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Mr. Monhollon serves on several national research and AASHTO committees dealing with operations of highways.

GENERAL SESSION

Work Session Reports:
Findings and Suggestions
Tuesday, July 26, 1994

William Monhollon, Assistant State Highway Engineer for Operations, Kentucky Department of Highways

OPERATIONS WORK SESSION SUMMARY

The Operations Work Session was attended by many engineers, foremen, public works directors, and people with similar titles and functions throughout the Commonwealth. They are the people who have the responsibility of planning and implementing the various road and street maintenance functions throughout the state.

We heard three excellent presentations. Following the presentations, we had a number of thought-provoking questions, many of which, I'm sure, are going to implement the future development of our winter maintenance program.

In the initial session, “Chemicals: What’s New, Tried, and True Applications,” Carl Wells (Roadside Environment State Administrator for the Kentucky Department of Highways) presented statistical information that helped us focus on the magnitude of the problems that we face. Last year, the Department of Highways spent $17,868,000 in deicing and snow removal—this represents approximately fourteen percent of our total maintenance budget of $130,000,000.

To give you some concept of the variation of the problems of snow and ice removal and the variation in the severity of our winters, in the winter of 1991-92, we spent $2.7 million, and this past winter, we spent about five times that much. Last winter, we used 166,000 tons of salt and probably the only reason that we didn’t exceed 200,000 is that we couldn’t get it.
we are constantly looking for that magic chemical that is inexpensive, environmentally friendly, effective at low temperatures, and requires a minimum of labor and equipment. I suspect this will not come as a great surprise to any of you that the chemical that most closely approaches those requirements is a chemical that is chemically known as sodium chloride--what we call salt.

There are a number of products that have appeal in certain situations, and have been tried on the market. One of them is a chemical known as CMA or calcium magnesium acetate. It is environmentally friendly, in many respects, and it is effective at deicing; however, it also is very expensive, it is light in texture, and it is difficult to apply. It has characteristics of blowing and getting on the vehicles that are traveling the highways.

Another chemical that has been tried and has some appeal is ethylene glycol. That is a deicer that is commonly used for deicing aircraft. It also is expensive and it has the drawback of being toxic to human beings. Calcium chloride and magnesium chloride are more expensive than salt and have the dilemma of having the same corrosive characteristics of all chlorides.

In the foreseeable future, we don't envision a change in our dependence on salt supplemented with liquid calcium chloride as our primary deicer. However, we will constantly endeavor to improve our application rate and our technique. Economic and environmental concerns will mandate that we reduce salt consumption by using discretion with its application.

Not only are we going to need to concern ourselves with application but equally important is storage. We expect to continue to improve our storage facilities and to monitor more diligently our potential for storm runoff and groundwater infiltration. Adequate coverage cannot be compromised. We have to keep our salt supply covered.

In his presentation, "Plowing-Spreading--Start to Finish," Bob Yeager (Chief of Maintenance and Operations for the Kentucky Department of Highways, District 6) stated that we need to ask ourselves what the public wants. He said that the answer is miracles! The expression that best sums up public expectations is that we have done so much for so long with so little, that we are now expected to do everything with nothing. And, the amazing thing is that we darn near do it.

More seriously, Mr. Yeager tells us to identify those elements of the ice and snow battle that we partly or totally control. We do not have control of an element if we cannot do something about it.

Among the elements that we partially or totally control is the use of equipment. We may not be able to get all of the equipment that we want and need but certainly we have the discretion of how we utilize that equipment we already have. The same is true with personnel. We may
need more personnel, we may need personnel who are better trained, but certainly we can control how the personnel that we have are utilized.

We can control salt usage and how and when it is applied, the technique, and where it is spread, and we can control the spread patterns. All of those are things that we can control and, if we are to make improvements, we must most effectively plan and utilize those resources.

Perhaps our most important activity is to recognize that we work for the public and that we need to share our plans with them rather than try to defend our plans to them. Our plans should be realistic, they should be easily understood, they should be compatible with policy and procedure, and they should be measurable, flexible, and acceptable. If our plans meet those criteria, we establish what the public expects of us.

We should recognize the attitudes of our employees and the motorists and the concerns that they have and be sure that we are addressing those in a positive fashion. One example Mr. Yeager noted is that many motorists do not feel confident unless they can see the salt being spread. That can create a real problem, and in some ways we have to address that concern, but we have to address the concerns of our people so they can develop confidence in our plan and in our message. Unless we do that, we are not going to get the maximum efficiency from that most critical resource.

We must recognize that the things we can improve are the things we can control. Those who work in operations cannot control some of our personal or equipment numbers. Do we need more people and more equipment? Of course we do, but that doesn’t mean we can’t make improvements to our resources and their utilization and their effectiveness. Those who feel that we have adequate equipment and personnel simply are not aware of the facts. But, we can only change those minds by most effectively and most productively utilizing those resources that we have.

Mike Jones (Chief District Engineer at Kentucky Department of Highways, District 8) noted in “Winter Maintenance—There’s more to it than snow and ice control,” that during our worst winter, 86 percent of our resources were devoted to things other than snow and ice removal (such as drainage and shoulder maintenance).

A major focus of winter maintenance also should be employee training. That is the time that we can do some needed training. Also, equipment repair can be undertaken, culvert extensions can be made, and, of course, there has to be a certain amount of surface repair.

Audience participation

As always, many of our best suggestions came from those in the audience. Those are the people, of course, who are most intimately involved with these activities. Someone noted that we needed to develop more cooperation with and have agreement between state and local
government. Some people in the audience noted inhibitions to maximum efficiency that are related to hiring people who do not have CDLs—this is a legislative requirement. Nevertheless, it is also a major handicap. Some local governments make having a CDL part of the job description and do not hire people who do not meet that requirement.

Some special problems of note by department people are inadequate tarps for the covering of salt and tire chains that wear out quickly. (Editor’s note: in a question-answer session following these presentations, George Franke, Director of the Division of Equipment at the Kentucky Transportation Cabinet, reported that the district offices have been surveyed to ascertain salt-covering needs. Also, new tire chains have been ordered to replace the defective ones.) If we do not cover our salt supplies properly, we will certainly reap the wrath of the environmental regulators. Also, we will have a product that is damaged from the weather. We cannot allow that to happen.

Perhaps the most positive trait that was apparent over and over in the comments and questions that we heard yesterday was the pride of our people. They are truly determined to do a good job. They care about the people they serve. If we provide the resources to give them a fighting chance and stay out of their way, they will get the job done. UPS and other major industries will be able to deliver just-in-time and our economy will prosper. If we can spend a few million dollars to remove snow and add hundreds of billions of dollars to our economy, we’re quite foolish not to.
Kenny Fogle was appointed Assistant to the Highway Commissioner in 1992. Prior to that, he served the Kentucky Transportation Cabinet as Assistant State Highway Engineer and as Engineer Aide.

Mr. Fogle served in the Air Force from 1977 to 1982 and is still serving as a member of the Kentucky Air National Guard.

He earned a BS in Government from the University of Maryland’s Far East Division in Okinawa while in the Air Force.

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Kenny Fogle, Assistant to the Commissioner,
Kentucky Transportation Cabinet

MANAGEMENT WORK SESSION SUMMARY

I started out about as low as you can go at the Highway Department—I think it was a grade three laborer, and I am fiercely proud of the way I came up through the Department.

I remember spending one winter salting roads and pushing a plow. I can still remember the day (it doesn’t seem like too many years ago) that I had to go to a house and call the foreman to tell him he had one of his dump trucks parked sideways in a ditch where somebody had taken a curve just a little bit too fast.

I know what it’s like to be out there. It is probably the scariest feeling I’ve ever had in my life—being out on the roads in the middle of the night during a snowstorm. It is so dark the only way you know you are on the highway is that the mailboxes are on the right side of your truck! The snow is blowing back on your windshield, it is dark, slick, and you have a load of salt. I really admire anybody who gets out in the middle of the night like that to remove snow and ice from our highways. I consider those warriors up as high as any fireman or policeman or hero on any list. Anybody who ever belittles any state employee will have me to argue with because I know what they go through.

We have the frontline forces here at the Forum today. This is the first time, as far as I know in recent memory that we have ever had all the county foremen throughout the state in one place for a forum such as
this. It is a learning forum, and almost everybody I have talked to said this has been one of the most beneficial forums we have had. I have been involved in six now and I think this is the best one I have ever seen as far as coming away with a clear objective of what we need to do. At least it gets us all talking.

Yesterday we had the Management Work Session. One speaker was the state highway engineer from Indiana, Don Lucas. He talked about what they are doing in Indiana, which is not tremendously different from what we are doing here in Kentucky. They do have a whole lot more snow than we have here. Every year they go through what we go through maybe once every 10-15 years, so they get a lot of practice.

A lot of what they do is what we have done before or are in the process of doing. For instance, they emphasize planning—they plan throughout the year and, after winter is over, immediately start working on repairing and maintaining their equipment. They review what they did right and what they did wrong, they write up reports and work on getting everything ready for the next year. Everything in the plan is clear and in writing as far as delegation of duties. There is no question about who is in charge of what responsibilities when November or December come around.

Officials in Indiana prioritize routes just like we do, only they have two prioritized routes. Their number one prioritized route is any road that needs to be cleared in less than two hours, and the number two prioritized route is any road that can wait three hours or longer. That is their only criteria.

They only handle state roads there, much like we do, but their county operations have been beefed up pretty heavily. They are in the business of clearing snow and they do it a whole lot more than we do. Also, their budget is so much more directed towards winter maintenance than is ours.

Indiana also emphasizes employee training—they hire nobody who doesn't have a CDL. Their ownership of trucks is similar to what we do a lot in Kentucky. When a driver is hired, he is assigned a truck and that basically is his truck. Most people working on maintenance crews know what truck they will be in when they come in that morning, and they are going to polish it and take pride in it make sure it's in good running condition. I think this policy is very important.

The second Management Work Session was “Privatization” with Bill Cress, Executive Vice President of Hinkle Contracting. It is a very controversial issue among just about everybody because there is something about the word that scares everybody. We do it already in construction—we contract out most, if not all, of our construction. We also contract for most of our mowing operations.
Now we are getting into a scary issue: do we contract for snow removal? That is something that we may end up having to do before long because we simply do not have the state forces to do it.

As Mr. Cress mentioned, we can't control the number of personnel and amount of equipment we have. I really don't foresee our getting a lot more personnel or a lot more equipment. We only have a really bad snow once every 10-15 years and it is difficult to justify getting a lot of people and a lot of equipment just for those few episodes.

Mr. Cress pointed out that what we are trying to emphasize in contracting out these jobs is to supplement what the maintenance crews do. These private companies don't want to take over the snow and ice removal, they want a minimum contract.

Mr. Lorbeske from Indiana mentioned that the people they contract with are guaranteed $5,000 whether they do anything or not. If they work more than $5,000 worth, then they make more money but, if they don't, then they're guaranteed at least $5,000 that winter. Mr. Cress said they are eager and willing to do this. They have lots full of equipment and he said it felt really bad this winter when we couldn't get the roads cleared and he could look out in his own equipment lot and see it was full of backhoes and full of trucks and full of snowplows and full of graders that weren't being used.

He is hoping that we will consider private contracts with different companies throughout the state. (We did use some private contracting but not on a wide scale—it is not something we do statewide). He said they have people laid off in the winter who are not making any money anyway unless it is unemployment. They are wanting to work, have the equipment, and they are ready to work, so they are asking that we consider price contracts and work with the contractors.

The third Management Work Session was “Kentucky’s Media Perspective” with Ron Robertson, traffic copter reporter, WHAS radio in Louisville. He is the person who is in the sky in his helicopter every morning and every afternoon watching traffic, so he sees a lot of what is happening on our highways. He was in the middle of the snowstorm last year and got a different perspective than we did.

We often look at the media as our enemy—and sometimes maybe they are. They don't get everything right and I don't think it is always because they don't know any better—it is because they don't want to get everything right. Bad news sells better than good news. But, even at that, they are human beings also. They have already reported on this Forum in different ways. I heard that one radio station reported the Forum as a symposium of some sort. One station said the University of Kentucky is putting it on, while another station I heard said the city of Milwaukee and the state of Indiana were putting on a forum for us in Kentucky to attend. All that in just one day's time. We had the media right here yesterday. They knew what was going on and either they
reported it wrong or when they wrote their story they wrote it wrong. That shows you can't always trust everything you hear.

You have to be very careful what you say. There is nothing, I repeat, nothing, “off the record.” I don't care what they ask you, there is nothing “off the record.” I don't care how good friends you are with the media, it doesn't make any difference—they are going to report things the way they see them and the way they hear them. And, like I said, they are in the business of selling newspapers. They are not out to make us look good or to make us look bad—they are in the business of selling newspapers or radio and TV time.

What we talked about yesterday in the session was working with the media and planning ahead. Throughout the day we kept talking about the “war room” that we had set up in Frankfort as headquarters for the snow removal operations. Ron Robertson asked if they could assign a media person to the war room in the future. I don't know if we are even going to consider that or not. But they have offered to let us set up shop right in their WHAS studio. That is a consideration, but I don't know whether we want to do that or not.

The word war kept coming up even at the beginning while planning for the Forum. We called it “The Cold War of '94.” I was in the Air Force and still am with the Air National Guard in Louisville. I think we are somewhat in a war situation here. We are getting our warriors together and we are doing a lot of planning and getting ready for a major disaster. The enemy? I guess that is Mother Nature herself, maybe even the media.

This morning I listened to Mr. Robertson on the radio while I was driving to work. The other disc jockey asked Ron if he had gotten everything straightened out yesterday when he was here. He said, “No, that is not what it was all about. This was a brainstorming session.” He said there were not going to be any solutions that came out of this meeting, and he is absolutely right. There is not one solution really going to come out of this meeting today. But, people will be going back to Frankfort and to the district offices, the county offices, and they are going to discuss what they heard here. I am sure they can find some solutions in sharing information with each other.

Make sure you are talking to each other. We can work with the county governments but we have to talk to each other. It is foolish to have a county government go out and scrape a road that we just salted. Communication is very important, and that is what we are doing here.

We have 120 counties represented here and we all do things just a little differently. If we can all just pick up one idea from each other, this meeting was a success.