STC CBC 4th session meeting

M2 vs M3 sled pulse comparison

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Salim Abdennadher (Renault)
UN-R80 Dynamic sled pulse

UN-R80 specification:

\[ 30 \text{kph} \leq \Delta v \leq 32 \text{kph}, \]
\[ 6.5 \text{g} \leq \text{average acceleration} \leq 8.5 \text{g} \]
UN-R80 vs UN-R100 M2 vs UN-R100 M3 sled pulses

Δν and average acceleration corridors are not specified in UN-R100
Current hypothesis: pulse duration same as UN-R80 idealized signal.
UN-R80 vs UN-R100 M2 vs UN-R100 M3 sled pulses

<table>
<thead>
<tr>
<th>Mid corridor</th>
<th>UN-R80</th>
<th>UN-R100 M1</th>
<th>UN-R100 M2</th>
<th>UN-R100 M3</th>
<th>R100 M2/R80 ratio</th>
<th>M2/M3 ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\Delta v) (kph)</td>
<td>30.9</td>
<td>56</td>
<td>30.3</td>
<td>20.8</td>
<td>0.98</td>
<td>1.46</td>
</tr>
<tr>
<td>Max Accel (g)</td>
<td>10</td>
<td>24</td>
<td>13.5</td>
<td>9.25</td>
<td>1.35</td>
<td>1.46</td>
</tr>
<tr>
<td>Average Accel (g)</td>
<td>7.6</td>
<td>15</td>
<td>8.2</td>
<td>5.6</td>
<td>1.07</td>
<td>1.46</td>
</tr>
</tbody>
</table>

\(\rightarrow\) UN-R100 M2 pulse \(\geq\) UN-R80

\(\rightarrow\) UN-R100 M2 pulse \(>\) M3 pulse