



Creating the future of transport



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The Imperative – Risk and Legal Issues
International Surface Friction Conference.
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Introduction



- **Low friction can be good!**

Hazard and Risk



- But perceptions of hazard and risk vary

Hazard and Risk



Where does surface friction fit in?

- **Crashes have many causes**
 - usually a result of a number of different random factors
- **Friction may be one factor**
 - But seldom the first cause of a crash
- **It is needed to enable vehicles to brake or manoeuvre**
 - But only need enough for the manoeuvre concerned

Where does surface friction fit in?

- **So is low friction a risk or a hazard?**
 - I suggest it may be a hazard...
 - ...along with the bend or the junction...
 - ... leading to the risk that skidding may occur...
 - ...if other things happen as well
- **But only if the “other things” mean more friction than is available is needed**
- **In some circumstances, even high friction may not be enough!**
- **Moderating hazard can reduce risk**
 - But never to zero!

Managing risk – who is involved?

- **With roads (and airfields) there may be a number of “stakeholders”:**
 - The overseeing authority
 - Setting standards and/or specifications
 - Maintaining agencies
 - Making sure they are followed and maintained
 - Contractors
 - Who do the initial construction and repairs
 - Surveyors and testers
 - Who provide data to help assess the surface

Managing risk – who is involved?

- **With roads (and airfields) there may be a number of “stakeholders”:**
 - Road users
 - Car drivers
 - Truck drivers
 - Bus drivers
 - Motor cyclists
 - Pedestrians
 - Passengers
 - Emergency services
 - Police
 - Fire
 - Ambulance

Managing risk – who is involved

- **Everyone is involved somehow**
- **Each group has its own responsibilities**
- **And each has to deal with the consequences when one of the others fails**
- **Engineers can't always blame the driver!**
- **And the driver can't always blame the road!**

Some different perspectives

- **Overseeing authorities**
 - Responsible for large networks
 - Need to keep traffic moving
 - Want to reduce accidents
 - Have an eye both to governments and to the public



Some different perspectives

- **Road engineers**
 - need to build an adequate surface
 - face constantly changing conditions
 - must judge when treatment is required
 - may monitor the skid resistance condition of the road



Some different perspectives

- **Accident investigators**
 - want to understand or reconstruct an accident
 - need to know coefficient of friction



Some different perspectives

- **Accident investigators**
 - assess stopping distances and speeds
 - so focus on the time of the accident
 - are often interested in dry conditions
- **Road engineers**
 - consider the general condition of the road
 - measure over the summer (when skid resistance is at its lowest)
 - consider wet conditions only (worst case)

Some different perspectives

- **When incidents occur**
 - These distinctions may be called into question
 - As police investigate
 - As drivers look for an explanation
 - As litigants seek redress
 - As insurers seek to share the costs
- **Claims may be made against the Highway Authority**
 - Who cannot necessarily rely on a counter-claim against the driver

Some different perspectives

- **And that means...**
- **Lawyers**
 - who want to assign responsibility
 - so they ask
 - Did the road surface contribute to the accident?
 - Was the road in an acceptable condition?
 - Has the Highway Authority done its job properly?

What are the issues?

- **What standards do you set?**
 - Set standards for materials?
 - Standards for performance?
 - As new or in-service?
- **Do you have a policy for skid resistance?**
 - Or do you trust to luck?
- **If you have a policy, do you monitor it?**

Duty or power?

- **Authorities may have a legal power to act**
- **They will also have a *duty* to maintain what they have the *power* to provide.**

What should the public expect?

- **Appropriate levels of skid resistance**
- **Consistency across the network**
- **Prompt, appropriate response to potential problems**

- **But the “public” may not be aware of issues such as:**
 - Different skid accident risk levels or different skid resistance requirements at different types of site
 - Limitation of resources leading to prioritising one site over another

Some thoughts from the UK approach

- **The UK Trunk Road Skidding Standard:**
- **Is *not* primarily about Highway Safety**
 - But road safety is an important consideration behind it
 - And recognising and mitigating accident risk underlies the approach
- **It *is* about Asset Management**
 - And wise use of limited resources
 - To maintain appropriate, consistent standards
 - Across the whole Trunk Road network

Some thoughts from the UK approach

- **The UK Trunk Road Skidding Standard:**
- **Is based on the idea of equalising risk**
 - Investigating when possible problems are identified
 - Not setting impossible standards
 - Or making a knee-jerk response to incidents
- **Hence the idea of “Site Categories”**
- **And corresponding “Investigatory Levels” related to skidding accident risk.**

Some thoughts from the UK approach

- **Potential vulnerabilities**
 - Failure to make measurements
 - Failure to respond when measurement falls below the Investigatory Level
 - Response not timely
 - Inappropriate response
 - Inappropriate use of warning signs

Some thoughts from the UK approach

- **Potential vulnerabilities**
 - Integrity of data
 - only use “approved” SCRIMs
 - checks on operator action (eg appropriate test speeds)
 - aware of missing data
 - Choice of aggregate
 - Setting/review of IL
 - response to other inputs – eg police/public concerns

Some thoughts from the UK approach

- **Actions to manage vulnerabilities**
 - Clear definition of roles and responsibilities
 - Make sure network/IL review process is in place
 - Clear prioritisation
 - Check progress against plans
 - Checks on term contractors etc for work done/timing

Importance of records

- **In the event of dispute**
 - need evidence of decisions made
 - and timing of decisions
 - and reasons for them
 - the problem is not what the decision was (usually) but the record of it having been made

Importance of records

- **For learning in future**
 - note any changes
 - in network
 - local factors
 - when resurfacing
 - note materials or treatment used
 - especially PSV

“Slippery road” signs

- **May not alter driver behaviour but do warn of potential problem**
- **Failure to erect signs promptly when criteria are satisfied is a vulnerability**
 - put them up after investigation?
 - when decision made that some kind of treatment action is needed

“Slippery road” signs

- **Record where signs are placed and when**
- **Take them down after treatment**
 - Or after any “early life” period if appropriate.
- **Record that they were.**

Communication

- **Have a well-defined strategy**
 - For most of the network the process should be straightforward
- **Be clear where responsibility lies at each stage**
 - The organisation is vulnerable even if you were unaware of a problem but someone else was
 - If someone in the “Overseeing Organisation” knows of a problem, the Court will assume the whole organisation knows!
 - Make sure that relevant teams talk to each other

Some final thoughts

- **Approach the issues sensibly:**
 - Say what the organisation will do
 - Define who will do it
 - Those responsible should do what they are asked
 - Make sure you talk to each other
 - And record what has been done to show that the process is being followed
- **When claims are made or lawyers question**
 - You can make sure they understand the issues
 - And you will have the evidence to show
 - what you have done
 - and why

Some final thoughts

- **You will never eliminate risk**
 - but you can manage it
- **You will never stop crashes**
 - But you can at least help reduce them!
- **And don't forget ...**
 - ... you are NOT a perfect driver!
 - ...and the road won't be perfect either!

What are the imperatives?

- **We should all be working to make roads potentially safer for road users**
 - not creating unnecessary hazards for them
 - or passing avoidable risks to them
- **We should not promise the impossible**
 - Resources are finite and may be limited

What are the imperatives?

- **We work in an increasingly litigious world**
 - we must recognise that claims will be made
- **We should take responsibility not ignore it**
- **We should do what *can* be done,**
 - Do not let what you can't do mean that you do nothing

And, above all DON'T PANIC!





End of Keynote Address – Risk and Legal Issues

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