QUEENSLAND MINING INDUSTRY HEALTH & SAFETY CONFERENCE 2016 a Past forgotten is a Future repeated

#### If we understand the failures of the past, why do we continue to repeat those mistakes in the present?

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here to share with you the learnings of why the Truck Rollover Prevention Program is so successful





we did not learn from the past

Definition of insanity – doing the same thing over and over, and expecting a different outcome

Millions of dollars in research – with the result 'we need to do more research'
Nothing provided the big change – remember the seat belt introduction
No one listened to the drivers
the driver was always at fault











### What was going wrong ?



- Causes
- Myths
- Enforcement
- Information
- Actions
- Ownership responsibility















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# What are the geometry factors that influence a heavy vehicle propensity to rollover

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- Camber
- Superelevation
- Longitudinal Slope (grade)
- Radius
- Change in radius
- Lane width and number of lanes
- Time and distance to change
- Size of change
- Consistency



Combinations of these are not exclusive, they are compounding, multiplying the errors – squared!





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### Historically drivers were

- Paid by freight volume not per hour/weight
- macho in attitude, big chrome exhausts, lots of noise, get rid of that girly Volvo
- get from A to B in less time with more weight was a good driver

- Competitive by reducing safety
  - Can do the job for \$5 less than Fred if we don't service the brakes this week
- Myths propagated by bravado
  - Truck always rolled first
  - Don't wear your seatbelt so you can jump clear
- Drivers regarded as low educated
  - Teachers said ` if you don't do this you will end up being a truck driver'
- Drivers did not speak up about risks
  - Scared of being sacked as not a good driver if you could not get to Sydney faster than the Lamborghini
- Operators, accounts, schedulers were uniformed
  - did not know what drivers had to do to achieve the outcome













Driver does NOT know the trailer is going Already past the point of no return





Driver now knows, brake lights on 1 sec elapsed time, rims being scrubbed





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Driver now feels it, catastrophic failure 2 sec elapsed time, cabin whipped over











### The Solutions solution

- Figure out who needs to know!
- What is it that they <u>all</u> need to know
- Backed by science not baffle with science
- How can that be shown to everyone
- How can anyone understand
- How do we make it a consistent message
- KISS principle has to apply





### Make the problem visible, it is simple

- Simple, visual, non technical
- Make it visible
- Real models
- Real video
- Cost/benefit
- Go back to basics
- Who needs to know
- What do they need to know
- How am I going to show them
- How am I going to get them to agree on the solution





### What is the rollover prevention program?

It is generally known as a

- DVD pack with
  - Videos
  - Presentation
  - Models
  - Guide book on delivering
  - Framework for code of behaviour



### But in reality it is simply a method to: Focus on industry behaviour change, not just drivers

• It does include mnemonic slogans, fatigue reduction concepts, sleep fixes



### How did I get to the models?















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How/Why does it work

- Not targeted at one person, or task in the chain
- Simple to understand
  - rustic but backed by science,
  - obvious without being condescending or demeaning
  - Not a 'bums on seats' method of delivery
  - All can attend, and all get something from it
  - I hear and I forget, I see and remember, I touch and I understand



Filling in a check list is memorising, knowing why the check list exists is understanding.

### Understanding changes behaviour







#### Where are we at now?

- 50 countries, Norway to Columbia, Saudi, Korea, US.
- Over 1,000,000 packages of the program, only by demand
- 6 languages (interpreted and captioned by others), now Laos, Thai
- Reporting more than 10% improved productivity, typically 18-20%
- Over 2,000,000 drivers in database, ten times that viewed the DVD
- Voted Worlds Best Practice by Battelle, FHWA in USA
- CH9, Norwegian news, Weekly Times, Power Torque, YouTube





### Applying the model – who needs to know

Objects in the mirror are closer than you think

Dooff Dooff

Doof

Dooff

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- "P" platers
- Learner drivers 18-25
- Ask other kids
- Ask the parents
  - Most valuable asset

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Old bomb







## It often helps to look at the situation from a different angle, .....it may surprise you





### Key messages to apply the model "Understand the problem"

- 1. Don't repeat the mistakes of the past!
- 2. Don't get hung up on 'technology is the answer'
- 3. Don't get into group think situations
- 4. Don't move the problem elsewhere, it is usually worse
- 5. Do consult outside the immediate problem area
- 6. Do rework it if the solution looks too complex -KISS
- 7. Do consider other areas and the impact on them
- 8. Do remember Perfect is the enemy of better

NOTE

You can not turn a safety program OFF to see if it is working











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