by now. He checked the log book again and found this truck driver was a regular and he was able to get the driver's cell number

and an 800 number for his company. The cell phone went straight to voice mail, but the 800 number was a good one.

They couldn't reach him but had GPS on the truck and traced him in Warsaw, N.C. The state trooper caught up with him the next day and showed him the black mark under his trailer and said the guy about peed when he saw it. Claimed he didn't see anything.

I ended up with two broken ribs and where my cell phone dug into my hip I had a deep bruise. On my right side I shredded my pants and ripped a hole in my leather jacket elbow and the palms of my gloves were blown out too. It was cold out that morning so I had Gortex gloves on. I have a raspberry about the size of a softball on the side of my thigh.

And he didn't see anything!?!

Nonetheless, due to my cat-like reflexes, advanced motorcycle training, AMOS (Advanced Motorcycle Operators School put on by Keith Code's California Superbike School), and 22 years in the Marine Corps (where I learned how to fall), I walked away.

I've seen this stunt done on TV and in movies, and now I know it's not that hard since I managed to do it in the dark, on my first try. I just didn't come out the other side on my wheels.

The PPE I had on saved me from any road rash and the training and experience that I have prevented me from panicking. It could have been much worse. ■

# Close the Gap On Training

BY APRIL PHILLIPS

Opinions are like, well … you know the old saying. And when it comes to motorcycle training, the old saying is true, because everyone has an opinion on it: why it's required, how it should be conducted, and who should be made to attend. In a perfect world, training would be individually tailored to each and every rider's needs, but practically speaking, this is impossible.

Three years ago, the Navy and Marine Corps tried to do the next best thing with a major restructuring of motorcycle training in an effort to provide the most relevant training to the largest possible group of riders. Current requirements mandate that all Sailors and Marines who ride attend the MSF Basic Rider Course, and then attend follow-on training through the Experienced Rider Course (for cruiser riders) or the Military Sportbike Rider Course (for sportbike riders.) Because statistics showed that some previously-licensed riders were getting back into biking after a long absence (and with considerably diminished skills) there is also a requirement for recurring training every five years.

"The statistics don't lie," said Don Borkoski, the Navy's motorcycle safety manager at the Naval Safety Center. "Fatalities and injuries are way down, and this isn't a coincidence."

In fiscal year 2010, 13 Sailors and nine Marines lost their lives on motorcycles. Tragic, certainly, but down from 14 Sailors and 14 Marines in FY2009, and a high of 33 Sailors and 25 Marines in FY2008. Borkoski credits the decrease in motorcycle crashes to a change in the culture. Riders are taking responsibility for themselves and for mentoring younger riders. Leaders are learning not to treat riders like problem children, and are instead encouraging training on command time and proper use of PPE. However, he said the positive trend depends on riders doing the right thing to keep the mishap numbers moving in the right direction.

"Most people have done a great job complying with the requirements, but we still have to close the gap with a few non-believers out there. Almost all of the sportbike riders who were killed on their bikes last year did not complete the MSRC. That's huge," he said.

The MSRC is conducted on a range like the other courses, but it does incorporate higher speeds, taking into account the racing characteristics of modern sportbikes. It also delves into the mental aspects of sportbike riding, which are different from that of cruisers.

It's been three years since the new course was unveiled, and the other changes to the instruction took place. That means it's time for a lot of riders who took the courses previously to retake ERC or MSRC. Borkoski said it's important that riders who are due for refresher training to remember this requirement and schedule a course.

"I know that some people who have been riding continuously for the last five years think there's no reason they should have to take a training class again, but even the best riders can learn something new, or pick up on something they may not have caught the first time around," he said. "Besides, it's a day spent outside on your motorcycle. What's wrong with that?"

Riders can schedule new or recurring training by visiting www.navymotorcyclerider.com. ■

# GONE WITH THE WIND

AZ2(AW) LATASHA WALKER, VFA-37

I was so excited! It was the weekend and the sun was shining. What else to do on a sunny day? I called up a fellow AZ2 and said, "Hey Rob, good day to ride! How about it?" Of course he was just as ready as I was, and agreed. On a weekend like this, who wouldn't want to get out on the open road?

I ran upstairs and pulled out all of the new riding gear I had just purchased for my first ride on my new GSX-R 1000. Man, was I excited! After getting dressed, I went out to the garage and began the checklist that we were all taught in our Basic Rider and Sport Bike Courses: T-CLOCS: Tire and wheels, Controls, Lights, Oil and other fluids, Chassis, and to make sure your side Stand (kickstand) is tight. T-CLOCS? CHECK! I was ready to ride.

My fellow rider and I pulled up to the meeting place at the same time. The timing was perfect. We parked, dismounted from our bikes, and planned out the route for the afternoon. I called up a few more of my buddies and asked if they wanted to go out for a ride as well. Of course they did! It was the first nice day we'd had in a long time. I checked a few text messages on my phone and one read, "Tasha, park your bike. It's starting to get windy out here."

It wasn't windy where I was at the moment, so I ignored the text.

We met up with a few more riders and began the route Rob had planned for us. During the ride, I noticed the wind picked up a bit, but it was not bad enough to make me uneasy. We rode all the way out to Pungo, 40 miles south of Virginia Beach, and the ride was beautiful. The sun, the pretty blue sky, and the miles and miles of open fields. How could a biker not enjoy this ride?

But then the wind really started to pick up, so we reluctantly decided to head back. It was a little too late.

I WAS NAVIGATING A CURVE while riding about 45 or 50 miles per hour. As I leaned into the turn, the wind blew me up into a straight forward position. I lost control, closed my eyes, and waited for the inevitable. I don't remember anything after that. One of the riders behind me later told me that once I lost control of my motorcycle it flipped about four or five times within 50 feet while I was still holding on to the handle bars. At some point, the motorcycle launched me off an additional 30 feet, and I came to rest in a ditch two feet from a light pole.

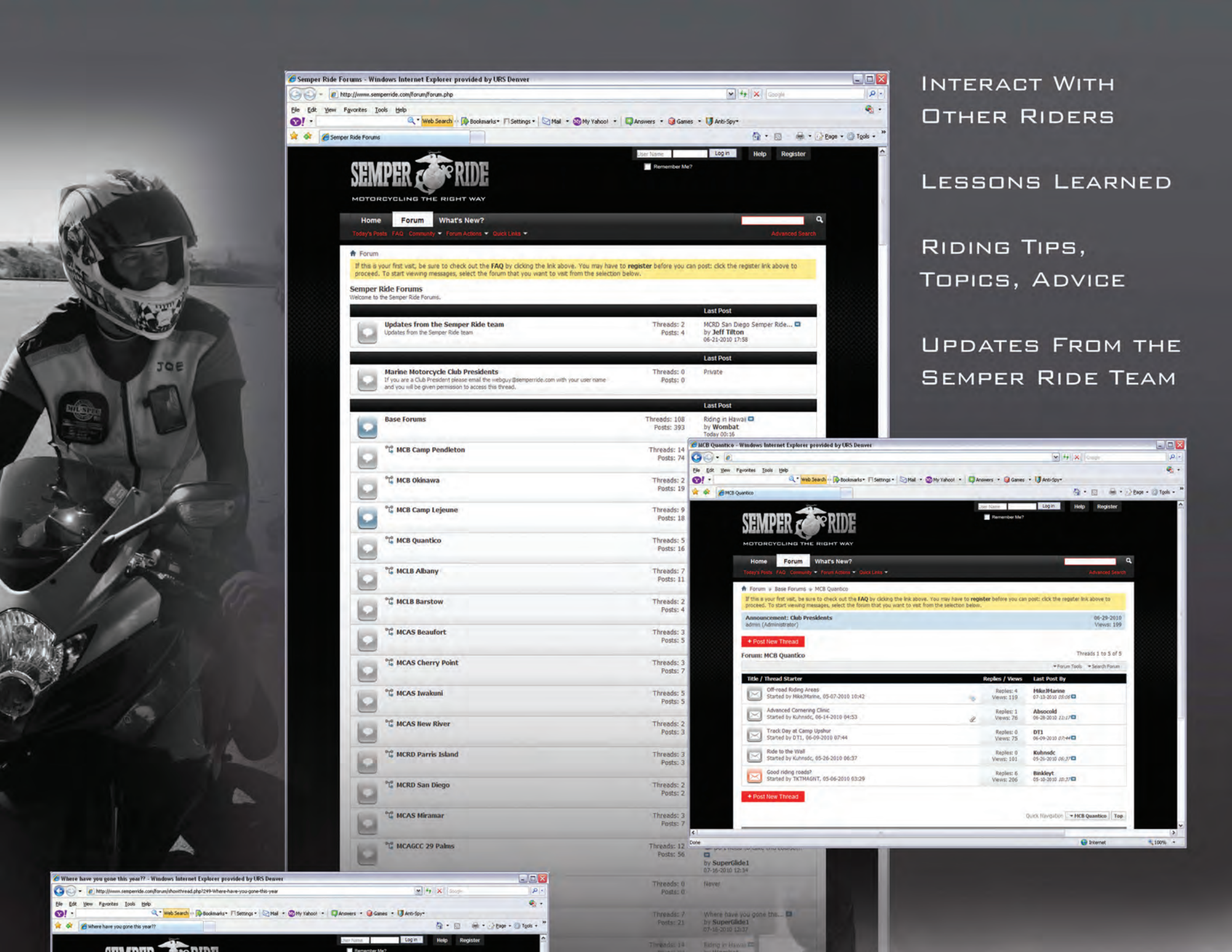
When my friend got to me, he thought I must be dead. There was no way I could have survived the thrashing that I took during the crash. He said he sat by my side for about three minutes and I was non-responsive. During my out-of-body experience, I heard his voice, "Lil Sis! Are you ok?"

All I could say was, "Where is my bike?"

He responded, "Don't worry about your bike. It is not going to be running for a long time."

I was in serious pain, but if I had not been wearing my proper PPE I would not be here now to tell my story. My helmet saved my life. I'll take the bruises, the scratches, the torn muscle, the fluid between my skin tissue and muscle, the dislocated ligaments in my shoulder, and the physical therapy three days a week. Without PPE I would be paralyzed or brain dead and my little girl would have been left behind without a mother. Good day to ride, right? Wrong!

I learned a few lessons as a result of the accident: Perform T-CLOCS, wear your PPE (it will save your life!), consider all environmental factors, and always ride in groups. ■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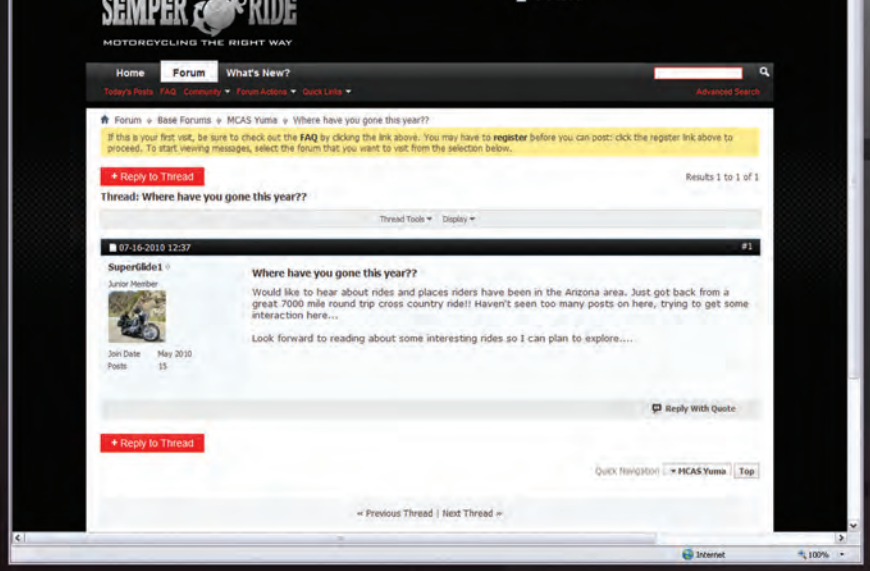


# SEMPER RIDE FORUM

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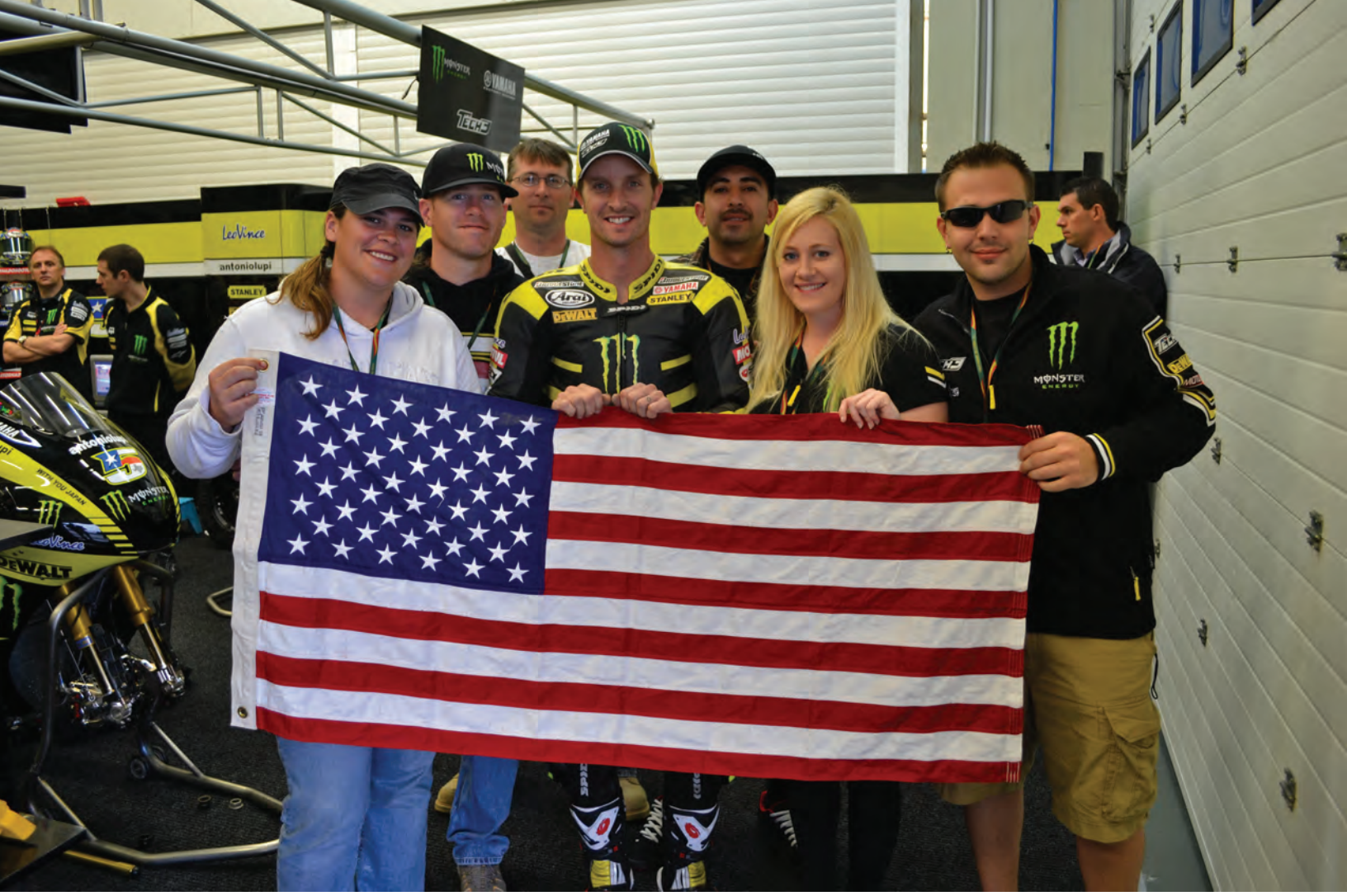


From left to right in the photo are: AO2 Michele Roden, UT1 Clinton Waldorf, Air Force TSGT Edward Bates, Colin Edwards, UT1 Eric Gonzalez, HM2 Holly Skeen, and MM2 Patrick Atwood.

# Superbike Champ Thanks the Troops

The Grand Prix De Espana, second race of the MOTOCP Motorcycle Championship and first race of the European season, was extra special for several Sailors and Airmen from Naval Station Rota, Spain. Race participant and two-time World Superbike Champion and MOTOGP star Colin Edwards granted pit and paddock passes to them as a way to say thanks for their service.

He wanted to meet the troops and give them an up-close experience. He spent plenty of time with the service members and motorcycle aficionados, swapping stories, signing autographs, and posing for pictures.

"You cannot get any closer to the action as a spectator," said UT1(SCW) Clinton Waldorf.

Sunday, April 3, 2011 was race day, and it was rainy – not what the riders had practiced for all weekend. Waldorf said the change in conditions made for exciting racing for fans.

"There were multiple crashes during the race, making it a battle of attrition," he said.

Edwards set himself up well, and looked to take third place going into the last lap. Unfortunately, his fuel pump failed in turn one, and he didn't finish the race.

"This is how cruel racing can be," said Waldorf, who is an avid track rider himself.

Nonetheless, it was a weekend to remember for Waldorf and the other Sailors and Airmen who got to meet one of the best in the sport.

# Loosen Up!

BY DON BORKOSKI

You want a smooth ride, but instead, you feel every bump, crack, pot-hole and rock! Shouldn't the suspension absorb more of that rough ride? Your arms get tired from fighting your motorcycle, even on the smooth roads.

Sound like you? Don't worry. There is a cure for some of your riding ailment, and it doesn't cost a thing! That's right, the problem isn't your bike, it's you. You likely have something called "stiff arm syndrome." You got it; all this time the faulty component on your machine was the "engineering nullifier hanging on to the handlebars." YOU! So what is the treatment?

Loosen Up!

That's all there is to it. Loosen your grip and relax your arms, especially on the bumpy roads. Yes, your natural reaction is to hold on tighter as more and more road bumps feel like they are trying to fight you. Or maybe you think something is wrong with the bike, because even when you are holding on that tight, the problem seems to get worse.

Well, it will get worse if your arms are stiff. The tighter you hold on, the more you are fighting the motorcycle from making the hundreds of minute corrections it was designed to make.

Your motorcycle is an engineering marvel. At least five things affect your bike's ability to absorb and correct for road surface irregularities. Four are engineered into the machine, and the fifth is the most unreliable, but most correctable system.

**1. Front End Rake**-The rake (caster) on your fork helps keep your bike riding straight. Because of this steering stabilizing rake, every time you hit bumps, even in turns, the wheel may turn slightly but will return to its center balanced position because the rake makes the wheel want to stay straight. The more rake, the more stable the bike will be. Keep in mind that more stable means more input is required to turn.

**2. The suspension system**-Your suspension system is made up of shocks. A shock is an input (bump or hole) dampening system made up of two major components. 1. Large weight bearing springs stretch to fill holes in the road and compress on bumps and rocks. 2. Dampeners are hydraulic cylinders that work with the springs to keep them from overshooting center. When a spring overshoots the center at decreasing amplitudes, it's called the pogo effect. The Dampeners reduce the pogo effect by internally leaking at an adjusted rate. That dampening effect takes place in both directions of movement. When the shock is returning from being over extended, it is called compression. When the shock is returning from being compressed back to center, the state it is called rebound. On many motorcycles, especially sport bikes, there are adjustments for both. In simple terms, your shocks move up and down to compensate for the road irregularities.

**3. The steering system-**Steering, independent of the rake or suspension system, also corrects for irregularities in the road surface. On a large scale, you can steer away from big bumps or holes in the road. On a smaller scale, the handlebars steer a little each time you hit road irregularities. This affect is even greater the more lean angle you have on the bike. (Note: some motorcycles, primarily sport bikes, have steering dampeners. These dampeners are needed to compensate for the lack of rake on the front forks. With so little rake, the steering overcompensates and can cause wobble.)

**4. Tires system-**Tires are less noticeable because they are so obvious. The tire acts exactly like an independent suspension system. The rubber acts as the dampener and the air in the tires acts as the spring. Additionally, the traction the rubber provides on the surface controls the tires' movement through steering. If you have ever ridden on a bicycle with solid tires (no air) you know exactly what we're talking about. On a solid tire, you feel every bump and the over-responsive steering can provide for a pretty wild ride.

**5. The nut behind the handlebars-**The most variable component on your bike that influences the ability to correct for road surface irregularities is you, the guy or gal behind the handlebars. The engineering features included in items one through four can be overcome simply by you preventing the machine from making millions of minute corrections. You are fighting your motorcycle if you are holding on too tightly and not allowing the corrections to take place.

From now on, let the bike work for you. Remember that your job is to control the direction and speed of the bike. Let your bike do its job of making all of those road irregularity corrections. You simply need to loosen up! ■

# Installing a Headlight Modulator for Safety

BY PETE HILL, CMC Safety Division Safety Engineer

Recently, I decided to add a headlight modulator to my bike. For those not aware of this technology, a headlight modulator is installed in the power supply to your headlight and makes the intensity of the light fluctuate during daylight hours.

## WHY?

The reason to install a modulator is that it increases the visibility of the bike to car drivers. Having your headlights on during the day used to mean you were either a motorcycle, or in a funeral procession. Since the advent of daytime running lights on cars, the single motorcycle headlight does not stand out like it once did. The modulator is a game changer in this area. This device improves visibility any time the motorist has a frontal view of the motorcycle – for instance, the driver in oncoming traffic who is making a left hand turn, a driver pulling into traffic, or a driver moving in the same direction who may potentially change lanes into the path of a motorcycle. In the latter situation, riders should consider a lane position that maximizes the motorists' probability of seeing the headlight in their side mirrors.

## LEGAL

Modulators are a legal lighting accessory in all 50 states. While it may appear that they are alternating between high and low beam, they are actually only alternating the intensity between about half to full intensity of the high or low beam setting.

## DAYTIME USE ONLY

There are different features and configurations that are offered with modulators. All modulators include a photocell that turns the modulation feature off at dusk, which is a DOT requirement. You cannot change the setting of the photocell but can influence its operation by where you place it on the motorcycle. The instructions for mine recommended placement in a position pointing downward to protect the cell from the elements. I installed it pointing downward in the cowl above the speedometer/tachometer cluster. Because it does not receive direct sunlight, it turns modulation off earlier than if it were aimed at the sky.

## OTHER FEATURES

Another feature the user can control is whether the modulation operates on high beam, low beam, or both. I set mine to both, which means during daylight, the headlight modulates regardless of whether the beam is set on high or low. Some riders may prefer to limit modulation to the low beam only or high beam only. My modulator allows the rider to toggle the modulation on or off by rapidly switching between high and low beam, returning the headlight to non-modulated operation. This feature is helpful if you need to aim the headlight or measure its normal operating intensity. Another feature is an interconnection to the bike's horn that causes a rapid modulation of the light when the horn button is pressed.

## WHAT MOTORISTS SEE

The advertising and literature on modulators do not hype this aspect, but I believe one characteristic of headlight modulation that helps get the attention of motorists is that it mimics the modulation of headlights installed on many law enforcement vehicles. The fluctuating inten-


U.S. Navy photo.

sity gets the motorist's attention and the first association may be that there is law enforcement following. It may prompt him or her to put down the Big Mac and hang up the phone. Regardless, anything that helps motorists see a bike is a good thing.

## COST

The module I bought costs about $60. These can be obtained on the internet or from your local bike shop. Bike shops may charge $100 or more to install, depending on the size and complexity of the hookup. Soldering connections costs more in labor but is preferred over using crimp connections that come with the kit.

## EASY TO INSTALL

Installation is a fairly easy process for the rider, and step by step instructions are included. If you do not want a certain feature (like the horn-triggered modulation or high beam modulation) you simply do not connect those wires. Some modulators are larger than others. My unit is about the size of a matchbox with six twelve-inch wire leads. I mounted it up and under the console cover of my Pacific Coast 800. I did the installation in conjunction with replacing the windshield. Getting behind the plastic can be a challenge. Cruiser riders may want to select smaller modules if they want to install them inside the headlight housing. ■

# Storing Your Bike *for* **Deployment**

BY RON FOX
CFPS Instructor, Commander, Navy Region Northwest

So you're going on deployment. While you're probably excited about the opportunity to hit some interesting ports and hone your job skills, there's one big downer: No motorcycle.

Well, there's not much that can be done about that, but there are some things you can do prior to leaving to make sure your bike is good to go when you return.

### Change your engine oil and oil filter

Old oil can trap contaminants, acids, and unburned fuels which can all become harmful to your engine. Also, this will be one less thing you have to do when you get home and want to ride!

### Fuel

The ingredients that make up gasoline are not what they used to be. Before additives such as ethanol were introduced, gasoline remained relatively stable for a long period of time. Not so today. Modern fuel begins to break down in about six to eight weeks. To counter this, put in an appropriate amount of name-brand fuel stabilizer (based on the amount of fuel left in the tank). It is recommended that you keep your tank full to avoid rust. Make sure to run the engine long enough so that treated fuel works its way down through the carburetors or fuel injectors. Place the fuel cut-off valve (if your bike has one) to the "off" position and run the bike until it shuts itself off. This burns off all the fuel in the carburetors so they aren't full of gas while you're gone.

### Engine

Remove the spark plugs and place no more than a tablespoon of oil into each engine cylinder. Then turn the engine over a few times with the starter to distribute the oil. This helps keep the cylinder walls and associated internal engine parts coated with a layer of oil to prevent rust build-up. Another option is to use an engine fogging oil which performs the same function. Once completed, install a new set of spark plugs.

This is also a good time to check and top off your engine coolant if you have a liquid-cooled motorcycle.

### Tires

Thoroughly check out your tires. Is there any cracking, weather aging, or other damage? Is there enough tread left on them? If not, now is a good time to replace those worn out tires. If they are good, inflate them to the manufacturer's suggested maximum pressure. This helps keep them rounded out while you're gone and will minimize any flat spots.

Next, try to jack the bike up so that the tires are off the ground. This may not be possible, unless you have a center stand or a couple of tire stands for each tire. If you can do it, this also helps minimize flat spots on the tires. Ensure that your bike is properly secured so it doesn't fall over while in storage.

If you can't safely get the tires off the ground for storage, don't worry too much about it. Just make sure to ride conservatively for the first few miles when you return and get back on the road.

### Chain, belt, and shaft drive preparation

Chain Drive – Check your chain to ensure that it's not stretched, kinked, or rusted. Also inspect the condition of the sprockets to verify the teeth aren't bent or thin (pointed). If they are, replace with the appropriate size. Once completed, clean, lube, and adjust the chain to the manufacturer's requirements.

Belt Drive – Inspect the belt to make sure it's not frayed or showing signs of wear. If it is, it's time to replace it.

Shaft Drive – Check the seals to ensure they aren't leaking. It's also a good time to change the gear lube if time or mileage suggests (per the owner's manual).

### Battery

This item is probably one of the most overlooked parts of your bike. Your battery will work for years without a problem if taken care of properly.

Storage for your battery is simple; pull it out of the bike and, if possible, check and correct the electrolyte levels as needed. Hook it up to a trickle charger that will supply the correct amps to the battery throughout storage. However, for long-term battery storage, do not use a con-


stant charging system as they will overcharge (overheat) and will cause damage to the battery. Place the battery and charger in a ventilated area to avoid any build-up of fumes or gasses.

## Clean/Wash/Wax

A proper wash and detail should be next on your list. Remove any body panels, saddlebags, and fairings that you can. A good rule of thumb is "If you can see or touch it – Clean it!" Cleaning chrome and painted parts tends to extend the luster. While you're doing it, you can check hoses, wires, or any other connections that might need attention.

Once cleaned, there's a vast array of chemicals, waxes, and protectants available to keep your bike protected during the time it's in storage. The time spent on cleaning helps in a couple of ways:

- You'll find any hoses or connections that could be compromised before they malfunction on the road.
- Your bike will come out of storage ready to ride, both mechanically and cosmetically.

## Cover it up

Last but definitely not least, to protect your bike from the elements, use a model/style-specific cover. Motorcycles that are stored in a garage and under a cover will have the best chance at withstanding the elements while you're deployed. Leaving a motorcycle outdoors and unprotected will likely cause rust, rubber cracking, and oxidation. Before putting that cover on, spray your bike's exhaust liberally with a protective coating such as WD-40. This will displace any condensation. Then put a cover on the end of the exhaust tip, such as a plastic bag, to help keep moisture and small creatures out.

These tips will help keep your bike healthy while you're hard at work on deployment. Just remember, when you finally get back and get ready to fire it up, make sure you perform a thorough T-CLOCS pre-ride check before operating. Also, take it easy out there on your first ride. While your bike should be fine, your skills might have gotten a little rusty while you were gone.

See ya on the road! ■

# CRASH TESTING

BY MSGT WILLIAM POTTS

We've all had to sit through Safety Stand Downs and many of us have been the subject of ridicule because we choose to ride motorcycles. And we've all heard the clichés: Dress for the crash not for the ride. There are only two kinds of motorcyclists: those that have crashed and those who are going to crash. Well there's a certain amount of truth to the clichés and those of us that choose to ride have a responsibility to do our part to break the mold and not become statistics.

# "Wear your PPE, but don't just wear it because you have to. Wear it because it has a purpose."

Tuesday January 5, 2010 began just like any other workday for me. I woke up and went about my morning routine to meet my number one priority, which was to be on the I-5 heading south to MCAS Miramar from MCB Camp Pendleton prior to 0545. The reason for this is simple; if you miss the "window" for being on the I-5, traffic builds exponentially and your commute time is significantly increased. However, this was to be no ordinary Tuesday morning. I was about to become the first Marine Corps motorcycle safety statistic of 2010.

My jaunt down the I-5 to the 805 East was uneventful with light to moderate traffic. I exited onto Miramar Road and the traffic was unusually light. It wasn't until I was less than a mile from MCAS Miramar's East gate that things got interesting.

I was the third vehicle in line in the center lane stopped at the intersection of Miramar Road and Camino Sante Fe Road waiting for the light to turn green. Once the light changed, traffic proceeded through the intersection and I decided to shift from the center lane to the left hand lane. I checked my mirrors, turned on my turn signals, and performed a head check to ensure there wasn't a vehicle in my blind spot. The coast was clear so I proceeded to make my lane change. Shortly after I changed lanes I felt a slight pressure on the back of my left arm as if someone were grabbing me. I started to turn my head to the left when all of the sudden my handle bars jerked violently to the full locked right position. A split second later, I was flying through the air trying to figure out what went wrong.

The next thing I knew I was sliding down the road on my back, watching sparks flicker off my "baby," (that's what I call my bike), trying to figure out how to get out of the way of the vehicle that was bearing down on me, and thinking that when I got run over it was really going to hurt!

I got lucky. The vehicle bearing down on me, a Jeep Grand Cherokee, evaded me by driving over the left side quarter panel of the car in the center lane to his immediate right.

Once I stopped sliding, I jumped up and got off the road to assess myself. Shocked onlookers tried to get me to sit down, but my only concern was getting my baby off the road out of further harm's way. Thankfully, the Marine that I collided with helped me get my bike to the side of the road where we waited for the police.

So what went wrong? In short, two vehicles tried to occupy the same piece of pavement at the same time, which didn't work out so well and we collided. The driver of the Jeep's story was similar to mine except that he was far enough behind the group of traffic I was in that he never had to stop for the red light. He saw the same open lane I did and proceeded into it just like I did. From my perspective, I think he simply didn't see me. That is often the case in crashes that are the fault of the four-wheel op-

erator. Of course, there is the other possibility that I failed to see him and that I rode into him causing the crash. The accident investigation ruled us both equally liable. Admittedly, I was riding with my guard down because of the light traffic and my complacency was most likely a contributing factor in this crash.

After the police released us from the scene of the accident, I rode my battered motorcycle into work, garnering strange looks from the gate guard as I entered the base. Then I informed my chain of command and went to medical to get checked out. Once I returned to work with a relatively clean bill of health, the phone calls and emails started. You see, I wasn't supposed to have a motorcycle crash. At the time I was 39 years old with 30 years of riding under my belt. I've attended the MSF's Basic Rider Course (BRC), the Experienced Rider Course (ERC), the Military Sportbike Rider Course (MSRC), The Dirt Bike Rider Course as well as the ATV Safety Course. Oh yeah, I'm a certified MSF Rider coach for the BRC, ERC and the MSRC courses. It was incomprehensible to others that someone as "qualified" as I was to ride a motorcycle could be involved in any type of motorcycle altercation. The reality of my mishap is that training and experience will not prevent all crashes but it can stack the odds in your favor.

All in all my injuries were relatively minor compared to what could have happened; I most likely would have died if I had been run over! I was fortunate. I received a small abrasion on my left forearm caused by friction between my long sleeved shirt and the liner of my leather jacket. I had a bruised left heel caused by the right rear wheel of the Jeep driving up onto my left floor board which pressed my heel into my shifter and left engine case. Lastly, I had a massive bruise on my left hip/ thigh, measuring roughly 9 inches by 5 inches, sustained when I impacted the road. My baby, a 2005 Harley Fatboy, needed all of its sheet metal minus the tank replaced, plus other odds and ins totaling a little over $5,000. My new helmet, which only had 90 miles worth of ride time, was destroyed. My leather jacket, leather boots, leather gloves and chaps took the brunt of the fall and sustained only minor abrasions. Thank goodness for great gear!

THE BOTTOM LINE is that there is a steep learning curve involved with motorcycle riding and those of us who choose to ride must take responsibility for ourselves. We can do this by getting educated through rider's courses and taking refresher courses from time to time; you might learn something new or break a bad habit that you have developed. Ride a motorcycle the fits you as well as your skill level. Don't let others persuade you to ride beyond your comfort zone. If you feel the desire to push the limits, take it to the track. There you'll be able to legally push the boundaries


in a closed course environment with medical personnel on sight should they be needed. Always wear your PPE: (1) DOT/ SNELL rated helmet, (2) eye encapsulating shatter resistant glasses or face shield, (3) riding jacket, (4) full-fingered riding gloves and (5) over-the-ankle riding boots. Perform a pre ride check of yourself, making sure you're mentally prepared to ride, of your PPE, ensuring that it is serviceable, and of your motorcycle, (remember T-CLOCS). Don't ride distracted. Never ride complacent as I did. And never ride impaired by alcohol or other mind altering drugs.

My intentions here were not to get philosophical; they were to try to convey the lessons relearned from my accident and 30+ years of experience. There are inherent risks involved in riding a motorcycle and we're all vulnerable, although we can mitigate the risks through education and training. Wear your PPE, but don't just wear it because you have to. Wear it because it has a purpose; it helps to lessen the severity of injuries and it has the ability to save your life. No it won't prevent all injuries or death but it will drastically reduce the severity of most injuries. Helmets in particular are the most important piece of PPE we can wear. Treat it as if your life depends upon it because it does!

*Master Sergeant Potts is currently serving as the Avionics Chief at HMLA 469, MAG 3, MCAS Camp Pendleton.* ■

# Advanced Training Report: Yamaha Champions Riding School

Photo courtesy of UT1 (SCW) Clinton Waldorf

BY UT1 (SCW) CLINTON WALDORF,
SmartRide Fleet Editor

In March I attended the two-day Yamaha Champions Riding School (YCRS) at Las Vegas Motor Speedway. This course is led by Nick Ienatch, who formerly instructed at Freddie Spencer's riding school and assisted the Navy, Marine Corps and Motorcycle Safety Foundation in creating the Military Sportbike Rider Course. Nick is a highly renowned sport riding expert and is the author of *Sport Riding Techniques*. I knew this was going to be some good training.

My purpose for attending was to improve my skills and become a better, safer, and faster rider. Whether you're an avid rider, occasional track day guy, or just a weekend warrior, I believe every rider will get something valuable from this type of training. More than that, I think everyone should attend a course like this. If you were a golfer and wanted to improve your swing, wouldn't you seek out a local professional for help? This is exactly what I did for my motorcycle riding skills and I am glad I did. Money well spent

YCRS is kept to small numbers of 10 to 12 students. This keeps instructor-to-student ratios very low, allowing for plenty of one-on-one time and feedback from instructors. There was a mixed level of experience, including a first time track rider, repeat students, amateur racers, the owner of Silver Star Clothing Company, and even ESPN X-games BMX Gold Medalist Chad Kagy.

At the course, students ride the latest Yamaha R6 and R6Rs and groups are separated based on experience level. Since I had a handful of track days under my belt, I fell into the medium-to-faster paced group. I was comfortable with this pace and on occasion, I had to push to keep up with the faster riders of the group and the instructor's pace.

## DAY 1

We started in the classroom with introductions and then got right to business. We covered braking, reading the circuit and types of corners, levels of risk, non-negotiables (more on that in a sec) and more braking.

By the way, if you don't get a bite to eat at the hotel, YCRS will have a spread laid out for you, with food and drinks and a hot lunch. If you don't have your own leathers and gear you can rent the latest Alpinestars gear from the school. This is especially helpful if you are flying into Las Vegas and want to save some space and weight in the luggage.

After the classroom brief, students and Nick packed into the passenger van for a few laps on the Las Vegas Infield Circuit. Nick spent plenty time explaining each corner in detail: early apex, late apex, entry, exit and getting the motorcycle pointed for what is next.

"Non-negotiables" were discussed as well. What are they, you ask? These are the basics that form your riding foundation: items that do not change and things you must or must not do. One example is being smooth on the controls. You cannot be jerky in your use of controls; this is non-negotiable.

With each lap in the van, the driver increased the speed of the over-loaded passenger van and demonstrated the braking and line that is required. It's important to know the circuit.

We exited the van at one of the last corners of the circuit, while one of Nick's instructors rode a few easy laps on his Yamaha to warm his tires. Nick took the opportunity to give us a lesson on braking. Were you taught never to use the brakes while cornering? I was, and this was all about to change. He also taught us about trail braking. YCRS motorcycles' brake lights are kept functional to show you how far it is possible to brake in corners (trail braking). Students were standing just off the track while instructors were cornering a few feet in front of us—giving the lesson of a lifetime in trail braking. Many drills were conducted based on trail braking and other braking techniques and we learned a ton about improving one of the motorcycle's most critical—if not *the* most critical—controls.

I will not tell all the secrets of Nick's school, because it really has to be experienced. However, I will say this: "Braking, braking and more braking."

Brakes are a multi-positional control, and not just an on or off switch. When used correctly, you are not only able to adjust your speed, but you also have the ability to change the motorcycle's geometry and create a better-steering bike. For example, does your front end dip when you apply front brakes? This changes the geometry of your motorcycle to a more easily turning machine. When coming to a stop, does your front end dip dramatically and then rebound back? If so, you aren't controlling your brakes well. You should have some front end dipping of course, but it should return smoothly. This is practiced each time you bring your motorcycle to a stop.

We put all this and more to the test with day-one drills. A fantastic drill that we worked on was called the "pointy end of the cone." In several corners of the circuit, instructors placed a traffic cone on its side. We had to adjust our motorcycle in mid-corner, including steering, braking, and lean angle, to negotiate to the pointy side of the cone and then exit the corner to the next challenge. The key to this drill is looking well ahead in the corner. What makes this drill so effective is that the instructors were standing off-track observing our skills, and moving the cone each lap. We never got the same scenario twice, which forced us to constantly adjust to each corner.

To brake and clutch with four fingers or two? That is the question. Many of us are taught to brake and clutch with four, but all you really need is two. You have far better control and feeling when using two fingers on the brakes, with the other two still in control of the throttle. When clutching, you really only need a small amount of lever pull to unload the engine to up-shift. On the down-shift the two fingers provide added control on the left bar and again more precise control than four fingers. This is something that definitely takes some getting used to and a lot of practice.

Body positioning, and hanging off the bike is also covered. This is where the mantra "Look GP to Ride GP" comes in. Hanging off the bike decreases the motorcycle's lean angle in a corner. This is necessary to increase your lap times on a track and proven by the pros to work. However, motorcycle lean angle also decreases grip and increases your risk. You want to decrease your risk, yet remain fast. Many riders may get their lower body off the bike or their knee down, and increased lean angle and may not even be necessary. This is increasing the risk! Learning and practicing correct body position will definitely decrease your risk and increase your fun.

Ever two-up ride with an instructor? This is an amazing learning tool. During most of the day, I struggled with heavy braking, as do many riders, learning how hard I can actually brake. Riding with instructor Ken Hill for a lap as a passenger made me realize the bike can brake much harder than I had ever realized. It felt like I was on the edge of going over the front, yet in full control of the motorcycle.

"What's next?" is another constant mantra. Successful riders need to be looking and thinking in this manner constantly – in each corner entry, apex and exit. Everything

you do on the bike requires thinking several steps ahead. What next? Where do I need to put the bike for the entry, then to the apex and then pointed out of the corner to the next corner. This is repeated to you constantly and asked of you routinely from Nick and staff. "What's next Clinton?"

**DAY 2**

We moved from the infield course to the Las Vegas Classic Course that is outside the oval. Again we spent a few laps in the van with Nick to learn the new course. Using what Nick taught us in day one, this was easily accomplished. Then we were on the bikes to take a few sighting laps and warm our tires.

We spent the first day concentrating on the use of our front brakes. Day two we practiced a drill of using only the rear brakes for a few laps and it can be done—not as fast but it can be done—again concentrating on controlling the brakes.

Ever take your left hand off the steering wheel while cornering? Not on the streets I hope. I have only seen this done by the pros and now the instructors showed us how it's done and told us we were going to do it ourselves. My first thought was "no way." However, it wasn't done to look cool, but to teach us control. Once the motorcycle is pointed and turned in the corner, and as long as you maintain a consistent throttle, you can do this. At first I barely let go of the left grip. After a few laps practicing this skill, I was pointing to the apex cones like the instructors and smiling from ear to ear in my helmet.

Next we got to follow the instructors around the course, but they were not taking the racing lines. They would ride erratically, braking and turning in early, running wide in corners, and many other scenarios to see if we would follow them or keep the correct lines. This was a highly effective drill for concentrating on the correct lines. It's excellent for street riders, teaching them not to get sucked into mistakes that other riders make in front of them.

After that, we got off the bike for a lesson in one of the corners. We watched Ken Hill demonstrate incorrect braking and cornering and were asked to identify the problem. Late braking, early braking, running wide, abrupt throttle control—many different scenarios were demonstrated. Now, what to do to correct them? As a group we discussed what we learned and how to apply the skills to correct these problems. These up close and personal demonstrations made the learning far more effective.

My favorite drill of Day two was a braking competition. Students lined their motorcycles at the top of a small hill. While in neutral, we coasted the bike until we reached a braking marker and there we applied the brakes. Whoever can keep the brake light on and coast the furthest wins! This teaches you the fine art of braking, how little you can apply your brakes and what a useful tool your brakes can be.

Right now, you may be thinking to yourself, "I am not a track day rider and this training pertains to the track." I disagree. Where are the majority of crashes on the street? In corners right? What if you could train yourself to adjust mid-corner effectively and safely? This is a huge benefit to any motorcycle rider. To accurately control braking and use this as tool to adjust speed and bike geometry, makes the motorcycle turn more effectively and gives any rider an advantage on the track or the street. If you think the latest exhaust or a new ECU is going to make you a faster or better rider, try spending the money on the best training instead. For the cost of the latest upgrades that will only last a few a years, you can invest in training and knowledge from the Yamaha School or other reputable course. For any rider, this knowledge is an investment in skills for a lifetime of riding safely and improvement. ■

# Be a Life-long Learner