Safety on Level Crossings in Switzerland

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Content

- The tasks of the FOT
- Safety on Level Crossings in Switzerland
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- Consequences and measures
The tasks of the OFT

- **Safety of public transport**
  - Safety standards and norms
  - International coordination

- **Supervision of safety**
  - Collaboration with transport enterprises
  - Installations and rolling stock
  - Planning, construction and operations
Safety on Level Crossings in Switzerland

- Features and conditions
  - decentralized demography
  - high density of population
  - high density of train circulation

- Reconstruction of Level Crossings
  - adaptation of Level Crossings on current ordinances
  - innovation: The new type MICRO
Safety on Level Crossings in Switzerland

Level Crossing with full barriers
Safety on Level Crossings in Switzerland

Level Crossing with half barriers
Safety on Level Crossings in Switzerland

Level Crossing with flashing lights
Safety on Level Crossings in Switzerland

passive with St. Andrew cross
Safety on Level Crossings in Switzerland

Type MICRO
Safety on Level Crossings in Switzerland

- **Number and distribution**

<table>
<thead>
<tr>
<th>Type of Level Crossing</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive (only St. Andrew cross)</td>
<td>2534</td>
<td>2309</td>
<td>2130</td>
</tr>
<tr>
<td>Level Crossing with flashing lights or traffic lights</td>
<td>651</td>
<td>675</td>
<td>658</td>
</tr>
<tr>
<td>Level Crossing with barriers</td>
<td>2173</td>
<td>2225</td>
<td>2245</td>
</tr>
<tr>
<td><strong>Total number of Level Crossings</strong></td>
<td><strong>5358</strong></td>
<td><strong>5209</strong></td>
<td><strong>5033</strong></td>
</tr>
</tbody>
</table>
Safety on Level Crossings in Switzerland

- Number and distribution

![Graph showing the number of level crossings in Switzerland from 2010 to 2012. The graph includes level crossings with barriers, flashing lights or traffic lights, and passive level crossings (only St. Andrew cross).]
Safety on Level Crossings in Switzerland

- Incidents on Level Crossings

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>passive Level Crossings</td>
<td>25</td>
<td>37</td>
<td>24</td>
</tr>
<tr>
<td>Level Crossing with flashing lights or traffic lights</td>
<td>50</td>
<td>49</td>
<td>54</td>
</tr>
<tr>
<td>Level Crossing with barriers</td>
<td>89</td>
<td>76</td>
<td>111</td>
</tr>
<tr>
<td>others (tramway, etc.)</td>
<td>35</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total of announced incidents</strong></td>
<td><strong>199</strong></td>
<td><strong>170</strong></td>
<td><strong>194</strong></td>
</tr>
</tbody>
</table>
Safety on Level Crossings in Switzerland

- Incidents on Level Crossings

<table>
<thead>
<tr>
<th>Year</th>
<th>Others (tramway, etc.)</th>
<th>Level Crossing with barriers</th>
<th>Level Crossing with flashing lights or traffic lights</th>
<th>Passive Level Crossings (only St. Andrew cross)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>150</td>
<td>75</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>2011</td>
<td>125</td>
<td>80</td>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td>2012</td>
<td>120</td>
<td>85</td>
<td>60</td>
<td>15</td>
</tr>
</tbody>
</table>
Safety on Level Crossings in Switzerland

- **Consequences of accidents**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>fatalities</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>serious injuries</td>
<td>12</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>slight injuries</td>
<td>24</td>
<td>13</td>
<td>31</td>
</tr>
</tbody>
</table>

![Bar chart showing number of slight, serious, and fatal injuries from 2010 to 2012.](chart.png)

- Number of slight injuries
- Number of serious injuries
- Number of fatalities
Conclusions

- Accidents with persons are increasing
  - diminution of respect for rules and regulations
  - dangers are not known

- Distraction and routine
  - Many casualties lives in the environment of the accident
  - impact of electronics (headphone, etc.)
Consequences and measures

- **Technical improvement**
  - reconstruction of Level Crossings
  - new signalling and supervision technologies

- **Prevention**
  - formation and education
  - public information
  - awareness raising
Thank you for your attention!