

# In St. Louis, they write a lot more than a ticket for drunk driving.

Posting bond used to be the main worry of motorists arrested for drunken driving here.

No more. "Quite frequently, when they're arrested, their primary concern is, 'Is my name going to be in the paper?'" says traffic safety Sgt. Richard Swatek.

That's because the St. Louis Globe-Democrat, since late last year, has been publishing a daily list of drunk-driving suspects in its area, stretching to such small towns as Glen Carbon, Ill. "Everybody looks at it," says Sgt. Swatek. "It's like a gossip column." RID-Mo.'s Campaign

Margaret Charleville, founder of RID-Mo. (for Remove Intoxicated Drivers in Missouri), helped persuade the Globe-Democrat to publish drunken-driving arrests. Here daughter had been killed by a drunken driver. "Some of my friends have told me," she says, "We don't take that one drink for the road anymore."

"I'm sure publishing the names does a lot of good," says Sgt. Donald Hasseldiek, director of a St. Louis County program aimed at drunken driving. "No one wants

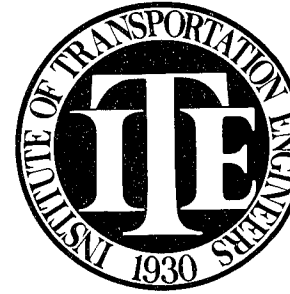
his name associated with a criminal offense." A Lot of Mad People

"We've made a lot of people mad," George Killenberg, executive editor of the Globe-Democrat, says of drivers whose names have been published by the paper. "I appreciate it's an unhappy situation. But what about the 25,000 people buried each year because of drunk drivers?"

Still, other citizens object to the practice of printing suspects' names. "I don't like it," says Charles Todt, president of the local bar association. "Under our system people are considered innocent until proven guilty. I think the damage to a person's reputation is greater than the deterrent effect."

The Globe-Democrat believes it may be the biggest newspaper that routinely publishes names of motorists arrested for drunken driving. However, some smaller newspapers also publish such news. And in Lake County, Ill., last month, the Waukegan News-Sun started printing the names of drivers whose licenses have been revoked or suspended because of drinking.

Wall Street Journal 7/12/82



# MICHIGANITE



FALL, 1982

VOLUME XVII NUMBER 3

OFFICIAL PUBLICATION OF THE MICHIGAN SECTION OF THE INSTITUTE OF TRANSPORTATION ENGINEERS

## SAFETY BELT BILL STALLED IN HOUSE

### PRESIDENT'S COLUMN



DeCorte

I spent this past August 22nd through the 26th in Chicago representing the Michigan Section at the 52nd Annual I.T.E. Meeting. Oh, there was the usual Sunday evening reception, Monday's Keynote Luncheon, Tuesday night's Michigan Section Dinner, Wednesday's Annual Dinner and almost forty technical meetings; but one of the most interesting meetings involved sharing information with other presidents at the Annual Officers Breakfast. That's where I made Michigan's presence known. When International President, Leo Laviolette, asked if there were any topics that any of the presidents wanted to discuss, I let him know the feelings of several members: that the costs of the Meetings are too high. A couple of the other presidents echoed my concern and discussion continued for quite a while. As a matter of fact, it's not over yet. Executive Director, Tom Brahm, called me a few days ago and we talked for an hour on the topic. He agreed to send me the budget for the Meeting for my inspection. If you were one of the persons who I opened my big yap for, contact me again and we'll go over the numbers together, because he did ask for comments...

I found that the experience of sharing information with other presidents is an important, even integral, part of my duties. Every Section sets their own policies and each one seems unique in some way. The opportunity to attend the Annual ITE Meeting should be available for every Section President, and every effort should be made to see to it that every one of Michigan's President has some financial assistance to attend regardless of the location. That is why the Section Board has taken the steps necessary to assist future Presidents to attend the meeting, if the treasury is well. The By-law change that will be voted upon by the Section's members is a positive step to financially aid our upcoming Presidents. The change would be to provide a maximum of one round-trip coach fare to the city of the Annual Meeting. At present, \$200 is provided where-ever the meeting is located. This obviously is not an equitable system. Therefore, from someone who has been there, I encourage you to cast a positive vote for this By-law change. Only by sharing information at the Annual ITE Meeting each year can we continue to be one of the most active and most respected of all the Sections in the ITE.

Mandatory safety belt use legislation (HB 5567) will probably not be considered again until sometime in early November, according to Chairman of the House Insurance Committee Matthew McNeely. Following a committee hearing on the proposal on September 1st, McNeely was quoted by the AP as saying, "I don't see it coming up again until after the election."

Although indications were that a majority of the committee supported the bill, it was clear that a "behind the scenes" move to "tie-bar" a companion bill (HB 5568) which would reduce insurance rates by 10% helped to stall a vote on the seat belt bill. Members were perhaps understandably hesitant to move the principal bill to the House floor at this time.

The Michigan Coalition for Safety Belt Use, of which the Michigan Section is a member, over the last several weeks had enlisted the support of a number of its members in providing information relevant to HB 5567 and many were in attendance at the Committee hearings. Testimony in support of the bill was offered by Rep. Dave Hollister (D-Lansing), the bill's primary sponsor; Robert Burton, MD, Coalition Chairman; Richard H. Austin, Secretary of State; Don Huelke, University of Michigan Medical School; Lt. Col. William Hassinger, Michigan State Police; and Philip Haseltine, Director of the Office of Highway Safety Planning. Three persons also spoke in opposition to the measure. By Thomas O. Reel

### "TECHNICAL ASSISTANCE AVAILABLE FOR TRANSIT 7F"

The promotion of traffic signal timing improvements to facilitate traffic flow, and thereby reduce fuel consumption and travel time, has been a foremost concern of FHWA during the past few years. Signal timing improvements have been shown to be an especially cost-effective means of improving on these measures of effectiveness. Although it is not the only acceptable method which can be used to develop improved signal timing, the TRANSYT 7F computer program is fast becoming the most popular and best available means to achieve this goal.

Because of this increased popularity, the FHWA Washington Office of Traffic Operations has assumed the responsibility of providing technical assistance in the use of this program to any agency which requests such help. To meet these needs, a Systems and Software Support Team has been established in their Headquarter's Office. This team will provide both technical assistance and training on the use and maintenance of TRANSYT 7F program documentation under the sponsorship of the National Highway Institute.

Requests for this assistance should be made through the Michigan Division Office of FHWA by contacting Morrie Hoevel at 517-377-1842 in Lansing. By M. A. Hoevel.



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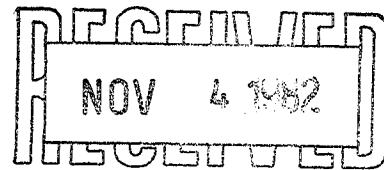
# MICHIGANITE

Official Publication Michigan Section

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## JUNE MEETING AT SCHULERS

Another successful dinner meeting of the Michigan Section was hosted by Ken Shackman on June 17, 1982. Twenty-five members attended the dinner at Schulers in Marshall in the "Court Yard", a light and airy private dining room/bar that I didn't even know existed. (Neither did Shackman).

After an excellent dinner of Boston Scrod and Hot Carmel Pie for desert, Bob Carroll made a very interesting presentation called "Get in the Groove." This consisted of several slides and Bob's description of reflectorized pavement markings that he has just installed on a demonstration basis. The unique thing on this project is that Bob is using a saw to cut grooves so the reflectorized markers are just below the pavement level.

By Ken Underwood

## SCANDI IS WORKING

In the 16 months that the Surveillance Control and Driver Information System (SCANDI) has been in operation in Detroit it has saved motorists one and one-third million dollars even though the system on 32 miles of Detroit freeways is not fully completed. SCANDI also provided assistance to 5,430 drivers in trouble.

According to Herb Crane, Supervising Engineer, Freeway Operations, Michigan Department of Transportation, who heads up the SCANDI project, the savings are estimated as follows:

- \* 266,490 vehicle-hours of time saved
- \* 172,250 gallons of fuel saved
- \* 73 potential accidents eliminated
- \* 47 tons of air pollutants eliminated

The equivalent cost savings of the above are estimated at \$1.3 million.

Also the Michigan State Police (Post 29 patrols all Detroit freeways) estimate that the direct services, such as calling for assistance on the 70 Motorist Aid Telephones on the 15 miles of the Ford Freeway, or calling for friends or relative to bring gasoline or change a tire, provide the service of having one extra car patrolling the freeway. The equivalent value of this patrol is estimated at nearly \$500,000 for the 16 months.

In addition to the Motorist Aid Telephones, the system has four closed circuit television cameras in operation with six more on schedule. There are also nine overhead changeable-message signs to provide information on traffic diversion and for control during special events at the Civic Center. These are all operational in connection with the loop detectors in the pavement and projected ramp metering controls.

Reprint from TSA of Michigan Newsletter

## DISTRICT III ADVANCE NOTICE

The 1982 ITE District III Annual Meeting and Technical Session will be held on October 21 and 22, 1982, at the Holiday Inn in downtown Fort Wayne, Indiana. Technical sessions are scheduled for Thursday afternoon and Friday morning. After the 4:00 p.m. District III Annual Meeting there will be a cocktail party sponsored by the Indiana Consultants, Contractors and Suppliers.

There will also be an equipment display room available to any vendor from District III. Vendors can contact Steve Hardesty, 1204 W. Main, Crawfordsville, IN 47933 (317-362-9427) to arrange for space.

The hand that lifts the cup that cheers, should not be used to shift the gears.  
WJLB-fm

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## MICHIGANITE

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### MICHIGAN SECTION ITE, TREASURER'S REPORT

Balance: May 12, 1982 \$4,110.47

Receipts:  
Bank Interest \$ 89.67  
\$ 89.67

Expenditures:  
Michiganite Printing \$ 903.00  
Mt. Pleasant Meeting 50.00  
Marshall Meeting 50.25  
Misc. Printing 21.68  
Postage 307.63  
ITE Contribution 100.00  
\$1,432.56

Balance: August 30, 1982 \$3,298.63

Treasurer, Thomas R. Krycinski, P.E.

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cont. from page 14

The hourly variation in the work zone accidents matches the variation in all 1977 accidents. The one notable exception is that there were relatively more work zone accidents from mid-morning (10 a.m.) to mid-afternoon (3 p.m.); 2) For both the work zone and all 1977 Virginia accidents there were more in the urban areas. A comparison of these data also shows that there is an overrepresentation in the number of work zone accidents in urban areas and an overrepresentation in the number of fatalities and injuries in urban work areas, which indicate that accidents in the urban work zone may constitute a considerably more serious problem than rural work zone accidents; 3) While there was a similar pattern for the work zone accidents and all accidents when broken down by surface condition, work zone accidents were more common on dry pavement and less common for all other conditions. The lower percentage of work zone accidents on wet, icy, and snowy pavement suggests that motorists are more cautious under these circumstances and/or that work zone activity is typically curtailed under adverse weather conditions; 4) The primary cause of nearly 80 percent of the work zone accidents was driver error, more specifically, over 65 percent were listed as driver inattention. In only 17.2 percent of the accidents was some particular aspect of the work zone cited as the primary cause of the accident; 5) Compared to all 1977 accidents, younger drivers were less involved in work zone accidents than older drivers; 6) An investigation of alcohol involvement showed that drinking was evident in 11.4 percent of the work zone accidents compared to 13.1 percent for all 1977 accidents; 7) The average work zone accident was slightly less severe than the average 1977 accident when compared by the percentage of PDO accidents and the numbers of persons killed or injured per accident. The average work zone accident was more severe, however, than the average 1977 accident in terms of the number of vehicles involved per accident.

For more information relative to either of these reports, you may contact Morrie Hoevel (517-377-1842) in the Lansing Office of FHWA.  
By M. A. Hoevel

### "402" FUNDED ACTIVITIES

Although highway safety activities in the engineering area of our program are quite limited by comparison to past years, there are some fundable areas which are still available through this office. These areas are sign upgrading equipment, traffic engineers (only one available for the entire state), and traffic engineering equipment (with an emphasis on traffic counters). Additionally, traffic engineering training will be provided, mostly through Michigan State University.

For further information on the training please contact:

Dr. Adrian Koert  
Highway Traffic Safety Programs  
Kellogg Center  
Michigan State University  
East Lansing, MI 48824  
Phone: (517)355-3270

The other grants would normally be available on a 70% federal - 30% local match base. For further information please contact:

Mr. Gary Holben  
Office of Highway Safety Planning  
Michigan Department of State Police  
111 South Capitol Avenue, Lower Level  
Lansing, MI 48913  
Phone: (517)373-8011

By Thomas R. Krycinski, P.E.

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## TWO FHWA HIGHWAY SAFETY RESEARCH EFFORTS

Following is a synopsis of two research reports which were completed by FHWA in December 1980. In each case the report is available for a small fee from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

- A. An Analysis of The Urban Utility Pole Accident Problem - Report No. FHWA/RD-79/117 (Cost \$15)  
Objective - This study was undertaken to determine the extent of the utility pole accident problem in urban/suburban areas and to identify factors which affect the probability of their occurrence and severity so that potential countermeasures to the problem could be evaluated.  
Scope - Police reports for 1975 were obtained for over 8,000 single vehicle accidents (SVA) occurring in 20 urban/suburban areas through-

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out the United States. To supplement these data each accident site was visited and inventoried to record such data as utility pole spacing and offset, and relevant highway characteristics. In order to assess utility pole accident frequency with respect to other accident types, run-off-road accidents were sampled concurrently with utility pole accident data.

Findings - 1) Utility pole accidents are a significant problem in urban areas in terms of frequency and severity. For SVA's, utility poles were the most frequent objects struck first (21.1 percent of the time). National figures indicate that 2.2 percent of all urban accidents involve impacts with utility poles. Utility pole accidents in the study area had a relative severity for SVA (Number of fatal SVA/number of SVA) of .8 percent compared to a national figure of .3 percent for all SVA in urban areas; 2) Forty-nine percent of pole accidents were injury producing; 3) Comparing utility pole accidents to a sample of other SVA not involving pole contact, parameters affecting the probability of pole contact were identified. These include - in order of relative importance - number of poles in immediate roadside environment, their offset, road grade, and speed limit. Injury severity in utility pole accident appeared to be primarily a function of the stiffness of the pole and the impact speed; 4) The proportion of utility pole accidents decreased as pole spacing increased; 5) Utility pole accidents were over-represented on roads without shoulders and decreased as shoulder width increased. This was probably the result of increased offset rather than the presence of a shoulder; 6) Travel speed and speed limit were highly correlated. The proportion of utility pole accidents increased with increased travel speed. The proportion of utility pole accidents also increased with speed limits up to 40 mph, but decreased thereafter. This appears to be the result of variations in pole densities which overshadowed any speed effect; 7) Countermeasures that increase the visibility of utility poles are unlikely to be effective; 8) Protecting all utility poles with barriers and attenuators is probably too expensive to warrant implementation; 9) Due to high costs, undergrounding and moving pole lines back from the road edge, on a retrofit basis, would probably not be cost-effective. However, undergrounding new power lines or routing them between backyards should be encouraged; 10) Data shows that perhaps the most cost-effective countermeasure to the utility pole accident problem is increased restraint (seat belt) use.

- B. Vehicle Accidents in Highway Work Zones - Report No. FHWA/RD-80/063 (Cost \$9)  
Objective - The objective of this study was to determine the magnitude and characteristics of safety problems, in terms of reported accidents that are associated with moving vehicular traffic around and through highway work zones. This was accomplished by examining the 2,127 reported work zone accidents that occurred in 1977 in Virginia.

Scope - Examined were work zone accidents, general and specific locations of the accidents, time of the accidents, roadway and environmental factors, characteristics of work zones, causes of the accidents and accident severity. Where data were available, comparisons of work zone accidents were made to those for all Virginia accidents.

Findings - 1) For all the 1977 accident categories the lowest number of accidents occurred in the late evening and early morning hours.

cont. next page

## MICHIGAN SECTION ANNUAL MEETING

It's time to make plans to attend the annual meeting and technical program which will be on Thursday, November 18, 1982. This event is going to be held in downtown Detroit and promises to cover an excellent variety of topics, including the Detroit People Mover System, rural highway safety, prospects for transportation funding in Michigan, traffic control for snow emergencies, and a new computerized traffic counting program. For the evening, we have scheduled dinner at the Strohaus, and a tour of the Stroh Brewery to help us wind down from a gruelling day.

The tentative schedule is as follows:

9:30 - 10:00 a.m. - Registration  
 10:00 a.m. - Noon - Technical Session  
 Noon - 2:00 p.m. - Lunch and Annual Meeting  
 2:00 - 5:00 p.m. - Technical Session  
 6:00 - 9:00 p.m. - Dinner and Stroh Tour

For the attendees of the entire technical meeting, one-half (0.5) Continuing Education Unit (C.E.U.) will be awarded; the C.E.U. Program is being offered through the Lifelong Education Programs Office of Michigan State University.

By: Joseph A. Marson

### SUMMARY OF SECTION TECHNICAL REPORT

The Michigan Section Technical Report is being prepared for submission in early 1983. The section's activities involving recent legislation and public information relating to child restraints is the subject of this report. Section members, in cooperation with other groups, have hosted nine (9) public information booths on child restraints at Michigan Shopping Malls. In conjunction with O.H.S.P. activities, section members have prepared literature, distributed press releases and made personal contact with over forty-five hundred (4500) interested state residents.

In the legislative areas the section, through the guidance of Bill Lebel and others, successfully lobbied to have both the State Senate and House of Representatives pass the Michigan Child Restraint Law. This law requires any child less than four (4) years of age to be safely restrained when riding in a motor vehicle. Public Act 117 went into effect on April 1, 1982. Less than 2% of the children in this age group were buckled in prior to the legislation. The law's intent is to reduce risk to children riding in motor vehicles. Facts presented by the Section showed that motor vehicle accidents were the major reason for death among children ahead of all other types of disease and accidents. Section President Lebel testified at legislative hearings for the new law.

Section members who have agreed to work on this formal report include:

Robert De Corte  
 Richard Cunard  
 Samuel A. Walker III  
 Kenneth Shackman  
 William Lebel  
 Donald Wiertella  
 Dennis Randolph  
 Snehamay Khasnabis

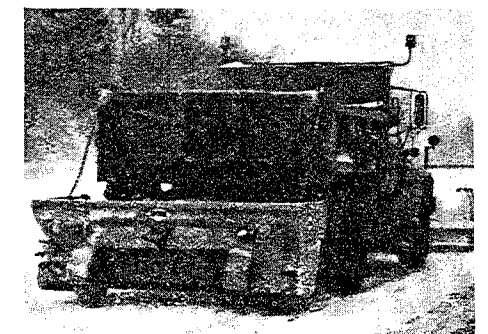
Other members interested in working on this report are urged to contact project chairman Jonathan Crane.  
 By Jonathan Crane

### TAX REDUCTION FOR EDUCATIONAL EXPENSES

Treasury regulation 1.162.5 permits an income tax deduction for educational expenses (registration fees and cost of travel, meals, and lodging) undertaken to: (1) maintain or improve skills required in one's employment or other trade or business, or (2) meet express requirements of an employer or a law imposed as a condition to retention of employment, rate status or rate of compensation. Consult your tax advisor for details.

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# ROADSIDE SAFETY PROGRAM REDUCES FATALITIES

The Michigan Department of Transportation administers a program addressing roadside safety along all state highways in Michigan. This activity focuses on removal, relocation, or shielding of fixed-objects along existing highways in an effort to develop a forgiving roadside environment. Typical projects include removing guardrail and flattening side slopes, extending culverts away from the road edge, and eliminating concrete headwalls. Other projects improve guardrail endings and connections to bridge structures, replace older style bridge railings with modern concrete safety railings, relocate signs onto bridges or on breakaway bases, and protect motorists from fixed-objects that cannot be moved or modified by installation of crash cushions.

The department's roadside safety improvement program was initiated in 1975 on the freeway system. To date, 95 percent of the improvements on the freeway system are completed, under contract, or in the design stage. These efforts have resulted in an annual average reduction of nearly 40 percent in freeway fixed-object fatalities (from an average of 98 per year in 1973-1975 to 61 in 1978-1980). This record was established during a period when total fixed-object accidents increased by 760 (13 percent) and traffic volumes increased by two percent. The largest improvements were associated with bridge rail where fatal accidents were reduced by 75 percent and guardrail where fatal accidents were reduced by 70 percent. In addition, bridge pier fatal accidents were reduced by 60 percent and fatal accidents involving highway signs by 50 percent.

The roadside safety effort has contributed to the low 1980 death rate on Michigan's freeways of 1.12 fatalities per 100 million vehicle miles driven. This rate is more than three times lower than on the non-freeway system. It is apparent that a similar comprehensive roadside safety program would be beneficial on nonfreeway roads but the magnitude of the nonfreeway

system (about 7,700 miles compared with 1,700 miles of freeway) and current economic conditions require a different approach.

A roadside safety program for the nonfreeway system has been developed and implementation has begun. The first phase of the three phase plan involved the installation of a new type of guardrail end section which has almost been completed statewide.

The second phase consists of selective, cost-justified improvement of the roadside to protect motorists from fixed-objects such as utility and light poles, concrete abutments, and even ditches. The department is now identifying sections of roadway with concentrations of ran-off-road accidents that can be reduced by low-cost countermeasures. Two of the first evaluated were US-31/33 between Niles and St. Joseph and a one-mile section of US-31 in Manistee. Both sections experienced disproportionate numbers of ran-off-road accidents, particularly utility pole crashes. After careful analysis and isolation of specific locations where such accidents were occurring, local utility companies cooperated in relocation of selected poles, which will benefit the traveling public through reduced utility pole collisions.

The third phase of our program is the establishment and implementation of an improved utility and light pole placement practice. These criteria are now being developed by the department in cooperation with various utility companies throughout the state.

It is clear that providing a forgiving roadside can save lives and prevent serious injury. While roadside improvements on most of Michigan's freeways have been completed much remains to be done on the nonfreeway system. This task will be continued on the 7,700 mile nonfreeway system as funds and other resources allow. Reprinted from John Woodford's July report to the State Safety Commission

## WHY PEOPLE RACE TRAINS TO CROSSINGS... AND LOSE

Nearly a thousand people die in the United States each year when their cars are hit by trains at grade crossing. Herschel Leibowitz, a psychologist at Penn State who has been studying such cases, recalls one victim, an elementary-school principal. With five children in her car, the woman was driving on a road that passed through a completely flat field. "The railroad crossing had a standard warning sign," Leibowitz says, "and the train approached with its lights on and its whistle blowing. People in cars behind saw the woman slow down and brake, indicating that she saw the train. Then she abruptly drove onto the crossing. The slaughter was horrible."

Leibowitz, an authority on visual perception, has concluded that most such drivers are "rational people with full use of their senses." In a recent article he argues that they misjudge the oncoming trains because they fail to recognize several ways in which perceptions can deceive them.

According to Leibowitz, "track signals are designed so that warning lights and bells are activated for the fastest train, the slowest driver, and the worst weather." This warning time is excessive for most drivers, and those who decide that it is safe to cross usually make it. Some of those who do not, Leibowitz says, may be misled by the fact that larger objects appear to move more slowly than smaller ones. "We see this in airports," says Leibowitz. "Although all jets have roughly the same approach velocities, the larger aircraft appear to be traveling more slowly."

Other victims may mistake the speed of the oncoming train because they make the understandable assumption that it is going no faster than other trains they have seen. Grade-crossing signs often remain in place along an abandoned track, encouraging "the bad habit of ignoring them." More generally, Leibowitz says, research has shown that "the perceived risk of an event is related to its frequency. We tend to ignore infrequent events and assume that they won't happen, no matter how much danger they represent."

Leibowitz's remedy "Public education involving the cooperation of driver educators, licensing authorities, traffic officials, and railroad managers could go a long way to prevent some of the senseless loss." Reprint from Psychology Today

## FATALITIES INCREASE ON HOLIDAY WEEKENDS

The July 4th and Labor Day holiday periods experienced increases in fatalities over similar periods in 1981. The July 4th holiday period had 30 fatalities compared with 22 last year which is a 36 percent increase. During the Labor Day holiday period there were 18 fatalities (this figure is provisional and could go higher as delayed deaths are reported) which compares with 17 which occurred during the 1981 long weekend. The two holidays produced 38 fatal accidents 21 of which involved alcohol usage. One important statistic related to the holiday accident picture is that none of the 48 fatal accident victims were wearing a safety belt. By Bob Lariviere

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JACK WIITALA

22805 HESLIP  
NOVI, MI 48050

### DAVE REESE Area Manager



**ENERGY ABSORPTION SYSTEMS, INC.**  
ONE EAST WACKER DRIVE, CHICAGO, IL 60601  
312/467-6750 TELEX: 253368

101 Briarcrest Gardens - Hershey, PA 17033 (717) 533-6833

## VANPOOLS PROVING THEIR WORTH

Vanpool programs in Michigan have provided more than nine million passenger trips in the last five years, saving millions of gallons of gasoline annually, according to a recent report from the Governor's office.

"Everyone benefits from ridesharing," Governor William Milliken said. "Energy supplies are conserved, air quality is improved, peak-period traffic congestion is reduced, parking facility needs are fewer and commuting costs are reduced."

The total number of vanpools in Michigan has grown to approximately 500 since 1977 when the State Employees Vanpool Program was initiated. The vanpools serve 6,000 public and private employees and save approximately 2.5 million gallons of gasoline each year.

The State of Michigan, through the Michigan Department of Transportation (MDOT), has developed a comprehensive statewide program to promote ridesharing carpools, vanpools and public transportation services. MDOT launched the vanpool program for state employees in April, 1977, with three vans and 31 persons. It is now the largest of its kind in the country, carrying some 875 employees to and from their jobs in 75 vans. The self-supporting program received a Presidential Award for energy conservation in 1980. Sixteen private employers in Michigan also sponsor their own vanpool programs.

Michigan, one of the first states to implement a comprehensive ridesharing program, ranks ninth nationally in the number of state-run and privately sponsored pool vans with 500 now operating.

Milliken said that MDOT's promotion of all forms of ridesharing can be credited at least partially with the large number of Michigan residents who share in carpools--636,554.

Reprint from TSA of Michigan Newsletter

## PROPOSED BYLAW AMENDMENT

The Executive Board has recommended that Section 7.2 of the By-Laws for the Michigan Section of I.T.E. be amended as follows:

"The Executive Board shall authorize and approve all expenditures from the Section Treasury. The Section Executive Board may appropriate annually a sum not to exceed \$200 ROUND TRIP COACH AIR FARE TO THE INTERNATIONAL MEETING CITY to be used by an officer of the Section for expenses in attending the annual meeting of the Institute of Traffic TRANSPORTATION Engineers. The officer eligible to attend and receive the above allowance shall be in the following order: President, Vice-President, Treasurer, Secretary, Director, Immediate Past President".

The intent of this amendment is to allow the Executive Board to make annual adjustments in the amount allocated for annual meeting expenses based on inflationary impacts, meeting location, and budget constraints. When the By-Laws were adopted in 1973, the amount was \$100. This was amended to \$200 in 1976. This proposed amendment will give the Executive Board some flexibility within budget constraints, and will eliminate the necessity to amend the By-Laws every 3-4 years.

This proposed amendment will be mailed to the membership for action prior to the annual meeting in November, 1982.

By Ray Severy

# STOP THE WORLD — I want to get off!

EDITOR'S NOTE: This article, reprinted from the December 1981 issue of ASCE's "Civil Engineering" Magazine, is about how we write. And, more specifically, how members of the "other world" (academia) write as compared to "real world" practitioners. Though the author uses humor to make his points, he nonetheless has a serious and vitally important message for everybody in the civil engineering profession.

THE TITLE OF THE MAGAZINE you are reading is CIVIL ENGINEERING, a world-wide publication. If you are among the uninitiated, the fact that "world-wide" is in the singular may not bother you. It should though, for there are two worlds in civil engineering - the "real" world and the "other" world.

These two worlds are not evenly populated. Of the combined population of both, the "real" world has 95 percent. The "other" world has five percent.

Other-world people (whom I will henceforth call OWP) have little to do with actual, day-to-day civil engineering work. However, they make themselves known by writing profusely about civil engineering.

Real-world people (whom I will call RWP) do the actual work. They don't write much. They don't have time. They are busy working. Even when they do get a little time they would rather spend it in reading about civil engineering. But all there is to read is the OWP writing. The RWP can't understand much of it.

## AVOIDING PROFESSIONAL EMBARRASSMENT

An example will bear me out. Should the RWP want to add 1 and 1, they would do it simply by saying 1 + 1 = 2. OWP, however, wouldn't think of doing it that way. For them to add 1 and 1 and get 2 would be unprofessional. They would go at it this way:

Inasmuch as OWP all know that  $\ln e = 1$ , and also that  $\sin^2 x + \cos^2 x = 1$ , they would say,

$$\ln e + \sin^2 x + \cos^2 x = \int_0^2 x dx$$

However, even this would be too simple for the OWP. They would go further and express it in this manner:

$$\ln \lim_{N \rightarrow \infty} \frac{(1 + \frac{1}{n})^n + \cosh \sqrt{1 - \tanh^2 x}}{n} = \frac{1}{\lim_{n \rightarrow \infty} \frac{n^2 + 1}{2n^2 - n}}$$

Now this, they reason, is more like it. It gives the same answer as the RWP got in their primitive 1 + 1 = 2, but in a way that is not professionally embarrassing.

All this makes it rough on the RWP. They can't get any information because they can't understand the writing.

The OWP keep on writing though. Their writings are then placed on shelves. These are thereafter used as references for other OWP writing, which are in turn placed on shelves. This continues, ad infinitum.

RWP, when they want to find out anything, still do

as they have for ages -- try it out in the field or ask some other RWP what their experience has been with it. OWP, however, if asked about it, first have to locate a laboratory. Then they make a series of tests--the more the better. Following this they study and analyze the results and draw some graphs. Then they write a paper or a report. Their conclusion is usually, ".....the subject needs further study."

This is no joke. I know people that were in the OW that didn't do it that way, and they were kicked out and had to live in the RW!

Now all of this is not to say that OWP are not useful. Some of them are actually RWP hiding out in the OW. Every now and then one or two of them put out some fairly commendable work and still maintain their OW identity. However, the great majority of the OWP keep up the OW standards.

All RWP know that civil engineering work is done mainly to make money. It is not just to provide a vehicle for technical papers and reports. There is, however, considerable evidence that OWP think otherwise. Here is a striking example of this phenomenon.

Recently some RWP submitted a proposal to a governmental agency for a contractual project that was being administered by OWP. In their review, the OWP, in turning down the proposal, said "This proposal was submitted by actual civil engineering people. These types are interested in production and efficiency. They would not be able to investigate the subject rigorously or academically."

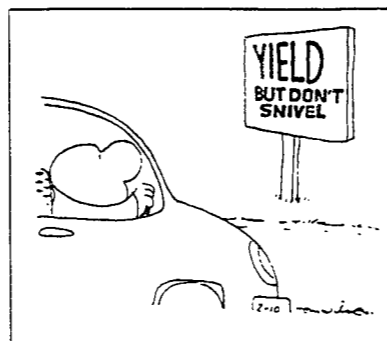
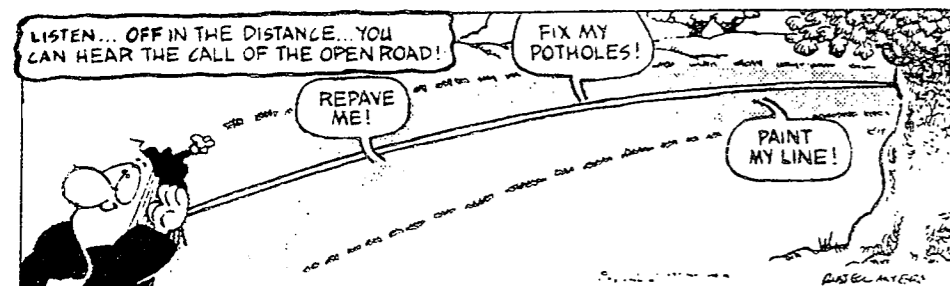
## A SORROWFUL LACK OF INFORMATION

It has been my sorrowful experience in more than 35 years of civil engineering to learn that the great majority of the civil engineering profession (95 percent) is seriously lacking information. It could be made available to them. More emphasis could be placed on the basics, the fundamentals, the readability, the understandability and the how-to-do-it aspects of civil engineering. Wouldn't it be great if the RWP could be given the advantage of all the information that the OWP so skillfully cover up in their writings?

In the far-to-distant past there have been RWP who wrote in RW terminology and subject. For some reason, though, these writers have now nearly all receded. They have been replaced by OWP. As a result, civil engineering writings have now nearly reached a point of complete non-understandability.

In all my writings I have tried to hold my texts to a level that would accommodate the RWP. Being of that group myself, I found no trouble in doing so. At one time I even wrote a book that I hoped would provide some much-needed basic information for the RWP. Recently, however, following a lecture I had just given at a seminar, I was confronted by a RW engineer. He told me that he had enjoyed the lecture, but was afraid he hadn't understood all of it. This was a shock to me, to say the least! There I was, doing just what I had been complaining about all my life--I had fallen into the OW! By John Huston, Consulting Engineer, Corpus Christi, Texas

## BROOM HILDA



# FAMILY TECHNICAL WEEKEND

At this point in time, no allegations of wrong doing have surfaced, so I believe it is safe to assume everyone who attended the 2nd Annual Family-Technical Weekend, at the Mt. Pleasant Holiday Inn, had a good time with no major consequences. Aside from one couple's daughter who met a marine home on leave, absolutely no anxieties were experienced by anyone.

The Technical Session began on Friday afternoon with a presentation by Dave Perkins from Goodell-Grivas on the National Accident Sampling System. Dave coordinates the activities of an accident investigation team which is one of 75 teams nationally. The team reviews accident reports selected by computer for investigation.

Some of the information gathered by this team includes:

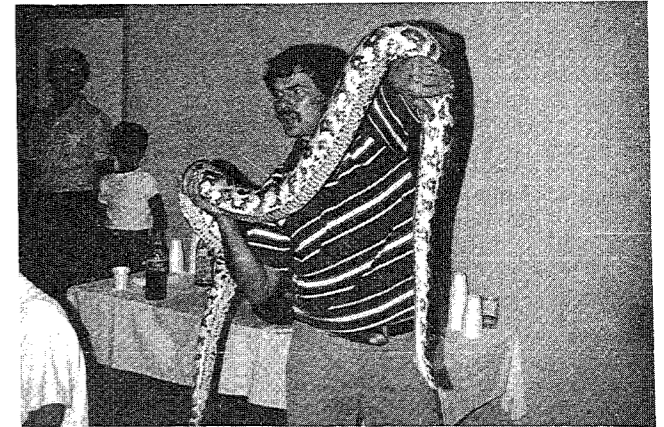
- Pictures and measurements at the site
- Interviews with drivers, passengers, police, witnesses, and hospital staff
- Driver records
- Conditions at the accident site
- Pictures and measurements related to the vehicle
- Seat belt usage

The program has been in operation for three years and is expected to continue for another two years.

The Michigan Accident Location Index (MALI) Accident Reduction Program was discussed by State Police Sargeant Marshall Weeks. He pointed out how the Accident Reduction Program works, how it is used and how effective it has been in saving lives and dollars. The program identifies accident patterns which can be used to produce collision diagrams, make needed improvements on the roadway, and direct state police patrols to locations where additional enforcement is necessary.

A slide program of MDOT's new Michigan Automated Recording System (MARS) vehicle was shown by Bob Maki. He explained that MARS is a system designed to collect roadway features electronically. Anchored by an on-board mini-computer, housed in a van, the data collected is expected to produce information on grades, horizontal and vertical curves, distance, location of intersections, and elevations. Control for the survey runs is by referencing survey monuments using a laser equipped survey instrument. With the touch of a button, data is recorded as to the distance of the van from the monument and plus or minus degrees from horizontal. This data will be used as an accident analysis tool in comparing the effect of roadway features on accident types or patterns. The data will be used as part of MDOT's Michigan Dimensional Accident Surveillance (MIDAS) project.

Frank Spica of MDOT's Testing and Research Division discussed an experimental railroad crossing warning



Dr. Jim Gillingham introduces his friend, a 15-foot python!

light. The light includes three blue strobe lights mounted in a black circle that surround the red flashing light. Two of these are mounted on a crossbar just below the standard crossbuck railroad warning sign.

US-27BR in Clare is the only location where this installation is being used. Additional locations around the state are being considered for this installation. The number of accidents over the past six years is the most important location selection criteria.

After the Technical Session, Dr. James Gillingham, a professor from Central Michigan University, presented a program on reptiles that was superb. He held the kids (and adults) spellbound with a demonstration of his friends. By the end of his program which included an African turtle, a Cuban frog, a lizard, and several snakes, even those who cringed at the thought of being in the same room with a snake were stroking a 15 foot python with wild abandon! Everyone got to touch (ugh) all of the animals and the program was not only entertaining but educational as well.

The entire weekend, being totally unstructured, was an absolute success. The weather was perfect and the water refreshing. Each morning a continental breakfast was held in the Hospitality Room to assist those who had the motivation to get up and get their motors humming. Golf, swimming, tennis, sunbathing, and racquetball were the standing orders of the day.

Everyone had a great time and is already looking forward to next year's meeting. Those of you who did not attend this year, mark it on your calendar now for 1983. You will have a great time.

By Ken Underwood and Tim DeWitt

## STRAIGHT THRU ON RED AFTER STOP?

A committee of the Florida State Legislature gave serious consideration in it's 1982 session to a bill that would have changed the meaning of a red traffic signal indication during the "early morning" hours.

The bill (House Bill #220) proposed to allow a motorist, after stopping, to proceed through or turn left through a steady red signal indication between the hours of midnight and 5:00 a.m.

Opposition to the bill from the traffic engineering profession in Florida was strong. Testimony against the bill was given by the Florida Section of I.T.E. and by the Florida Urban Traffic Engineer's Council. The bill died in committee.

Reprint from Florida Section I.T.E. Newsletter

## DELINEATION STUDIES

The State of Montana has completed recent studies on flexible and special delineation configurations. One study tested and field evaluated 8 types of flexible delineator posts. The other study review design of object markers locking a color and marker pattern such as stripes, chevrons and dots on a reflectorized background. For additional information on these studies contact Mrs. C. H. Zook, Program Development Division, Montana Department of Highways, 2701 Prospect Avenue, Helena, Montana 59620, telephone (406) 449-3995.

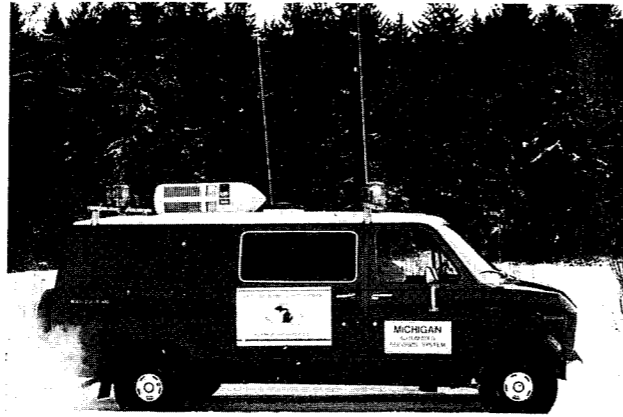


How quickly a year passes. It seems like just last month that the Fall 1981 Michiganite introduced MARS to our ITE membership. Much has happened and some things have not since last fall.

The vehicle for performing the roadway survey is operational as some of our membership know from demonstrations this past summer. However, we have not achieved our expectations for having a great number of miles surveyed by January 1, 1982. Delays in receiving hardware, backed up delivery until February this year. Then, with the long winter, shakedowns, and validation of the various data items tolerances were not begun full tilt until late March.

Providing measurements to check against the data collected by the survey system proved to be quite a chore. When first checked against plans, the data differences were outside the tolerances required. However, checked against a manual survey, the data differences were well within acceptable tolerances, and seemed to approach the accuracy of a manual survey except for two items, elevation and superelevation. Available hardware at the time of development was either not able to meet the tolerances or required stopping in a traffic lane which created a safety hazard. Substitution in the form of software and hardware modifications were agreed upon to replace elevations and superelevation. We will still receive the data readings for these two items but only relative to any one particular run over the same roadway.

Because of the time-consuming efforts involved in validation, only ten survey runs have been made in Ingham County. Trying to process these on the departments' computer indicates some incompatibility between the program developed on Techwest's computer and the Burroughs. Additionally, subsequent discussions regarding data items has resulted in efforts to obtain more features such as posted speed limits, location of signals, laneage, ability



MARS Vehicle - Michigan Automated Records System.

to differentiate between one-way streets, divided highways and freeways, and to note intersections other than the standard four legged.

One addition to the system that is providing a more accurate check at the survey monuments used as control points is a Hewlett-packard "Total Station." With a range of up to five miles, this laser equipped instrument enables us to stop on the shoulder and sight directly to a monument, using a reflective prism, rather than manually measuring from the monument to the road. This has saved time as well as money.

At this writing we are looking at extending the contract into 1983.

By Thomas M. Weiss

## HEAD RESTRAINTS EFFECTIVE

Head restraints in passenger cars have significantly reduced the frequency of whiplash injuries in rear impact crashes, according to a report released by the National Highway Traffic Safety Administration.

The report, which evaluates the benefits and costs of head restraints in current model passenger cars, is part of a government-wide review of existing major federal regulations.

NHTSA Administrator Raymond A. Peck Jr. said that head restraints appear to be "effective safety devices that eliminate some 65,000 whiplash injuries each year. The evaluation report, "he said, "indicates that head restraints have significantly reduced injuries and that fixed head restraints are more effective and cost less than adjustable head restraints."

Head restraints are designed to help prevent whiplash by limiting the rearward motion of the head in a rear impact crash. The standard has been in effect since 1969. It sets height, width and strength requirements for fixed and adjustable head restraints at the driver's and right front seating positions of passenger cars.

The report includes the following findings:

- \* Fixed head restraints are nearly twice as effective as adjustable head restraints because 75 percent of adjustable restraints are left in the down position, which does not adequately protect an occupant of average height.
- \* Fixed head restraints reduce the injury risk to driver and passenger by 17 percent; adjustable restraints reduce the risk by 10 percent.
- \* Fixed restraints add \$12 (in 1981 dollars) to the lifetime cost of owning and operating a car, about one third as much as adjustable restraints (\$40).
- \* Since 1969, a total of 28 percent of the cars sold have been equipped with fixed head restraints and the remainder, 72 percent, have adjustable restraints.

The report was based on statistical analyses of information from accident files in the state of Texas as well as the agency's National Accident Sampling System, National Crash Severity Study and Fatal Accident Reporting System, cost analyses of actual head restraint assemblies, and reviews of laboratory and crash tests and accident investigations.

## 1982 MEETING SCHEDULE

Date	Location	Host	Event
Oct. 21-22	Fort Wayne, Ind.	Indiana Section	Dist. Tech. Mtg.
Nov. 18	Detroit	Cunard/Marson	Section Annual Mtg.

# PEOPLE in the news . . . .

## KUNDE AND HORNBECK PROMOTED

Kurt Kunde and Dwight Hornbeck of the MDT have recently been promoted to lead workers in their respective units. Kurt will be coordinating the department's Traffic Operations Program to Increase Capacity and Safety (TOPICS) and in addition is responsible for liaison with the safety community. Dwight has replaced Bob Maki in the Electrical Devices Unit and is primarily responsible for traffic signal system optimization. Congratulations and best wishes for the future are extended from ITE to both Kurt and Dwight.

## OH, DEAR GOD, GIVE ME JUST ONE MORE CHANCE!

Agony claws my mind. I am a statistic. When I first got here I felt very much alone. I was overwhelmed with grief, and I expected to find sympathy.

I found no sympathy. I saw only thousands of others whose bodies were as badly mangled as mine. I was given a number and placed in a category. The category was called "Traffic Fatalities."

The day I died was an ordinary school day. How I wish I had taken the bus! But I was too cool for the bus. I remember how I wheedled the car out of Mom. "Special favor," I pleaded. "All the kids drive." When the 2:50 bell rang, I threw my books in the locker. I was free until 8:40 tomorrow morning! I ran to the parking lot - excited at the thought of driving a car and being my own boss. Free!

It doesn't matter how the accident happened. I was goofing off - going too fast. Taking crazy chances. But I was enjoying my freedom and having fun. The last thing I remember was passing an old lady who seemed to be going awfully slow. I heard a deafening crash and fel a terrific jolt. Glass and steel flew everywhere. My whole body seemed to be turning inside out. I heard myself scream.

Suddenly, I awakened. It was very quiet. A police officer was standing over me. Then I saw a doctor. My body was mangled. I was saturated with blood. Pieces of jagged glass were sticking out all over. Strange that I couldn't feel anything. Hey, don't pull that sheet over my head. I can't be dead. I'm only 17. I've got a date tonight. I'm supposed to grow up and hve a wonderful life. I haven't lived yet. I can't be dead.

Later I was placed in a drawer. My folks had to identify me. Why did they have to see me like this? Why did I have to look at Mom's eyes when she faced the most terrible ordeal of her life? Dad suddenly looked like an old man. He told the man in charge, "Yes - he is our son."

The funeral was a weird experience. I saw all my relatives and friends walk toward the casket. They passed by, one by one, and looked at me with the saddest eyes I've ever seen. Some of my buddies were crying. A few of the girls touched my hand and sobbed as they walked away.

Please - somebody - wake me up! Get me out of here. I can't bear to see Mom and Dad so broken up. My grandparents are so wracked with grief they can barely walk. My brother and sister are like zombies. They move like robots. In a daze. Everybody. No one can believe this, and I can't believe it, either.

Please, don't bury me! I'm not dead! I have a lot of living to do! I want to laugh and run again. I want to sing and dance. Please don't put me in the ground. I promise if you give me just one more chance, God, I'll be the most careful driver in the world.

All I want is one more chance. Please, God, I'm only 17.

Reprint from Detroit Free Press

## WELCOME

We are happy to announce the following new members of the Michigan section of ITE:

Richard Shanes - City of Lansing  
Jerry Waldman - Surface Systems, Inc.

## WE'VE MOVED

PLEASE NOTE OUR NEW ADDRESS & PHONE

OFFICE OF HIGHWAY SAFETY PLANNING  
111 S. Capitol Avenue, Lower Level  
Lansing, MI 48913  
Phone: (517) 373-8011

## McCARTHY MOVES

Dan McCarthy, Energy Absorption System's Area Manager, has recently moved to Carlsbad, California. He will continue to represent "Energy" in sunny California. We all wish him continued success. Pictured below, Dan says his good byes to Paul Carrier, holding a tube from the newly installed "wall of water".



Dan McCarthy says goodbye to Paul Carrier.

## IN MEMORIAM

**LT. MILLER RICHTER**  
Michigan State Police  
Born: June 19, 1937  
Died: September 9, 1982

# ORDER OUT OF CHAOS

EDITOR'S NOTE: The following article is reprinted courtesy of Texas Flyer magazine (February 1982 issue), carried aboard TEXAS INTERNATIONAL AIRLINES.

"THREE...TWO...ONE...mark!" "We have a problem on the Long Beach Freeway," intones the resonant radio announcer, headlining his sixty-second spot. "Good morning, this is Metro Traffic Control. On the Long Beach Freeway, eastbound, just south of Century, an accident has just occurred and is tying up traffic. Riverside, eastbound, at Lemon, there is an overturned crane blocking the on-ramp. Harbor, northbound at Artesia, there is a stalled vehicle blocking the left lane, and" - the voice rising - "a new incident, Newport Freeway, northbound at McFadden, a truck losing its load. Heard something about paper towels, that could be what the load is. Mike White, Metro Traffic Control."

Yes, it's another stop-and-go day in the freeway capital of the Western world, Los Angeles, city of angels, with a glorious and ever visible sun gilding a rib of clouds arching over broadcast central, two blocks south of that star-studded crossroads, Hollywood and Vine. Metro Traffic network that guides an estimated twenty-four million commuters through the sturm and drang of rush hours in ten major U.S. cities every day, is telling tuned-in Angelenos just how bad it is, on this, the seventeenth of the month.

The voice, that of former Associated Press reporter Mike White, is trying to bring some order to the vehicular chaos; to the scattered incidents snarling traffic for 5.6 million commuters on the six hundred miles of freeway that crisscross the L.A. basin in what, from the air, looks like a giant computer grid; to the racket of police and fire scanners, TV monitors and two-way radio transmissions squawking all around him. With engineer Steve Taneman on his right, poised to punch in tapes of on-the-scene reports radioed in no more than five minutes before by seven mobile ground and three air units, Mike White waits for his on-the-air mark. At Taneman's signal, he'll instantly pull together a traffic update from a welter of reports now flashing on a computer monitor in front of him for thirty- and sixty-second radio spots to be fed ultimately to seven area stations.

Elsewhere in the country - in Atlanta, Baltimore, Boston, Dallas, Denver, Detroit, Houston, Minneapolis and Washington, D.C. - seasoned broadcasters like White will be doing the same, and all because David Saperstein, an effusive Baltimore car dealer, came up with a better idea while stuck in traffic during a 1978 snowstorm.

"Here I was, in traffic along with everybody else, and suddenly Bob Shilling, of WCBM, came on with an on-the-spot description of what was really happening," Saperstein recalled during a recent shakedown visit of his now four-month-old Los Angeles operation, the newest kid of MTC's bloc. "Shilling was out there too, going to work like everybody else, broadcasting live from his automobile. The credibility, the believability, the authoritative way that report came across. Why, I thought, here's a guy out there with me. He's not sitting in some studio, he's not overhead looking down at a white mass. He's right there. He can describe if it's slippery or icy under an overpass, and it just amazed me about the difference. It just came to me that that is something we should do every day."

But how? Out there in a snarl are thousands of frustrated motorists with bright ideas, yet so little ever comes of their inspired flashes. Could Saperstein, who majored in communications in college, convince skeptical broadcasters and tight-fisted advertisers that full-time, on-the-scene, computerized traffic reporting was a better way to go, a cost-effective improvement over all those Waldo Pepper chopper pilots beating the heavens above urban America? Not right away.

But Saperstein, an exuberant, youthful-looking forty-one-year-old, wasn't about to let a minor obstacle on life's problematic highway stall his project.

(After all, we're dealing here with a charmed individual, one who, through some divine gift, manages to drive around Los Angeles oblivious of traffic; finds legal, unmetered parking on Wilshire Boulevard - the city's answer to Broadway - and, of course, invariably is in the one lane that's moving on the congested Hollywood Freeway.) He immersed himself in market research and six months later was back knocking on station managers' doors in Baltimore, his pitch distilled to three simple propositions:

- o Market studies show a strong demand for traffic reporting;
- o Much of what passes for up-to-the-minute traffic reports is out of date by the time it's aired;
- o Accurate reporting requires a full-time commitment on the part of broadcast professionals who should not only report tie-ups but should accurately estimate delays through key bottlenecks given the time of day, season and road conditions, or suggest alternate routes around them.

"You can't have a guy in a radio station reading information off a wire, listening to police scanners and giving a traffic report, because it plain and simple isn't going to be accurate," says the evangelical Saperstein.

But this kind of twenty-four-hour, seven-day-a-week commitment doesn't come cheaply. It requires the hardware of communications, a minimum quarter-of-a-million-dollar investment per market in a fleet of cars and/or planes, plus assorted electronic gear, including a computer with a sexy memory feature that allows it to estimate drive times at key locations whatever the situation. But mostly, it takes people - more than two hundred for the ten cities in Saperstein's fledgling empire. That's a capital outlay clearly beyond the means of a single station, Saperstein was quick to recognize, so he hit upon what would be the winning marketing strategy: get advertisers to bankroll the cost of the operation in return for a multistation audience (some sixteen in the Minneapolis area), while offering the stations a "free" service in return for "commercial considerations."

"Radio is an interesting medium, like print," Saperstein points out. "You can target your audience. A country station, a rock station. So what we try to do is to get one station of every format to take the service to get the kind of reach we're looking for. In most markets, we approach 60 percent of the audience. We compare ourselves - though it's not altogether a fair comparison - to billboards. Our cost is half that of billboards, but with higher visibility and the immediacy of changing your message in minutes. People turn to radio for information, and there's no better way to see a mobile people."

For all that, only three out of fifteen Baltimore radio stations who heard Saperstein's pitch signed on at first. It wasn't great, but it was a beginning, and Saperstein kept plugging away. Perceiving the logic of oil company sponsorship of his service, he prevailed on Amoco to buy time, though at first it would only consider a four-week buy. But then the BALTIMORE NEWS AMERICAN came on board. And when an officer there introduced Saperstein to his opposite number at the now-defunct WASHINGTON STAR...well, the idea born of congestion found the fast lane.

Today, Saperstein the Globetrotter logs fifteen thousand miles a week monitoring operations in ten cities, airily deflecting questions about his company's net worth. "Money is not really a good judge of success," says he. "I think the fact that we have an industry here that didn't exist two and a half years ago is the success. There isn't a society in the world today that doesn't say that the standard of success is somebody willing to give something for what you've produced and call it his. That's a tremendous achievement."

## BUCKLING UP BEGINS AT WORK

The darkened meeting room grew very quiet. On film, Michigan State Police Sgt. Jack Ware had just emotionally re-lived an auto accident he witnessed during an ice storm 12 years ago. He told how passengers Mary and Joanie died, and how he still has nightmares about the accident.

At the close of "There's Room to Live", Sgt. Ware bluntly made his point: Mary and Joanie could have lived if they were wearing safety belts.

The film is the conclusion of the Auto Club of Michigan's 45-minute multimedia education program to convince all Auto Club employees to wear their safety belts. Employees from the Safety and Traffic Engineering Department will conduct the program in each branch and the Home Office.

The purpose of the program is not to convince employees that safety belts save lives. "We already know they do," said Bob Cullen, manager of Safety and Traffic Engineering. "The program's theme, 'We Need You', reflects the Company's concern that every employee be protected by buckling his or her safety belt. Not only does the Company need you, your families do, too."

"We don't dwell on statistics," Cullen continued, "but some of them hit home." During a segment, Cullen reveals that every 14 months an Auto Club employee is killed in a traffic accident. A family member of an employee is killed in a traffic accident every 3½ months. Additionally, studies show that an employee is injured in an auto accident every five days, and that in one year, they are involved in 154 accidents in which 71 are injured and one is killed.

The employee education program goes hand-in-hand with the Company's efforts in Lansing to secure passage of a mandatory belt law in Michigan.

The Club has been in the traffic safety forefront since it began the first safety patrol in the United States here in Detroit in 1919. "We followed that with the country's first traffic signal in 1920 and we've been training driver's ed teachers since 1939." Cullen noted that the Auto Club studies of drinking was one of the major reasons the legal drinking age was returned to 21 from 18. The Club was also a major force in passage of the Child Restraint Law, effective April 1, with its donation of free seats to the state police and other community loan programs.

It would be appropriate for Michigan-the automotive capitol of the world - to be the first state to pass a mandatory safety belt law, Auto Club President Jack Avignone said at one of the first safety belt education sessions. "It would be hypocritical of the Auto Club not to educate and encourage safety belt use among its employees and their families."

Employee education will not stop after the initial program. As an incentive to buckle up, the Company in the next ten months will sponsor a series of raffles for \$50 savings bonds and a grand prize trip for two. Safety and Traffic observers will submit names of employees seen wearing safety belts while driving into Auto Club parking lots.

Preliminary observations by Safety & Traffic show that from 7 a.m. to 9 a.m. one day at the Home Office parking lot, 16 percent of the employees were wearing safety belts. That's slightly better than the 11 percent statewide average, but Cullen is convinced that percentage will grow as employees are educated on the issue.

By: Donna Bakun (excerpted from Wheels, the Auto Club employee magazine)

## ACCIDENTS INCREASE — FATALITIES DECREASE

Michigan Department of State Police statistics indicate a substantial increase in total accidents (9.7 percent) and a moderate increase in persons injured (1.9 percent) through March of 1982 compared with the same period in 1981. However, the number of persons killed has continued to decrease when compared with last year. Statistics available through August 8, 1982, show 166 less fatal accidents (20 percent) and 162 less fatalities (18 percent). It is still realistic to expect around 1400 fatalities for the year which would be a 21 percent reduction in fatalities over the past two years.

By Bob Lariviere

## THE TRAFFIC ENGINEER AS A REAL ESTATE BROKER

Early in their careers, transportation professionals learn about the interaction of transportation and land use. Trip generation studies and travel demand forecasting quantify the relationship between land use type and intensity and the demand for transportation service. City Traffic Engineers involved in the maintenance and operation of transportation facilities deal with the impacts of land use on a daily basis. But how does the City Traffic Engineer find himself in the real estate business?

Traffic Engineers in growing cities find a great need for new transportation facilities. To construct the wider streets, new sidewalks, bikeways, and public transportation facilities, additional rights-of-way must be acquired. Thus, to provide for the transportation needs of the community, the Traffic Engineer finds that one of the obstacles in his path is lack of right-of-way. This gives the Traffic Engineer direct interest in the right-of-way acquisition program. If there are to be public works projects - including transportation projects - there must be an effective right-of-way acquisition program.

In Troy, Michigan, the transportation interest in an effective right-of-way acquisition program was crystallized in 1976, when the City Traffic Engineer was placed in charge of right-of-way acquisition. Since that time a Right-of-Way Division has been formed with a small staff of Right-of-Way Negotiators and a Right-of-Way Appraiser. At current staffing levels, this Division has the capability to acquire approximately 150 properties per year.

This responsibility for right-of-way acquisition requires that the City Traffic Engineer develop knowledge and skills in the areas of real estate law, title insurance, legal descriptions, real estate closing practices, condemnation law, and Federal procedures relating to right-of-way acquisition and relocation. A City Traffic Engineer in this position is, in effect, acting as a real estate broker.

By Richard F. Beaubien, P.E.

## TECHNICAL COUNCIL NOTEBOOK

The new Technical Council Notebook can now be ordered from ITE Headquarters.

Those who purchase the Technical Council Notebook will receive a 3-ring binder which includes the current equipment standards of the Institute.

The handsome 3-ring binder has capacity for a number of technical reports. The printed binder cover and spine provide easy book-shelf identification. Tabs to separate equipment standards, recommended practices, and informational reports are included with the binder, as are tabs for each of the 10 current equipment standards contained in the notebook.

Purchase of these equipment standards separately by ITE members would total \$43. Purchase of the Technical Council Notebook for only \$40 plus handling and postage will include all these reports plus the binder and tabs. (Add 10% to orders within U.S. and Canada; 15% for surface mail to all other countries).

As full copies of new reports become available, they may be ordered separately and be incorporated into your Notebook. These will include Technical Council informational reports as well as new or revised ITE equipment standards and recommended practices.

## SHORT CYCLE LENGTHS AT LARGE INTERSECTIONS

Several intersections on the City of Lincoln Computer Traffic Control System are major intersections of two, four-lane divided arterials. These intersections require 120 second cycle lengths both for capacity and to accommodate the long pedestrian clearances. The intersections use a NEMA eight phase controller with protected/permissive left turns in a computerized system.

During periods of low traffic volumes, a 60 second cycle length would accommodate traffic volumes and provide progression with less delay. Adjacent intersections with minor streets use a 60 second cycle length. However, the required pedestrian clearance times plus protected left turns do not allow the short cycle length. During the 60 second cycle the computer puts out a special bit which indicates to the local controller that it is in a 60 second cycle. When in the 60 second cycle, the local controller, by means of the special circuit, will omit the protected left turns if either of the following conditions occur.

1. If a pedestrian actuation occurs and the controller is in phase 2 and phase 6 walk, it will skip the protected left turns this cycle and service the pedestrian this cycle.
2. If a pedestrian actuation occurs and the controller is not in phase 2 and phase 6 walk, it will service the left turn phase and omit pedestrian timing this cycle. The pedestrian demand will be serviced the next cycle when the protected left turns are skipped.

Reprint from MOVITE Journal

## GM STUDIES SUICIDES IN AUTO ACCIDENTS

General Motors scientists believe that some of the 50,000 people killed each year in U.S. auto crashes are really suicides in disguise. Last year, about 26,000 U.S. deaths, excluding those in auto accidents, were officially declared suicides.

GM officials are vague about what they might do with any findings. This would just add to our knowledge of how people get killed in cars," G.M. said.

Some outsiders question the value of the research. The number of disguised suicides is probably so small it isn't significant NHTSA commented.

Others challenge GM's motives. "This is just another attempt to switch the blame for auto accidents to the driver," says Clarence Ditlow III, director of the Center for Auto Safety. "If there's a subliminal death wish behind some fatalities, then they ought to put airbags in cars and make them safety."

GM stated that if the number is 10%, then that's 10% we can't do anything about.

The Center for Auto Safety calls it "just another attempt to switch the blame for auto accidents to the driver."

It might be useful for suicide prevention centers to know that going for a drive to blow off steam might not be a good idea in some cases. GM also suggests more barriers between traffic and bridge abutments.

Scientists have suspected suicide in many deaths involving collisions of one-occupant cars with bridge abutments, trees or utility poles, especially when there was no evidence of braking.

Finding ways to measure such a "suicide component" in traffic deaths has proved elusive. Many apparent auto suicides also could be accidents resulting from the driver's falling asleep or suffering a heart attack or stroke. So, in the absence of a suicide note, collision investigators generally don't go out of their way to establish suicide.

In one study, Mr. Phillips found that California auto-crash deaths also seem to rise about 31% on the third day following publicity about a suicide, suggesting that some of the deaths may have been suicides.

## INTERSTATE HIGHWAYS FACE FINANCIAL POTHoles, SAYS CBO

The future of the U.S. Interstate Highway System is threatened unless Congress "faces difficult choices between eliminating various activities or increasing taxes to pay for them," a new report from the Congressional Budget Office (CBO) warns.

Mounting repair needs, escalating completion costs, and declining financial resources of the Interstate ne work are the three major problems converging to place intense pressures on the system, according to the CBO study.

Existing legislation provides for only \$4.4 billion of the estimated \$12.4 billion needed annually for construction, reconstruction, and repair of the Interstate system between fiscal years 1983 and 1990. Clearly, new program and financing options need to be explored by Congress if the highway system is to survive, the CBO report says.

### NEW FOCUS

One way to address the problem is to reorient the Interstate program "to shift from the historical focus on new construction to the growing need for system repairs," the report suggests.

One option would be to establish a "minimum" Interstate system, with construction limited to those routes "that are essential to a national, inter-connected highway system." Routes of predominantly local importance and upgrading of existing routes would be removed from the system plan.

A second option would be to authorize an "intermediate" system, funded at a lower level than the current Interstate program, but at a higher level than the minimum system.

This option would allow for construction of the nationally important Interstate routes as well as of certain locally important projects that have reached the final stages of planning.

CBO estimates that scaling back the Interstate program to the intermediate level would require an increase of \$4.5 billion each year above the \$4.4 billion currently authorized. A minimum system would require an additional \$3.9 billion annually. Continuing the Interstate program as currently authorized under the Federal-Aid Highway Act of 1981 would require an additional \$5.8 billion per year in revenues.

### THREE OPTIONS

Three financing options have been suggested by CBO to meet these additional revenue needs. These are:

- \* Increasing highway user taxes;
- \* Reducing the federal government's share for highway reconstruction and repairs; and
- \* Restructuring federal aid for highway programs by transferring responsibilities for projects of local importance to the states.

If the additional funds were obtained solely by raising the federal motor fuel tax, increases of 5.3¢ per gallon would be required to continue the current program. A 4.1¢ per gallon increase would be required for an intermediate system, and a 3.5¢ per gallon increase for a minimum system.

If the federal share of reconstruction projects were reduced to 50%, and its share of repair projects reduced to 75%, CBO estimates the increases in highway user taxes needed to support the program would be 3.9¢ per gallon for the current program, 2.1¢ per gallon for the intermediate system, and 1.3¢ per gallon for the minimum system.

Transferring programs that "have relatively little significance for national transportation" to the states would release some \$1.7 billion in revenues which could, in turn, be spent on the Interstate system. If this were done, the fuel tax burden associated with the other financing alternatives could be greatly reduced, according to CBO.

Although each funding option could be implemented separately, "some combination probably would be more effective in meeting the goals of completing and repairing the Interstate Highway System," the report concludes. Reprint from Engineering Times 8/82

## DOT INSPECTOR GENERAL REPORTS SAVINGS OF \$518 MILLION

The Department of Transportation achieved savings of \$518 million through audits and investigations in the six month period ending March 31, 1982, according to Secretary of Transportation, Drew Lewis.

Investigations into bid-rigging in DOT-funded highway construction projects during the period resulted in 60 indictments, 38 convictions, the imposition of \$3.5 million in fines, and debarment of 18 companies and individuals from bidding on DOT-funded projects. The total savings includes:

- \* \$456 million in recaptured and reprogrammed funds from unused obligations and reduction or elimination of payments and costs that otherwise would have been paid by the governments,

- \* \$54 million as a result of costs questioned as ineligible under grant or contract provisions or inconsistent with legal requirements and

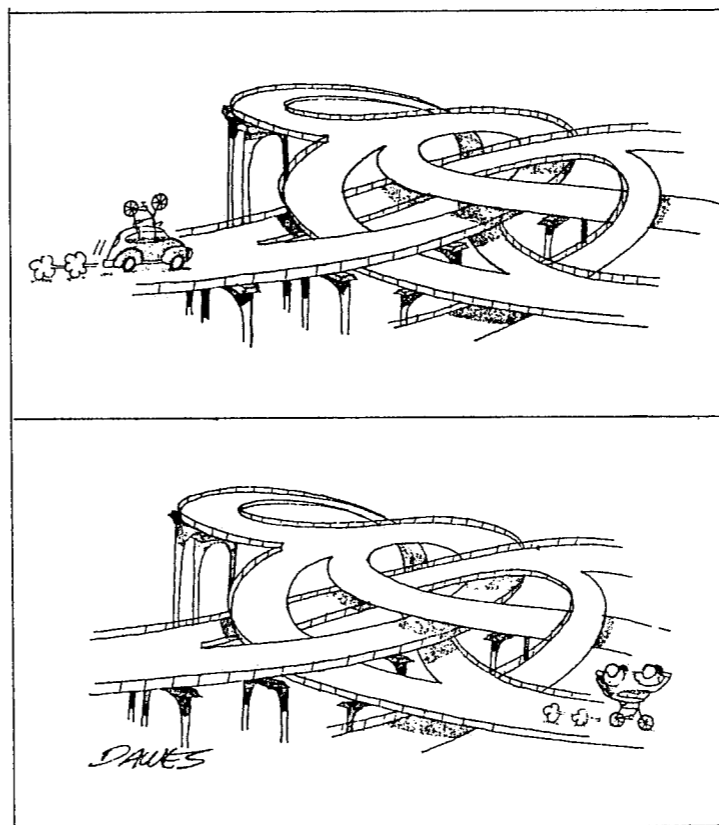
- \* about \$7.5 million in fines imposed (including the \$3.5 million mentioned above), civil judgments, court and administrative restitutions, and costs avoided.

The Inspector General conducts grant audits, internal reviews of DOT programs and functions, and audits of contract and procurement assistance.

Since early 1980, the Inspector General's staff has worked closely with the Department of Justice Antitrust Division in big-rigging investigations, which have become one of the Inspector General's high-priority efforts.

Since the DOT began investigations of bid-rigging, bid prices have declined nationally as compared with engineering estimates. In South Carolina, Virginia and Texas--states where DOT investigations have been concentrated--the cost of contract awards (as compared with estimates) declined noticeably between Fiscal 1979 and Fiscal 1981, the report said.

Since 1980, joint DOT/Justice investigations, mainly of DOT-funded highway construction projects, in 9 states have resulted in 134 indictments, 99 convictions (46 corporations and 53 individuals), \$9.9 million in fines, prison sentences totaling 29 years, and debarment of 52 firms and individuals. Reprint from USDOT News



## STATE GETS OK TO SET ENGINEER STANDARDS FOR HIGHWAY REPAIR

Design criteria for repair work done on highways was made much more flexible and federal control minimized under a Federal Highway Administration rule change.

The change applies to resurfacing, restoration, and rehabilitation (RRR) projects which, until now, were required to meet federally set geometric design standards compatible with new construction. The new rule would give discretion to the states to determine engineering standards for road repair work. The change does not apply to structural design, materials, or traffic control standards and doesn't include work on interstate freeways.

Until now, all repair work on highways had to meet geometric design criteria or else states had to apply for special waivers. Since many of the older roadways now in need of repair were built before current standards were developed, that often meant costly or time-consuming headaches for construction engineers.

The change went into effect July 12. Reprint from Engineering Times 8/82

## DESIGN TEMPLATES AND GUIDE NOW AVAILABLE THROUGH ITE

The highway design templates and at-grade intersections design guide developed by Jack E. Leisch and Associates are now available from ITE Headquarters. These materials consist of the following:

**Turning Vehicle Templates:** A set of 8½"x 11" templates printed on 10 mil transparent mylar to assist the designer in developing and evaluating geometric design alternatives using the AASHTO Basic Design Vehicles. The English System Set and the Metric Set each include numerous templates covering the full range of design vehicles and scales  
Metric Set (LP-22) = \$190  
English System Set (LP-23) = \$225

**3-Centered Curve Templates:** Three centered curves are recommended by AASHTO for geometric design of right-turns channelization in order to provide sufficient roadway width to accommodate standard design vehicles. The set of 36 11" x 14½" templates is printed on 4 mil transparent mylar with an accompanying 3-centered curve properties table. The set includes 12 templates of each of the following scales 1"=20', 1"=40' and 1"=50'.

3-Centered Curve Template Set (LP-24) = \$335

**Planning and Design Guide-At Grade Intersections:** An instructional text presenting theory, design and operational criteria and their practical application. Approximately 600 pages with over 200 illustrations.

Planning and Design Guide (LP-25) = \$85

For all orders, add for postage and handling 10% within U.S. and Canada; 15% for surface mail to all other countries.

## THE RYATTS By Jack Elrod

