This is a ‘preview only’ version of The Human Element, and is not intended to be used for training.

Certain features are unavailable on the enclosed DVD.

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Who is this film for?
The film is suitable for crew members and shore staff at all levels within shipping organisations. Indeed, for it to be successful, it should be essential viewing for each and every employee – whether aboard or ashore – emphasising the fact that everyone has their role to play in creating a culture of safety.

Why did this film get made?
The MCA’s award-winning book “The Human Element: a guide to human behaviour in the shipping industry” explained what drives human behaviour in operational maritime settings, and gave advice on how to manage it. It achieved global circulation and wide readership. Now, the same team that created the book has joined forces with Walport Maritime Training Films and Pukka Films to produce a powerful training resource based on some of the key insights and principles in the book.

What is this film about?
The film is a realistic drama based on familiar events. It shows how the everyday behaviour of five characters unwittingly combines with the result that their ship runs aground. The story unfolds from the point of view of the Investigator who, with the Vessel Operator, is interviewing those involved to understand what happened. Told through flashbacks to the action, each character’s testimony makes it tempting for the Operator – and therefore the audience – to point the finger at the person just interviewed. But each time this is countered by the Investigator who wants to expose the underlying reasons why each person acted the way they did.

In so doing the Investigator shows why each person’s behaviour made sense to them at the time, and how a common set of normal human biases that are always at play went unnoticed and therefore unchallenged by the unwitting participants, so producing the incident. Just as the Operator thinks the investigation is done, the Investigator puts him in the hot seat too, and shows how yet another bias was operating in him as well.
In the final scene, the Investigator reviews his notes for his presentation to the Board. He reflects on how the world looked from each character’s point of view. He summarises the biases that each was vulnerable to, and why. With more flashbacks, we see the main characters in action again, this time checking themselves. In this alternative history, we see how any one of these self-checks could have prevented the incident developing into what happened, and we begin to glimpse how normal human behaviour most often doesn’t lead to disaster, but that in some circumstances, when everybody is being unmindful, the very same human behaviour can have serious consequences.

How should the film be used?
The film is presented as a series of stories. Following a brief introduction to set the scene, each of the five main characters is interviewed. Brief reviews of each one take place, followed at the end by the Investigator’s conclusion. The film can be run as a series of Training Modules which allow for a facilitator-led discussion between each story. Alternatively, the film can be viewed straight through.

However, for the best training value, the film should be viewed in modules with pauses for discussion in between. To help these discussions, facilitator’s notes are provided on the following pages of this booklet. They are straightforward to use and will help participants to engage much more effectively with the human element ideas and principles in the film.
OVERVIEW FOR FACILITATORS

How experienced are you?
These training notes give lots of guidance, hints and ideas for conducting the training modules to bring out the film’s key human element principles. If you are an experienced facilitator, you may want to adapt the notes and modules into your own preferred way of working with the material. If so, we encourage you to do this after first reading through the notes and watching the film to familiarise yourself with its unique perspective on safety, rooted in an understanding of normal human behaviour.

In particular you may choose to reveal SUGAR and TEA (see next chapter) yourself by drawing on class discussions to discover the concept together. If, however, you prefer to lead a discussion after the film has introduced the concepts, this is also an option with this training resource.

What you will need
Time: The film requires about 35 minutes to see it straight through with no breaks. If the film is paused after each module for discussion, the whole film will require 90 minutes or more. Equipment: A DVD player, remote control, and a TV screen large enough for the audience you intend.

Before the day of the session
— Watch the film yourself and read the facilitator’s notes
— Consider how you, as a facilitator, would answer the questions
— Choose a time when people will be fresh and alert
— Advertise it well in advance and say how people will benefit
— Ensure the room is cool and properly lit, with adequate seating
— Test the DVD equipment to ensure a smooth start

During the session
You, as the facilitator, are not there to push facts into the heads of your audience, but to encourage a mutual process of sharing knowledge and experience amongst all present – including you.

Find ways to acknowledge that everyone’s contribution to the session is very important. Seek value in what they have to say – especially where they can relate the messages in the film to
their own experience. By allowing the participants to share their own stories and observations, they are much more likely to engage with the content and remember the key messages.

There are probe questions for each module in the following pages of this booklet. The questions will help your audience to:
- Identify and think about the issues they have just witnessed in the context of the film itself.
- Relate these issues to their own experience – either in their professional or personal lives.

**Before each module**
You may find it helpful to agree with everyone what would be good to look out for in the following module. As the session starts, this may well focus on facts and/or who to blame. But as the session progresses it should orient to asking questions of behaviour. Encouraging engagement is more important at the start of the session than correcting interpretation or engaging in lengthy explanation. The resource is designed to introduce concepts that can then be discussed and underscored through discussion.

**At the end of each module**
Don’t be afraid to ask open questions on what individuals think about the characters and the film in general. People will always have an opinion and it can often be used to prompt a relevant debate. This way, the learning experience will feel more organic and controlled by the viewers themselves. Work through the probe questions to help focus discussion on what the audience have just seen, and encourage them to relate it to their own experience. Use the hints provided to help the discussion along; they are not intended to be exhaustive, and you should feel free to spot other opportunities to bring out the learning points. Remember, there are almost no wrong answers; the aim is to get the audience to engage with the issues. Debate is good!

**At the end of the session**
- Ask them to say what the key messages have been for them
- Thank the audience for their contribution
SUGAR AND TEA  COPING WITH HUMAN BEHAVIOUR AT WORK

In order to explain the behaviour of the characters in the film, the Investigator refers several times to SUGAR. The SUGAR model captures the idea that at each moment, busy people engaged in purposeful work try to act as efficiently as possible, but with sufficient thoroughness\(^1\) to ensure that they achieve their objectives safely. As they do so, they are influenced by the ever-changing nature of their state, understanding and goals.

**STATE** – refers to the sum total of our current temporary state (e.g. levels of fatigue, stress, health, emotions, level of interest) together with our more permanent state (e.g. our personality, and long-standing cultural and ethnic backgrounds).

**UNDERSTANDING** – includes the technical, social and cultural knowledge that allows us to carry out our tasks – often as team members – within the prevailing rules, regulations, procedures and social norms of our operational settings. Crucially, our knowledge and interpretation in these areas is governed by a large range of perceptual and cognitive biases that exert huge influence on our ability to make sense of things and to decide what is relevant. For example, we are prone to see what we expect to see; we are happy to jump to conclusions with scant evidence; we assume others around us know what they are doing and tend to agree with them; we easily convince ourselves that past events were predictable in principle; and we tend to seek information to confirm we are right, rather than figuring out why we might be wrong.

**GOALS** – the aims we have, including our personal goals, our operational targets, and our organisational objectives. What these are, how much we want to achieve them, how conflicting they are and how we balance them will all affect our judgments of what is most important or most relevant at any given moment.

The SUGAR model depicts how the interaction of the factors producing our State, Understanding and Goals at any moment influences our trade-off Action (or decision) at that moment, and how this cycle then Repeats at the next moment following our review of where we now are. SUGAR is a useful organising

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framework for understanding where purposeful human behaviour at work comes from. In turn, a better awareness of the sources of influence on this behaviour can help us to exercise better control of ourselves and better understanding of other team members.

In the film, the Investigator uses a further word trick, TEA, to suggest what can be done to increase our awareness of the constant influences on our behaviour. We can continually compare our sense of risk with the real risk we are taking by Testing our assumptions, Examining the implications of those assumptions being wrong, and only then Acting accordingly.

With TEA, we can help decide the right trade-off between efficiency and thoroughness as we work through our operational lives.
The Investigator
In his early 40s, he has seen enough incidents to know that everyone’s story may be true – but that each story is only one viewpoint. He understands the many sorts of natural human bias that influence such viewpoints. His interest is in establishing not only all the viewpoints, but understanding what was really driving those viewpoints. He is not so much interested in finding blame, as understanding the reasons for the situation people thought they were in. The real task is to discover why these reasons arose. Only then is it possible to see what needs to be fixed – and how.

The Ordinary Seaman
In his 20s, he has only poor English and is less than confident with being thrust into a new and responsible position, working with senior Officers with whom he has little in common. He is bright, but unsure about who he should bother with what. In recognition of his own uncertainty, he expects his seniors to be right – especially when they make it clear that they think so too.

The Chief Officer
In his 40s, he is sharp, experienced, highly professional and very efficient. He has his Master’s certificate and is busily working toward his first command, which he is very much looking forward to, while also attending to all his current duties as Chief Officer.
The Human Element / The main characters

The 2nd Officer
In his 30s, he is high in self-confidence to the point of cockiness. He has been drafted in at short notice due to the regular 2nd Officer's sick leave. He is a little distracted by having to interrupt his holiday with his girlfriend, but though the ship is new to him, he is happy to rely on his general familiarity with things to get him through his watch, through the voyage and back to his girlfriend.

The Master
In his early 50s, he is a very experienced and competent Master with a long and exemplary record. He is authoritative but also approachable. He is committed to the welfare of his crew but is also very aware of his role in the commercial success of his company. He is keen to pick his way through the complex decision-making that is his job as Captain. While he finds this challenging, he enjoys it and feels very much in control of things.

The Vessel Operator
In his 40s, he is experienced, professional and focused – especially in these economically tough times. He has a straightforward, uncomplicated style with a businesslike desire to establish who caused the incident as quickly as possible and then move on to what he values most – the commercial success of the company.
INTRODUCTION

Setting the scene
The Investigator sets the scene by reviewing the key facts on the time line of the incident.

Key facts on the time line
— The vessel arrived in port around 21.00 two days ago. She unloaded and took on new cargo, as well as a new 2nd Officer, a sick leave substitute.
— At 10.00 yesterday, she left port, some four hours delayed.
— Around 12.00, a decision was made to alter the passage plan, taking a course closer to shore to make up some of the lost time.
— The Master briefed the new 2nd Officer on the revised route before retiring. The 2nd Officer input the bearings and way points into ECDIS as instructed by the Master. He sent the passage plan over to the navigating system.
— At 16.00 the revised route was relayed to the Chief Officer, who was familiar and comfortable with this short cut. The Chief Officer checked the vessel’s location, speed and bearing, then briefed the lookout.
— At 17.45 the Chief Officer ensured that the autopilot had begun making the final course change to rejoin their original track. The lookout was then sent to the shore side.
— At 17.53 the Master noticed a change in
the vessel’s vibrations. A few minutes later, he went up to the bridge.
— At 17.58 the Master and Chief Officer confirmed that the vessel had grounded on the Monroe sandbank, a charted feature with a depth of less than two metres.

At the end of the Introduction

Clarify any questions by using the key facts.

Then ask the group:

First impressions. What do you think could have caused this?
Hints: There is not enough information to form a clear view yet.

If you wanted to find out how this incident happened, what questions would you ask?
Allow a wide ranging discussion before narrowing it down.
Hints: Good questions would reveal the situation as the interviewees saw it – and why these views had developed. Good questions would be designed to open up as many sources of information as possible – any of which might prove highly significant, however small they seemed at first. Good questions would focus not on establishing error, but why it was made, what the alternatives were at the time, why it was not picked up and how it combined with other behaviour to produce a bad result. Bad questions would be leading questions that imposed the questioner’s theories and views on the interviewees, or that tried to establish who was to blame.

Where are the risk areas?
Hints: Any area where information needs to be communicated is an opportunity for misunderstanding to arise. Miscommunication can arise between people or between people and technology. Risk also arises where people mistake their assumptions for established facts.
THE ORDINARY SEAMAN’S STORY

Setting the scene
In this module, the Investigator and Vessel Operator interview the OS, who is very anxious and whose English is obviously poor.

Key points from the Ordinary Seaman’s story
— The Master and Chief put the uncertified OS in a responsible watch position on the bridge for the first time.
— The Chief tells the OS to expect a red and white buoy to port in 30 minutes. Instead, the OS sees a red and white buoy to starboard after 20 minutes. He tells the Chief who rebukes him for reporting irrelevant information. Later, the Chief yells at him for missing the buoy to port.
— Later still, the OS sees a cardinal mark on the wrong side for the ship to be safe.
— He considers telling the Chief, but does not want to be yelled at again, does not want to be wrong again, and does not want to report something he was not asked to report.
— It seems easy for him to believe that if the cardinal mark was important, the Chief would have mentioned it.
At the end of the module ask the group:

Was the OS to blame for the grounding? Did he make any mistakes?
Hints: he did report sighting the buoy, he didn’t report seeing the Cardinal mark.

Why do you think he didn’t report seeing the Cardinal mark?
Hints: he was scared of another rebuke, he didn’t understand its significance.

Consider: WRITING ON A WHITE BOARD STATE: SCARED/NOT CONFIDENT, UNDERSTANDING: DIDN’T KNOW IMPORTANCE OF MARK.

Why, do you think, did the investigator want to know whether his watch duty was a ‘good move for him’?
Hints: being awarded this responsibility is a sign of respect, he would want to be seen to do a good job.

Consider: WRITING NEXT TO STATE AND UNDERSTANDING THE WORD GOAL AND UNDERNEATH – TO LOOK GOOD IN THE EYES OF THE CHIEF.

Consider: CONTINUING WITH WRITING ON THE WHITE BOARD, DRAWING OPINIONS AND COMMENTS FROM THE VIEWERS IN ORDER TO INTRODUCE AND EXPLAIN THE CONCEPTS THAT LIE BEHIND S.U.G.A.R. THEN CHOOSE EITHER TO RUN THE MODULE – ORDINARY SEAMAN REVIEW IN ORDER TO REINFORCE THIS EXPLANATION OR CONTINUE.

Play module — Ordinary Seaman’s review

At the end of the module ask the group:

What state was the OS in on duty and why?
Hints: anxious, lacking in confidence – had an important duty + some sort of problem with Chief – no meeting of minds.

What could he see and understand from his viewpoint?
Hints: not unknowledgeable – understood his instructions and cardinal marks; an angry Chief, very much his senior who seemed to know much more than him, and acted so.
What was he trying to achieve?
Hints: trying to understand and resolve the conflict between what he thought he knew and what he thought the Chief knew; trying not to make the Chief any more angry than he was, wanted to do a good job in the Chief's eyes.

Then ask the group:

What expectations did the Chief’s behaviour create in the OS?
Hints: that the Chief had much greater knowledge than the OS; that the Chief was right; that the Chief was likely to give him a hard time if he was wrong.

What expectations did the OS’s behaviour create in the Chief?
Hints: that the OS couldn’t carry out instructions; that any problem reported by the OS was an OS problem, not a ship problem.

Have you ever found yourself at cross-purposes with someone else? How were you misled by your expectations of the situation you were in?
Hint: didn’t ask the right question to reveal the ambiguity? Why?

Why do you think we tend to see what we expect to see?
Hints: it’s not generally because our senses don’t report in to us; instead we form views about what is right and real and then direct our senses to seek confirming evidence.

How could you prevent this expectation bias from leading you and others into danger?
Hints: be aware that the bias exists; be prepared to spot it in others – and let others point it out in you; be alert to alternative stories that could account for what you are experiencing.

These are just a sample of the full training notes that come with the DVD resource and take the viewer through the whole film and include a training plan for the Chief’s story, 2nd Officer’s story, Master’s story and Operator’s story. The full notes are available as a booklet and PDF with a purchase of the DVD.
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Film credits
The Human Element film is a co-production by Walport Maritime Training Films and Pukka Films in association with gs partnership ltd (organisational psychologists).

Booklet credits
This accompanying booklet was written by Dik Gregory and Paul Shanahan, authors of the original book: The Human Element: a guide to behaviour in the shipping industry, published by TSO.

The moral rights of Dik Gregory and Paul Shanahan to be identified as the authors of this booklet have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

Sponsorship details
The making of this film was supported by the sponsors of the original book (BP Shipping, Teekay Marine Services, the Standard P&I Club, and the UK Maritime and Coastguard Agency) plus Wilhelmsen Lines Car Carrier Ltd.
The Human Element film uses a dramatic story to show how a series of relatively minor oversights and misjudgments by different crew members can work together to create a major incident at sea. The film shows how the story unfolds from the very different perspectives of each of the five crew members involved.

The film is best viewed as a series of five modules, with a facilitator-led discussion between each. Alternatively, the film can be viewed straight through.

Either way, this booklet promotes a deep understanding of each of the perspectives and how they combine to create the incident. Reading the booklet will allow viewers to engage effectively with the human element ideas and principles in the film.

Duration: Approx 35 minutes
Language: English
Subtitles: English, French, Spanish, Greek, (Brazilian) Portuguese, Russian, Tagalog, Cantonese, Hindi

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