

# FATAL AND SEVERE RISK PROGRAM

## VEHICLE ACCIDENTS (INCLUDING ROAD-RAIL)

**STOP  
& THINK**

Only do the task if it can be done safely



## VEHICLE ACCIDENTS

**OUR  
COMMITMENT**

**LIFE  
SAVING  
BEHAVIOUR:**

**I WILL ALWAYS BE FIT  
FOR THE JOURNEY AND  
DRIVE TO THE CURRENT  
CONDITIONS**

**NO HARM – LINE IN THE SAND**



# INTRODUCTION

ARTC's work can involve extensive road travel in a fleet that includes standard road motor vehicles (RMV) and modified road-rail vehicles (RRV) often in isolated regions.

Any work that combines people and vehicles can be a severe risk.

This booklet provides guidance to help manage risks to health and safety associated with vehicle use.

It is part of a series of booklets about the most common risks and hazards of working on the railway.

It is part of our commitment to mitigate risks when working on the railway.



# WHAT DOES 'FIT FOR JOURNEY' AND 'DRIVE TO CURRENT CONDITIONS' MEAN?

## FIT FOR JOURNEY

- You are not impaired by medications, drugs, alcohol or fatigue
- You are capable and licenced to drive and safely operate the vehicle

## DRIVE TO CURRENT CONDITIONS

- Adjust driving to suit the environment in which you are to drive
- Applies to public roads and non-public roads
- Fog, rain, twilight, darkness, wildlife, pedestrians and traffic create hazardous conditions

## PLAN YOUR JOURNEY AND BREAKS

- Manage fatigue

\* WHS-WI-423 FATIGUE WORK INSTRUCTION



# CONDITIONS

**DRIVER**

**VEHICLE**

**WEATHER**

**LIGHTING**

**ROAD**

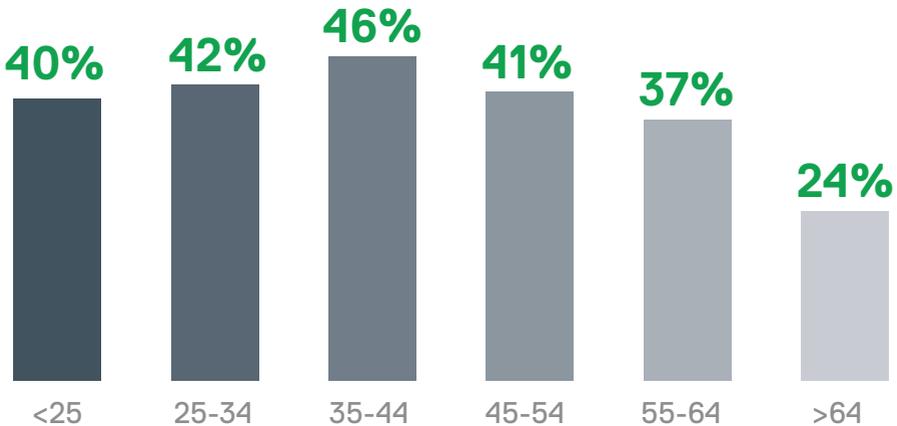
**TRAFFIC**

# KEY FACTS AND STATISTICS



Being involved in a vehicle incident continues to be the most common cause of workplace fatalities

\* SAFEWORK AUSTRALIA 2016



## WORKER FATALITIES

PERCENTAGE OF WORKER FATALITIES DUE TO A VEHICLE COLLISION BY AGE GROUP (2003 TO 2015 COMBINED)

\* SAFEWORK AUSTRALIA 2015



# 59%



**IN 2015, 115 OF THE 195 WORKER FATALITIES INVOLVED A VEHICLE**

\* RAIL SAFETY REPORT 2014-2015,  
OFFICE OF THE NATIONAL RAIL SAFETY REGULATOR

# 450 ROAD RAIL VEHICLE INCIDENTS



REPORTED JAN 2010 – JUN 2015

\* RAIL SAFETY REPORT 2014-2015,  
OFFICE OF THE NATIONAL RAIL SAFETY REGULATOR

## CAUSE OF RRV INCIDENTS



**More than half of RRV incidents are caused by operator error and only 8% caused by equipment defects**

\* RAIL SAFETY REPORT 2014-2015,  
OFFICE OF THE NATIONAL RAIL SAFETY REGULATOR

# CASE STUDIES RRV

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# WORKER FATALITY

On 24 May 2012, three Transfield Services Australia (Transfield) road-rail vehicles were travelling in convoy in a westerly direction between Forrest and Haig in Western Australia, where they were to be taken off the track.

Shortly before 1700, on arrival at the Haig level crossing, the lead vehicle was off-tracked, but a problem with the second vehicle prevented its removal from the track.

At about 1711, while work was continuing to remove the second vehicle from the track, the third vehicle in the convoy, a flatbed truck, collided with the rear of the second vehicle.

The force of the impact shunted the stationary vehicle forwards with both vehicles running over one worker, fatally injuring him, while the other worker jumped clear. The driver of the flatbed truck was not injured.

The Australian Transport Safety Bureau (ATSB) found that the flatbed truck could not be stopped in time to avoid the collision because the brakes that were originally fitted to its front rail guidance equipment had been removed and the vehicle's rear wheel brakes were in a poor state of repair.

The investigation also identified that the rail workers had developed localised practices that were not compliant with Transfield's operational procedures.

A sample of the deceased worker's blood tested positive to both the active and inactive metabolite of cannabis. The other workers were





not tested for the presence of drugs and alcohol following the accident.

The ATSB identified a number of systemic issues associated with Transfield's road-rail vehicle maintenance regime, rail safety worker training, management oversight and drug and alcohol policy and procedures.

In addition, the ATSB highlighted the absence of a national standard for road-rail vehicles which addresses the fitment, modification and maintenance of road-rail equipment and the consequent risk that unsuitable modifications may adversely affect the safe operation of a road-rail vehicle.

# LESSONS

1

Confirm safety critical road-rail vehicle equipment is appropriately maintained.

2

Do not present yourself for work if you think you are impaired by medications, drugs, alcohol or fatigue.

3

Only operate vehicles that you are trained, capable and licenced to operate safely.

**Reference:**  
ATSB Transport Safety Report  
Rail Occurrence Investigation  
RO-2012-006  
Final – 15 September 2014

# CASE STUDY COM- MUTE



# TONY

**Tony had worked for ARTC for a couple of years and had only recently begun work as a Supervisor in outback Western Australia. He had received training in driving four-wheel drive vehicles and remote area first aid.**

**His vehicle was fitted with GPS tracker, a hands-free cradle for his mobile phone, extra petrol and other fixtures and resources for long trips.**

One day he had been asked to accompany an inspection crew from the rail safety regulator. He would be meeting them on-site which was a two-hour drive from town. Tony was a shift worker and he'd had an unsettled night's sleep but still got up early, gave the vehicle a quick inspection to see if anything was missing. He headed off early before many people were on the road; he kept the window open and the CD Player on loud to help him keep alert.

Tony met the inspection crew at the main road turn-off as arranged. The crew boss said he knew the area well so Tony let him lead the vehicles along the access track to the work-site. The track was dusty but in good condition. The sky was clear, the weather was good and there was no wind.

The inspection crew seemed keen to get to site and were kicking up so much dust that Tony had the windscreen wipers on intermittent and used the washer regularly. Even so, Tony's 4WD suddenly hit an embankment straight ahead and rolled, landing on its roof. With the amount of dust in the air and the decreased visibility, Tony had been unaware that the access track dog-legged and he drove straight ahead into a small embankment that had built up around some fallen trees.

All the airbags had activated but Tony was shocked to find himself upside-down, covered in dust with pain across his chest and shoulder from the seat belt.



# LESSONS

1

The quality of rest is linked directly to health and ability to perform well at work.

2

No matter what vehicle you are driving, extra care is required when on unfamiliar roads or tracks.

3

Leave safe distances between vehicles so that there is always good visibility.

4

Always wear your seat belt.

5

Under no circumstances should you attempt to fight fatigue by simply rolling down the windows, turning up the car radio or fidgeting with vehicle switches.

6

Recognise signs of fatigue; yawning, heavy eyes, slower reactions, ability to concentrate is reduced, taking longer to interpret and understand the traffic situation.

7

Shift workers are more likely to have disrupted sleep patterns which lead to fatigue more often.

# OUR CHALLENGES



UNSECURED ITEMS BACK LV

### ARTC 2016:

- Four ARTC vehicles were involved in collisions with trains – potential to harm people
- ARTC also had 11 derailments involving road rail vehicles – potential to harm people.



TRAVELLING OUTSIDE NORMAL WORK HOURS

NO HARM – LINE IN THE SAND



YAWNING – IS IT A SIGN OF FATIGUE?



COMMUNICATIONS AND SAFE DISTANCES – OTHER TRACK USERS



INTERACTIONS – WORKER, TRACK VEHICLE, LIGHT VEHICLE, LEVEL CROSSING



ROAD CONDITIONS – BOGGED VEHICLES

## VEHICLE ACCIDENTS

# STOP AND THINK

OUR 1ST FORM OF DEFENCE WHEN IT COMES TO MANAGING OUR RISKS



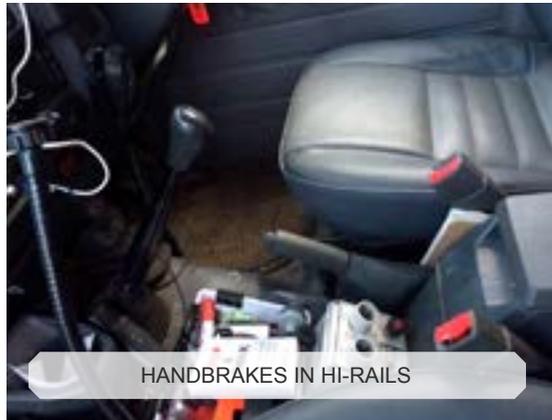
DRIVING IN FOG



WORKER AND TRACK VEHICLE INTERACTIONS



SECURE LOADS – CARGO NETS



HANDBRAKES IN HI-RAILS

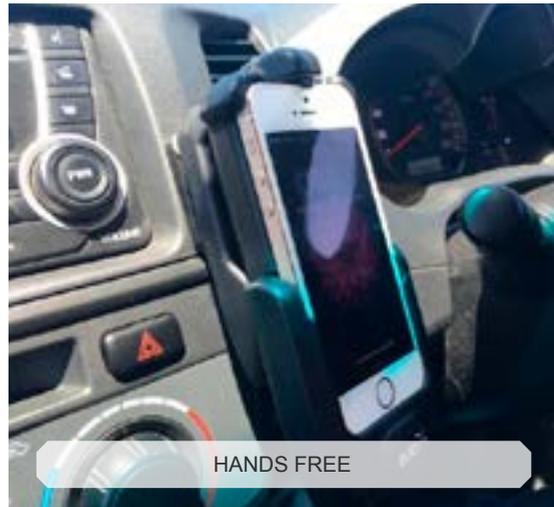
NO HARM – LINE IN THE SAND



# KEY ACTIONS

## All Vehicles

- Plan your journey.
- Be licenced to drive the vehicle.
- Maintain your fitness for the journey – not impaired by medications, drugs, alcohol or fatigue.
- Wear a seat belt.
- Obey the speed limits.
- Maintain safe braking distance between vehicles.
- Drive to conditions.
- Do not use a mobile phone when driving unless in a commercially designed phone cradle.



# VEHICLE ACCIDENTS



WORKING WARNING DEVICES

## Road Rail Vehicle Specific

- Do a prestart inspection on the vehicle.
- Ensure warning devices are working.
- Check the hi-rail equipment.
- Know how to safely use the guidance systems.
- Test the brakes work effectively.



CHECK WHEEL NUT INDICATORS.  
HAVE THEY MOVED?

NO HARM – LINE IN THE SAND



# REFERENCE DOCUMENTS

- FPR-PR-047 – Motor Vehicle Policy – Tool of Trade and Pool Vehicles
- Work Method Statements:
  - WHS-WI-200 Road Rail Vehicles
  - WHS-WI-001 Work in the Rail Corridor
  - WHS-WI-010 Plant and Equipment – Vehicle Recovery
- PP-124.1 – Track Maintenance Vehicle Registration and Operation
- ANWT 316 – Track Vehicles
- EPP-32-03 – General Plant Requirements
- EPP-32-02 – Plant Maintenance Procedures
- Pre-Start Inspection Report – Rail Guidance System
- Road Rail Vehicle Pre-Start Inspection Reference Guide
- PP-139.2 Maintenance Policy – Rail Guidance Systems
- Safety Alerts:
  - No. 77 – Recovery of Vehicles (ARTC)
  - No. 80 – Loose Wheel Nuts (ARTC)
  - No. 81 – Star Pickets being left in the rail corridor (ARTC)
  - No. 83 – Access Roads (ARTC)
  - No. 89 – Truck Rollover (ARTC)
  - No.92 – Parking withing Corridor (ARTC)
  - Worker Struck by Reversing Truck and Trailer (Leighton Contractors)
- Code of Practice for the DIRN Volume 3, Part 1, 6.4 Track Vehicles and Machines
- COR-PO-004 – Fatigue Policy
- COR-PR-002 – ARTC Drugs and Alcohol Policy
- COR-PR-422 – ARTC Drugs and Alcohol Procedure





ARTC



## FURTHER INFORMATION

If you require any further information, discuss with your supervisor or contact the ARTC safety advisor for your location.

### Information sources:

Statistics on worker fatalities due to vehicle collisions

- Safe Work Australia 2015
- Rail Safety Report 2014-2015

Statistics on work-related vehicle fatalities

- Safe Work Australia 2015
- Rail Safety Report 2014-2015

Use of mobile phone driving laws

- Victorian, South Australia and New South Wales road safety

**ARTC**