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## **HUMAN ELEMENT GUIDANCE - PART 2**

### **The Deadly Dozen - 12 Significant People Factors in Maritime Safety**

**Notice to all Ship Owners, Ship Operators and Managers, Masters, Officers and Crew of Merchant Vessels, Skippers and Crew of Domestic Passenger Ships and Inland Waterways Vessels**

*This notice should be read with the Human Element Guidance series of MGNs, "The Human Element - a guide to human behaviour in the shipping industry" and other maritime human element publications.*

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#### **Summary**

There is a wide range of contributory factors that result in maritime accidents, incidents and errors.

A consistently occurring factor throughout almost all accidents, incidents and errors is the human element.

This Note raises awareness of twelve of the most common people related factors – **the Deadly Dozen** - which can affect maritime safety, along with suggested mitigating actions available to companies, masters and seafarers.

Based on the article the Dirty Dozen, Gordon Dupont, source: [www.skybrary.aero](http://www.skybrary.aero), and adapted for the maritime industry.

Further information available from:

[http://www.skybrary.aero/index.php/The\\_Human\\_Factors\\_%22Dirty\\_Dozen%22](http://www.skybrary.aero/index.php/The_Human_Factors_%22Dirty_Dozen%22)

## **1. Introduction**

- 1.1 There is a wide range of contributory factors that result in maritime accidents, incidents and errors. Most result from a combination of several, even many, different contributory factors ranging from purely technical failures to environmental, systemic, procedural, competence and behavioural factors.



## 2. The Human Element

2.1 A consistently occurring factor throughout almost all accidents, incidents and errors is **the human element** – people’s ability and capability to deal effectively and safely with the complexity, difficulty, pressures and workload of their daily tasks, not only in emergency situations but also during routine operations.

2.2 The majority of these accidents, incidents and errors are potentially avoidable if peoples’ understanding, actions and behaviour were different. This not only applies to seafarers (where the accidents usually occur) but also to people at all levels and positions within the overall wider maritime system, including ship owners, operators and managers and other shipping and maritime industry leaders whose actions can have a major influence on outcomes far removed in place and time.

## 3. Twelve Top People Related Factors – the Deadly Dozen

3.1 This Note provides a summary of twelve of the most common people related factors along with tips and learning points which, if managed effectively have the potential to avoid and avert accidents, and make a dramatic improvement to maritime safety.

3.2 They are the twelve most common conditions that can influence or act as pre-cursors to human error, leading to accidents or incidents. It is not a comprehensive list of accident and incident pre-cursors, indeed, there are several hundred possible pre-cursors. However, experience shows that the Deadly Dozen provides a useful and pragmatic introduction to understanding aspects of human error in organisations and workplaces and ship owners, ship operators and managers, masters, officers and crews are encouraged to become familiar with its principles and practices.

## 4. Annex

4.1 The Annex provides;

- a) “the Deadly Dozen” – twelve factors in diagram form with a summary of the key points
- b) “the Deadly Dozen” – a diagram showing analysis of the breakdown of the twelve factors by near miss reports submitted to CHIRP Maritime
- c) more detailed information on each factor
  - description and summary of the factor
  - key “Do’s and Don’ts”
  - what companies, masters and seafarers can do to help
  - issues to be aware of
  - sources of further information
  - key behaviours that will help



## More Information

For further information on the Deadly Dozen, and maritime Human Element generally, please contact;

Human Element Team  
Seafarer Safety and Health Branch  
Maritime and Coastguard Agency  
Bay 2/19  
Spring Place  
105 Commercial Road  
Southampton  
SO15 1EG

Tel : +44 (0) 203 81 72501  
e-mail: [human.element@mcga.gov.uk](mailto:human.element@mcga.gov.uk)

Website Address: [www.gov.uk/government/organisations/maritime-and-coastguard-agency](http://www.gov.uk/government/organisations/maritime-and-coastguard-agency)

General Inquiries: [infoline@mcga.gov.uk](mailto:infoline@mcga.gov.uk)

File Ref: CG 27/9/14

Published: December 2016  
Please note that all addresses and  
telephone numbers are correct at time of publishing

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***Safer Lives, Safer Ships, Cleaner Seas***



# The Deadly Dozen

## Fit for Duty

### *Are you REALLY fit to work?*

- \*Avoid alcohol and drugs – they are major killers
- \*Illness can impair judgement and thinking
- \*Injuries can be distracting

## Fatigue

### *Just Tired*

### *OR Dangerously Fatigued?*

- \*DON'T accept it - It's a killer!
- \*Leads to accidents and ill health
- \*Ever present danger at sea
- \*Learn about cause, effect and prevention
- \*Recognise it, report it, manage it – effectively!

## Distractions

### *Multi-Tasking*

### *OR Dangerously Distracted?*

- \*It happens very easily
- \*Personal as well as job distractions
- \*Use checklists and "Red Zone" techniques
- \*If distracted – go back 2 steps
- \*Be assertive – insist on calling back when convenient

## Pressure

### *Just Busy*

### *OR Dangerously Overloaded?*

- \*Good pressure can improve performance
- \*Too much leads to stress – always bad
- \*Don't let pressure lead to taking short cuts
- \*Ensure adequate resources – people, time, tools

## Capability

### *Is Your Team REALLY Capable?*

- \*Check training and qualifications and experience
- \*Regularly assess capability
- \*Provide on-board training, mentoring, coaching
- \*Ensure any capability gap is addressed

## Teamwork

### *How Well Do You REALLY Work Together?*

- \*Ensure shared mental model
- \*Beware "group think"
- \*Encourage challenge
- \*You can be in more than one team at a time

## Local Practices

### *Efficiency*

### *OR Dangerous Shortcut?*

- \*Don't cut corners
- \*Follow procedures – they are there for a reason!
- \*Beware local norms becoming the "new standard"
- \*Poor or inadequate procedures? – report them
- \*Efficient or not thorough enough?

## Situational Awareness

### *Do You REALLY Know*

### *What's Happening?*

- \*The Big Picture AND fine detail
- \*Constantly update your awareness
- \*Actively seek input from others
- \*Never assume another's intentions
- \*WHIM – ask: "What Have I Missed?"

## Alerting

### *Do You REALLY Speak Up*

### *When You Should?*

- \*Vital skill – use it effectively – encourage it
- \*Be positive and constructive – propose solutions
- \*Some may find it difficult to do
- \*It's not a threat – it's good teamwork
- \*Be assertive – it can save lives!

## Communication

### *Do You REALLY Understand Everyone?*

- \*Message understood? DON'T assume - CHECK
- \*Use closed loop communications
- \*Words are only 30% of communication
- \*Remember effect of tone and body language
- \*Different cultures may interpret things differently
- \*Watch out for accidentally causing offence

## Complacency

### *Is Everything REALLY OK?*

- \*Never assume all is OK
- \*Follow procedures – they work!
- \*Use checklists
- \*Seek input from others
- \*Early action avoids later difficulties
- \*Check your situation - CONSTANTLY

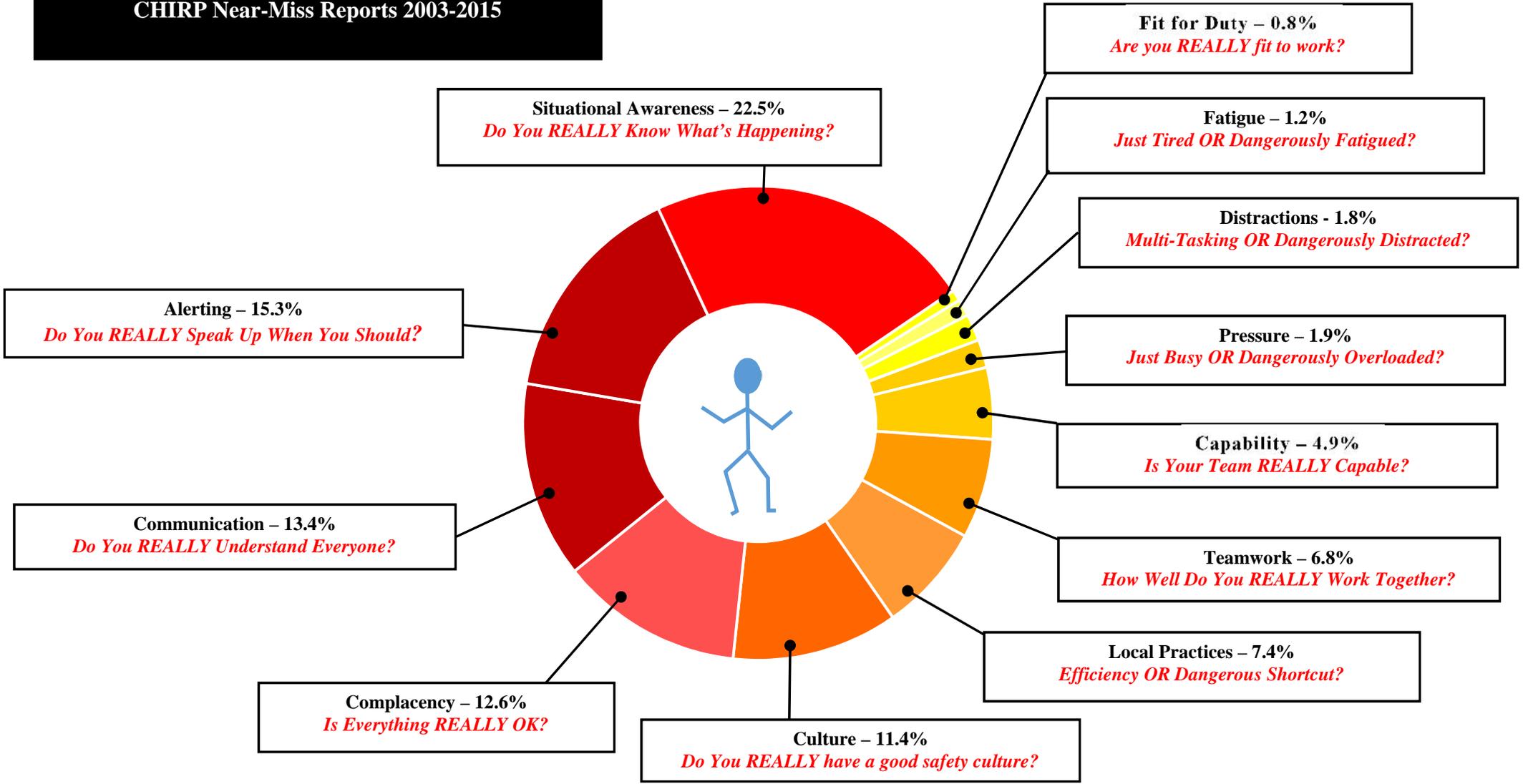
## Culture

### *Do You REALLY have a good safety culture?*

- \*Applies to individuals and whole teams/organisations
- \*Does everyone really care about safety?
- \*Do you have a Just Culture?
- \*Do you strive for continual improvement?



**THE DEADLY DOZEN**  
**CHIRP Near-Miss Reports 2003-2015**



## 1. SITUATIONAL AWARENESS - *do you know what's REALLY happening?*

**Situational awareness** – *understanding what is really happening and assess its impact on your voyage now and in the future.*

Poor situational awareness has been a contributory factor in many maritime incidents. Loss of effective situational awareness is often due to:-

- lack of up to date information
- situation changing too quickly to be understood
- new and novel problems that are not understood
- insufficient capability and experience of those involved
- distraction e.g. paperwork, interruptions
- complacency
- fatigue

<b>Do</b> ✓	<b>Don't</b> ✗
<ul style="list-style-type: none"><li>• always look out for problems</li><li>• make sure procedures, risk assessments and checklists etc. are up to date</li><li>• plan effectively</li><li>• know what to do before you start a task</li><li>• ask for input from your team members</li><li>• advise and help your team</li><li>• communicate effectively</li><li>• value input from others</li><li>• if you notice a problem speak up - NOW</li></ul>	<ul style="list-style-type: none"><li>• assume everything is OK</li><li>• put someone in a situation beyond their capability</li><li>• carry on regardless</li><li>• ignore a problem</li><li>• assume someone else's intentions</li></ul>

<b>What Companies Can Do</b> <ul style="list-style-type: none"><li>• build an effective safety culture</li><li>• ensure safety is a high priority on-board your ships</li><li>• develop effective policies and procedures with input from crews</li><li>• regularly review policies and procedures</li></ul>
<b>What Masters Can Do</b> <ul style="list-style-type: none"><li>• build an on-board culture that develops effective situational awareness through communication, teamwork and personal skills</li><li>• seek and value input from your crew</li><li>• coach/mentor crew in awareness skills</li></ul>
<b>What Seafarers Can Do</b> <ul style="list-style-type: none"><li>• constantly check for potential problems</li><li>• don't be afraid to alert management and crew members of potential problems</li><li>• be assertive</li><li>• if you don't understand something, find out about it</li></ul>

<b>Be Aware !!</b> <ul style="list-style-type: none"><li>• <b><i>“What have I missed?”</i></b>- even with years of experience, good procedures and effective checklists it is possible to overlook or forget something. This is even more likely during times of stress, emergency or unusual conditions. You should have a competent team around you - use them. It's good teamwork and good for safety for EVERYONE</li></ul>
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## 2. ALERTING - *do you REALLY speak up when you should?*

**Alerting** - bringing concerns about actions, situations or behaviour to the attention of others in a timely, positive and effective way.

It is an essential part of maintaining situational awareness. It can reduce assumptions, complacency and group-think. It can counteract distractions and slips of memory. It is particularly useful during times of exceptionally high or low workload. It enhances safety – SIGNIFICANTLY.

Raising awareness assertively – Alerting – being positive and effective when raising issues of concern significantly improves safety and operational performance. In the complex world of maritime operations many things can go wrong. Speaking up in a timely manner can help avoid many accidents. This is particularly critical during emergency or high stress situations.

### Do

- if you see a problem, alert the appropriate team member
- be assertive
- if you are alerted to an issue, acknowledge it and act upon it - effectively

### Don't

- be afraid to speak up – it can save lives
- ignore a problem – it will only get worse
- let someone ignore you – if your first alert is ignored, repeat it

### What Companies Can Do

- build an effective safety culture which recognises the value of effective and timely alerting

### What Masters Can Do

- recognise the value of effective and timely alerting
- build an on-board culture which encourages crew members to alert to problems
- create a culture where people are not afraid to speak up
- be responsive to alerts
- always acknowledge and praise crew for raising concerns – it may have saved the day!

### What Seafarers Can Do

- learn about the value and importance of alerting
- if you see a problem, speak up
- raise concerns in a positive, constructive manner
- offer a proposed solution where possible

### Be Aware !!

- alerting and assertiveness is not easy for everyone
- some people do not feel comfortable behaving assertively in the presence of more senior people
- some senior people do not feel comfortable with junior people behaving assertively
- some senior people actively expect and encourage assertiveness from junior people, and may incorrectly assume everything is OK if no-one speaks up



### 3. COMMUNICATION - do you REALLY understand each other?

**Communication** – transmitting and receiving full and correct information ensuring sender AND receiver share the same understanding.

It underpins situational awareness, teamwork and most other human activities. Communication failures have contributed to many maritime accidents, but also frequently lead to breakdowns in operational procedures and efficiency.

For communication to be effective everyone involved must share the same understanding of the message, and know that everyone else shares that same understanding. Use closed loop communication where the message sender and message receiver repeat the message to each other to confirm understanding.

Poor communication can happen for a number of reasons:-

- language – different mother tongues
- words and phrases can have subtly different meanings in other languages
- words make up only 30% of communication, tone, body language, gestures make up the rest
- body language and gestures can have different meanings to different nationalities and cultures
- colloquialisms, slang, humour etc may not be understood by all, and may even be rude or offensive to other cultures
- acceptable behaviour in some cultures may be embarrassing, rude or offensive in others, eg challenging senior colleagues
- people have different language skill levels
- people tend to revert to their mother tongue in times of stress or emergency
- people speak faster, louder and with less clear pronunciation in times of stress or emergency

<p><b>Do</b> <input checked="" type="checkbox"/></p> <ul style="list-style-type: none"> <li>• use closed loop communication</li> <li>• use simple words and phrases where possible</li> <li>• repeat the most important parts of a message</li> <li>• if in any doubt, ask for confirmation</li> <li>• take care with pronunciation</li> <li>• work with your colleagues to understand each other's cultures, taboos etc.</li> <li>• if someone looks puzzled or offended, discuss the issues with them and explain what you meant and ask why it puzzled or offended them</li> </ul>	<p><b>Don't</b> <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• assume a message is properly understood – CHECK</li> <li>• use slang or colloquialisms</li> <li>• assume something you found rude or offensive was intended – it could be perfectly acceptable in another culture</li> <li>• assume something that is acceptable in your culture will automatically be acceptable in another</li> </ul>
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<p><b>What Companies Can Do</b></p> <ul style="list-style-type: none"> <li>• foster a company culture where people are aware of communication issues</li> <li>• build communication/cultural awareness into familiarisation programmes</li> <li>• assess communication skills as part of the recruitment process</li> </ul>
<p><b>What Masters Can Do</b></p> <ul style="list-style-type: none"> <li>• nurture an on-board culture which aims to overcome potential communication problems</li> <li>• Foster the common agreed working language on board</li> </ul>
<p><b>What Seafarers Can Do</b></p> <ul style="list-style-type: none"> <li>• work with your colleagues to understand each other, language, culture, humour etc</li> </ul>



#### 4. COMPLACENCY - *is everything REALLY OK?*

**Complacency** - a misplaced feeling of confidence that everything is OK

It is dangerous but an easy trap to fall into. Just because everything appears OK, doesn't mean that it is. There are many possible reasons and we are all susceptible to them.

Common reasons are:-

- the same work has been repeated satisfactorily many times in the past without incident
- the operator has insufficient experience or knowledge to recognise when a situation has changed
- poor briefing before taking up duty
- forgetting something
- inadequate monitoring/checking of the situation
- poor teamwork, alerting, communications
- fatigue

<b>Do</b> ✓	<b>Don't</b> ✗
<ul style="list-style-type: none"><li>• update your situational awareness regularly</li><li>• get regular input from your team</li><li>• give/receive an effective briefing at handover</li><li>• expect to find problems – actively look out for them</li><li>• use checklists effectively</li><li>• get help if you don't understand a situation</li></ul>	<ul style="list-style-type: none"><li>• assume everything is OK</li><li>• ignore procedures</li><li>• expect something to be OK just because it always has been in the past</li></ul>

##### **What Companies Can Do**

- recognise the dangers of complacency and develop a safety culture which minimises the risk of it happening

##### **What Masters Can Do**

- build an on-board safety culture which nurtures a positive attitude to working habits, monitoring, checking, updating awareness etc.

##### **What Seafarers Can Do**

- constantly check for potential problems
- communicate with team members
- develop a thorough understanding of your ship and its procedures

##### **Be Aware !!**

- complacency is an easy trap – especially if nothing has gone wrong for a long time
- if it can go wrong it will – sometime. Always be alert to what can go wrong.



## 5. CULTURE – do you *REALLY* have a good safety culture?

**Culture** – the blend of understanding, beliefs and attitudes of people and organisations that result in behaviour and actions.

The term “culture” is often misunderstood. In simple terms, it means “the way we do things here”. The way things are done stems from a combination of understanding, beliefs, attitudes and behaviour. These come from a number of sources, for instance:-

- Personal culture – everybody has their own personal beliefs and attitudes
- National culture – cultural norms in different parts of the world
- Company culture – the beliefs, attitudes and behaviours that are prevalent in the company, and that may be different to other companies
- Professional culture – beliefs, attitudes and behaviours that may be common to professional mariners and acquired during training

In terms of safety culture, the important aspects are those beliefs, attitudes and behaviours that improve or potentially compromise the safe operation of ships and the safety of everyone on board.

Examples of Positive Safety Behaviours	Examples of Poor Safety Behaviours
Constant vigilance and diligence Taking responsibility when detecting a safety issue eg Alert the appropriate team member Prompt reporting of safety issues Taking prompt action Helping and guiding colleagues Suggesting changes in procedures to improve safety	Carefree attitude Not taking personal responsibility for safety Not reporting or acting upon safety issues Not helping others Having no or little interest in safety

<b>Do</b> <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• constantly look out for safety problems</li> <li>• report all safety issues</li> <li>• think “safety” at all times</li> <li>• encourage safe behaviour in others</li> </ul>	<b>Don't</b> <input checked="" type="checkbox"/> <ul style="list-style-type: none"> <li>• assume everything is OK</li> <li>• ignore or hide near misses</li> <li>• ignore other people's unsafe behaviour</li> <li>• believe safety is someone else's problem</li> <li>• put off safety issues to a later date</li> </ul>
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<b>What Companies Can Do</b> <ul style="list-style-type: none"> <li>• implement a “Just Culture” as part of the overall safety culture – it is proven to work</li> <li>• develop an effective accident and incident reporting and analysis process and always provide feedback to ships</li> <li>• involve everyone</li> </ul>
<b>What Masters Can Do</b> <ul style="list-style-type: none"> <li>• implement a “Just Culture” on board</li> <li>• involve everyone in developing the safety culture</li> <li>• hold regular safety briefings</li> <li>• train crews in the principles of safety management</li> <li>• encourage crews to interact and understand each other's beliefs and attitudes</li> </ul>
<b>What Seafarers Can Do</b> <ul style="list-style-type: none"> <li>• take personal responsibility for safety</li> <li>• always behave responsibly and safely</li> <li>• improve personal safety knowledge</li> </ul>



## 6. LOCAL PRACTICES - *efficiency OR dangerous short cuts?*

**Local practices** – behaviour and actions applied locally that differ from the official documented practices. Also known as procedural violations.

Correct behaviour and actions are fundamental to safety. Procedures and practices have been designed to ensure that work is carried out correctly, safely, legally and to the expected standard. However, actual local practices can vary from the expected procedures and behaviour. If it is not addressed effectively, this behaviour can become established as the new norm with a lower safety and quality threshold.

There are many reasons why actual practices and behaviour vary from the expected standard, including:-

- official procedures and practices are not clear, or difficult to follow or do not work
- specified equipment is not available
- training is not effective, people may think they are doing it correctly
- supervision and monitoring is not effective
- the safety culture is not effective or there is a carefree attitude
- insufficient people, tools or time to carry out the procedures as expected
- shortcuts are more convenient or satisfying
- people don't fully understand the risk of their actions

<p><b>Do</b> ✓</p> <ul style="list-style-type: none"> <li>• follow correct procedures</li> <li>• report difficulties and problems with procedures</li> <li>• question the effectiveness of procedures</li> </ul>	<p><b>Don't</b> ✗</p> <ul style="list-style-type: none"> <li>• take short cuts</li> <li>• ignore problems and difficulties</li> <li>• take risks by using unsuitable work practices or tools</li> <li>• accept others breaking rules</li> </ul>
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<p><b>What Companies Can Do</b></p> <ul style="list-style-type: none"> <li>• build an effective safety culture where everyone understands the need to follow procedures correctly</li> <li>• develop effective user-centred procedures and practices</li> <li>• involve the workforce in developing procedures and practices – they will know if something won't work</li> <li>• develop a feedback process where procedural problems can be corrected</li> </ul>
<p><b>What Masters Can Do</b></p> <ul style="list-style-type: none"> <li>• build an effective on-board safety culture where everyone understands the need to follow procedures correctly</li> <li>• regularly review procedures and practices with your crew</li> <li>• ensure effective training in correct procedures and practices</li> <li>• ensure effective supervision, watch out for deviations from correct procedures</li> </ul>
<p><b>What Seafarers Can Do</b></p> <ul style="list-style-type: none"> <li>• ensure you learn and follow the correct procedures and practices</li> <li>• if you identify a problem with procedures, report it</li> <li>• only attempt tasks where you are suitably qualified and experienced</li> </ul>

<p><b>Be Aware !!</b></p> <ul style="list-style-type: none"> <li>• shortcuts are usually done with the best intentions to get the job done – but not always!</li> <li>• <b>it is IMPOSSIBLE to write procedures to cover ALL eventualities. Seafarers will be faced with novel and unpredictable situations. Make sure only suitably qualified and experienced personnel are used. Use effective teamwork, including shore based experts for support, if necessary</b></li> </ul>
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## 7. TEAMWORK - *do you work REALLY well together?*

**Teamwork** - *working together effectively towards a shared common goal.*

It underpins both safety and operational effectiveness. A team that has a common purpose, shared mental model and communicates effectively and supports each other is much more likely to perform well and operate safely. You can be in:-

- a permanent team e.g. ship's crew, management team
- a temporary team e.g. bridge team and harbour pilot, ship's crew and dock workers
- more than one team at the same time

A team may also involve more than those in your immediate place of work, and include:-

- ship's crew
- shore management
- charterers
- maintainers and suppliers
- port authorities
- insurance industry

All contribute to the successful running of the vessel, and the wider maritime industry. Each has an impact on the others and need to work together.

<p><b>Do</b> <input checked="" type="checkbox"/></p> <ul style="list-style-type: none"> <li>• alert team members to potential problems</li> <li>• help team members</li> <li>• discuss issues with team members</li> <li>• work with colleagues to overcome language or other communication difficulties</li> <li>• be inclusive - encourage everyone to participate in all shipboard activities</li> </ul>	<p><b>Don't</b> <input type="checkbox"/></p> <ul style="list-style-type: none"> <li>• assume everyone will act or behave in the same way</li> <li>• assume everyone has the same skill and knowledge</li> <li>• ignore problems</li> </ul>
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<p><b>What Companies Can Do</b></p> <ul style="list-style-type: none"> <li>• build an effective safety culture</li> <li>• develop effective training policies which underpin effective teamwork</li> <li>• know your impact on the work of others</li> </ul>
<p><b>What Masters Can Do</b></p> <ul style="list-style-type: none"> <li>• build an on-board safety culture</li> <li>• develop on-board training practices that develop effective teamwork</li> <li>• encourage work force involvement</li> <li>• develop effective training and drills, and provide constructive feedback for continuous improvement</li> <li>• know your impact on the work of others</li> </ul>
<p><b>What Seafarers Can Do</b></p> <ul style="list-style-type: none"> <li>• learn about effective teamwork</li> <li>• use off-duty as well as on-duty opportunities to get to know your colleagues</li> <li>• learn about different cultures and communication</li> <li>• know your impact on the work of others</li> <li>• be prepared to listen</li> <li>• be prepared to contribute</li> <li>• get to know your colleagues' strengths and weaknesses and be honest about your own</li> </ul>



## 8. CAPABILITY - is your crew REALLY capable?

**Capability** – the blend of knowledge, skills and attitude to enable effective, safe performance. Do they have tools and resources to perform competently?

It is critical to maritime safety. Competence is about more than holding an appropriate training certificate, it is about a blend of skills-

- technical and professional skills and knowledge:-
  - navigation
  - engineering
  - seamanship
  - cargo handling
  - ship handling
  
- non-technical skills:-
  - communication
  - leadership and management
  - teamwork
  - workload management
  - situational awareness
  - behaviours, attitude and professionalism
  - dealing with problems

High performing people are able to combine technical and non-technical skills successfully. A failure in either technical or non-technical performance can have a negative impact on ships' performance, potentially leading to accidents.

### Do

- ask for guidance if you are unsure
- help each other
- check evidence of competence and qualifications

### Don't

- put people in roles beyond their competence and experience
- claim you can do more than you really can
- assume people's level of competence

### What Companies Can Do

- have policies and practices to ensure recruits are trained, competent and capable
- check the validity and authenticity of qualifications with the issuing authority
- ensure effective on-board training and supervision

### What Masters Can Do

- check ORIGINAL documentation when a seafarer joins a vessel
- regularly assess the knowledge, skills and competence of seafarers
- address any gaps in knowledge, skills and competence by effective on-board training, mentoring and coaching
- ensure tasks are carried out by suitably qualified and experienced personnel

### What Seafarers Can Do

- take responsibility for self-development and learning
- ask for training and development opportunities, on-board and ashore
- only attempt tasks where you are suitably qualified and experienced

### Be Aware !!

- watch out for forged and falsified certificates
- be alert to alarming or concerning behaviour



## 9. PRESSURE - busy OR dangerously overloaded?

**Pressure** – real and perceived demands on people. Do you REALLY have the resources you need.

It can be motivating and inspire good performance and a sense of achievement. However, too much pressure can be demotivating, lead to stress and health problems, degraded performance and threaten safety.

Excess pressure usually involves too much work, but also includes meeting tight deadlines, schedules, port turn round times etc. This can be aggravated by changes to schedules, unexpected delays, additional port calls, changes to routes, crew changes, problems with weather and port inspections, all of which can lead to disturbed rest periods and long working hours which increase stress.

<p><b>Do</b> ✓</p> <ul style="list-style-type: none"> <li>• always be alert to workload pressures</li> <li>• speak up if you are overloaded</li> <li>• ensure you have the necessary resources to complete a task properly before beginning</li> <li>• ask for help if required</li> </ul>	<p><b>Don't</b> ✗</p> <ul style="list-style-type: none"> <li>• assume that people are coping with their workload effectively</li> <li>• take unnecessary short cuts to catch up on work</li> <li>• struggle on regardless</li> </ul>
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<p><b>What Companies Can Do</b></p> <ul style="list-style-type: none"> <li>• ensure effective resource allocation – people, tools, equipment, manuals, spares, instructions, procedures etc</li> <li>• ensure everyone in the chain, including customers, suppliers, charterers etc, is aware of the operational pressures and the need for effective rest</li> <li>• foster a safety culture where masters are enabled/encouraged to suspend operations to enable the crew to recover</li> </ul>
<p><b>What Masters Can Do</b></p> <ul style="list-style-type: none"> <li>• build an on-board culture that recognises the symptoms and risks of pressure</li> <li>• foster a culture where crew feel able to report pressure overload</li> <li>• respond effectively to overload</li> </ul>
<p><b>What Seafarers Can Do</b></p> <ul style="list-style-type: none"> <li>• learn about the effects of pressure and overload, their effect on health, performance and safety</li> <li>• monitor the effects of pressure on themselves and colleagues and report any problems</li> </ul>



## 10. DISTRACTIONS - *multi-tasking OR dangerously distracted?*

**Distraction** – an event that interrupts your attention to a task.

These are commonplace. They can usually be managed effectively but it is easy to become drawn in to a distraction and overlook much more critical events with serious implications for safety. They are a significant cause of forgetting things and losing situational awareness. They can be lethal!

### Do

- declare a “red zone” whilst under pilotage or other times of difficult navigation
- only allow essential communications in the “red zone”
- use checklists effectively to monitor progress
- if distracted during a task, go back 2 steps in the procedure before restarting
- if you notice someone being distracted, alert them
- keep focussed on the main task
- deal with non-essential distractions later
- be assertive

### Don't

- allow unnecessary interruptions
- be afraid to be assertive in dealing with a distraction
- distract someone performing a safety critical task
- allow minor issues to distract you from the main task

### What Companies Can Do

- develop a culture that recognises the potential impact of distractions
- develop company practices that minimises the effect of company originated distractions on ships' crews eg respect the “Red Zone”

### What Masters Can Do

- ensure crews are fully aware of the effect of distractions on safety

### What Seafarers Can Do

- constantly watch out for distractions
- support each other – if you notice someone being distracted, speak up

### Be Aware !!

- it is easy to become distracted – even when you know about distractions!



## 11. FATIGUE - *just tired OR dangerously fatigued?*

**Fatigue** – “A reduction in physical and/or mental capability as the result of physical, mental or emotional exertion which may impair nearly all physical abilities including: strength; speed; reaction time; co-ordination; decision making; or balance”

IMO MSC/Circ.813

Fatigue kills. It degrades performance at all levels which can lead to accidents and in the longer term have a bad effect on health.

Fatigue clearly has an adverse effect on people and their performance. It is a significant factor in many maritime accidents. The main causes of fatigue are:-

- natural biological (circadian) rhythms – it is natural to want to sleep at night and early afternoon
- the length of time we are awake
- the length of time we spend working
- the difficulty of the work (mental and physical)
- stress
- the amount of rest we get between work periods
- the amount of adequate quality, undisturbed sleep – absolutely essential for recovery

<b>Do</b> <input checked="" type="checkbox"/>	<b>Don't</b> <input type="checkbox"/>
<ul style="list-style-type: none"><li>• look out for the effects of fatigue</li><li>• speak up about fatigue</li></ul>	<ul style="list-style-type: none"><li>• accept fatigue as a way of life – it's dangerous</li></ul>

<b>What Companies Can Do</b> <ul style="list-style-type: none"><li>• understand roles and responsibilities under the various Regulations</li><li>• understand the causes and effects of fatigue and mitigating actions that can be taken</li><li>• develop company Fatigue Management Plans</li><li>• develop fatigue prevention policies</li><li>• respond pro-actively and sympathetically to reports of fatigue from ships crews</li><li>• empower Masters to suspend operations to enable the crew to obtain adequate rest</li></ul>
<b>What Masters Can Do</b> <ul style="list-style-type: none"><li>• understand roles and responsibilities under the various Regulations</li><li>• understand the causes and effects of fatigue and mitigating actions that can be taken</li><li>• build an on-board safety culture that incorporates practices that aim to prevent fatigue</li><li>• ensure ships' crews are aware of the causes and effects of fatigue</li><li>• create a culture where crews are able to speak up about fatigue issues</li><li>• ensure accurate record keeping</li></ul>
<b>What Seafarers Can Do</b> <ul style="list-style-type: none"><li>• learn about fatigue, its causes and effects</li><li>• recognise the symptoms of fatigue in themselves and others</li><li>• speak up about fatigue issues</li><li>• learn how to manage fatigue in themselves and their colleagues</li></ul>

<b>Be Aware !!</b> <ul style="list-style-type: none"><li>• Fatigue can creep up on you. Ironically, being fatigued makes it more difficult to recognise fatigue.</li></ul>
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<b>More Information</b> ⓘ <ul style="list-style-type: none"><li>• Further guidance can be found in MGN 505 (M) and IMO MSC/Circ.1014 Guidelines on Fatigue Mitigation and Management.</li></ul>
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## 12. FIT FOR DUTY – are you *REALLY* fit to carry out your duties safely?

**Fit for Duty** – the combination of physical and mental state of people which enables them to carry out their duties competently and safely.

It is critical to maritime safety. Mental and/or physical impairment can have a seriously adverse effect on performance and the ability of an individual or team to operate safely. The main causes of degraded fitness for duty are:-

- misuse of alcohol and/or drugs
- physical injury
- illness
- stress, worry, personal problems
- mental impairment

Safety is affected through:-

- inability to concentrate
- confusion
- degraded situational awareness
- being distracted by feeling unwell
- poor physical co-ordination
- falling asleep
- communication failures

### Do

- seek medical attention if you feel unwell or are injured
- report sick if you are not well enough to work safely
- seek help if you have personal problems affecting your fitness for duty
- help your colleagues who are experiencing problems

### Don't

- consume alcohol before or during work periods
- report for duty if under the influence of alcohol
- take illegal drugs
- try to hide the effect of degraded fitness for duty

### What Companies Can Do

- have policies and practices to ensure fitness for duty
- help and support people who have genuine addiction problems, or who are suffering from stress, worry or other emotional issue
- develop a company Wellbeing programme

### What Masters Can Do

- check ORIGINAL medical fitness certificate when a seafarer joins a vessel
- encourage seafarers to seek help for fitness issues
- make sure seafarers are fit to undertake all tasks allocated to them
- do not allow seafarers who are unwell, or under the influence of drugs or alcohol to undertake work

### What Seafarers Can Do

- take responsibility for personal fitness for duty
- ask for help with medical, emotional or personal issues

### Be Aware !!

- Degraded fitness for duty, especially misuse of alcohol and drugs, is a major cause of accidents, particularly Person Overboard

