

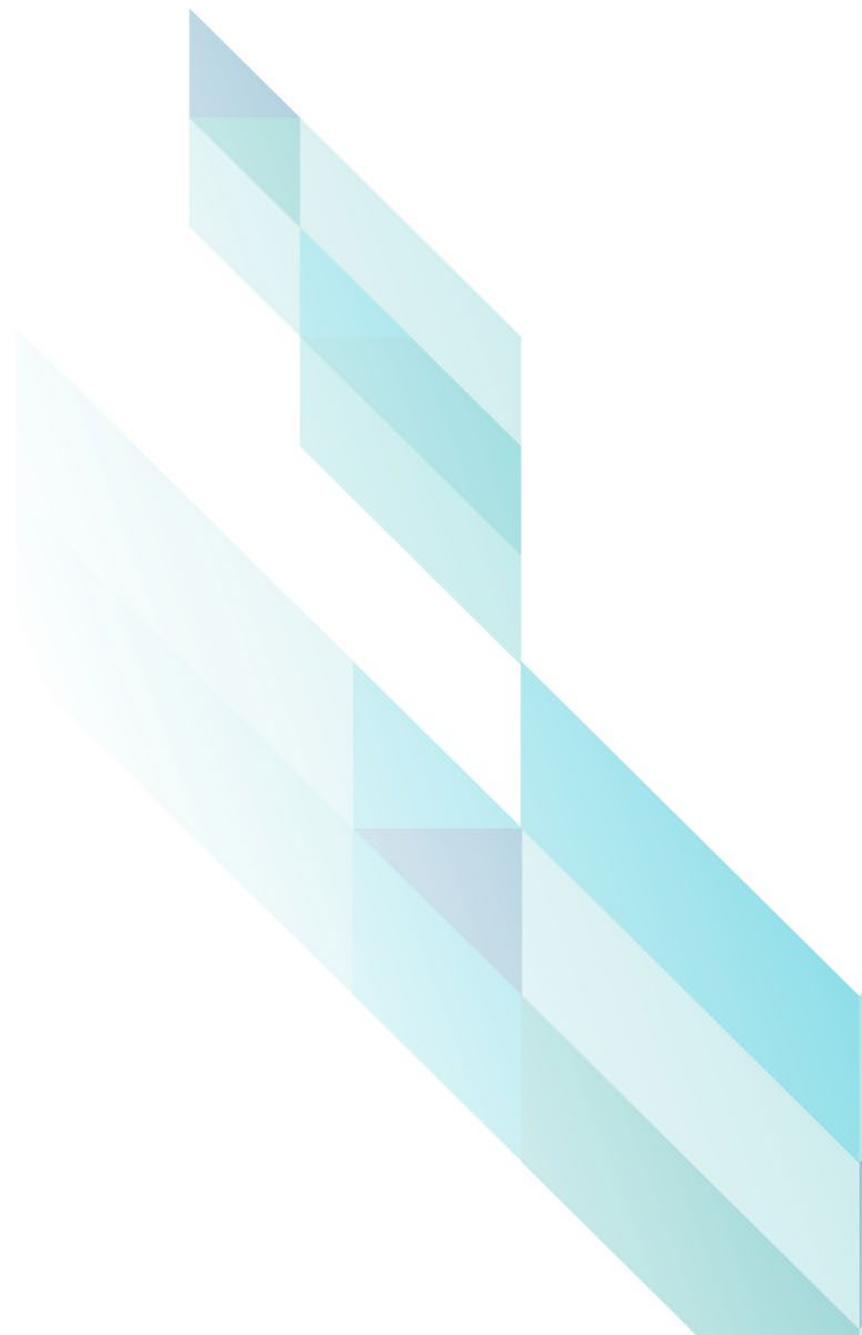


**Australian Government**

**Australian Maritime Safety Authority**

# Fatigue management

Guidance: Marine Order 504 changes



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# Fatigue management

From 1 June 2025, all Class 1, 2 and 3 vessel owners are required to identify the risks of master and crew fatigue in the vessel's risk assessment and record how they will manage these risks.

This has been clarified to ensure owners consider fatigue risks other than the hours of work and rest. They must also consider other factors, such as:

- night work
- task demands
- environmental
- suitability of the sleeping environment (if relevant).

The new regulations allow owners the flexibility to develop the fatigue management plan that works best for them and their operations. This could be scaled depending on the size and complexity of operations.

## How to write a fatigue risk management plan

**Documentation:** Your fatigue management plan is an extension of your risk assessment which is recorded in your SMS.

After adding fatigue risks to your risk assessment, you may need to update other parts of your SMS that are impacted by your fatigue management plan, such as:

- appropriate crewing e.g. how many suitably qualified crew are required to undertake watchkeeping and lookout duties
- employee induction
- vessel operational procedures e.g. procedures for taking breaks
- training e.g. how to recognise and manage the risks of fatigue.

**Level of detail:** The level of detail in your plan will depend on the nature and complexity of your operation.

Follow these steps to develop a policy for the nature and complexity of your operation.

### Step 1. Educate

Ensure owners, masters and crew are well trained in identifying and managing the risks of fatigue.

Start by learning about [crew fatigue](#).

Understand what causes fatigue and what can happen when a person is fatigued. Then, start a conversation about fatigue and crewing with your masters, crew and shore staff.

Ensure your crew have a level of understanding of the causes of fatigue and the consequences and know that they are supported in managing the risk of fatigue. Having a shared awareness of the causes and consequences of fatigue will ensure that you and your crew are better placed to deal with fatigue and lessen its effects.

Open communication about managing fatigue is critical— you and your crew should feel comfortable having these types of conversations.

It is important to document how you provide education and training to your masters and crew on fatigue.

## Step 2. Plan

The owner must develop the plan with assistance from the master and crew, drawing on the experience and expertise of all people involved in the operation.

**Note:** The master and crew not getting enough quality sleep is the main contributor to fatigue. This must be the main consideration when putting together a fatigue risk management plan.

### Sections to include

The following sections are based on a fatigue management plan suited to more complex operations. A smaller operator may develop a shorter plan instead.

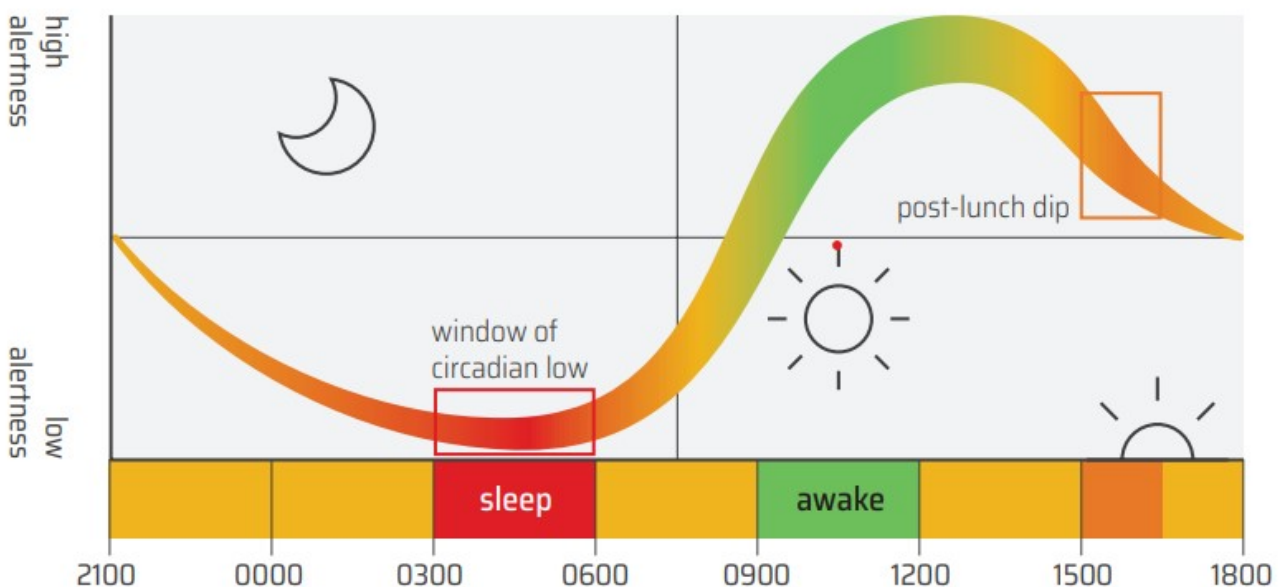
### Risks

Work with your master, crew, and anyone else who may be able to assist, to identify factors which may contribute to fatigue in your operation. To identify risks specific to your vessel's operation, consider your 'types of operation'. Think about what could go wrong if a person is fatigued and how it could potentially endanger lives and the environment.

You may find this [checklist](#) useful to identify fatigue risks.

**Example:** You need to consider the risks for a crew member working during the night especially between midnight and 6 am. Working at night presents a high risk that the crew may fall asleep because they are working against their circadian clock. In these circumstances, you need to ensure you have the right control measures in place to manage the risks you have identified.

**Figure 1:** Circadian rhythm.



This graph shows the danger times for fatigue. 0300 - 0600 is high risk. 1500 – 1630 is moderate risk.

Record the fatigue risks you identify in a column in your risk assessment.

## Controls

Identify how each risk can be controlled and managed. Doing this will help when reviewing your plan.

**Example:** If a crew member is working during the night between midnight and 0600, you may consider a number of controls, such as:

- ensuring the crew have adequate fatigue training and awareness – so they understand the risks
- limiting the number of hours they are required to work at night
- planning for a minimum of 2 crew members together on deck or on navigational watch
- ensuring crew are fit for duty by providing adequate time for sleep (6 hours or more) prior to commencing this duty period.

Record controls in a column in your risk assessment, beside the relevant risk.

## Responsible person

Document who is responsible for implementing each of the controls. It may be the owner, the master or a crew member.

**Example:** The owner is responsible for ensuring that all crew have adequate training and awareness. The master is responsible for implementing and complying with the fatigue risk management plan during normal vessel operations.

Record who is responsible in a column in your risk assessment, beside the relevant control.

## Step 3. Implement

Put the fatigue management plan into operation by training the master and crew in the agreed procedures.

## Step 4. Monitor

Monitor how well the fatigue management plan is working in consultation with the master and crew.

Trial it for 1-2 months to identify and address problems as they arise. Ask:

- Are the master and crew getting enough sleep?
- How well is the plan working?
- Is anything missing or does anything need amending?

## Step 5. Review

Review the plan regularly in consultation with the master and crew.

Once the initial plan has been implemented and trialled and you're sure it's fit for purpose, review it:

- following any incident where fatigue may be a contributing factor
- if the crew have raised fatigue concerns
- as a minimum, during your annual SMS review.

# Scenarios and examples

## 16m Class 3B fishing vessel

A 16m class 3B fishing vessel undertakes fishing operations up to 100 nautical miles off the coast. The vessel typically spends between 21 and 28 days at sea.

### Key fatigue risks

Using the [checklist](#), they identify these key fatigue risks:

- **Sleep** – Less than 7 hours continuous sleep per night
- **Working in excess of 12 hours** – In peak periods, crew work more than 12 hours in a day.
- **Crew arrive at work fatigued** – Sometimes crew are fatigued because they haven't slept well due to various reasons e.g. young family, working second job
- **Consistent work between midnight and 6 am** - Crew regularly work more than 4 nights in a row
- **Physically demanding work** - Repetitive duties, including sorting catch

**Note:** This is an example only and may not apply to your operation. There are likely to be other risks and controls that need to be recorded and assessed in your plan.

### Questions

After assessing the risks, they develop a fatigue management plan which includes fatigue risks, controls, responsible people and a training plan. This is also done in consultation with the master and crew.

The owner asks the following questions when developing their fatigue management plan:

#### Is the owner/operator providing effective support for managing the risk of fatigue?

Risk mitigation measures identified:

- **fatigue risk management policy**
- **fatigue awareness and training** (this is documented) - including responsibilities for induction, training and review
- **adequate resourcing** (appropriate crewing assessment undertaken) – properly qualified crew to support the master achieving rest
- **healthy shipboard environment** - sleeping, eating, water, drug and alcohol policy
- **workload management** – are they doing physically demanding tasks?
- **conduct high-risk tasks during the day.**

#### Are master and crew provided with adequate sleep opportunity?

Considerations and risk mitigation measures identified:

- keep records of hours of work and rest (note: rest should as a minimum include 6 continuous hours uninterrupted sleep, in addition to time for meals, personal hygiene and connecting with family, for example)
- be mindful of these factors when duty scheduling and planning work hours:
  - work <12 hours per day
  - night watches result in an increased risk of fatigue
  - making sure everyone gets adequate rest hours through:
    - › short rest breaks

- › naps
- › recovery sleep
- › reset breaks.
- ensure suitability of sleeping environment
- consider how sea state and other environmental conditions may disrupt restorative sleep
- be mindful of required commute method to vessel and duration of commute
- estimate individual need for sleep - what is normal for that crew member
- workload management – are they doing physically demanding tasks during their work period?
- what happens if the planned schedule is disrupted due to weather? i.e. consider a calm anchoring in safe spot so crew can get a restful sleep.

### **Is the sleep the master and crew are getting adequate?**

The reality:

- Crew working at night – daytime sleep, even for seemingly good periods, may not be restorative sleep
- Crew may suffer from untreated sleep disorders e.g. sleep apnoea. Have you discussed this with your crew?

### **Are the crew able to maintain adequate alertness?**

Encourage:

- crew to look out for each other as they know who did not sleep well the night before
- self-reporting of fatigue if they are doing high risk tasks – use self-assessment tools.

### **Are fatigue-related events reported and analysed?**

Risk mitigation measures:

- implement internal reporting process
- review control measures
- engage with master and crew.



## Fatigue risk assessment/fatigue management plan

Key factors	Controls	Responsible person	Trial results /changes
<b>Training</b>	<ul style="list-style-type: none"> <li>Develop training program, including for new crew, and include in training records</li> <li>Encourage acceptance and benefits of fatigue management</li> <li>Initial training on fatigue. What is it, recognise the signs, strategies to minimise fatigue, be fatigue aware</li> <li>Refresher training</li> </ul>	Owner	
<b>Lack of sleep</b>	<ul style="list-style-type: none"> <li>Regular 20 minute rest breaks</li> <li>Darkened, air conditioned and comfortable accommodation spaces</li> <li>Implement hours of work and rest requirements, including time for adequate sleep (minimum 6 hours uninterrupted) in work rosters</li> <li>Provisions are available for meals and breaks</li> </ul>	<p>Owner – accommodation space and provisions</p> <p>Master – work rosters, breaks, fatigue awareness</p> <p>Crew – report to Master if feeling tired, limit use of phone/tablets – family and friends aware of need to rest</p>	
<b>Crew arriving at work fatigued</b>	<ul style="list-style-type: none"> <li>Self and peer-fatigue monitoring</li> <li>Drug and alcohol policy</li> <li>Delay departure</li> </ul>	<p>Owner – include in drug and alcohol policy</p> <p>Master – monitoring crew fatigue and determine fitness for duty</p> <p>Crew – come to work fit, monitor own and peer fatigue, report to master if tired</p>	

Key factors	Controls	Responsible person	Trial results /changes
<b>Working in excess of 12 hours</b>	<ul style="list-style-type: none"> <li>Where applicable, rotate duties with other suitably qualified crew</li> <li>Ensure crew have sufficient time off for recovery (minimum 6 hours uninterrupted sleep) and 20 minute naps through shift</li> <li>Set maximum number of hours that can be worked in any 24 hour period</li> <li>Sufficient breaks for food and drink</li> </ul>	<p>Owner – implement hours of work and rest policy in consultation with master and crew</p> <p>Master – work rosters, crew rotations, breaks, fatigue management</p> <p>Crew – monitor own and peer fatigue, ensure have sufficient food and drink, use sleep time to sleep (limit use of phone/tablets – family and friends aware of need to rest)</p>	
<b>Consistent work between midnight and 6am</b>	<ul style="list-style-type: none"> <li>Where applicable, rotate duties with other suitably qualified crew</li> <li>Ensure crew have sufficient time off for recovery (minimum 6 hours uninterrupted sleep)</li> <li>Set maximum number of hours that can be worked in any 24 hour period</li> <li>Minimum 2 consecutive nights off per week</li> </ul>	<p>Owner – implement hours of work and rest policy in consultation with master and crew</p> <p>Master – work rosters, crew rotations, breaks, fatigue management</p> <p>Crew – monitor own and peer fatigue, ensure have sufficient food and drink, use sleep time to sleep (limit use of phone/tablets – family and friends aware of need to rest)</p>	
<b>Physically demanding work</b>	<ul style="list-style-type: none"> <li>Sufficient breaks</li> <li>Rotate duties</li> <li>Easy access to drinking water</li> <li>Air-conditioned accommodation spaces</li> </ul>	<p>Owner – fatigue management including implementing hours of work and rest policy in consultation with</p>	

Key factors	Controls	Responsible person	Trial results /changes
		<p>master and crew, work rosters in consultation with master</p> <p>Master – work rosters, crew rotations, breaks, fatigue management at sea</p> <p>Crew – monitor own and peer fatigue, ensure have sufficient food and drink, use sleep time to sleep (limit use of phone/tablets – family and friends aware of need to rest)</p>	
<b>Review</b>	<ul style="list-style-type: none"> <li>Review after first 2 months</li> <li>Review at least annually or as needed (after an incident or issue identified by master or crew)</li> </ul>	Owner – review in consultation with master and crew	

Last reviewed: dd/mm/yyyy

## 4.6m Class 3D fishing vessel

The owner/operator of a 4.6m fishing tour vessel takes clients on half-day fishing charters on local billabongs and rivers.

They identify fatigue hazards using this [checklist](#). After assessing the risks, they write a short 'fatigue management plan' which they include in their SMS.

### Key fatigue risks

They refer to the checklist but do not answer 'Yes' to any of the questions. They note that:

- **They do not work in excess of 12 hours** - Time taken to collect/drop off clients from their hotel to the designated departure point, undertake the fishing tour, clean and sort the catch, clean the vessel and fishing gear for next tour, takes on average 10 to 12 hours a day.
- **They travel less than one hour to get to work** – They get enough rest to recover between charters.
- **At least one full day off per week** – They typically have one to 2 days per week without a charter, however this can reduce during peak periods.

**Note:** This is an example only and may not apply to your operation. There are likely to be other risks and controls that need to be recorded and assessed.

### **Short fatigue management plan**

I understand the causes and consequences of fatigue.

My total hours worked will not exceed 12 hours during the day.

Commute time is usually 40 minutes from port to home.

I allocate sufficient sleep time (7-9 hours) per night before a charter.

If I work excess hours (more than 14 hours) I allow for a longer recovery period.

Last reviewed: dd/mm/yyyy

## Questions and answers

### Q. I already have a drug and alcohol policy. Do I need to do anything?

A. If you already have a drug and alcohol policy in place to meet your work health and safety (WHS) obligations, check that:

- a copy is included in the vessel's SMS
- you have inducted all your existing crew on the policy
- you are inducting all new crew when they join the vessel, and
- you regularly train your crew on the reasons for having the policy.

### Q: Do I need to manage the risks of fatigue if I only operate the vessel for a few hours a day?

A: The requirement for the management of fatigue applies to all Class 1, 2 and 3 DCVs, including all operation types and voyage lengths.

The level of detail required will be determined by the vessel's risk assessment and depend on the nature and complexity of the operation.

If a vessel only operates for a few hours a day, the fatigue risk assessment may be a short, simple plan outlining:

- why the risk of fatigue is low for your operation
- what you currently do to manage the risk of fatigue, for example educate your crew on the need to get restorative sleep at home
- why further controls are not necessary.

The risk of fatigue may exist whether a vessel is operated for a short or long period of time. The requirement to risk-assess fatigue will ensure that a process is in place for all operations to identify and manage the risks.

### Q: Do I need to consult with the master and crew when developing my fatigue plan?

A: The plan is a component of the vessel's risk assessment and must be developed and reviewed in consultation with the master and crew. How you engage with masters and crew will depend on a number of factors such as the size of your operation and workforce, multiple vessel locations and the diversity of operations you undertake.

Safe Work Australia have developed a [Code of practice: WHS consultation, cooperation and coordination](#) to provide practical guidance on how to effectively consult with workers.

## Useful resources

- [Stay Afloat](#) - People experiencing fatigue are at higher risk of physical harm and mental health problems. For support in finding ways to help your team understand the importance of managing fatigue, reach out to the team at Sea Safe – The National Seafood Industry Safety Culture program.
- [Sea Safe](#) - If you are worried that a person may be experiencing mental health problems, you can get in touch (or put them in touch) with Stay Afloat – The Seafood Industry National Mental Health and Wellbeing program.

## Contact

Got a question about this requirement? Please [contact us](#).