% of Traffic Exceeding Speed : June to September 2004

As mentioned in the main part of the September 2004 Fatal Crash Report, the issue around speed and excessive speed needs to be addressed as a matter of urgency prior to the forthcoming Festive Season. The summarized information below is based on traffic counts that were kindly provided by the South African National Roads Agency Limited (SANRAL) and Mikros Traffic Monitoring (Pty) Ltd (MTM).

Three stations per Province on different routes (27 stations in total) were selected for the analysis of the daily speed, per hour of each day of 24,811,065 vehicles over the 18 week period from Sunday, 30 May 2004 to Saturday, 2 October 2004. Although these stations are all located on national routes, the results can never-the-less be regarded as a barometer of the general extent to which speeds are ignored per Province.

Not to be seen as the one and only contributory factor in road crashes, excessive speed and speed too fast for circumstances however, do play a major role in the occurrence as well as the severity of crashes. Such speeds, brought into context with generally negligent, inconsiderate and aggressive driver behaviour, the presence of pedestrians, with added unfit drivers and vehicles, fatigue and alcohol, illegal and unsafe overtaking; as well as poorly maintained roads and road signs is a recipe for disaster.

The average % of vehicles exceeding the speed limit on a Provincial basis over the 4-month period is reflected in the graph below. Note should be taken that this is average information only, as average night/day speeds and speeds over weekends, the days and time when about 70% of fatal crashes happen, is generally higher than the average.
The information in the graph above indicates that the % of vehicles exceeding speeds of 130 km/h and 140 km/h are generally unacceptably high. The situation in Mpumalaga being the worst where, on average, 48.25% of the traffic exceeded 120 km/h; 28.27% exceeded 130 km/h and 13.60 exceeded 140 km/h. The speed situation is mostly under control in KwaZulu-Natal where 14.40% exceeded 120 km/h; 4.86% exceeded 130 km/h and 1.29% exceeded 140 km/h. The national averages are: 30.41% exceeding 120 km/h, 14.11% exceeding 130 km/h and 5.91% exceeding 140 km/h. The information on which the above graph is based is contained in the tables at the back of this annexure.

The percentage of traffic exceeding the speed limit over weekends is generally higher over weekends than over weekdays. National figures in this regard are given in the table below.

<table>
<thead>
<tr>
<th>RSA</th>
<th>Jun-Sep 2004</th>
<th>All Provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day of Week</td>
<td>% of Vehicles in Speed Group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120-130</td>
<td>130-140</td>
</tr>
<tr>
<td>Sun</td>
<td>17.21</td>
<td>8.84</td>
</tr>
<tr>
<td>Mon</td>
<td>15.48</td>
<td>7.72</td>
</tr>
<tr>
<td>Tue</td>
<td>14.23</td>
<td>7.03</td>
</tr>
<tr>
<td>Wed</td>
<td>14.51</td>
<td>7.20</td>
</tr>
<tr>
<td>Thu</td>
<td>14.80</td>
<td>7.40</td>
</tr>
<tr>
<td>Fri</td>
<td>15.82</td>
<td>7.86</td>
</tr>
<tr>
<td>Sat</td>
<td>15.79</td>
<td>8.08</td>
</tr>
<tr>
<td>Week Av</td>
<td>15.44</td>
<td>7.75</td>
</tr>
</tbody>
</table>

On average on Sundays 6.25% of the traffic exceeded 140 km/h, while 15.37% exceeded 130 km/h. On Fridays 6.28% exceeded 140 km/h and 14.36% exceeded 130 km/h. The above figures are also reflected in the graph below.
The national average percentage of the traffic exceeding the speed limit per time of day for all days of the week is shown in the graph below.

% of Traffic Exceeding Speed : Week  
RSA : Jun-Sep 2004

The national average percentage of the traffic exceeding the speed limit per time of day for Sundays is shown in the graph below.

% of Traffic Exceed Speed : Sunday  
RSA : Jun - Sep 2004

Looking at the problem in Mpumalanga more closely:
The average percentage of traffic on the N12 between Johannesburg and Witbank in the Delmas area in Mpumalanga exceeding a speed of 120 km/h were in the order of 48.73% over the 18 week period from 1 June to 30 September in 2003 and increased to 49.41% over the same period in 2004.
The percentage exceeding 130 km/h increased from 28.55% in 2003 to 29.13% in 2004. The percentage exceeding 140 km/h increased from 14.00% in 2003 to 14.06% in 2004.

Over the 18 month period an increase of 7.54% was recorded for traffic exceeding 140 km/h in the early hours of the morning from midnight to 06:00. An increase of 3.40% was recorded for the hours 18:00 to midnight for the group exceeding 140 km/h. In the order of 40% exceeded 130 km/h between 17:00 and 19:00 and about 20% exceeded 140 km/h during the same hours on Sundays. The average number of vehicles during these times was in the order of 1,350 vehicles per hour.

The supporting information on an hourly basis for different days of the week is reflected in the graphs below.
Week average figures for all days of the week on the N12 over the 18-week period at Delmas are shown in the graph below.
The above continuous and constant percentage of traffic exceeding of the speed limit week after week, as well as the fact that during weekdays 10% of all vehicles are continuously travelling at speeds higher than 140 km/h from 06:00 in the morning till late at night, (see graph on previous page), clearly indicate that there is either NO or very little effective speed enforcement on at least the above section of the N12.

The total traffic volume at Delmas during the 4-month period on which the above information is based are 1,5 million vehicles in both directions.

Other locations with exceptionally high incidence of speed transgressions that needs to be highlighted, are briefly the following:

Again in Mpumalanga:
The average % of vehicles exceeding the speed limit per hour of the day on the N11 between Ermelo and Hendrina is shown in the graph below. These figures reflect the average of both traffic flow directions.
The percentage of traffic exceeding 140 km/h separately for the two traffic flow directions is shown in the graph below.

The situation at Grootdraai in Gauteng on the N17 in the Springs area is not much better. Information of speeds at this location is reflected in the graphs below.
Weekly average figures over the 18 week period from 1 June to 30 September 2004 at Grootdraai is shown in the graph below.
Again, the above continuous and constant percentage of traffic exceeding of the speed limit clearly indicates that there is either NO or very little speed enforcement on at least the above section of the N17.

On the N4 east of Pretoria in Gauteng – the cumulative daily information over an eighteen-week period, the percentage of traffic exceeding 140 km/h per hour of the day over weekends is shown in the graph below.

The average percentage of traffic exceeding 130 km/h and 140 km/h per hour of the day for all days of the week at this location is shown in the graph below.

Weekly average figures over the 18 week period from 1 June to 30 September 2004 at this location on the N4 is shown in the graph below.
Again, the above continuous and constant percentage of traffic exceeding the speed limit clearly indicates that there is either NO or very little speed enforcement on at least the above section of the N4.

On a Provincial basis, the lowest percentage of traffic exceeding the speed limit is in KwaZulu-Natal, where on average, 16,79% of the traffic exceed 120 km/h; 5,44% exceed 130 km/h and 1,62% exceed 140 km/h on a daily basis. The figures for KwaZulu-Natal per hour of the day for the 18-week period are reflected in the graph below.

The success of the special speed claming project of KwaZulu-Natal on the N3 between Pietermaritzburg and Durban could have contributed to the general lower percentage of traffic in this Province exceeding the speed limit. The effect of this project on speeds on this
section of road at Ashburton is reflected in the graph below. (No station near this location was used to calculate the average speeds for KwaZulu-Natal).

More detail information on speeds per Province is provided in Annexure A-1.