

H-285A

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: May 22, 1981

Forwarded to:
Mr. Norman Darwick
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International Association of Chiefs of Police
11 Firstfield Road
Gaithersburg, Maryland 20760

SAFETY RECOMMENDATION(S)

H-81-25

The Safety Board has concluded a special study ^{1/} which examined highway vehicles colliding into trees. The Safety Board initiated this study due to the number and severity of these accidents. According to the National Highway Traffic Safety Administration's (NHTSA) Fatal Accident Reporting System (FARS), about 2,900 fatal vehicle accidents are occurring annually as a result of vehicle impacts with trees. Fifty-one percent of these accidents are on curves. Based on NHTSA's National Crash Severity Study (NCSS) data, fatalities as a result of an impact with a tree can occur at speeds as low as 15 to 19 mph when occupants are unrestrained. The average speed for a fatality was 31.5 mph.

One way to prevent this type of accident is to remove trees. In the past, roadways have been cleared of fixed obstacles for 30 feet or more to allow errant vehicles to return to the roadway safely. This 30-foot clearing is a result of research findings which showed that 80 percent of the accidents with fixed objects occurred within 30 feet of the edge of the road. Clear roadsides, especially where tree removal is involved, have been aesthetically unpopular to local citizens. In fact, some States no longer remove any live trees.

Another study and accident data developed as part of the Safety Board's study indicate that the percentage of vehicle accidents with trees that result in a fatality or injury increases with distance from the roadway. To assess the implications of these data, that number of accidents decrease with distance cleared from the edge of the pavement while severity of accidents increases with distance, more comprehensive data must be collected on the distance from the edge of the road to the fixed object struck and the curve radius or degree of curvature when present. These data, when analyzed, would allow local and State agencies to target specific curves for improvement, and could highlight needed clear zones when other variables including speed limit and curvature are considered.

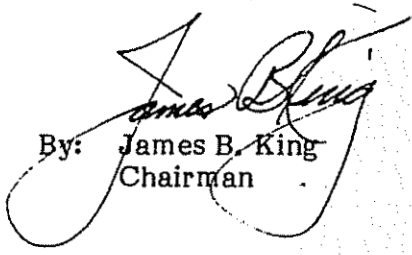
^{1/} For more detailed information, read Special Study—"Motor Vehicle Collisions With Trees Along Highways, Roads, and Streets: An Assessment" (NTSB-HSS-81-1).

The Board is aware of IACP's interest in Roadside Obstacle Elimination as evidenced in your report entitled "The Role of Police in Roadside Hazard Identification and Reporting." This report encouraged the reporting of potential hazards. Further IACP support is needed if we are to eliminate some of the 3,200 fatalities that occur annually involving trees. The removal or protection of fixed objects can be hastened in the future if we begin now to collect measurements of distance from the edge of the road to the fixed object and a measure of curvature (when curve is present).

Therefore, the National Transportation Safety Board recommends that the International Association of Chiefs of Police:

For all fixed-object accidents, encourage the recording of distance from the edge of the road to the fixed object struck and a measure of curvature of the road (when curve is present) on accident reports at the State and local level. (Class III, Longer Term Action) (H-81-25)

KING, Chairman, McADAMS, and GOLDMAN, Members, concurred in this recommendation. DRIVER, Vice Chairman, and BURSLEY, Member, did not participate.


By: James B. King
Chairman