Temperature Effects on SCRIM Skid Resistance Measurements

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This paper investigates how air, road surface and tyre temperatures impact on SCRIM skid resistance measurements for two situations: when the operating temperature of the measuring tyre is greater than the road surface temperature and when the operating temperature of the measuring tyre is less than the road surface temperature. The investigations were performed on two chipseal surfaces and one asphaltic concrete surface.

The TRL hyperbolic based temperature correction used since the mid 1970's was shown to significantly underestimate the observed temperature effect, which was about 0.012 SC/˚C. A new quadratic temperature correction based on the average of the air and road surface temperatures is therefore presented.

The key finding is that changes in network skid resistance values attributed to seasonal effects may be largely explained by temperature alone.