Highway Safety and Utility Poles

by Van Towle, SR/WA

It can be said that through the Cluster Analysis Method specific solutions to pinpointed localized problems can be recommended.

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To begin with here is a basic fact. Unfortunately, drivers occasionally strike utility poles or any other object that is within or immediately adjacent to the public right of way. What can be done that is practical and in the public interest that would minimize impact accidents?

Accidents often involve fixed roadside objects: trees, bridge abutments, guard rails, fire hydrants, signs, light stanchions and utility poles. Many of the objects are necessary and inevitable. Without traffic signals and street lighting, problems considerably more compelling than those created by the structures used to support the lights would result. There is a faction in society which feels the aesthetic value of tree-lined streets far outweighs the problems created when a driver strays off the travelled way and hits one of the leafy beauties.

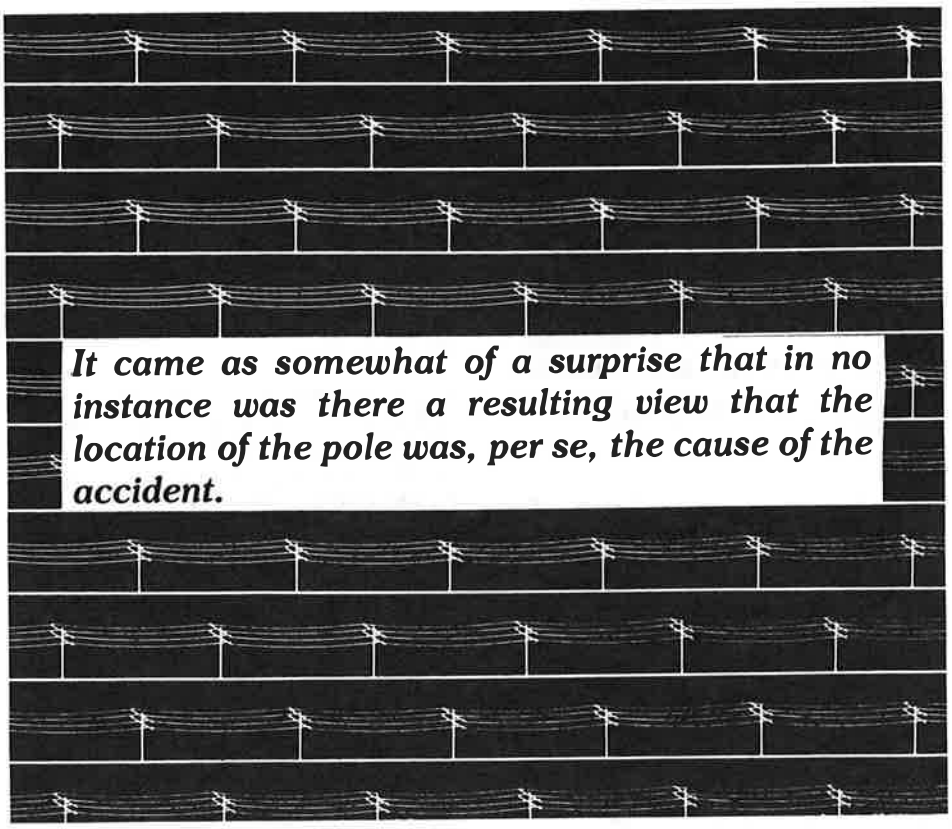
But utility poles are not trees and many people feel that moving utility poles away from the road would be a great step forward for the travelling public. Let's take a look at this.

In New Jersey we have about 34,000 miles of public roads. We don't know how many fixed roadside objects there are, but there are about one million utility poles either in the public right of way or on private property alongside the right of way. This means that in an average mile of public road, there are about 30 utility poles within reach of automobiles. In a given year, experience tells us there will be over 200,000 motor vehicle accidents reported, and 12,000 of these will be accidents where cars have struck utility poles. Roughly one-half of the 12,000 car-pole accidents will involve property damage, most of the rest will result in personal injury, and about one per cent will result in a fatality.

There are two extreme reactions to these facts. One is that all fixed objects should be removed from the public right of way or relocated to a point that is a minimum number of feet from the travelled way - and that this should be accomplished forthwith. The other is that the pole users are not their brother's keeper, and that if a car goes off the road, it is the driver's problem. It's my opinion that, although there may be good arguments and/or case law to support either or both of the above positions, neither is appropriate. I do not believe the first is practical and I do not think the second reflects a proper feeling of responsibility.

An arbitrary declaration that all utility poles should be banned from the public right of way would result in an expenditure of truly staggering proportions. Regardless of who would bear the cost (the utility ratepayers using the services provided by the wires and cables supported by the poles, the taxpayers footing the bill for the highways, or the vehicle operators using the highways), there appears to be a substantial question as to whether it would be warranted or possible. There is no way to calculate an average cost of relocating all existing aerial facilities "X" feet away from the travelled way, or of placing all such facilities underground, because of the wide variety of circumstances. Estimates have been made that range all the way from $20,000 per mile in rural areas to $250,000 per mile in more built-up areas to simply move the poles back. There is no way to know if those figures are at all reasonable, but it is safe to assume that, if they are, the corresponding figures for undergrounding would be twice as much. We had one job that involved about two miles of highway where D.O.T. required moving existing poles back from the pavement an average of six feet at a cost in excess of half a million dollars between the power company and the telephone company.

One can argue successfully that utility poles do not present a hazard, per se, since there is no problem until a driver leaves the travelled way (the paved area set aside for operating vehicles). There are court decisions which have held that an errant driver would probably have struck a particular pole even if it had been an additional 12 or 15 feet from the paved area. Finally, the argument can be made that a utility has the right by franchise and state law to place the poles in the public road right of way and that they are so placed by permit, issued by the appropriate governing body. However, to then adopt a position of dis-



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interest in the fact that, in some instances, the poles, though legally placed, are possibly contributing to some problems, does not seem reasonable. It would seem there ought to be an approach which is at once practical, reasonable, economically feasible and mutually acceptable.

Efforts are underway to implement a study program referred to as 'cluster analysis' which addresses a review of those sections of highway which are identified as having more than their share of car-pole accidents. Such reviews can be conducted either by a governmental agency carefully scanning accident reports, or by a pole-using utility doing the same with their pole damage reports.

An experiment was tried in New Jersey which just might lead to the practical approach we are seeking. Some years ago, IRWA Garden State Chapter 15 undertook a project to increase the cooperation and coordination among the utility companies in a given geographical area and the governmental agencies involved, and county coordinating committees were created. One in Monmouth County formed a subcommittee to look at the car-pole accident situation.

Step one was to enlist the aid of the 53 municipal police departments and this was done through the New Jersey County Safety Officers group, which contacted the local departments and outlined the committee's idea and suggested approach. The committee devised an accident report form, and requested that for a given trial month, the police advise the committee of each reported incident of a car striking a utility pole. 141 such incidents were reported to the committee, and they were spotted on a county map in an effort to determine whether there was a pattern to the accidents. Eight of the accidents were selected at random, and the group visited the site of each. The group consisted of representatives of the New Jersey State Safety Council, the NJDOT, New Jersey Bell, Jersey Central Power and Light, the Monmouth County Traffic Safety Engineer, and IRWA. Prior to the site visits, there was discussion on the specific reason for the visits, and the intended outcome.

Although the group had no power or authority to initiate any required corrective action, it was understood that if there was some obvious, practical solution, the responsible party would attempt to follow the recommendation. It came as somewhat of a surprise that in no instance was there a resulting view that the location of the pole was, per se, the cause of the accident. In one case it was noted that the construction of the road was such (very high crown -hollow area near edge of pavement where water collected) that a car encountering ice would almost inevitably slide off the road into a pole or tree immediately adjacent.

Although it can be argued that a utility pole, of itself, is not hazardous in the roadside, it can also be said that if it had not been there, there would not have been a given car pole accident. What the Monmouth County group was able to accomplish was a determination of the facts, enabling those parties directly effected (the transportation agency responsible for the maintenance of the road and the utility) to make decisions in respect to the general public interest and its subinterest (the ratepayers).

It can be said that through the Cluster Analysis Method specific solutions to pinpointed localized problems can be recommended. This does eliminate the need for a mass expenditure, national policy of relocating all utility poles, or replacing old poles with newer "safer" poles. What it does not answer are the questions of once problem identification takes place, how binding are the recommendations on a utility's franchise position? What will be required to implement and organize committees across the continent to make these studies? Does the property owner want the street right-of-way to extend on his property in order for pole placement to occur? What would the economic costs be to acquire new easements from property owners.

These and other as yet unasked questions will need to be answered, as more and more committees are formed to resolve the inherent problems of utility poles within the public road right-of-way.