

INSIDE

IOWA DEPARTMENT OF TRANSPORTATION NEWSLETTER OCTOBER 2004



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From my view

Mark F. Wandro, P.E., L.S.



Admit it, you've all read them - those "Hats off" letters printed near the back of some editions of INSIDE. Maybe you've even been the recipient of a pat on the back note from a citizen. I want to make sure you know that I'm aware the letters we receive are just a drop in the bucket for the many acts of kindness

above and beyond the call of duty that are performed everyday by DOT employees.

I hear it everywhere I go, visiting with old friends in Charles City, from legislators at the statehouse or with many of the other Iowans I come in contact with. My own experience as an engineer-in-training in Cherokee 20 years ago cemented my impression of DOT employees as caring and helpful.

Everyday hundreds of DOTers are on the roadways going about their duties, but they stop what they are doing when a stranded motorist comes into view. Although the Highway Helper program in Des Moines is an organized group that gets a lot of media attention, I know many of you act as "highway helpers" in every corner of the state on a daily basis.

Since safety is one of our key focus areas, I'm proud to hear the stories of a young mother of three who was assisted by a DOT employee when her vehicle ran out of gas on a sweltering summer day or when an employee changes a tire for an elderly couple. Keeping our roadways safe involves so much more than pavement width or snow removal.

This kind of activity might be seen as non-essential to some outsiders. I do not agree. Safety is the responsibility of every DOT employee, and anything you do to improve the well-being of a motorist is well within your job duties. Thank you for putting yourselves out there when assistance is needed and going the extra mile to show the citizens on Iowa that we're there when they need us.

Pollema killed while preparing for military deployment

Motor Vehicle Officer Bruce J. Pollema passed away Friday, Aug. 27, 2004, in Johnston while on duty as a staff sergeant with the Iowa National Guard's 2168th Transportation Company. Pollema and another soldier were leaving Camp Dodge when the tractor/trailer they were driving went off the road and rolled



Bruce Pollema

into a ditch. The vehicle was part of a military convoy enroute to Fort Sill, Okla. prior to leaving the United States for the Middle East as part of Operation Iraqi Freedom.

Pollema began his career with the DOT as an equipment operator 1 in Madrid in December 2000. He was promoted to motor vehicle officer in September

2002 and assigned to work in Jasper County. Pollema transferred to Plymouth County in July 2003.

A military funeral was held Sept. 1 in Hull, Iowa, where Pollema grew up. In addition to his family, friends and military dignitaries, many of Pollema's DOT coworkers attended the funeral. Approximately 50 Iowa DOT motor vehicle officers, sergeants and captains, along with Major Mike Benner, MVE Director Mike Winfrey and Motor Vehicle Division Director Shirley Andre gathered to bid a final farewell to our fallen friend.

Captain Lance Evans spoke on behalf of all of the MV officers Pollema worked with when he said, "Bruce was very dedicated and enjoyed working as a motor vehicle officer. He would help anybody with anything and was an all-around good guy. He will be truly missed by those that worked with him and the department."

Pollema is survived by his parents, Betty and Wilmar, an older brother Waylon, and a twin brother Brandon.

Benefit change period begins Oct. 15

Fall is approaching and many DOT employees are starting to consider how they would like to structure their benefits for the upcoming year. From Oct. 15, through Nov. 15, 2004, the benefits enrollment and change period will allow employees to change health insurance carriers, enroll in a dependent care flexible spending account or enroll in a health flexible spending account.

The Employee Benefit Handbook published by the Department of Administrative Services-Human Resource Enterprise is an excellent resource for reviewing benefit changes and rules. **The DOT will not be distributing printed copies of the handbook, but employees may access it electronically.**

The handbook is available on DOTNET under Operations and Finance, Employee Services, Compensation and Benefits, or by accessing the Department of Administrative Services, Human Resource Enterprise on its Web site at www.das.hre.iowa.gov/benefits. Please note that the updated version of this handbook will not be available until closer to the Oct. 15 start date of the open enrollment and change period.

We have also been informed that Delta Dental benefits are expanding and that a dental open enrollment will be offered to AFSCME and non-contract employees during the open enrollment and change period. However, the Office of Employee Services (OES) has not yet received the new premium rates, so please watch for more information in the coming weeks.

Remember that benefits are a significant part of your compensation package. It is important for you to understand how they work to be a conscientious consumer and make an informed decision regarding the benefits that best fit your current lifestyle.

The benefits staff in OES can provide basic information regarding benefits, such as what plan you are currently covered under, the cost of the plan, etc. However, if you need assistance regarding covered services or physicians, it is best to contact the insurance carrier directly to get the most accurate information. Customer Service numbers for the different carriers are found in the benefits handbook or are available on the Web site addresses previously provided.

If you have questions or concerns regarding this enrollment and change period, or need assistance in making changes, please call OES at 515-239-1921.

The most important things to ask yourself about your benefits are:

- Is my current health plan meeting my needs?
- What are the insurance plan rate changes and how do these rate changes affect my current coverage?
- Have the covered services changed in my insurance plan?
- Is my physician still on the participating doctor list for my insurance plan?
- Are all my dependents listed accurately on my insurance plans?
- Is either a dependent flexible spending account or health flexible spending account something that would be beneficial to me this year?

Phone upgrades to begin in December



The DOT's current telephone system is a dinosaur in the technology world. Finding a way to increase available services, decrease cost and ensure a voice network that will keep up with technology has been the task of the Information Technology Division (ITD) and Information Processing Steering Committee (IPSC) over the past several months. The work they have done has resulted in a plan for the antiquated telephone system and all telephones in the DOT's Ames offices, Park Fair Mall and each of the six district offices to be replaced.

Baker Communications of Des Moines was chosen through the request for proposal process to provide the new network that will take advantage of Voice over Internet Protocol (VoIP). The VoIP technology allows you to route voice traffic over a data network in addition to traditional phone lines. It also allows more integration between traditional voice services and data applications. Roger Parker of ITD explains, "In the VoIP system we are planning, we can use the existing cabling infrastructure for local telephone connections, the data connections between locations to eliminate long distance calls between sites and enhance the system capabilities in a way we could not before."

The backbone of the system is the copper and fiber optic lines that were replaced at the central complex in Ames last summer. "Because the back-

bone and new data center are now in place, we'll be able to unplug from the old switch and plug right into a state-of-the-art, IP-enabled switch to take advantage of the new services and cost savings."

Some of the enhancements include calling features to allow voice mail in the district offices and interconnectivity between all offices on the network. This will enable customers to utilize such things as four- or five-digit dialing between sites, forwarding voice mails between sites, and sharing the local calling areas of each site on the network. "Right now our phone systems are very minimally connected," said Parker. "With the new network we will have the capability to route services and features between sites." With all the added capability, the new voice network sounds expensive, but Parker says a very rough estimate of the cost savings just the first year could near \$50,000.

"For the calls that stay on our voice network there will be no per call charge," explained Parker. "There are some charges along the way associated with the data lines, but we will not be charged for each call. Employees will also be able to take advantage of 'local call areas' which means, for example, if someone in the District 2 Office in Mason City needed to call a contractor in Des Moines, there would be no per call charge for that connection."

Parker says the Ames office phones will be replaced in mid- to late-December, the Park Fair equipment upgraded in mid-March and the changeover in the district offices (Mason City, Atlantic, Sioux City, Fairfield and Cedar Rapids) will begin next July with one site at a time being upgraded. At the present time there are no plans to change phones in other field offices.

Training for Ames-based end users on this new system will take place over eight days in late November and early December. Parker says they plan to provide two classrooms running simultaneous sessions of 15 employees each to get all central complex and District 1 DOTers up to speed. "There is different training for each of the three types of phones," he said. "Some people just have a single line phone and will take training for that type of replacement. Others with multi-line phones will be trained on the model that will replace their current equipment and other training will be provided for the larger models used at the switchboards."

Please check DOTNET in the future for training session schedules and registration information.

Remote sensing

Your eye sees an object in the distance. This object's features are registered in your brain and available to your body for actions to be taken. The basic premise of remote sensing technology is the gathering, analysis and interpretation of data about an object, area or phenomenon obtained by devices without being in direct contact with the object, area, or phenomenon under investigation. Examples range from the everyday to expensive, exotic and yet to be conceived: X-rays, ultrasound examinations; metal detectors; sonar and fish-finders; aerial photography and satellite imagery; all the way to interplanetary exploration like the Mars rovers.

The Iowa DOT uses many remote sensing devices as "eyes" and a complex network of databases as "brains." The way employees use the data to accomplish a variety of tasks are the actions the "body" takes based on the information. Although the analogy is simple, the DOT's field information gathering process can get very complicated, very quickly.

A group of employees, the Remote Sensing Coordination Committee (RSCC), is tasked with studying new remote sensing technology and aligning current remote sensing uses to best serve the needs of the department in the most economical and streamlined way. Using new technology in field data collection, we can work smarter and cheaper using more accurate data for project cost estimates and to promote safety by manipulating and comparing the data in more depth than ever before.

One of the DOT's early uses of technology in remote sensing dates back to the early 1990s with the video logging van. Early technology in the van used a video camera mounted in the vehicle and recorded roadway features on large disks as the van traveled. The disks had to be edited and could only be viewed on special equipment. The technology was upgraded a few years ago from disk storage to digital imagery available to each employee's desktop computer. Coming advances in this system hope to input data directly into our database format while the operator is driving the vehicle. Collected by the Transportation Data staff, the information gathered from the van is used by Traffic and Safety, Right-of-Way, Design and many others offices.

Global positioning systems (GPS) are also being used to collect many types of data. From inexpensive GPS units carried by employees to high-end survey grade GPS components, you've read about the progression of remote sensing using GPS at the DOT in past issues of INSIDE. Because GPS data can be collected and exported in a number of formats, the data is used by systems already in place at the DOT, including the coordinated transportation analysis and management system (CTAMS). CTAMS has been used at the DOT since early 2000 to present data in an easy-to-interpret map format. A new GPS interface developed for the GeoMedia eliminates the need to use multiple software packages and convert data; and more consistently collects data than previously used software.

[Remote sensing](#) continued on page 15



Aerial photography is used in mapping applications.

Motorcycle fatalities increase 219 percent



Statistics recently compiled by the Office of Driver Services show motorcycle fatalities have increased every year since 1996. In 2003 motorcycle fatalities were approximately 219 percent higher than in 1996, while the number of licensed motorcycle riders has increased only 4 percent. A comparison of recorded injuries from motorcycle crashes in 1996 and 2003 shows a 22 percent increase.

Through the first week of August, 32 motorcycle fatalities have been reported this year. There were 26 fatalities through the same period in 2003. There were 27 fatalities in 2002, 14 in 2001 and 20 fatalities in 2000.

Scott Falb from Driver Services says, "Given the difference between the number of fatalities reported in 2004 and 2003, the final number for 2004 could top 60 fatalities if the current trend continues."

All of the fatalities recorded by the DOT were motorcycle drivers or passengers. In a 2003 study of motorcycle fatality crashes, 56 percent were single-vehicle crashes. So far in 2004, 47 percent of the crashes involve one vehicle, 43 percent involve one motorcycle and another vehicle, and 10 percent involve two motorcycles.

Speed appears to be an underlying factor in a majority of the crashes. Because motorcycles are smaller than other vehicles and are often difficult to see, DOT officials encourage all motorcycle drivers to use defensive driving skills, drive at a safe speed, wear a helmet and clothing that is easily seen, and never ride while impaired by alcohol or other drugs.

Motorcycle Stats 1996-2003

Year	Fatalities	Injuries	Registrations	License Holders
1996	16	710	108,670	215,316
1997	26	679	107,473	213,626
1998	27	638	109,235	214,521
1999	30	652	107,645	215,537
2000	32	771	110,395	215,660
2001	38	730	120,961	217,566
2002	41	793	124,230	221,495
2003	51	867	N/A	224,042

Helmet Use in Fatal Crashes

	1996	1997	1998	1999	2000	2001	2002	2003	Average Use
Used	2	1	2	6	2	1	6	1	8.0%
Not used	14	22	23	23	30	36	34	47	87.7%
Unknown	0	3	2	1	0	1	1	3	4.2%
Total	16	26	27	30	32	38	41	51	100.0%

Way to go, Clinton!

Finding your way around an unfamiliar place can challenge even the best navigator unless adequate tools are available. When your goal is attracting tourists to a location, providing the tools for easy navigation to popular destinations is a must.

Tourists in Clinton appeared to be having a difficult time locating some of the Mississippi River town's attractions. Julie Allesee, director of the Greater Clinton Convention and Visitor's Bureau, contacted officials in the city of Dubuque for help because they were going through the signage process.

"Dubuque has great way-finding signs," said Allesee. "I called to ask details on how the signs were made and they gave me the contact information at the DOT."

Working with Steve Wilson in the District 6 Office and Kurtis Younkin in Traffic and Safety, Allesee and her committee of local volunteers decided on a sign design and 29 locations where the signs would be placed.

"Our part was to produce the caps on the square signs provided by the DOT. We had the city administration, engineer and council all on-board because the signs would not cost the city funding due to a grant from the Clinton County Community Development Association," explained Allesee. "We had decided to map the city out in color-coded districts and then use those colors to identify specific attractions within a district. Although all the signs look very similar, they each have color coded details that identifies the attraction as part of a specific district."

According to Younkin, 28 smaller signs were produced by the DOT's sign shop and installed by the employees at the De Witt shop at a cost of approximately \$3,900. The larger type B entrance sign was produced by an outside vendor and installed by a contractor at a cost of approximately \$3,700.

Allesee says she appreciated the help provided by the DOT employees she worked with. "The DOT guys were great," she said. "Steve Wilson attended countless meetings and was very helpful to our committee. Kurtis and the other DOT people involved really guided us through the process. We had very few problems with landowners for sign placement and still complied with all the regulations. Dick Banowetz and the De Witt crew did an excellent job with the sign installation."

A test of the signs didn't take long to come about. Both the Grand Excursion on the Mississippi River and RAGBRAI hit town this summer. "With 15,000 people on bikes, the signs certainly helped. It was a great time to introduce the signs and we have had some great comments on them. We feel really good about this project."

Allesee's not ready to stop with the skeleton of what she sees as a complete signing program. "The completed signs on the outer sections of the city direct travelers to the specific districts. Those signs are complete, and we have all the signs for the attractions in the downtown district in place, but now we're ready to start on the specific attraction signs for other Clinton districts," she said. "We're also willing to share our experiences with other cities if they are interested. I would love to see all Iowa's river cities have similar programs. We have a great relationship with each other and this sign program could provide more unity between the Mississippi River towns."

Julie Allesee, director of the Greater Clinton Convention and Visitor's Bureau





Iowa State University photo

PCC trailer up and running

As materials testing technologies improve in the laboratory, how can field testing protocols keep up? A solution to this daily dilemma faced by materials inspectors around the country is currently being tested by Iowa State University's Center for Transportation Research and Education (CTRE). The Center for Portland Cement Concrete Pavement Technology, housed at CTRE, recently launched a new mobile testing lab to bridge the gap between lab and field testing.

DOT employees were given the opportunity to tour the trailer July 30 in Ames.

Iowa leads development of the \$2.214 million mobile testing lab and associated products which were funded by 16 states, the Federal Highway Administration, industry sponsors and Iowa State University. The facility is housed in a 44-foot by 8.5-foot Featherlite trailer and is outfitted with equipment, including an onboard air void analyzer (AVA) to measure the volume and size distribution of tiny air bubbles whose presence and proper position are critical for concrete roads subject to freeze-thaw

cycles. Since even the smallest vibration can affect test results, a special trap door in the floor allows the AVA equipment to gain stability directly from the ground instead of on the vehicle floor. To be used only while the vehicle is parked, having the AVA rest on the ground eliminates the risk of vehicle vibration caused by wind or movement by the technicians or other test equipment.

With only one trailer and hundreds of projects in the 16 states, how can the trailer be beneficial to everyone? The AVA test is just one of 25 different concrete measurements available to researchers. In evaluating these tests, the mobile lab technician plans to develop practical tests that a field technician can perform and easily understand the results. A "best practices" manual for field use is expected to be ready next spring.

Jim Grove, CTRE Portland cement concrete research engineer, said "The testing developed in the mobile lab will provide field verification of lab mixes. This can produce quick, real-time answers to specific issues."



Hawkeye Express

Ever been to Iowa City on a sunny fall Saturday when the Hawkeyes are in town? If your answer is yes, you've probably avoided the area around Kinnick Stadium like the plague, or gone in with the patience of Job to wait hours in snarled traffic to reach the event.

This year a new transportation option can carry up to 1,200 people on each trip to and from the stadium with no traffic or parking hassles. The Hawkeye Express, a two-engine, 11-car diesel-powered train supplied by the Colorado Ski Train and operated by the Iowa Interstate Railroad, made its maiden trek at the first Iowa home game of the season Sept. 4.

Dan Sabin, president of Iowa Northern Railway, has been a volunteer consultant to the University of Iowa Athletic Department, and said the initial run had "a few glitches," but everything was in great working order for the big game Sept. 11 versus Iowa State.

It's an eight-minute trek from the loading point at Iowa Interstate Railroad at 25th Avenue and Iowa 6 in Coralville. With time for loading and unloading, officials worked out an approximately 30-minute, round-trip schedule with trains running about two and one-half hours before and 90 minutes after each home game.

"We started early and made six round trips before kickoff for the Iowa State game," said Sabin. "We transported about 2,000 people to the Iowa State game." Sabin added that with capacity of 1,100 per run, the train would be able to handle more than 5,000 fans per game day.

"The University of Iowa Athletic Department has been trying to come up with ways to alleviate the parking and traffic congestion for Iowa football games for years, and we think we have scored a big touchdown with the Hawkeye Express shuttle train," said Associate Athletic Director Mark Jennings. "The fans that have ridden the train have really enjoyed the experience and appreciated the ease of getting to the game."

The train was leased from a firm in Colorado and typically transports travelers from Denver to the Winter Park Ski Resort. Much of the décor on the train still reflects its mountain travels. So far a one-year contract is the extent of the university's commitment to the route, but a multi-year contract may be in the works depending on the success of the train. The shuttle is costing the university between \$150,000 and \$175,000 for this season. Burlington Northern Santa Fe donated the "deadhead" move of the equipment between Denver and Council Bluffs to dramatically reduce the cost of the project.

Tickets for the Hawkeye Express can be purchased at a kiosk at the boarding site, at the UI athletic ticket office in Carver Hawkeye Arena or at the Iowa City/Coralville Convention and Visitor's Bureau Information center at Coral Ridge Mall. A shuttle bus from in front of the Iowa Children's Museum at the Iowa Interstate boarding site. Parking is also available near the train's boarding area.



Erik Rasmussen, 2004



hawkeyesports.com



Trophy Case

Recent DOT Awards

Larson awarded Purple Heart



Technical Sergeant Bryan Craig Larson has received a Purple Heart commendation for injuries he sustained while on military duty in Iraq. Larson, of the 96th Logistics Readiness Squadron from Elgin Air Force Base in Florida, says he considers himself lucky to have just sustained shrapnel injuries to his

right arm in a bomb attack of his unit.

The sergeant's family expressed great pride in their loved one for his dedication and services. Larson and his wife, Kimberly, are the parents of two sons, Chandler and Colin, and he is the son of David and Kathleen Larson, a clerk specialist in Driver Services.

DOT publication honored at national conference

"Iowa's Living Roadways Plant Profiler," a popular publication put together by employees in Design's Roadside Development section and the Office of Media and Marketing, took top honors in the publication category at the National Transportation Public Affairs Workshop held in Denver, Colo., Aug. 11-14.



The book has been distributed free of charge to nearly 6,300 Iowans. Several have given the publication rave reviews.

U.S. 20 - Iowa River Bridge garners more accolades

The U.S. 20 Bridge over the Iowa River near Steamboat Rock was honored with a 2004 Globe



Award at the annual American Road and Transportation Builders Association - Transportation Development Foundation (ARTBA-TDF) conference held in Boston, Mass., Sept. 8-12.

The project won in the "Bridge, \$10-100 million" category. In the conclusion to the bridge entry, the award booklet states,

"The first environmental studies for a new crossing of the Iowa River began in 1968. A decision on how best to cross the valley took nearly 28 years to finalize. The design of the bridge, shared with citizens through numerous public meetings, required another three years, and construction of the bridge lasted almost 28 months.

Today, the public, whether a vacationing family or a long-haul truck driver, crosses the new U.S. 20 Iowa River Bridge in approximately 15 seconds, largely unaware of the time, work and innovation that went into completing this one-of-a-kind structure."

Ridgway wins six ribbons at the Iowa State Fair

Kay Ridgway, secretary 1 in the Des Moines area engineer's office, entered six items in this year's



Iowa State Fair and came home with six ribbons - two first place, two second place, one third place and one honorable mention.

October is National Fire Safety Month

Here are a few questions to check your fire safety savvy.

1. Don't look. Where is the nearest fire extinguisher? Now go look. (Hint: Look near exit doors and along hallways.)
2. After removing the fire extinguisher from the wall, what's the first step in using it?
3. What does the acronym PASS stand for?
4. What do the initials A B C on an extinguisher stand for?
5. Why are there hangtags on fire extinguishers?
6. Give four reasons why you are expected to participate in fire drills.

(answers on page 13)

INSIDE



**... look for it
on DOTNET under
the publications
pull down!**

New District 3 materials field lab

When the Lake View field materials lab was scheduled to close, Trudy

Schroeder, materials fabrication inspector 1, started looking for alternatives to the Lake View site. Although the Storm Lake garage had room at the end of the cold storage unit, Schroeder feared funding would not be available for a new facility.

"That's when Gary Warner of the Rockwell City shop and Terry Tesch of Le Mars stepped in," said Schroeder. "They did a great job of building the lab from scratch. They consulted with me and others who would use the facility on the layout and just did a fantastic job."

The new Storm Lake lab has been open now for the summer and Schroeder is very happy with the results. She wanted to make sure everyone who helped move equipment and finish up the odds and ends at the lab received recognition as well. Thanks to Districts 3 materials staff and the Storm Lake maintenance garage for all of their help.



Gary Warner, left, and Terry Tesch built the new Storm Lake materials lab.



Thanks . . .

I want to thank everyone who donated time to me during my recovery from surgery. It is truly a gift from each of you and I am so grateful. I can't begin to explain my gratitude so I will simply say "Thank You! Thank You! Thank You!"

Mary (Toni) Pane
Driver Services

INSIDE Survey results

The results are in for the 2004 INSIDE survey. About 11 percent of employees took the time to express their opinions. With such a low response rate, it's difficult to tell if the results are representative of all employees. Nearly 60 percent of the responses received came from the central complex and 84 percent were non-supervisory. Although these numbers are not representative of the department as a whole, there were some clear trends in the results that will be acted upon.

Content

According to the responses, employees feel the major areas lacking adequate coverage in INSIDE are personnel issues and coverage of field activities. We will be working with the Office of Employee Services to increase personnel-related stories, but because of the time lag between writing an article and having the magazine published, usually three to four weeks, the timeliness of some information may call for an E-mail message sent to all employees rather than an INSIDE article.

As for the field activities, we can only print what we're aware of. There is a list on the inside back cover of each INSIDE telling you who to contact in your division/office or district to have an item put in INSIDE. My name, e-mail and telephone number are also listed. We would appreciate any input from employees about articles they would like to see in INSIDE.

Changes being made

We're also making some changes because of your survey responses. Several employees expressed concern with "From My View," Director Wandro's column. Some noted that it didn't sound like Director Wandro wrote this himself. That is true; he doesn't type the words on the page. He does, however, have complete control over the content. This will continue as we try to explore topics of more interest to employees. Any suggestions you have would be welcome.

Another change will come in the "Family Happenings" section. Several people commented that this should be reserved for current employees only. So we will no longer be printing baby photos and accomplishments of grandchildren of employees. Space will be reserved for births to current employees or accomplishments of their children.

Distribution

Respondents overwhelmingly (88 percent) read INSIDE on paper and prefer their own copy. Several written comments from central complex employees expressed that those with computer access should read INSIDE on DOTNET to cut the cost of printing. It appears many of you might have forgotten or not known that INSIDE has been on DOTNET for more than four years. To boost readership of the online version, each month a reminder will be sent to all DOT E-mail accounts when INSIDE is placed on DOTNET, usually a week or so prior to the printed version being distributed. Also an ad for DOTNET will be placed in most issues of INSIDE reminding employees to look for the magazine online. Each office is responsible to tell us how many copies are necessary for their employees. We have trimmed about 300 printed copies off the distribution, but if your office is still receiving more printed copies than you need, please let me know.



Tracey Bramble
INSIDE editor
515-239-1314

Answers to fire safety quiz on page 11

2. Pull the plastic pin that holds the squeeze handle open.
3. Pull the pin
Aim the nozzle
Squeeze the handle
Sweep from side to side
4. Extinguisher contents are made to put out certain types of fires.
A rating is for use on ordinary combustibles such as paper, wood and cloth
B rating is for flammable liquids, greases and gases
C rating is for electrical fires
Our extinguishers are all ABC rated to be used on any type of fire.

5. Extinguishers must be checked every month by the employees in the work area and the hangtags must be signed and dated. In the Ames complex, that responsibility is handled by emergency squad members.
6. 1. You need to practice the procedures before there is a real emergency.
2. Supervisors and emergency squad members need your cooperation in order for them to do their job.
3. Fire, police and medical responders expect employees to be safely out of their way if they are called to an emergency.
4. OSHA regulations require employers to have fire emergency action plans.

Read all about it



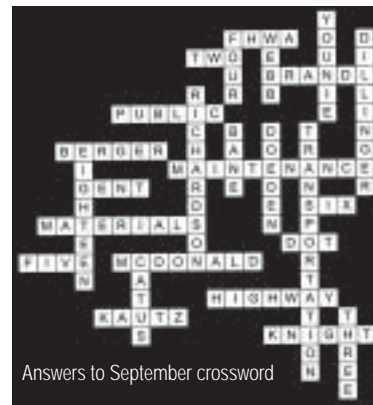
Hint: All the crossword answers come from stories in this edition of INSIDE .

ACROSS

- 2 Concrete type (acronym)
- 4 District 5 Field Services Coordinator
- 10 District 5 Planner
- 11 Model builder for the new Keosauqua Bridge
- 13 The college nickname for U of I
- 15 What your car does when it runs over strips cut in the shoulder
- 16 One who drives a train or designs a roadway
- 18 Where we're replacing an historic bridge
- 19 The area between the roadway and the right-of-way
- 21 Factual information used as a basis for reasoning
- 24 Two-wheeled vehicle
- 26 DOT Director
- 27 Asphalt
- 28 DOT's rail crossing safety guy
- 30 Acronym for Office of Location and Environment

DOWN

- 1 Optical counterpart of an object
- 3 Second city where way-finding signs were installed
- 5 Research engineer Mark
- 6 Very accurate, ground-based remote sensing equipment described on page 15
- 7 What's new in the Storm Lake garage
- 8 A passageway or route



Answers to September crossword

- 9 The new technology in rumble strips
- 12 District 3 materials fabrication inspector
- 14 First Iowa city where way-finding signs were installed
- 17 Making the appearance more appealing
- 20 The muddy river to the east
- 22 Crossing where road and rail are at same elevation
- 23 Acronym for database mentioned on page 5
- 25 What trains run on
- 29 Director of Rail Transportation

Solution will appear in the November edition of INSIDE, or find it now on page 21 of the October edition of INSIDE under the Publications pull-down on DOTNET.

PERSONNEL UPDATES

Information supplied by the Office of Employee Services for July 30 to Aug. 26, 2004.

New Hires

None.

Transfers

Wanda Horn, driver's license clerk, from Davenport DL station to Dubuque DL station; **Steven Johnson**, highway maintenance supervisor, from Charles City garage to Waukon garage; **Jennifer McCarty**, driver's license clerk senior, from Des Moines DL station to Waterloo DL station.

Promotions

Cecil Brummond, from construction technician to construction technician senior, Sioux City construction; **David Harless**, from equipment operator to equipment operator senior, from Highway Helper to Grimes garage; **Steve Hubler**, from engineering technician senior to construction technician supervisor, Des Moines construction; **Scott Marler**, from environmental specialist senior to environmental program supervisor, Location and Environment; **Sherri Naeve**, from driver's license clerk to driver's license clerk senior, Clinton DL station; **Darlene Ries**, from driver's license clerk to driver's license clerk senior, from Waterloo DL station to Dubuque DL station.

Retirements

Connie Leinen, equipment operator, Council Bluffs maintenance; **Gary Schiltz**, automotive mechanic, Maintenance; **Bradford Stoddard**, equipment operator, Ames maintenance. (Early out retirements covered in September INSIDE.)

(Editor's note: Because of comments received in our recent survey, the current job title and work location of employees who have accepted a promotion or transfer will be printed along with the new job title and work location.)

35 YEARS
Iowa Department
of Transportation



Harry Tupper
Atlantic materials

SERVICE AWARDS

Information supplied by the Office of Employee Services for October 2004.

40 Years

La Verne Bowers, Document Services.

35 Years

Harry Tupper, Atlantic materials.

30 Years

Bobbie Reed, Des Moines DL station; **Dale Williams**, Repair Shop.

25 Years

Denny Eppert, Boone garage; **Alan Freidhof**, West Union garage; **Dennis Howe**, District 1 bridge crew; **S. Thomas McKay**, Mount Pleasant construction; **Timothy Nelson**, Davenport interstate garage; **Fran Rout**, Director's Staff Division; **Raymond Saathoff**, Clarion garage; **John Shirk**, Emmetsburg garage; **David Stutz**, Driver Services; **Rodney Swailes**, Muscatine garage; **Jeffrey Switzer**, Anamosa garage; **Darwin Williams**, Repair Shop.

20 Years

Stephen Armstrong, New Hampton construction; **Michael Florman**, Carlisle garage; **Tracy George**, Policy and Legislative Services; **Jo Ann Glover**, Mount Pleasant construction; **Karen Jackson**, Vehicle Services; **Cheryl Lynn Jessen**, Davenport DL station; **Dean Kaeffring**, Oakdale garage; **Jaraine Mohs**, Document Services; **Ronald Olson**, Document Services; **Kim Ann Powell**, Information Technology Division; **Diane Sappenfield**, Driver Services; **Norman Thomas**, Pacific Junction garage; **Frank Wagner**, Davenport interstate garage; **Ronald Wolf**, Dyersville garage.

15 Years

Tom Bruun, Motor Vehicle Enforcement; **Fredrick Follman**, Algona garage; **Richard Garcia**, Burlington garage; **William J. George Jr.**, Information Technology Division; **Shawn Havick**, Avoca interstate garage; **Stephen Lampe**, Storm Lake garage; **Charles Schultz**, New Hampton construction; **Richard Wolff**, Storm Lake garage.

10 Years

Bruce Barr, Waukon garage; **Dennis Keller**, Osceola garage; **Charles Lee**, Document Services; **David Malloy**, Sloan garage; **Dennis Peperkorn**, Research and Technology Bureau; **Martin Scharff**, Ottumwa garage; **Jeffrey Webb**, Osceola garage.

5 Years

James Cornelius, Highway Division; **Donel Ebersole**, Jefferson garage; **Gary Erickson**, Clarion garage; **Jerilei Harms**, Iowa Falls garage; **David Havard**, Centerville garage; **Sharon Jones**, Des Moines DL station; **Jodi Mann**, Facilities Support; **Steven Mariner**, Mason City garage; **Ralph Miller**, Osceola garage; **Lynn Reese**, Fairfield materials; **Carol Watters**, Clinton DL station.

Remote sensing continued from page 5

In addition to improving the remote sensing technology already in use at the DOT, the RSCC also promotes research and development pilot projects for new technology. One new technology, called Light Detection and Ranging (LiDAR), shows promise to increase the amount and accuracy of data collected for bridge inspections and other uses.

In a project initiated by Iowa State University's Center for Transportation Research and Education (CTRE), a ground based LiDAR unit was rented by the DOT and used to collect bridge data remotely. CTRE processed and evaluated the data. The benefits include the automated collection of a large amount of data in a short time more safely than current manual data collection methods. Alice Welch from Design said, "Although the data at a distance isn't as accurate as we would like, it does provide very quick basic data collection that can be used in applications that do not require exact measurements. If we need more detailed information, the technology is very accurate at a closer range of less than 150 feet."

Aerial photography that is geo-referenced and ortho-rectified provides another rich source of information to DOT employees without having to leave the office. The georeferencing and orthorectification processes orient the photography to its correct location on the earth and correct for terrain and measurement limitations. This allows the photography to be used in GIS and mapping applica-

tions throughout the DOT. New methods for more efficient distribution of the digital aerial photography are being implemented this fiscal year.

Since protection of the environment is an emphasis area of the DOT, another remote-sensing technique, using *color-infrared* photography to map wetland areas, is being utilized. Currently, the DOT uses field visits by trained environmental specialists and images shot from airplanes and helicopters to pinpoint wetland areas along a proposed corridor. "Shooting a color-infrared image assists by identifying wetter and dryer areas. This can be helpful when we're determining potential mitigation sites," said Michelle Fields of the Office of Location and Environment. "Using the images over time we can follow growth patterns in an area to help with corridor studies." Developing a partnership with the Iowa Department of Natural Resources to acquire color-infrared images on a periodic cycle is currently under discussion.

All of these remote-sensing technologies have this in common: increased amounts of data can be collected in a shorter time period and made available in a usable format more quickly. Data collection from a remote location is safer for our employees since they don't have to be at the exact project site, the data tends to be more accurate since automated collection eliminates human error, and the information is ready to be used quickly by the DOT's database systems.



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

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PLEASE RECYCLE THIS ISSUE

On the cover: Coal barges are plentiful this time of year on the Mississippi River. This is Lock and Dam 12 at Bellevue.

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New Keosauqua Bridge

Design incorporates elements of historic structures with a modern feel

“It’s not often that we have to replace a historic bridge on a state highway,” said Kimball Olson, design technician specialist in Bridges and Structures. “The process of replacing the Keosauqua Bridge has been very interesting.”

In 2001 planning began on a replacement project for the bridge over the Des Moines River on Iowa 1 in Keosauqua. The functionality of the old bridge, originally built as a rainbow arch in 1873 and updated to a truss in 1937, was being outpaced by the needs of the community. The structure was deteriorating to the point where continued maintenance costs outweighed the cost of a new bridge.

Because of the historic nature of the bridge, a team of DOTers and community members was assembled to work on its replacement. Included on the committee are Olson and fellow bridge designer Stuart Nielsen; District 5 representatives Larry Jackson, Pete Tollenaere and Ingrid Ruddy; and 15 local community leaders. Keith Cadwell from the Office of Design and his section were charged with designing the approaches to the bridge and a road leading to a state park that is included in the overall project.

Because the DOT was developing this project completely in-house without the use of consultants, Olson and Nielsen were

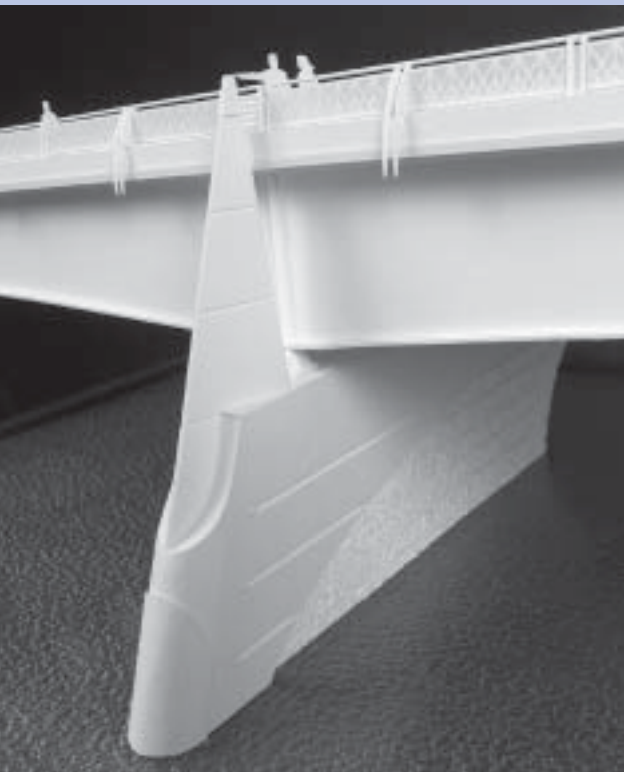
given a special design opportunity. “It’s pretty rare to get to work with a historic bridge like this,” said Nielsen.

Early in the process, the State Historical Preservation Office (SHPO) became involved because of the need to mitigate the loss of the historic bridge. Working with SHPO, the committee developed a bridge that would provide for the needs of the motoring public, meet the historical mitigation requirements, and continue to be a local landmark for residents and visitors.

Considering the thoughts and wishes of the community was a big part of the design process. A 2003 survey was conducted to guide the team on both functional and aesthetic elements expected by Keosauqua area residents. Keeping two lanes of traffic open during construction, retaining a character and scale that complements the city with an elegant but not extravagant design, and providing a pedestrian facility were all seen in the survey results as goals.

The result will be a fully functional, modern bridge with an “old-world” feel. “The visual appeal of this bridge will be mitigation for the loss of the historic bridge,” said Olson. “We’ve even incorporated a piece of the old bridge into the new design to retain a tactile connection to the past. There’s poetry in the design.”

The project letting is set for next summer with the one-year construction project expected to begin next fall.



Crossword solution for October

