

Fatigue Workstream at the RSSB

anna.vereker@rssb.co.uk

**“Managing fatigue is everybody’s responsibility,
both morally and legally”**

[Fatigue and Alertness \(rssb.co.uk\)](https://www.rssb.co.uk)



The RSSB Fatigue Workstream:

- The Human Factors Team (currently 12 people) work on a range of research and operational activities including the Fatigue Workstream.
- We facilitate **Industry Fatigue Groups** to progress a **Roadmap** of Fatigue research and operational work. For example;
 - Work on understanding the new Network Rail Fatigue standard (ISLG)
 - Developed On-call guidance recently published (NFSG).
 - Developed Fatigue Management Guidance for Senior Managers on FRMS
 - Developed guidance around Encouraging staff to report Fatigue concerns.
- Publish a range of **guidance** available at the following page:
[Fatigue and Alertness \(rssb.co.uk\)](https://www.rssb.co.uk/fatigue-and-alertness)
- Progresses specific **research** such as the 'Actual Hours' project and the Fatigue Survey.



Helping you manage Fatigue Risk while on call:

Am I likely to be too fatigued?

You may feel ok when you wake up, or when you book on but it can be difficult to predict how fatigued you'll become throughout your shift. You may underestimate your risk of becoming fatigued, and the serious effects this may have on your own safety and other people's safety.

Below is a self-assessment tool, developed by RSSB and endorsed by the ORR, that can help in your decision making.

It combines:

- rules-of-thumb on how much sleep you've had recently and how long you're likely to be awake
- simple fatigue questions
- the Karolinska Sleepiness Scale.

Mini fatigue assessment before duty

Before you travel to work for your on call period, take the time to ask yourself the questions below.

When considering how much sleep you've had, remember that we're all different but most adults need 7 to 9 hours' sleep per night on a regular basis for optimal health and performance.

1	By the time I finish my duty (or if driving, by the time I get back home or to my hotel), how much sleep will I have had in the previous 24 hours?		
	Working it out: Note the time you will finish work. If you are driving to get back home or to a hotel, instead, note the time you will reach there. Work out how much sleep you will have had between the time you finish (or the time you get back, if driving) and the same time on the day before.		
	More than 7 hours	6 – 7 hours	Less than 6 hours
2	By the time I finish my duty (or if driving, by the time I get back home or to my hotel), how much sleep will I have had in the previous 48 hours?		
	Working it out: Note the time you will finish work. If you are driving to get back home or to a hotel, instead note the time you will reach there. Work out how much sleep you will have had between the time you finish (or the time you get back, if driving) and the same time two days before.		
	More than 14 hours	12 – 14 hours	Less than 12 hours
3	By the time I finish my duty (or if driving, by the time I get back home or to my hotel), will I have been awake for more than 16 hours? Or, will I have been awake for more hours than the number of hours of sleep I have had in the last 48 hours?		
	Working it out: Note the time you woke up from your last sleep. Note the time you will finish work (or if you are driving to get back home or to a hotel, instead note the time you will reach there). Work out the difference between these two. Is the answer longer than 16 hours? Is it longer than the answer to question 2?		
	No	Unlikely	Yes

Continued overleaf...

Continued from previous...

4	In the last 48 hours, have I had less than the usual amount and quality of sleep I need?								
	For sleep quality, think about how restful your sleep felt and how often it was interrupted.								
	I got at least my usual amount and quality of sleep			Yes, less than usual			Yes, much less than usual		
5	Am I experiencing any physical or mental symptoms of fatigue right now?								
	No			Yes, minor signs			Yes, significant signs		
6	Do I think I may be suffering from fatigue, or do I have concerns that I am likely to be fatigued in my shift or on my journey home?								
	No			I don't think so			Yes		
7	How do I feel right now?								
	Make sure you have been awake for at least 20 minutes before answering this question.								
	1 Extremely alert	2 Very alert	3 Alert	4 Rather alert	5 Neither alert nor sleepy	6 Some signs of sleepiness	7 Sleepy, but no effort to keep awake	8 Sleepy, some effort to keep awake	9 Very sleepy, great effort to keep awake, fighting sleep

If one or more of your answers is in the right-hand box, you may be fatigued or at risk of fatigue. In this case, you should speak to your manager or on-call contact to discuss options for managing the risk.

also be used to start a conversation with your employer and help assess your general fatigue risk. If in doubt, put safety first—talk to your on-call supervisor or manager, and don't put yourself or others at risk.

Flagging up the Issue!

This mini fatigue assessment is designed to help you make informed decisions about your ability to safely carry out work duties or drive. It can

Managing Fatigue – A Senior Leader’s Role:

9 Things you should consider for your fatigue risk management plan:

... This provides leadership teams with an overview of why effective fatigue management is important, and what they should expect to see within their fatigue risk management systems...

This document highlights nine areas which an FRM plan should cover:

- Leadership commitments around implementing a FRM system
- creating FRM groups
- a business-appropriate fatigue KPI
- understanding fatigue and how to manage the risks
- rosters
- fitness for duty
- on-call
- road risk
- self-reporting of fatigue
- accident analysis and investigation
- performance indicators



Recent Research:

Basacik, Dan & Taylor, Anisha (2022) **A feast-and-famine pattern of sleep: Do railway staff get the sleep they need?** *Applied Ergonomics* (102)

- 7807 survey responses (25 companies including 14 TOCs, 7 Infrastructure companies and 4 FOCs).
- Respondents reported sleeping less when working nights, more when working days, and the most on days off, which suggests a 'feast-and-famine' pattern of sleep.
- 41% were getting less than 6 hours of sleep or less when working days, compared with 63% when working nights.
- The findings of the survey presented in this paper highlight that **there is work to be done to understand and address the causes of insufficient sleep in railway workers.**



What we are doing in 2023:

- **More regular Industry fatigue groups** please participate to influence the work that these groups undertake.
- Concluding the '**Actual Hours**' project (likely April/May 2023).
- Organisational '**On-Call Guidance**' is being drafted, (likely publication mid-2023).
- The next **Industry Fatigue Survey** is likely to be distributed in April/May 2023 – Please participate!
- We agreed with the ORR to revisit the feasibility of starting the project into good practice guidelines on designing '**Fatigue Friendly Rosters**' in mid-2023.
- Roadmap of projected activities is available on our website.



Industry Challenges – what would you add?

- **Effectively Managing Shift-work** continues to be an area where companies require support.
- Considering **Fatigue Risk in a holistic sense** – including commuting time and ‘at home’ factors.
- More guidance requested on a range of **software shift modelling and fatigue-risk modelling products**. This is an ongoing area of interest and we’re considering how it could be included in our work.



What can RMT do to influence this work?

Encourage Participation! Encourage your companies to participate in the industry fatigue groups, and ongoing work within the groups to promote effective FRMS.

- For example; we received very few offers to participate in interviews for the 'Actual Hours' project - encouraging staff to participate here would have provided a better breadth of scope.

Promote the Fatigue Survey once distributed – this will help us to get the best coverage of responses across the industry.

- It is likely that information gained from the upcoming survey will help to direct our work in the coming years – if we don't have your input we can't include these views going forward.



Thanks! Questions?

A reminder that our published fatigue resources are available at the RSSB Website here: [Fatigue and Alertness \(rssb.co.uk\)](https://www.rssb.co.uk)

anna.vereker@rssb.co.uk