THE RIGHT TO PASS - IN SAFETY

Paper presented by Thos. H. MacDonald, Chief, U. S. Bureau of Public Roads, at Twenty-first Annual Convention of American Association of State Highway Officials, Miami, Florida, December 9, 1935.

The early concept of the public highway was not the physical entity which we immediately visualize now, but rather, the right to pass as a human necessity and privilege. This apparently acquired substance in the English common law, and the quality of an inalienable right freely possessed explains more adequately today's highway usage and customs than any other background. Civilization, if it is to advance, must carry with it a constantly increasing respect for the rights of others, so it is only consistent to add to this early conception of the highway as the right to pass, the important qualification - with safety. In this form the right of the individual to use the highway freely is only limited by the necessity of insuring that the rights of others to enjoy the same privilege are not endangered. Much of our legendary romance and of our more accurate history revolve around the traveler, the caravans of commerce, the epochal migrations and their hazards, sufferings and jeopardy on route.

Robin Hood and his men rendezvousing in Sherwood Forest have now been translated into an opera, typifying one of the prevalent hazards of the road to their contemporaries. The nomadic Arab tribes attacked and plundered the caravans bearing the rich luxuries out of the Orient. The Indians of our own West preyed upon those

who laboriously traveled overland to build a new country. The nazards and discomforts of travel have had their origin in many notives and many enuses. Gradually these were overcome as new forms of transport became available.

facilities and their operation, society aided by providing the laws and the enforcement organizations to meet not only the major but the minor problems of transportation security.

The railroad and ship managements have a wonderful record of achievement of continuous improvement in the security of the traveler the entrusts himself to their operations. These have become se consistently safe that relatively, it may be said, life is not at stake and property loss to the traveler is quite well confined to him who gambles with strangers. Varnings and a sharp watchfulness by the staff on both trains and ships largely protect even such babes-in-the-woods.

When we reach highway transportation this comfortable aspect changes. Improved facilities, both highways and motor wehicles - yes. Greater flexibility and constantly increasing utility - yes. Safety and security to life and property - no.

Most emphatically - no.

In our ways and means of meeting the problems of safety of avel on the highway, we lag far behind the advance that has been de in dealing with similar problems of travel by rail and ship. is comparison applies to all aspects of the problem - the crating officials, the laws, and enforcement organizations, and on the facilities themselves. The purfecting of each of these ctors through consistent effort and experience in the meeting problems results in the enviable record for ships and ilways. Certainly it would be possible to draw comparisons ading to the conclusion, and the subsequent excuse, that the inditions to be met are so different in highway transportation ome so examperatedly different - that a comparable degree of ccurity on our streets and highways is beyond any reasonable essibility. That this may be true is quite unimportant to this iscussion. What is important is the recognition and the segregation If the essential elements that have been brought into synchronized ction to produce the present condition of security in rail and ship Favel. No matter how different the conditions in this or that hase, it must be the inevitable conclusion that actual permanent progress may only be secured by the orderly perfecting of the essential cloments, with the safety objective.

Fortunately, we are not now in the dark as to many of the things which need to be done. An evaluation of the present status of ways and means that, if given the opportunity, will advance the cause of highway safety, discloses a very definite foundation on which to proceed.

Of factual data upon accidents there is a lack that must be remedied if we are to be able accurately to gauge the effectiveness of what is done in the future. For the nation as a whole the only authentic records come from the Bureau of the Census. While that Bureau has for a long time been engaged in perfecting the gathering of facts as to automobile fatalities, it is only for the two years 1933 and 1934 that a complete nation-wide coverage has been obtained. Therefore, in all of the reporting on which comparison of trends has been made, it has been necessary to extend the actual facts as reported by that Bureau and the accuracy of these extensions is problematical. In 1932 the coverage of the Bureau reached within 3.7 per cent of the total population so that the extension of the number of fatalities to cover the whole population was probably without serious error. As the years recede, the accuracy of the figures becomes less and less. We do have, however, the facts as to the number of fatalities attributed to travel on the highways for 100 per cent of the population for 1933 and 1934, and these have been put through a

process of most careful scrutiny, so they are accurate and reliable. There was an increase in fatalitics in 1934 over 1933 of 4,738, and in 1934 total fatalities of 36,101. In the 95 cities of over 10,000 population the total fatalities in 1934 were 10,361, an increase of 918 over the previous year. The fatalities in these cities were 28.7 per cent of the total. It is evident, therefore, that if we are to better this record materially we must look to the smaller towns and the rural districts. In the popular conception, the fatalities resulting from collisions between automobiles and railroad trains and street cars are considered a major cause of the alarming increase in deaths. Between these two years the increase in fatalities from these causes was insignificant. As reported by the Bureau of the Census, the actual total deaths resulting from these causes in 1934 was 1,789, which is equal to only 37.5 per cent of the increase alone in fatalities between the two years. and actually represents less than 5 per cent of the total fatalities during 1934.

While it is true that a large volume of figures are collected by many agencies and a conscientious effort made to analyze these correctly, actually these figures of the Bureau of the Census are the only ones which give us a correct picture for the nation as a whole. Within that Bureau there is the recognition that they are dependent upon the reporting accuracy of a large number of individuals.

It is evident, therefore, that the Bureau of the Census is the only agency that can be relied upon to give accurate basic data and that it must be given sufficient funds to enlarge greatly its operations, particularly in the field of education of the individuals who occupy the positions of reporting these vital statistics.

Accurate data on accidents are sadly lacking considered on a nation-wide basis. The estimates which are used are based upon an assumed numerical relationship between the number of fatalities and the total accidents and the application of this ratio to known fatalities. Accurate figures are not available and are not collected as a whole, upon which to measure the effectiveness of measures taken to reduce or prevent these. This field of accident reporting must be perfected and it holds such potential value that whatever the necessary cost, it will be of incalculable worth.

One important aspect of the increase in fatalities between 1933 and 1934 is the fact that only one State, New Hampshire, made a better record in 1934. This State reduced its 1934 fatalities by 31 or approximately 28 per cent of the total for that year.

All of the others showed an increase. The States of Kansas, South Dakota, Delaware, Connecticut, Nevada and Iowa, all had less than 10 more fatalities than in 1933. The States having the largest

increase measured in numbers were California, Illinois,
Pennsylvania, Ohio and Texas, all of which had more than 250
additional fatalities over 1933.

It can be argued, of course, that the conditions vary so widely, particularly as to the number of cars in use and the degree of use of the individual cars, plus trucks and busses, that the number of fatalities gives an unfair comparison, but if we are to decrease fatalities they must be decreased in numbers, so this simple approach is the only one which can possibly be effective.

A schedule is attached which shows the figures of fatalities as reported by the Bureau of the Census for the two years 1933 and 1934.

With this background as to the need and method of securing the vital and necessary facts, including the number, kinds and results of major and minor disasters on our highways, on which to base corrective action, the problem becomes one of organization and administration plus public education. A national transportation safety program is essential - definite in character and fixed in the responsibility resting upon officials for its various phases. The principal criticism that can now be made is that in general we are not reducing to effective action what we know to be sound and are not carrying on adequate research to clear our blind spots in traffic control.

To bring a sound safety program into definite form and then to place it in effective operation in all its ramifications, is the only policy that carries any hope of progress. The remarkable advance in the attainment of industrial safety has rested upon a definite program and fixed responsibilities. In the public safety field the same general principle must be followed.

Until recently there have been only State laws giving authority to officials to operate in the safety field. Now limited authority has been reposed in the Interstate Commerce Commission to make rules and regulations applying to certain types of vehicles moving in interstate commerce. We will have, within a short time, then an entry into the field of traffic regulation in a moderate way by the Federal Government. We must depend, however, for the major advance in the actual attainment of safer conditions on our streets and highways upon the States and their local subdivisions.

Without any claim as to novelty, the following plan of organization necessary for effective administration is advanced. There would be two principal divisions in the major organization: First, Federal, and second, State. In turn, each of these divisions would consist of two branches. First, an official committee

appointed by the Chief Executive, or through legislation, consisting of those elective or appointive officers who have the legal responsibility and authority to act in this field. The second very important branch would be an advisory committee on safety consisting of representatives of organizations and individuals who are now engaged in safety work.

The Federal official committee should be headed by a Cabinet Officer and consist of the heads of those divisions or bureaus which have legal authority new to act upon matters directly related to transportation safety — in addition to the representatives of the Federal bureaus, the President of the American Association of Motor Vehicle Administrators and the President of the American Association of State Highway Officials. The Federal advisory committee on transportation safety would include organizations such as the American Automobile Association, the National Safety Council and other groups which are now engaged in safety work.

The State official committee should be headed by the Motor Vehicle Administrator and there should be associated with him the

⁽Such a committee could very well be composed of representatives of the Interstate Commerce Commission, the Bureau of the Census, the Bureau of Navigation, the Bureau of Aeronautics, the Bureau of Public Roads and the Bureau of Standards; and the President of the American Association of Motor Vehicle Administrators and of the American Association of State Highway Officials.)

heads of State departments who have legal responsibilities in this field, such as the chief highway executive, the superintendent of public education and the head of any State safety group. The State advisory committee would be composed of the representatives of branches of national organizations and individuals who are now engaged in the safety field.

The functions of the efficial committees, State and Federal, would be to formulate regulations and policies and to administer these. The functions of the advisory committee would be to encourage and support the public officials and their law enforcement officers, to suggest regulations and legislation, to help secure and sustain these and to carry on a constant campaign of education in every possible form to the end that the public shall become safety conscious. The importance of these advisory committees cannot be over-emphasized. Unless the official groups, Federal and State, have the backing of an intelligent and vigorous public support, their work cannot be effective.

Such an organization can be put into effect on executive order and would make use of existing legal authority and organizations which must in the end be responsible for results.

The first action would be to develop a detailed program and assign definitely the different activities proposed. We would then have for the first time a coordinated plan in which both State and

Federal governments can function in harmony.

The same type of organization can well be extended into the city and major local subdivisions of government.

met in 1924. This was followed in 1926 by a second conference and in 1930 by a third. In 1933 a Committee on Uniform Traffic Laws and Ordinances reviewed the motor vehicle code and model municipal traffic ordinances which had been developed through these conferences. This code has received the endersement of the National Committee of Commissioners on Uniformity of State Laws and the American Bar Association. With this weight of authority and with the constructive effort that had gone into the making, it is disappointing to find that to date only 37 States have adopted the proposals in part and only a third of these States have brought their laws into reasonably complete agreement with the code and are making them effective through proper administration.

While 35 States and the District of Columbia have drivers!

license laws of one form or another, less than one-half of that

number have a standard licensing system provided by the code, which

includes the examination of new drivers, strong central administration
and the follow-up of repeated violations with suspension or revocation

of licenses for causes.

While the contention may be made that the greatest need is not for more laws but for more rigid enforcement of existing laws,

it must be recognized that with less than one-fourth of the States operating under the Uniform Vehicle Code, there is a major lack of uniformity which must be responsible for a great deal of the confusion that exists and the failure to obey regulations. All experience points to the imperative need for uniformity of traffic regulations as one of the most important factors to bring about a safer condition of street and highway travel.

Equally important with uniform laws is the establishment of an adequate enforcement system. The highway patrol is the enforcement arm of the motor vehicle administrator in the field and without such adequate direct contact with the users of the highways, through the highway patrol, it is impossible for the administrator to enforce laws, however adequate.

The studies which the Bureau of Public Roads has made in cooperation with the highway departments and other agencies, and other studies, indicate a failure of around one-third of highway users to obey traffic signals. The degree of disregard varies widely and this is not intended to convey the impression that one-third of the drivers on the highways are carcless or disobedient of regulations. Competent motor vehicle administrators place the percentage of really dangerous drivers as low as 5 percent. The fact, however, that not more than 20 States have a highway patrol organization of even reasonably adequate character indicates the distance we have to go to establish law enforcement on our highways.

In harmony with these suggestions but without delay there are two types of activities to which the highway departments should give greater attention. The first we may term the emergency improvements that may be undertaken quickly and that should prove effective in eliminating dangerous conditions. Such activities include placing of nonskid surfaces, the clearing of obstructions to lengthen sight distances, the elimination of hazard at points where accidents have occurred, if due to faults of the road, and the immediate marking of all curves for their safe speed of travel.

It is a fairly well established fact that the obvious danger points are not responsible for the greatest number of accidents.

Where they are due to faults of road design, accidents usually result from some faulty detail not disclosed until too late.

For the long-time program, highway design must recognize the trend to higher speeds and provide for these to the extent they may reasonably be expected to become established by public usage. This involves the recognition of two general classes of highways: those for through or main line traffic and those for local and tributary service. This classification follows the trend of public usage and human behavior. For the first class, ample width of traffic lanes, safe sight distances, easy curvature, superelevation, nonskid surfaces and clear vision of intersecting roads are essentials of proper design. Where multiple lanes are necessary

it is recognized that in general the two opposing directions should be separated.

A serious fault existing in many otherwise high-class high-ways is the inclusion of short sections of highway in which the design as to curvature, sight distance or other details, falls below the general standard of the road. A very substantial contribution can be made by the highway engineering profession to the safety of highway use by adequately designing all component parts of the highway structure for safe travel, not only at the speed with which the traffic moves at the present time, but in so far as possible for the speed which observation of the general trend indicates will be the average for the greater percentage of highway traffic in the years ahead. Practically one-half of the fatal accidents are to pedestrians. On these through highways, footpaths and sidewalks, which will actually be used by pedestrians, must be made an integral part of the design.

Such elaboration of design necessary for those roads which fall into the general-use, long-distance, high-speed traffic class will be unnecessary for the tributary roads where traffic instinctively proceeds with less haste and more caution, and this distinction must be applied. Otherwise, the expense becomes too great a burden.

In this discussion no attempt has been made to approach the subject from the angle of a traffic expert. The problem at this time is one of administration and organization. Such an

approach will undoubtedly have the full support of members of the American Association of State Highway Officials because of their recognition, through their own experience, of its validity.

Unfortunately because of the lack of organization, adequate administration and popular education in this field, much of the splendid effort and to an extent the great investment that has been made in highway improvement are being partially depreciated by the selfish and uncontrolled action of a relatively small percentage of the users of the highways.

Our highways are a proud possession. Over them each individual has the right to pass, but we must add the qualification, with due regard to the rights and safety of others.

NUMBER OF DEATHS FROM ALL MOTOR-VEHICLE ACCIDENTS

| | | | * | | |
|--------------------------|-------------------|---|---------------------------------------|---------------------------------------|-----------------|
| Area : | 1934 | 1933 | Inorence | Decrease | Net Increase |
| UNITED STATES : | 36.101 | · + 555 · · · · · · · · · · · · · · · · | 4,769 | : 31 | 4.738 |
| Alabama : | 525 | | | <u>. Jr</u> | 4,/30 |
| Arizona : | 211 | : 154: | | • | |
| | 366 | 292 | 57 74 | | |
| Arkansas : | | | | | |
| California : | 2,810 | , | 388 22 | | |
| Colorado : | 343 483 | 321 : | | . | |
| Connecticut : Delaware : | | 474: | 9 2 | <u> </u> | |
| | 89 | | | | |
| Dist. of Col. : | 201 | : 143 : | 58 | 2 | |
| Florida : | <u>626</u> | <u>: 546 :</u> | 80 | <u> </u> | |
| Georgia : | 815 | | 22 | : | |
| Idaho : | 159 | | 35 | | |
| Illinois : | 2,509 | 2,149: | <u> 360 </u> | <u>:</u> | |
| Indiana : | 1,263 | · · · · · · · · · · · · · · · · · · · | | : | |
| Iowa : | 574 | : 565 : | 9 | • | |
| Kansas : | <u>524</u> | <u>523</u> : | 1 | • | |
| Kentucky : | 655 | | 121 | : | |
| Louisiana : | 493 | : 405 : | 88 | ; | |
| Maine : | 214 : | 203: | 11 | • | |
| Maryland : | 505 | | 56 | : | |
| Massachusetts: | 1,022 | 823 : | 199 | : | |
| Michigan : | 1,533 | 1,302: | 231 | : | |
| Minnesota : | 671 | 580 : | 91 | • | |
| Mississippi : | 421 | : 301 : | 120 | : | |
| Missouri : | 1,010 | 822 : | 188 | • | |
| Montana : | 209 | 119: | 90 | : | |
| Nebraska : | 324 | 307 : | 1 7 | : | |
| Nevada : | 72 | 64: | · · · · · · · · · · · · · · · · · · · | | |
| New Hampshire: | 114 | _ \ | | : +31 | |
| New Jersey : | 1,233 | | 45 | : | |
| New Mexico : | 148 | | 46 | | |
| New York : | 3,018 | 2,933: | | | |
| North Carolina: | 928 | 776: | 152 | • • • • • • • • • • • • • • • • • • • | |
| North Dakota: | 131 | 117 | 14 | | |
| Ohio : | 2,340 | 2,040: | | <u>.</u> | |
| Oklahoma : | 614 | 512 | 102 | | |
| Oregon : | 321 | | 5 <u>4</u> | | |
| Pennsylvania : | 2,578 | | 259 | | |
| Rhode Island: | 106 | | 9 | | |
| South Carolina: | 486 | 359 | 127 | | |
| South Dakota: | 122 | | 3 | • | <u> </u> |
| Tennessee : | 698 | | 142 | | |
| | 1.663 | | 308 | | |
| Texas : | 195 | | 55 | | |
| Vermont : | 100 : | | 27 27 | • | |
| | 78 ¹ 4 | 73 : 615 : | 69 | | |
| Virginia : | | 462: | 148 | | |
| Washington: | 610 | | | | |
| West Virginia: | 425 : | 390 : | 35 7 0 | | |
| Wisconsin : | 747 : | 677 : | 70 26 | | |
| Wyoming : | 113 | 87 : | 26 | | |