

A Warning of Special Road Conditions of Late Winter

Posting Date: 04-March 2013

As winter turns to spring the sun's strength increases and is more likely to melt snow and ice on the darkness of a hard-topped road surface, despite the fact that the air temperature could still be substantially below freezing. Drivers must pay particular attention to this happening as demonstrated in the following set of photos.

In the photo below we see a typical driver who has decided to legally pass a slower vehicle on paved, two-lane highway in Southern Ontario.



The road surface is bare and dry and the passing motion appears to be generally safe. The difficulty is that, the lack of visibility in the distant background of the above photo cannot guide the driver about what conditions may lay beyond the horizon. While the driver may assume that the road surface may continue to be bare and dry in these late winter conditions, that may not be so. The cold air temperature and wind can cause drifting of snow onto the road surface and the stronger sun may not have sufficient time to melt that drifted snow off the road. In addition, there may be partial melting of the snow drift that might freeze in windy conditions causing a local area ice whereas the rest of the highway might be bare and dry. The photos below demonstrate such a situation on another highway in the same general area as shown above.

In the foreground of the photo below we can see that the road surface is bare and dry however up ahead we can see an area where snow has drifted onto the road surface.



As we approach closer to the site of the drift we observe an opposing vehicle approaching the camera which has appeared over the hillcrest of the distant background.



It is likely that the driver of the opposing vehicle may have experienced a bare and dry road surface through the distance of approach to the hillcrest however, upon passing over the hillcrest the driver, would have observed the noted snow drift. If this driver had just completed a passing motion before passing over the hillcrest then the speed of the vehicle would be elevated and higher than it should be for this road condition. Now we have a problem.

If the snow drift also contained some icy sections the driver way not be aware of that condition because it would be difficult to

detect at highway speed. Furthermore, in any approach of two opposing vehicles the drivers tend to steer their vehicles away from the centre line or away from the opposing vehicle and therefore the tires of the vehicles no longer travel in the normal path of vehicles that passed through the area when no opposing vehicles were encountered. This condition can be seen in the photo below where the driver of the approaching vehicle turns the vehicle slightly to the right and outside of the normal travel path of the tires of previous vehicles.



When vehicles travel within the tire paths of previous vehicles there is a greater likelihood that any slippery conditions might be removed by the heat created by the friction of the rolling tires. However when a vehicle strays off that travel path and onto the relatively virgin area of the drifted snow the potential of encountering more slippery conditions is increased and a loss

of vehicle control may occur. Although the safest action of a driver might be to resist applying any steering or braking until the opposing vehicle has been cleared, the intentions of slowing down and moving away from the opposing vehicle are common and understandable actions that may only increase the potential for a collision. There may also be road surface irregularities under the snow such as changes in cross-slope, depressions or pot-holes that maybe difficult to detect and these will increase the potential of a loss-of-control event. Furthermore, when the roadway contains a curve in the area of such a snow drift the driver will have no option but to apply a steering input to maintain the vehicle within the curve and this will further increase the potential of a loss-of-control event.

We often hear or read the comments of various "experts" who make broad advisements on various news media segments for drivers to "drive for the road conditions" and "when you see snow go slow". Although these universal statements appear to make sense they are empty of the true instructions necessary to inform drivers of what they need to know, what conditions may be particularly dangerous or what situations could be encountered under certain weather conditions at different times of the year.

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