

#### What's INSIDE

Iowa DOT welcomes Director Paul Trombino • 2

No magic necessary • 3 Bike helmets protect adults, too • 5

Bike to Work Week • 6 | New commissioner takes office • 6

Not-so-hidden treasures of the Iowa DOT • 7

Motorcycle safety in the hands of all drivers and riders • 12



# DIRECTOR PAUL TROMBINO

### Hello Iowa DOT!

am very excited to start work and be a part of this great organization. I look forward to meeting all of you in the near future and will work hard to earn your trust and respect.

I want to acknowledge Nancy Richardson for her outstanding career with Iowa DOT. She has not only had a profound impact on transportation in Iowa, but was a tremendous leader at Iowa DOT and in the national arena of transportation. I feel truly honored to serve as Director and greatly appreciate Nancy's leadership.

I also want to share with all of you a little about myself. As many of you likely already know, I was born and raised in Wisconsin. I have degrees in economics and civil engineering from the University of Wisconsin-Madison and the University of Wisconsin-Milwaukee, respectively. In my career, I spent about four years in the finance/banking industry in Chicago and Washington D.C., before returning to school to focus on engineering.

Subsequent to receiving my engineering degree, I have spent the past 17 years in various roles with the Wisconsin DOT ranging from highway design and construction, highway bid lettings, director of statewide structures, highway division region operations, and program management in areas of local roads, transit, rails and harbors.

On a more personal note, I have a wonderful family and we are all excited about this opportunity and moving to lowa. My wife, Trish, and I have two great kids – Enzo and Mila. They will be transitioning to lowa over the summer as we find a permanent residence and sell our house in Wisconsin.



The most important message I want to convey is how humbled and privileged I feel to be a part of lowa DOT. I plan to visit all the offices and field locations and meet every one of you. I have much to learn and will strive to foster an environment at lowa DOT where we can all learn from one another. If I had to describe my leadership style, although I would prefer to leave that to you to see and judge, I would say it is open, straightforward, and transparent. I enjoy good discourse with debate as ultimately, this makes projects better, programs more efficient, improves the transportation system and, continues to improve our organization.

Thank you for the service you provide. You all are the greatest asset in lowa DOT and my role is to support you and make all of your jobs easier. Working as a team, we will deliver the best modern transportation system for all of lowa. Please be safe and see you soon.

Sincerely, Paul



## No magic necessary

bout this time of year many lowans wish they could just snap their fingers and have all the roads and bridges repaired without the inconvenience of a construction work zone. Iowa DOT Research and Technology Bureau Director Sandra Larson explained that while new technology is not quite that quick, the Iowa DOT is planning to completely replace a three-span bridge over a two week closure period. While the contractor will be in the area longer than two weeks, the bridge will only be closed for two weeks.

The lowa DOT will be using a unique accelerated bridge construction (ABC) design to pull off what has never been done before in lowa; build a completely prefabricated bridge off-site, while closing and replacing the existing bridge for a mere two weeks. With traditional construction methods, this project on U.S. 6 would normally require the partial or complete closure of the road for several months, resulting in substantial traffic disruption.

The ABC demonstration bridge was designed by HNTB Corp. in close partnership with the lowa DOT's Office of Bridges and Structures. HNTB is currently leading a four-year national study on accelerated bridge construction for the

Strategic Highway Research Program 2 (SHRP2) and is now developing standards and specifications that will be used for future ABC projects across the country. Mike LaViolette, HNTB project manager said, "We appreciate the opportunity to work with the lowa DOT on these types of innovative projects. When we can reduce the construction duration to this degree, we not only improve traffic flow for the public, but can drastically improve worker safety as well."

In addition to funding from SHRP2, this project is receiving funding from FHWA's Highways for Life (HfL) program. Larson said, "We wanted to choose a bridge replacement project that would be innovative and repeatable. A threespan bridge was chosen because that particular configuration is common throughout lowa and other states. We wanted to ensure that what we learn from this project would be applicable to other bridges in the future." Larson explained that the lowa DOT will also include prefabricated bridge approaches. She said, "We have built prefabricated bridge approaches before, but this is the first complete prefabricated-bridge to be fabricated off-site and then assembled at the construction site. In the future what will be learned on this project can be applied to other bridges."

Magic, continued on next page





#### Magic, continued from previous page

The bid price for the Pottawattamie County demonstration bridge project, including additional grading and drainage improvements, is \$2.6 million, which is approximately 30 percent more than a similar three-span conventional bridge. To help cover the additional cost of using the new technology, the lowa DOT received a \$400,000 (or up to 20 percent of the total project cost) HfL grant and another \$250,000 from the SHRP2 program.

Ahmad Abu-Hawash of the Office of Bridges and Structures said that in addition to the prefabricated nature of the entire structure, several other elements of this project stand out. He said, "Typically, when we use precast deck panels in bridge construction we specify a concrete overlay to protect the joints between panels. This overlay could add weeks to the construction duration, therefore, it became obvious that a more durable joint is needed in lieu of the overlay. Given lowa's past experience with ultra high performance concrete (UHPC), the design team recommended UHPC be used in the joints. The primary advantages of this joint material are low permeability and high strength meaning an impenetrable and stronger joint."

Another design element that differs from some conventional bridge construction is the use of preassembled rolled steel girder units. Abu-Hawash said, "The superstructure used in this bridge consisted of rolled steel beams with concrete deck modules prefabricated off-site. The exterior modules also included traffic railing. I believe this is the first time rolled steel girder/concrete deck modules will be assembled off-site and jointed on-site with UHPC."

Because this is a demonstration project, a webcam will be used to document construction. Abu-Hawash explained, "As we have done on other innovative projects, construction site Web cameras will document project activities and provide uninterrupted access to any interested parties via the Internet. In cooperation with lowa DOT, the National Science Foundation plans on producing a documentary video with national distribution to promote the innovations being demonstrated on this project."

Aside from the webcams, Abu-Hawash and others involved in the project will present the findings at a construction workshop for other state DOTs, FHWA and other interested parties.

Larson and Abu-Hawash see future uses for complete precast bridge replacements. "With our aging infrastructure and damage from natural disasters such as floods, states sometimes need a way to replace bridges quickly. The experience gained from this project will give us the knowledge to utilize these technologies when needed and where appropriate.

The U.S. 6 bridge project was one of 15 awarded grants in the 2010, \$20 million round of HfL funding. The HfL program seeks to get states, engineers and contractors to adopt proven innovations and technologies leading to:

- Improved safety during and after construction.
- Reduced congestion caused by construction.
- Better quality of the highway infrastructure.

These funds are to be used for incentives to state DOTs to demonstrate innovative technologies and practices that can be used to build projects more safely and quickly, will result in longer-lasting highways, and will achieve a higher level of user satisfaction. Information from these projects will be shared with the whole transportation community to accelerate changes that will improve the safety and performance of our highways, and reduce the impact of construction and maintenance on highway users. These projects also have performance goals as a part of their HfL application.

In 2007, the Iowa DOT completed the 24th Street bridge project over Interstate 80/29 in the Council Bluffs area with the assistance of HfL funding. The innovations shown by Iowa DOT and their project partners have been nationally recognized and, thus, Iowa is one of only seven states that have received multiple HfL grants in the highly competitive process.

To view the SHRP2 report, go to http://144.171.11.40/cmsfeed/TRBNetProjectDisplay. asp?ProjectID=3123





## Bike helmets protect adults, too

he end of another school year and start of a long summer break means more kids heading to activities on bikes. Parents across lowa are starting to get the message that making their kids wear bike helmets is a smart decision. But what about when an adult mounts a bike? Are they as likely to take the extra step to wear a helmet?

"May is Bicycle Safety Month and a great opportunity to take a look at two-wheeled safety practices," said Kathy Ridnour from the Office of Systems Planning. "The goal of the lowa DOT's bike safety program is to educate every bicyclist, no matter what age. It is easy to focus on the younger kids with programs like Safe Routes to School, but if you look at the statistics, the majority of injuries and fatalities to bicyclists are adults or teens. I think many teens and adults believe they can just be more careful when riding. Crashes happen quickly and you cannot prepare for them at the time; you need to be prepared by wearing a helmet before you start riding. No one plans a crash."

Of the 409 bicyclists injured in Iowa in 2010, 334 were riding without helmets, as were five of the eight bicyclists killed in the state last year. Of the 334 injuries to riders without helmets, only 130 were young kids. Seven of the eight fatalities were people older than 14. (See statistics chart.)

A study from the Johns Hopkins Injury Prevention Center shows bicyclists hospitalized with head injuries are 20 times as likely to die as those without. Ridnour says bicycle helmets are a necessity, not an accessory; and she's living proof of the benefits a bike helmet provides, even to a careful rider. She explained, "I was riding one day over by Ogden. I pulled off the road quickly and forgot my feet were clipped onto the bike pedals. I fell over and cracked my head on the pavement. There was no way to break my fall; my head hit first. Thanks to my bike helmet, the only bad thing from the crash was the need to replace my cracked helmet."

The Bicycle Helmet Safety Institute reports the average careful bike rider may still crash about every 4,500 miles. Head injuries cause 75 percent of the nation's more than 500 annual bicycle deaths. Medical research shows that bike helmets can prevent 85 percent of cyclists' head injuries. There



are helmets on the market with a rounder, smoother profile referred to as a "compact" shape. Research has shown this helmet shape to be even more effective in a crash.

A helmet protects your head because it reduces the peak energy of a sharp impact. This protection comes when a layer of stiff foam cushions the blow by compacting. Most bicycle helmets do this with expanded polystyrene (EPS), the same foam found in picnic coolers. Once crushed, EPS does not recover. When damage occurs to a helmet, it must be replaced.

Helmets made for sale in the United States must meet the U.S. Consumer Product Safety Commission's (CPSC) standard. When you pick up a helmet, look first for a CPSC sticker inside and a smooth shell with a bright color outside. Put it on, adjust the pads and straps or the one-size-fits-all head ring, and then try hard to tear the helmet off. Look for vents and sweat control. Helmets sell in bike shops or by mail order for \$20 or more, or in discount stores for less. A good shop helps with fitting, and fit is important for safety. A less expensive helmet can be equally protective, if you take the time to fit it carefully.

A strong strap and fastener are critical. The helmet should sit level on your head and cover as much as possible. Above all, with the strap fastened, you should not be able to get the helmet off your head by any combination of pulling or twisting. If it comes off or slips enough to leave large areas of your head unprotected, adjust the straps again or try another helmet. Keep the strap comfortably snug when riding.

INJURIES AND FATALITIES	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of bicycle-related crashes	381	413	435	462	388	443	447	448	416	414
Number of bicyclist fatalities	3	3	3	7	11	5	7	5	2	8
Number of bicyclist fatalities NOT wearing a helmet	3	2	3	5	11	4	7	4	1	5
Number of bicyclist injuries	386	412	430	457	380	433	436	434	408	409
Number of bicyclist injuries NOT wearing a helmet	352	374	396	420	342	398	395	390	355	334
Number of bicyclist fatalities age 14 and younger	0	2	1	4	2	0	1	1	0	1
Number of bicyclists injured age 14 and younger	153	195	218	216	157	173	155	141	141	130





The lowa Bicycle Coalition, BIKEIOWA.com and Iowa DOT join together to promote Bike to Work Week, May 16-20. The Iowa DOT will be promoting bicycle commuting with a local Confident Cycling class May 14 in Ames, as well as a special Bike to Work Day event May 18 for central complex employees. Pledge to ride your bike to work at least once during that week and be eligible for weekly prize drawings.

For online registration and information of other bike events, visit www.bikeiowa.com.



## New commissioner takes office



Charese E. Yanney, a Republican, is a partner in Guarantee Roofing, Siding and Insulation Company of Sioux City (1976-present). The company provides a full range of products and services, and holds the prestigious GAF certification as "Master Elite Contractor."

She attended Morningside College in Sioux City, and obtained her bachelor of science

in education degree from the University of Nebraska, Lincoln, Neb., with a major in English/speech and drama, and minor in physical education.

Yanney is a former junior high and high school teacher at the Sioux City Community Schools (1973-76), and O'Neill Public Schools in O'Neill, Neb. (1972-1973). In addition to teaching core curriculum classes, Yanney coached drama, was an assistant coach for junior high girls track, and organized pep club and cheerleading activities.

Yanney is currently a member of the Vision Iowa board of directors. She is a current member of St. Luke's Regional Medical Center's board of directors of Sioux City. Yanney is past president of the Sioux City Symphony's board of directors and past chairman of the Siouxland Chamber of Commerce (2004-2005). Yanney is past chair of the Iowa Association of Business and Industry and current chair of their foundation board.

In 2010, Yanney was inducted into the Iowa Women's Hall of Fame. The Iowa Commission on the Status of Women established the honor in 1975 to provide visible examples for future female leaders.

Previously, Yanney served in several governor-appointed positions, including the Privacy Task Force (2001-2002); Vertical Infrastructure Committee (2000-2004); Governor's Committee on Community Colleges, a five-year plan for community colleges (2000-2001); Governor's Committee on Reformed Spending (1991-1992); the Iowa Economic Development Board (1992-1998); and Iowa Beer and Liquor Control Department Board, including board chairperson (1982-1985).

Yanney was also formerly active in a number of civic and community organizations, including the University of Briar Cliff; United Way; lowa Jobs for America's Graduate; Council on Human Investment; Girls Inc. of Sioux City; Looking for Secondary Education, a committee for the local school board; Sioux City Chamber of Commerce; and Junior Achievement.

Yanney replaced Deborah (Debi) Vowels Durham. Her term runs from Feb. 23, 2011, to April 30, 2012.



## Family happenings

#### **Operations and Finance Division**

Sheri Anderson



Steve and Andrea Henry welcomed son Xander Thomas March 24 at 2:24 p.m. Baby Xander weighed in at 7 pounds 2 ounces and measured 20 inches long. Mommy Andrea is an information specialist 2 and Daddy Steve is a reproduction equipment operator 2, both in the Office of Multimedia Services. Their new baby boy is currently being adored by his big sister, Jaedyn, 4 ½.

## **Design**Judy Lensing



Greg Moyle, design technician in the soils section, and his wife, Kim, are first-time parents of a baby boy. Gabe Thomas was born March 22 weighing 8 pounds, 8 ounces and measuring 20.5 long. Congratulations to the new parents!



Adapted from www.heardontheplayground.com

My friend found out she was having her sixth child, and she and her husband called a family meeting to announce the blessing. "Kids, we are going to have a new baby," said Dad. Everyone was quiet in receiving the news. "Do you have any questions?" asked Mom. Jillian, their second child, blurted out, "Do we get to vote on this one?"

When caught up in a conversation about changing my last name after my upcoming wedding, I asked my three-yearold, Rowan, if she knew her full name. Without hesitating she replied, "Rowan Devine Come Here Right Now."

While cooking dinner, I noticed my daughter struggling to draw some sort of animal at the dinner table. "Would you please pick up your magic markers?" I asked. My daughter sighed and replied, "Trust me, these markers aren't magic."

MAY 2011



## Not-so-hidden treasures of the Iowa DOT

These images and thousands of others can be viewed and downloaded from the lowa DOT's website at http://historicalphotos.iowadot.gov/ermsportal/historicalphotos\_home.aspx.



A Cleveland Caterpillar tractor on a primary road near Ames. This photo is dated between 1918 and 1920 based on the number recorded on the photo.



A man operates a dump truck outside the Iowa State Highway Commission headquarters in Ames in this undated photo.



Oblique view of automobiles on the Eldora viaduct over the lowa River. The photo is dated 1914.



Oblique view of experimental station to determine traffic pressure on culverts in place on highways. Dated between 1910 and 1921 based on the number recorded on the photo.











To: Ottumwa Courier From: Philip Davis, Agency

I would like to express my appreciation to the men and women responsible for plowing snow on the public roadways in Wapello County. As a supervisor for MidAmerican Energy Co., I had the need to travel from the Agency area to the Cedar Creek Golf Course area during the very early morning hours Feb. 1. I, along with two co-workers, were responding to a report from a customer that they had lost natural gas service to their residence in rural Wapello County.

The wind was howling as I dressed to leave my residence. I had doubts as I pulled out of my driveway that I would successfully reach my destination. The safety of employees and the public has evolved as the number one priority at MidAmerican Energy Co. The weather/driving conditions on this particular morning were going to be the primary challenge to that priority.

As I eased my way down the westbound entrance ramp of U.S. 34 at Agency and on to the four-lane, I was amazed at the condition of the roadway. It was obvious that a lot of work had already been completed on the highway. Both lanes and a portion of the shoulders had been plowed recently. Snow drifts were already reappearing across the outside lane of traffic. I was able to cautiously make my way toward Ottumwa on at least one clear lane. As I traveled west, the only other vehicle I encountered, that was still moving, was a Wapello County Secondary Roads snowplow that was working on 74th Street.

I reached my destination without incident. As it turned out, the natural gas service to the customer that had called for assistance was working properly. Blowing snow had plugged the exhaust vent on their high-efficiency furnace (this Is a good reminder for everybody that new natural gas appliance technology requires new maintenance considerations).

My return trip home required me to stop at the MidAmerican Energy Co. Service Center on South Vine Street. Again, as I entered Ottumwa from the north and traveled to the east end of downtown, I was amazed how much snow had been moved by the Ottumwa Public Works crews. The snow routes that I traveled were in excellent condition.

I will close with a thank you to all the individuals that play a part in keeping our roadways passable during snow events such as the one we experienced the first week of February. You have my sincere respect.

(Editor's note: The Ottumwa garage responsible for plowing U.S. 34 near Agency.)

To: Iowa DOT

From: Paul and Linda Elshoff, Fruitland

Just wanted to let lowa DOT management know that my wife and I had a very pleasant and almost entertaining experience as we had our address changed on our driver's licenses. We had just moved to a new residence and needed to comply with the address change requirement. We wanted you to know that the staff at the Muscatine Mall driver's license station made us feel comfortable. Actually, we felt they were enjoying serving our needs. Their personalities were "a hoot," as we were even laughing and joking with them during our process. Nothing over-the-top or disrupting for anyone else there, though.

We have never had an experience like this before and thought they should be commended for their bright work attitudes, dedication to their duties, and the fact that their enjoyment of their jobs shows! They are a credit to their career fields, the lowa DOT, and taxpayers of this state. I hope someone will pass on our comments to management and that office. In these times and in this economy, this is stand-out service and it needs to be noted that it is appreciated.

(Editor's note: The employees at the Muscatine DL station are Shanna Kaufmann, Cindy Weston, Kimberly Miller, Mary Call and Shawn Grosjean.)

To: Dave Meyers, Driver Services

From: Captain Mike McKelvey, Mason City Police Department

I wanted to commend one of the Traffic Criminal Software (TraCS) support representatives, Mike DeVenney, for the excellent customer service he provided our agency Saturday, March 19. For some unknown reason, our TraCS software that manages the end-shifting and storage of contacts disappeared from our network. Our department support staff member tried to contact our support representative, but was unable to reach him. She then contacted Mike DeVenney and asked for suggestions.

DeVenney was very polite (even when bothered on a Saturday morning and not being our assigned representative). He then remoted in and rebuilt or reinstalled the software, which took him approximately one hour. As a result, the issue was resolved.

This is excellent customer service. We greatly appreciate DeVenney's help and wanted to make sure you were also aware. Please share our appreciation with him.

(Editor's note: Mike DeVenney is a program planner 3 with the TraCS program in Driver Services.)



### **Service awards**

Information supplied by the Office of Employee Services for May 2011

#### 30 years

**Richard Banowetz**, De Witt garage; **Russell Frisch**, Waverly garage; **Roger Larson**, Systems Planning; **Donald Meiers**, Carroll garage; **Russell Pettinger**, Dyersville garage

#### 25 years

**Kelli Arnburg**, District 2 materials; **Dixie Makedonski**, Des Moines construction; **Virgene Ohl**, Council Bluffs construction

#### 20 years

**Calvin Enfield**, Motor Vehicle Enforcement; **Raymond Meyer**, Waverly garage; **Deborah Muell**, Council Bluffs DL station; **Douglas Williams**, Storm Lake garage

#### 15 years

Ricky Fiedler, District 5 Office; Cole Kern, Maintenance; Frederick Mazzella, Location and Environment; Cheryll Schell, Maintenance; Neal Tieck, Materials; Jeremey Vortherms, Traffic and Safety

#### 10 years

**Brian Harpster**, Jefferson construction; **Becky Riesenberg**, Driver Services

#### 5 years

**Zachary Abrams**, Design; **Colin Greenan**, Location and Environment; **Cindy Pauley**, Burlington DL station; **Steven Schroder**, Traffic and Safety; **Linda Thede**, Finance; **Mark Vetter**, Support Services; **Brian Worrel**, Bridges and Structures

## **Personnel updates**

Information supplied by the Office of Employee Services for Feb. 18 to March 17, 2011

#### **New hires**

**Michael Burdine**, materials fabrication inspector 2, District 5 materials; **Rick Lawler**, highway technician associate, Dubuque garage; **Joshua White**, mechanic, Anamosa garage

#### **Promotions**

None

#### **Transfers**

None

#### Retirements

None

## Quote of the month

To comprehend a man's life, it is necessary to know not merely what he does, but also what he purposely leaves undone. There is a limit to the work that can be got out of a human body or a human brain, and he is a wise man who wastes no energy on pursuits for which he is not fitted; and he is still wiser who, from among the things that he can do well, chooses and resolutely follows the best.

#### John Hall Gladstone

Service Area	Correspondent	Phone
District 1	Lori Wilkens, Des Moines	515-261-9500
District 2		
District 3	MaryBeth Banta, Sioux City.	712-276-1451
District 4	<b>Marlene Jensen</b> , Atlantic	712-243-3355
District 5		
District 6		
Bridges and Structures		
Construction		
Contracts		
Design	Judy Lensing, Ames	515-239-1469
General Counsel	<b>Chris Crow</b> , Ames	515-239-1509
Information Technology Division		
Local Systems		
Location and Environment	<b>Susie McCullough</b> , Ames	515-239-1225
Maintenance	Cindy Shipley, Ames	515-239-1971
Materials		
Modal offices		
Motor Vehicle Division		
Operations and Finance Division	<b>Sheri Anderson</b> , Ames	515-239-1340
Research and Technology Bureau		
Right of Way	<b>Tami Bailiff</b> , Ames	515-239-1216
Systems Planning	Peggy Riecken, Ames	515-239-1664
Traffic and Safety	<b>Stephanie Anderson</b> , Ames.	515-239-1746
Transportation Data	Jodi Clement, Ames	515-239-1289
Federal and state laws prohibit employme	ent and/or nublic accommodation	n discrimination

Federal and state laws prohibit employment and/or public accommodation discrimination on the basis of age, color, creed, disability, gender identity, national origin, pregnancy, race, religion, sex, sexual orientation or veteran's status. If you believe you have been discriminated against, please contact the lowa Civil Rights Commission at 800-457-4416 or lowa Department of Transportation's affirmative action officer. If you need accommodations because of a disability to access the lowa Department of Transportation's services, contact the agency's affirmative action officer at 800-262-0003.

## INJIDE

**INSIDE** is developed to help keep all lowa DOT employees informed about critical issues affecting them, recognize DOT employees for their excellent service and share interesting aspects in the lives of our co-workers. For more information, contact Tracey Bramble, Office of Media and Marketing Services, at 515-239-1314 or e-mail tracey.bramble@dot.iowa.gov.

#### Paul Trombino, Director

Tracey Bramble, Multimedia Services, editor Christina Andersen, Multimedia Services, desktop publisher Printing Staff, Multimedia Services, printing



800 Lincoln Way, Ames, IA 50010 • 515-239-1372



PLEASE RECYCLE THIS ISSUE

On the cover: Familiar images of spring in lowa May I-Spy clue: April showers, bring May ... April I-Spy solution: None - Farewell to Nancy



## Motorcycle safety in the hands of all drivers and riders

ith rising gas prices and warmer weather, drivers on lowa highways will soon be joined by more motorcyclists. May is National Motorcycle Safety Awareness month and a good time for lowa DOTers to be reminded that as the weather changes, so do the types of vehicles we encounter on the roads.

lowa DOT statistics show since 2001, motorcycle registrations in our state increased by nearly 30 percent to 170,999 in 2010. With the increase in registrations has come an increase in crashes and fatalities involving motorcyclists. In 2001, 35 motorcyclists were killed on lowa highways; in 2010 that number rose to 56. In the last 10 years, there have been 9,287 crashes involving a motorcycle. As a result of those crashes, 491 fathers, mothers, sons and daughters were killed, and another 2,248 were seriously injured.

The increased number of motorcycles is just one factor leading to more crashes and fatalities. With the upswing in distractions available to drivers, they are paying more attention to items inside the vehicle and less attention to the task of driving safely. In crashes with motorcyclists, drivers often say that they never saw the motorcycle. A motorcycle's outline is much smaller than most vehicle silhouettes and, especially early in the spring, drivers are not looking for motorcycles.

Even if a driver sees a motorcyclist, safety is far from assured. Smaller vehicles appear farther away and seem to be traveling slower than their actual speed. The vehicle driver's misjudgment of the motorcycle's speed is frequently noted in these crashes. The lowa DOT's State Safety Engineer Jeremey Vortherms encourages all motorcyclists to "Be a part of the solution and ride bright."

But Vortherms admits, even the brightest, most neon-colored outfit may not be seen by an inattentive motorist. "Motorists need to be on the lookout for these smaller vehicles, especially newer drivers who don't have much experience sharing the road with a motorcycle. When you do see a motorcycle on the road, you need to understand that these vehicles maneuver differently. It can be difficult to estimate traveling speed of a motorcycle, which can be startling to an inattentive or inexperienced driver."

Data shows nearly 73 percent (10-year average) of crashes with motorcycles and 60 percent of motorcycle fatalities occur in broad daylight. Riders should wear bright-colored clothing to increase their chances of being seen, because the rider's body is half of the visible surface area of the rider/motorcycle unit. A motorcycle rider wearing a bright orange, red, yellow or green helmet, jacket or vest has been shown to increase a motorist's ability to see the smaller vehicle. Reflective clothing or stripes on the helmet and vest also increase visibility for night riding.

Motorcycle equipment can help the rider and motorcycle be more visible to other drivers. Because many vehicles now use daytime running lights, daytime motorcycle headlamps are not as conspicuous as they once were. Now, a modulating motorcycle headlamp is a good way to help motorcycles get noticed in traffic. Other motorists are more likely to give motorcycles a second look, and better judge their speed and placement in traffic. Modulating head lamps, conforming to the U.S. Code of Federal Regulations (43 CFR 51.108S7.9.4), are permitted on motorcycles in all states.

## There are many tools motorcyclists can use to be more visible on the road.

- Avoid driver's blind spots by using strategic lane positioning.
- Use the motorcycle's turn signal and signal your intentions with hand signals. Wearing bright or reflective gloves will make hand signals more visible.
- Alert following vehicles when slowing down or stopping by flashing the vehicle's taillight, or install a safety taillight system that automatically flashes and then holds steady when braking.
- Install a modulating headlight.
- Add reflective materials to the motorcycle.

