



OFFICE OF RAIL REGULATION

# Welcome to RIAC 89

Dilip Sinha, Secretary, RIAC

7 February 2012



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# ORR Strategic Elements Project: Overview

John Gillespie  
RIAC 7 February 2012

# Aim

- Explain what we do and why.
- Core message on our role
- Categorize in line with core message
  - Coherent information
  - Any information missing or redundant?
- Review health and safety risks
  - Strategy and priority and activities
  - LuL & RSSB risk models
- Sustaining our strategy in future.



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# ORR Strategic Elements Project

## Strategic Risk Priorities

Errol Galloway  
Nicola Perrins

7 February 2012

# Risk priorities – how, which and what

- Mainline, LU, trams, heritage
- Collect and collate data (internal, external)
- Consider risk information (qualitative, quantitative)
- Rank each risk (against each other, absolute)
- Comment on industry performance
- Consider how we have an impact
- Formulate strategy

# Your input.....

- Not expected today!
- Product description to give overview
- Draft document w/c 12 March 2012
- Invite your views on;
  - Risk priorities – are they representative?
  - ORR's perspective – do you agree?
  - ORR's strategy – what do you think?
  - Any other comments



# Thank you....

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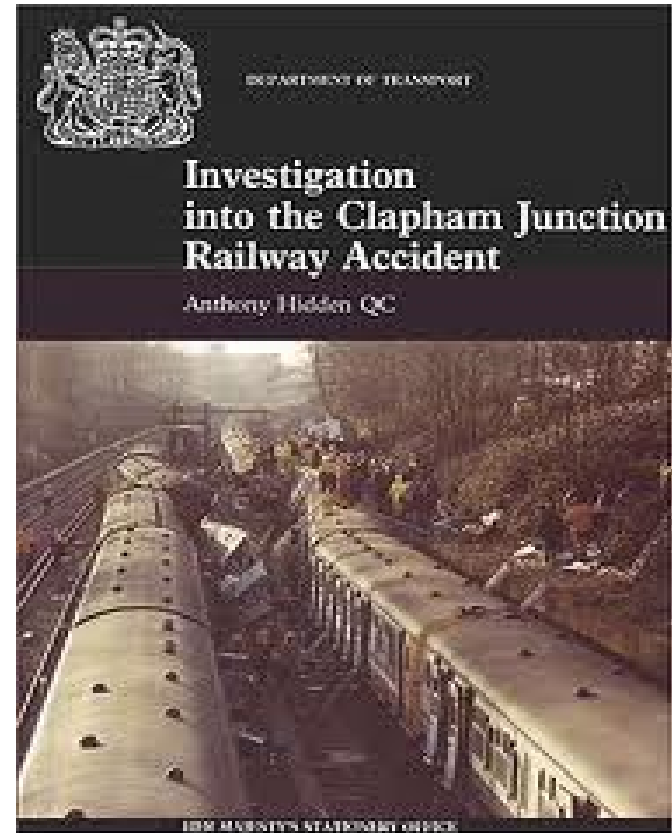
# Revised ORR fatigue guidance: Managing Rail Staff Fatigue

Jeremy Mawhood  
7 February 2012

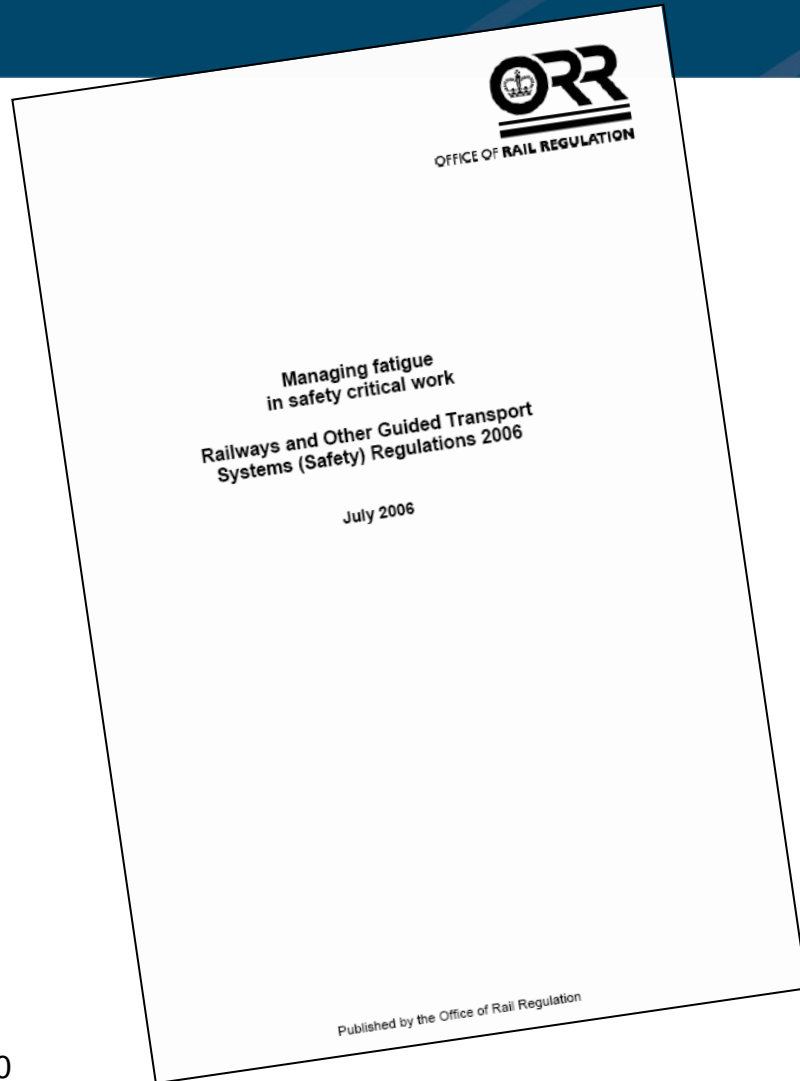


# Why has ORR revised fatigue guidance?

- ▶ 2000 to 2011: fatigue a factor in at least 111 rail accidents / incidents (RAIB)
- ▶ Fatigue increases likelihood of errors. Serious consequences e.g. Clapham Junction → inadequate system to control maintainer fatigue - error, 35 killed
- ▶ 20% of motorway accidents from driver falling asleep
- ▶ No “blood test” for fatigue



# Why revised our fatigue guidance?...



- ▶ 2006: ROGS guidance “*Managing Fatigue in Safety Critical Work*”
- ▶ 5 years on – poor fatigue controls still found...



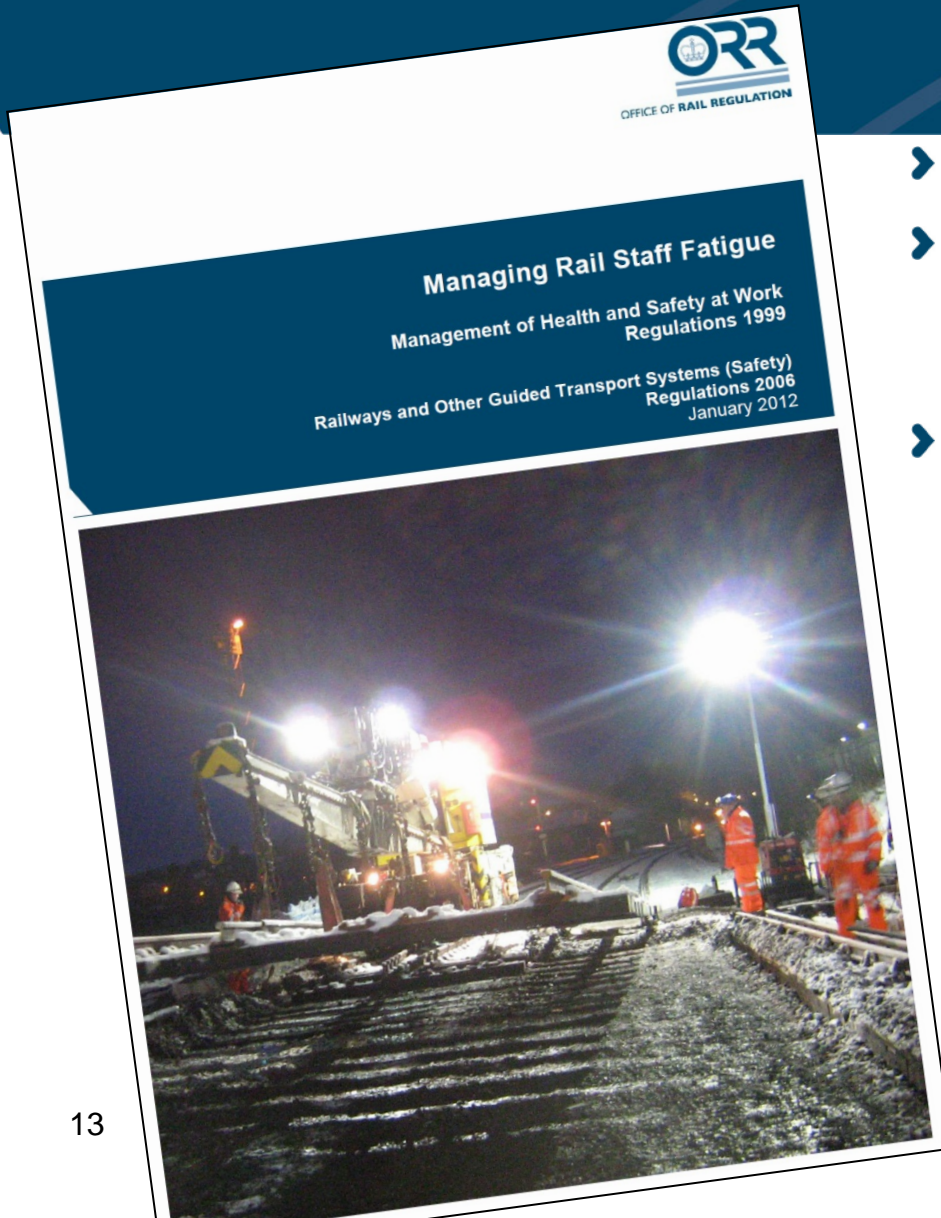
# Why revised our fatigue guidance?

- ▶ Not just “hours”! Wider range of controls
- ▶ Can affect anyone, not just “ROGS safety critical” staff, e.g.
  - Near moving trains, vehicles? Machinery? Electrical work? Work at height?
  - Road driving to / at / from work?
- ▶ 72 h/wk? Evidence ~55h (as in air, HGVs)
- ▶ Over-reliance on mathematical fatigue tools
- ▶ Other industries : more data-driven “Fatigue Risk Management System” approach -
- ▶ Steady stream of fatigue questions to ORR – guidance answers many before asked !

# Revision & consultation

- Learning points from incidents, inspections, questions, talking with managers, staff, unions
- Reviewed good practices in rail & similar industries, reviewed fatigue science
- Prepared revised guidance document
- Two-stage consultation including NR, LUL, passenger & freight operators, contractors, RSSB, fatigue specialists etc

# “Managing Rail Staff Fatigue”



- ORR website 20<sup>th</sup> Jan 2012
- Replaces 2006 guidance “*Managing Fatigue in Safety Critical Work*”
- Status as before: guidance, free to take other action, but ORR may refer to it as illustrating good practice

## Some key themes...

- Proportionate approach (size & complexity of operation, risk)
- Fatigue may affect all, not just “ROGS SC” staff
- Not just “hours” : whole range of controls in a wider fatigue risk management system (FRMS)
- Collaborative approach, all parties working together: company, individual & TU responsibilities
- Data-driven approach, using diverse info to “triangulate” position on fatigue
- Avoid over-reliance on mathematical fatigue tools

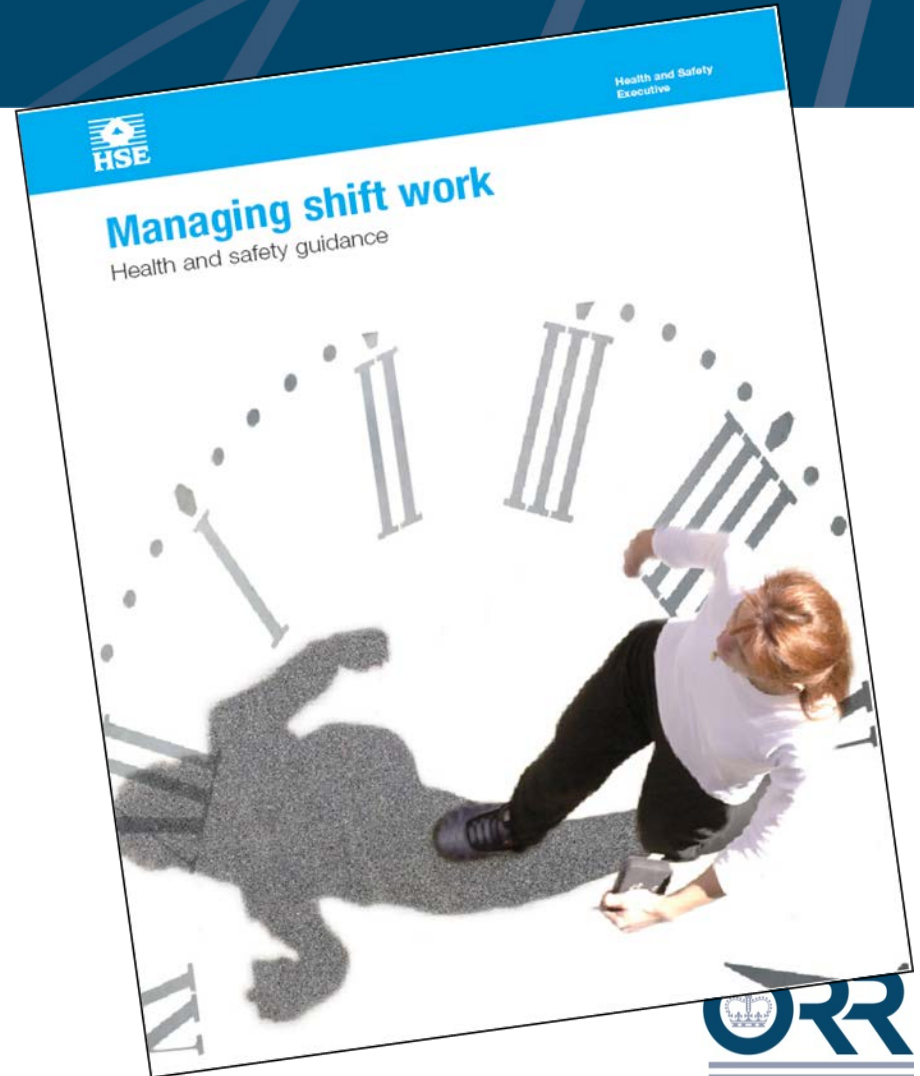


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# Structure of guidance

# 1. Introduction

- ▶ Builds on general duties for all industries in Health & Safety Executive guidance HS(G)256 “*Managing Shift Work*”





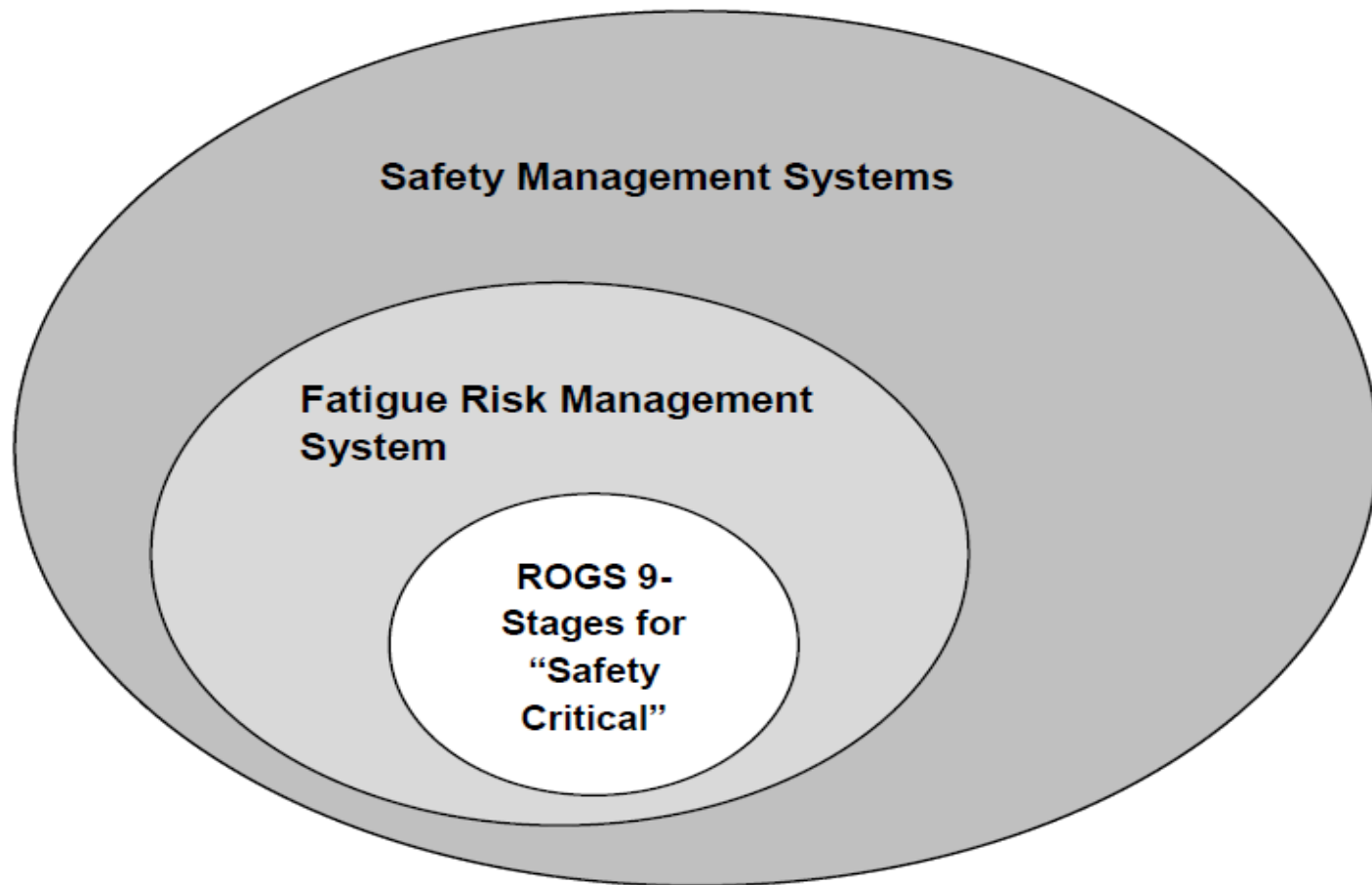
## 2. Legal duties

- Health & Safety at Work Act
- Management of Health & Safety at Work Regulations
- Working Time Regulations
- If do ROGS safety critical work, ROGS Reg 25 on fatigue

### 3. How to use guidance – proportionate

Type of work	Likely significance of risks from fatigue	Relevant sections of this guidance
No shift work, no significant overtime, no ROGS safety critical work	Low	Section 4 “Basic fatigue controls”
Some shift work and/or significant overtime but no ROGS safety critical work	Medium to high	Section 5 “Fatigue Risk Management Systems”
ROGS safety critical work	High	Section 5 “Fatigue Risk Management Systems” AND Section 6 “Managing fatigue in ROGS safety critical work”

### 3. How to use the guidance cont'd...



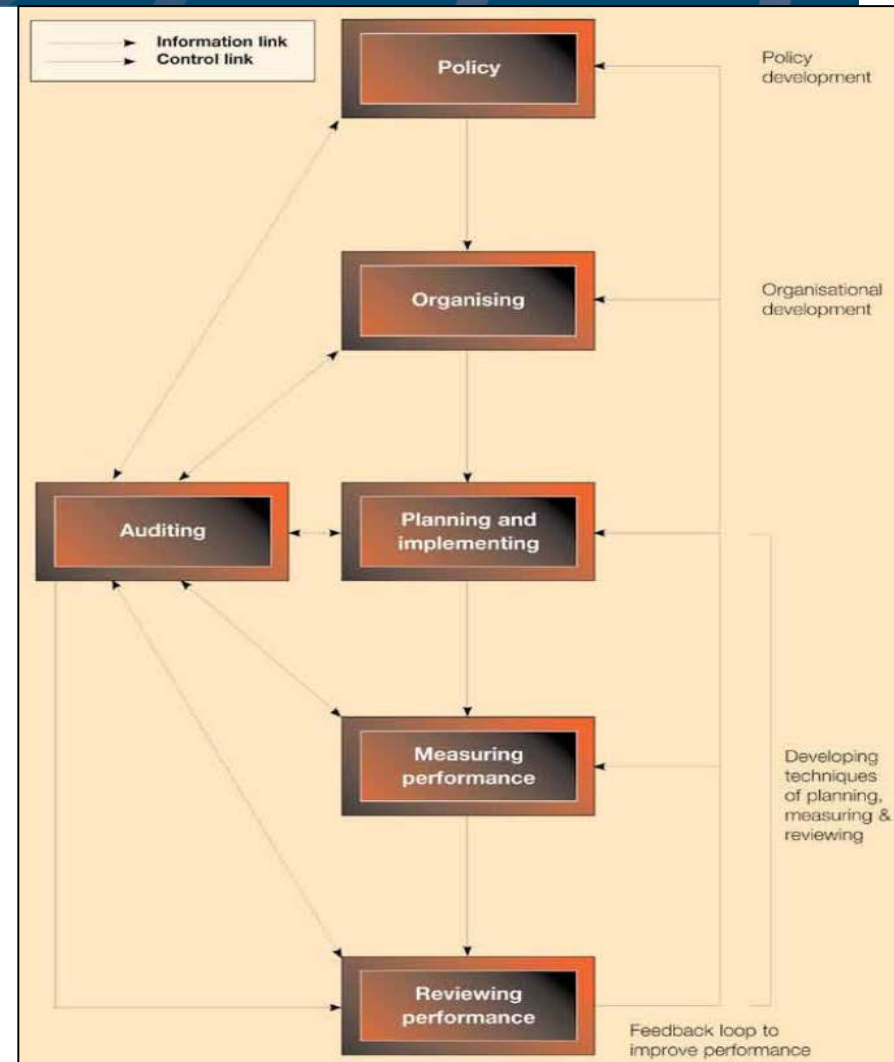
## 4. Basic fatigue controls

- ▶ If no shift work, no significant overtime, no ROGS safety critical work:
- ▶ A single page of simple fatigue controls we'd expect of all employers



# 5. Fatigue Risk Management Systems

- The key new content of the revised guidance...
- Managing fatigue using HSE “POPMAR” risk management cycle:
  - Policy
  - Organise
  - Plan & implement
  - Monitor
  - Audit
  - Review



## 5. FRMS – some selected points...

- Gather and use info on fatigue from your operation!
- Honesty about links between resources, workload, fatigue, stress
- Fatigue improvement plans?
- Co-operation and honesty between
  - Company – leadership on fatigue, culture?
  - Individuals – e.g. fit to book on? Report concerns?
  - TUs – e.g. consider fatigue when negotiate working patterns?
- Overtime, shift exchange, on-call duty

## 6. ROGS Safety Critical Work

- The 2006 guidance with mainly minor updates reflecting recent research
- Most significant change: from 72 (!) to ~55h/week
- Table 3 : working pattern guidelines
  - Not prescriptive limits - good practice suggestions
  - More a work pattern deviates from guidelines, greater the likely need to assess & control risks from fatigue

# 7. Appendix A. Fatigue risk assessments

## 1. Good Practices?

e.g. HSE Managing Shift Work (HSG256)  
ORR fatigue guidance  
RSSB guidance



*Fatigue?*

## 2. Fatigue tool?

Does a tool suggest any  
problems  
e.g. HSE FRI?

## 3. How tiring do staff actually find it?!

e.g. fatigue rating scales?  
fatigue survey?



## 8. Appendix B. Travel time

- Often biggest problem : driving home tired, & how this impacts on next shift
- Summary of issues to consider e.g.
  - Nominated driver? Taxi? Lodgings?
  - Travel distances & times realistic? Considered before contracts awarded e.g. infrastructure contractors?
  - Monitor travel times?

## 9. Appendix C. Safety culture

- A positive culture key for managing fatigue!
- Collaboration: joint management / TU / staff fatigue group?
- A reporting, just, flexible, learning, open, trusting culture...(takes time!)

# 10. Appendix D. Fatigue reporting

- Suggestions for improved reporting of fatigue-related incidents, accidents, concerns
- A key component of a data-driven FRMS

## 12. Appendix F. An FRMS Checklist

- Existing fatigue controls dispersed thru' several risk control systems, rightly, but...
- ...hard to ID any gaps/ weaknesses? So...
- Suggested checklist helps draw up “signposting” document, to help ID existing fatigue controls, any gaps / areas for attention...

# Appendix F. an FRMS Checklist cont'd.

12.1 Some features of a Fatigue Risk Management System (FRMS) are summarised in the table below which may be useful as a checklist when organisations are considering the adequacy of their fatigue management arrangements. The FRMS should be proportionate to the size and complexity of the operation and the likely risks from fatigue – it is recognised that not all items in the checklist will be appropriate for all organisations.

No.	Para in this guidance	Issue	Company FRMS / SMS ref?	Comments?
		General		
1	5.7	Is the FRMS integrated with wider Safety Management Systems?		
2	5.8	Does the FRMS identify & draw together the preventive & protective measures which help control fatigue? Does a document provide “signposting” to these various fatigue controls?		
3	5.9	Is the FRMS proportionate to the organisation’s nature, size,		

# What's next?

- ORR speaking to rail stakeholders about guidance
- Review your fatigue management arrangements against the revised guidance - checklist should help
- ***BUILD AROUND AND UPON your existing ROGS fatigue arrangements rather than “starting again”!***
- Take the “heat” out of fatigue..? Collaboration, honesty!
- Evolve working patterns over coming months, years...

# What's next? cont'd...

- ▶ Take opportunities to learn from others – within and outside rail industry
  - e.g. fatigue Risk Management Systems Forum = FRMS Forum (airlines, hospitals etc)
  - Business £benefits of better fatigue management...
  - Possible 2<sup>nd</sup> rail industry fatigue day once guidance had time to soak? Interest?
- ▶ Conclusion - ORR staff may refer to the revised guidance as illustrating good practice – checklist is a useful way in...



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Questions?





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# Ambitions workshops and 2012/13 planning

John Gillespie  
RIAC 7 February 2012

# Ambitions

- Corporate strategy refresh
  - Vision, proposed business priorities, planned activities
- Conversation with staff
  - Workshops: majority attended one.
  - Directors and Board members involved.
  - ORR's February Board meeting
    - proposals on ORR's work priorities for 2012-13
    - Business Plan being finalised.
- Plans for health and safety regulation

# Principles

- Use a range of approaches to deliver effective outcomes:
  - reduction in accident numbers and risk
  - Improved management capability (sustained)
  - Impact: zero industry caused fatalities and decreasing safety risk.
- **Assurance** – provide independent scrutiny of industry risk control systems and capability, requiring remedy of failures; and
- Influencing through policy and central initiatives;
- Making best use of the resources available.

# What aspects are we trying to balance?

- Reactive versus proactive;
- National priorities vs dutyholder specific;
- Catastrophic risk issues vs personal risk issues;
- Resource into the 4 sectors linked to the key risks in those sectors (mainline, TfL, heritage and light rail/trams);
- Resource to strategic, policy and European issues vs dutyholder checking type activities;
  - Both are "front-line", albeit in different theatres;
- Whilst maintaining flexibility to react to change/serious events and because duty-holders sometimes obfuscate which requires more time/effort from us.

# Available time is divided between

- ▶ Statutory work:
  - ROGS safety certificate & authorisation,
  - RAIB Recommendations follow up,
  - Entities in Charge of Maintenance,
  - LX Orders,
  - Initial integrity (authorisations);
- ▶ Policy & influencing work with stakeholders
- ▶ **Planned proactive inspection work**
  - Planned dutyholder specific activity;
  - Reactive investigation of incidents and complaints.
- ▶ Other activity, such as safety issues in PR13, StEP project

# Planned proactive inspection work

- Continue with 9 programmes for proactive inspection:
  - health and safety management systems (14%);
  - management of change (12%);
  - interface system safety (8%);
  - workforce safety (13%);
  - occupational health (8%);
  - Construction (15%);
  - asset safety (17%);
  - capability of industry staff (8%);
  - Europe (3%).
- Plus reactive, statutory and policy activity.

# Summary

- Strategy
- Activities
- Balance
- Outcomes