



Social Interaction Matters (SIM) Project Report Phase Two

Social interaction at sea: working practices and the impact on seafarers' mental health and wellbeing

A report on live trials on board 21 vessels trading worldwide



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Thank you also to our funders the Maritime and Coastguard Agency (MCA) and the Red Ensign Group (REG), who were able to sponsor this project with the help of Trinity House and funding from the UK Government.



If you refer to anything in this report, please reference this publication accordingly.

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1.The Sea and Shore Ambassadors were appointed on behalf of their shipping companies to work with ISWAN for the duration of the project. This role is further explained in the methodology.

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ISWAN's Social Interaction Matters (SIM) Project is an incredibly valuable, insightful, and unique research project which we hope will help to increase awareness of the importance of social interaction for seafarer health, safety and wellbeing. The accompanying guidance and recommendations have been developed as a standalone document, intended to support shipping companies and individuals alike to improve opportunities for crew to socially interact on board.

The COVID-19 pandemic has made us all aware of how important social interaction is for our mental wellbeing. Many of us have experienced feelings of isolation and of being vulnerable to events over which we have no control, and experts predict a 'mental health tsunami' as a result. Seafarers are no stranger to such experiences. Within their daily working lives they have to cope with being isolated from the outside world, endure relentless work patterns, face extreme weather conditions, and be at the mercy of a dynamic, unpredictable and ever-changing supply chain.

Within this environment, crewmates have to both live and work together, and feel able to trust each other when things go wrong. The way in which seafarers interact is therefore crucial for the safety and wellbeing of everyone on board. The SIM Project was designed to shine a light on what social interaction is taking place on board, how it is affecting crew mental health, and how it can be improved and encouraged. The results are enlightening, and we encourage everyone to read and learn from them.

ISWAN is honoured to have been involved in such a rich and thought-provoking project. We hope this report will be just the beginning of many future projects, conversations, and collaborations to bring about sector change. We are extremely grateful to everyone who has helped us to produce this report, not least the seafarers who contributed with great enthusiasm and commitment. There is still a lot of work to do, and we must consider what can be done at every level to promote the importance of seafarers socially interacting on board.

**Simon Grainge, Chief Executive, and
Georgia Allen, Project Manager, ISWAN**

Foreword

I am delighted to see the continuation of this vital work in recognising the importance of social interaction to the wellbeing of seafarers.

It is important to see the recommendations from phase one put into action and we have already seen that small steps can have huge impacts, such as having a designated wellbeing ambassador on board. It is clear from this report that seafarers' wellbeing, productivity and safety are intrinsically linked.

The research comes at a crucial moment, with seafarers having faced an extremely challenging few years with the impact of the Coronavirus pandemic and an increasingly unsettled political landscape. Seafarers spend months at sea, working to transport the essential resources and supplies that keep the global economy moving, and the pandemic extended the length of time they spent away from family and friends.

There are many aspects of life at sea that cannot change, but this research shows that wellbeing is not one of them and it can be improved by strengthening social interaction, particularly alongside organisational commitment.

The Maritime and Coastguard Agency (MCA) has been underlining the importance of mental health and wellbeing for seafarers by recently publishing two new books: 'Wellbeing at Sea: A Guide for Organisations' and 'Wellbeing at Sea: A Pocket Guide for Seafarers', in consultation with unions, ship owners and maritime charities.

The MCA fully supports the steps being taken to boost seafarer wellbeing now and into the future.

The MCA and Red Ensign Group (REG) are very proud to have been able to sponsor this project with help of Trinity House and funding from the UK Government. On behalf of the REG, I would like to sincerely say a big "Thank you" to ISWAN, Dr Kate Pike, and all those who have been involved with this project to date.

Katy Ware, Director of UK Maritime Services & Permanent Representative of the UK to the IMO

Maritime and Coastguard Agency (MCA)

Executive summary

This research was funded by the Maritime and Coastguard Agency (MCA) and the Red Ensign Group (REG), who sponsored the project with the help of Trinity House and funding from the UK Government. The report details the findings from phase two of the International Seafarers' Welfare and Assistance Network's (ISWAN) Social Interaction Matters (SIM) Project and builds on the findings from phase one, including unprecedented research into the social side of life at sea.

The research obtained and examined first-hand accounts from seafarers to explore the impacts, drivers and barriers of social interaction whilst living and working on board. The recommendations, conclusions and guidance are underpinned from substantial research conducted with the participation of 21 vessels, from 10 different shipping companies operating worldwide.

Phase two of the SIM Project was conducted from November 2020 to January 2022, a period which coincided with the COVID-19 pandemic. The pandemic's influence was pervasive and impacted both how the research was carried out and the findings themselves. Whilst many of the issues discussed in this research existed prior to the pandemic, they were exacerbated by the circumstances and pressures experienced during this time and further help to emphasise the value of the data findings.

Reflecting the project's diversity, various data collection methods were employed, including four pilot trials, a weekly crew wellbeing assessment survey, daily and activity logs, Ambassador's exit interviews, and an 'Ambassador's Round Table' discussion. The research recognises and reinforces the importance of seafarers socially interacting and getting to know one another better.

The project findings show that social interaction facilitates a mental reset and rest from work. It promotes the development of stronger relationships between crewmates, nurturing familiarity and trust, which in turn facilitates improved team cohesion, motivation, mental health and safety outcomes.

Headline findings:

- **Social interaction is important for seafarer mental health and encourages positive relationships between crew, which form an intrinsic part of a strong on board safety culture.**
- **Engaged and visible leadership, which displays empathetic people skills, is vital to support and provide 'permission' for crew to participate in social activities.**
- **Crew mood on board is highly susceptible to external influences.**
 - **Positive changes to mood on board** are linked to supportive leadership, social activities, competitions, sufficient rest time, reliable and adequate access to Wi-Fi, good food, celebration of special occasions, and a diverse and inclusive environment on board.
 - **Negative changes to mood on board** are linked to frequent port calls, fatigue, bad weather, poor or no Wi-Fi access, and not having enough time to socialise with crew mates.
- **Separation of work and rest time on board is important** and these boundaries should be clearly established and maintained because of the detrimental impact to seafarer wellbeing if they are not.
- **Favourite activities on board** include barbeques, table tennis, basketball, gaming (e.g. Play Station 4), and celebrating occasions such as birthdays and religious holidays.

The project recommends the appointment of a voluntary Social Ambassador on board every vessel to help convene social activities and promote crew engagement. The Ambassador should:

- Reflect and respond to the crew's preferences for their recreation time.
- Encourage a variety of social activities to provide a healthy balance of mental and physical stimulation.
- Plan social events proactively in response to varying workloads and, where possible, advertise them in advance.
- Initiate ice-breaker activities for newly joined crew.
- Consider the safety of activities and the ongoing maintenance of associated facilities and equipment.

More generally the project recommends that:

- Shipping companies, charterers and crew managers should actively and visibly support their seafarers to relax and interact with each other during their rest time.
- Leadership on board and from the shore management team should be actively and empathetically engaged in the promotion of social interaction. Ongoing leadership training should be provided to facilitate this where necessary.
- Free Wi-Fi services should be made available to all crew to stay in touch with family and friends, and to provide access to online entertainment and social media.
- Recreation facilities and equipment available on board should be frequently reviewed by the company to ensure their compatibility with the crew's preferences.
- Further research into the effects of fatigue and tiredness, and their impact on seafarer mental health, should be conducted.

The research concludes that encouraging crew to get to know each other through social interaction will help to build stronger relationships, promote mental health, improve performance and contribute to a strong safety culture where crew care about what happens to each other. Leadership support ashore and on board is vital to realising these benefits.

A set of actionable guidance and recommendations were developed from the phase one and two research findings and an 'Activities Focus Group' hosted by ISWAN following the phase two trials. These can be used by shipping companies and seafarers to help promote a varied programme of social events, tailored to different crew needs and diversities, and different voyage plans and vessel specifications.

The SIM Project has provided a unique and privileged insight into seafaring on board a range of commercial merchant ships and has demonstrated the importance of social interaction and the value of crew getting to know one another. The project has shown that crew should be encouraged to interact daily, and that even small amounts of social time make a significant difference to overall wellbeing. Greater emphasis on separating the boundaries between work and rest time is needed, along with promotion of social activities which help crew to relax together, have fun and take some respite from their working day. Vessels that supported their crew in this were able to mitigate the effects of long hours, numerous port calls and other factors that otherwise lowered mood. The SIM Project phase two therefore confirms emphatically that *Social Interaction Matters*.

Key research findings

Executive summary continued...

The findings from the SIM Project largely come from the lived experience of the participating seafarers and the information reported by them in the weekly wellbeing surveys and the Ambassadors' daily logs.

Social interaction is important for good mental health. Regular engagement with colleagues through shared activities and socialising together encourages crew to get to know one another and to feel valued as individuals. It provides an outlet to life on board besides work.

Leadership, and empathetic people skills, are vital to support and encourage crew to engage in social activities together. On-going training to develop these skills should be provided for managers on shore and at sea, and for those moving into those positions.

Crew mood is highly susceptible to external influences such as weather, number of port calls, good and bad news, Wi-Fi and connectivity, quality and availability of food, and medical emergencies (amongst others).

- **Positive changes to the mood on board have significant links to:** supportive leadership, planned activities, competitions, sufficient rest time, reliable and adequate access to Wi-Fi (allowing regular conversations with family and friends), good food, celebration of special occasions, and a diverse and inclusive environment on board. These drivers of social interaction should be developed and instigated wherever possible to support positive seafarer mental health and wellbeing.
- **Negative changes to the mood on board have significant links to:** frequent port calls or port calls in quick succession (including drifting whilst waiting for berth and numerous berth moves in one port), fatigue, bad weather, poor or no Wi-Fi access, and not having enough time to socialise with one another. These barriers to social interaction should be considered carefully and, where possible, improved; or where this is not feasible, mitigated to avoid negative impacts on seafarer mental health and wellbeing.

On board, there is a blurring of work and rest-time which has been accentuated as a result of restrictions due to COVID-19. Conversations during off-duty hours often revert to the topic of work, and sometimes the demands of the job mean that crew are left too tired to interact with each other following their shifts. The SIM trials showed a direct correlation between crew who were able to engage with each other recreationally – e.g. through a basketball game, party, or karaoke – and increased good mood and wellbeing.

Getting to know one another is important for protecting mental health and promoting safer working practices on board, so that crewmates get to know one another outside of a purely working relationship. As well as improving team-working and helping to identify individual strengths and weaknesses; it helps to build familiarity and respect for each other and increases the likelihood of noticing when someone is struggling. Social interaction facilitates and strengthens this ability to connect.

Favourite activities on board included barbeques, table tennis, basketball, gaming (e.g. PS4), and celebrating occasions such as birthdays and religious holidays. Competitions encouraged more crew to engage in activities, and also provided the opportunity for different vessels to compete against each other and feel part of a wider social community. These activities helped to generate greater camaraderie on board and a sense of belonging and being valued. These attributes improve crew mental health and motivation on board.

Project conclusions

Executive summary continued...

Social interaction

The Social Interaction Matters (SIM) Project phase two research emphasises the importance of crew getting to know each other on board through social interaction. This is particularly valuable wherever there is a regular turnover of crew, who may be strangers when they join the vessel. The SIM Project research has confirmed that social interaction aids the building of relationships, promotes good mental health and performance, and thus develops safety culture on board. The project concludes that appointing the role of a Social Ambassador encourages greater crew engagement with one another, both formally and informally, and provides the opportunity to reflect on what helps to facilitate social interaction and what changes in mood occur following certain activities. This information can be used to develop a social programme on board accordingly. Even the most minimal of efforts invested in this role were shown to be effective. Positive leadership, which supports and approves social interaction, is therefore vital for encouraging crew to participate and engage with activities.

There were many informal daily activities taking place on board which proved to be important for building stronger relationships, as with those which were formally arranged. It was clear that activities did not always have to be planned or cost money to provide a benefit to wellbeing, and in some cases, they did not require facilities or equipment. Impromptu get-togethers, although ad hoc by nature, worked well and when time was limited, just ensuring that people came together to talk proved valuable. Mealtimes and coffee breaks acted as focal points for this because they provided opportunities for crew to naturally convene. Making the most of these communal times to instigate discussions therefore has a positive impact and can help those on board to learn more about each other. They should be promoted and supported, particularly by the Social Ambassador and senior officers.

The SIM Project demonstrated that allowing crew to communicate frequently with their families and friends at home is another form of essential interaction. During the COVID-19 pandemic the importance of this was amplified, and opportunities to connect often helped to raise crew spirits and alleviate anxieties. This connection with the outside world could result in the opposite effect if bad news was received, but nevertheless seafarers intrinsically need to communicate with loved ones and should be supported in this by the provision of free company internet access.

Leadership

The visible engagement of leadership with the rest of the crew was shown to help enforce and support social interaction, and to develop a safer, more inclusive culture on board. Leadership engagement with arranged activities indicated approval for the crew to relax and enjoy themselves during their rest time. The Ambassadors' logs indicated that when interest from the office was shown, and praise given, it demonstrated to the crew that the company cared about their wellbeing. This in turn motivated the crew and increased happiness on board. It is in the interests of employers to implement policies and practices which promote good mental health and mitigate the effects of work-related stressors wherever possible. On board leadership that re-enforces this is vital, and support from the shore office also works in the same way. A leadership team, both at sea and on shore, that works well together provides the best all-round support for the crew.

A change of leader on board can be a high-risk time for crew mental health as they adjust to the new style of leadership and expectations. When a master changes, it is important that they are sensitive to the needs of the crew, that their communications are clear, and that their expectations are clearly expressed. Alongside this, the crew should always be made aware of the

support available to them and trained to look for warning signs that someone might be struggling. Notices which detail internal company support networks, company policies and Employee Assistance Programmes should be on permanent display in communal areas of the vessel.²

Recreation facilities

Every vessel in the SIM trials had at least some recreation facilities available on board. However, the trials showed that not all of these were used, and activities often took place which did not require the facilities provided, either because they used different facilities or none at all. This indicates the need for review of recreation provisions, which should take into account the crew's cultural preferences and consider the recreation items they actually want. The company can then make appropriate investments in such facilities, rather than assuming or taking a standardised approach.

Fatigue

Fatigue had a notably negative impact on social interaction during the trials, with many crew preferring to go straight to their cabins when tired instead of getting together socially. Ensuring that fatigue does not become a health and safety hazard is ultimately the responsibility of the master, so this issue is often managed very carefully on board. Making sure that crew have time to interact with each other during meal and break times when they are too tired for planned social activities, is very important in these situations and will help them to feel supported and cared for.

COVID-19 pandemic

The negative influence of the COVID-19 pandemic on crew was evidenced throughout the logs of every SIM Project Ambassador. Increased anxiety about family and friends at home, health concerns for themselves and loved ones, confusion around conflicting regulations in different countries, lack of access to vaccinations, the appearance of new variants, and sharply rising case numbers all increased seafarer stress and anxiety. Additionally, the humanitarian crisis attributed to the lack of crew changes and indefinitely extended contracts, uncertainty about returning to work after leaving the ship, and little to no shore leave, has made seafaring during COVID-19 a challenge to say the very least.

Bringing crew together to discuss their concerns with each other and any COVID-19 news that they may have had from home, helped to alleviate some of these tensions. Planning social events on board and participating in competitions also helped to divert stressful thoughts for a while and put the focus on something fun for a change. These interactions, however small, helped the crew to feel more united, supported, and valued by their company.

Work and rest boundaries

Increasingly there is a blurring of work and rest time on board. Many factors contribute to this such as heavy work schedules and the accompanying paperwork, reduced crew numbers, requests from the shoreside office, COVID-19, inspections, audits, and numerous port calls. Seafarers, like anyone working on shore, still require a healthy work/life balance to be well, but unfortunately this is often harder to achieve at sea where crew are on call 24 hours a day.

Mental and physical health must be maintained at all times to ensure both seafarer personal safety and that of the vessel. Ensuring that rest time is spent focusing on enjoyment, relaxation and recuperation should result in seafarers experiencing an improved ability to operate well and safely on their next period of duty. Being provided with adequate time and connectivity to enjoy socialising with peers, as well as family and friends at home, encourages a much-needed shift in focus away from work and plays a vital part in promoting mental wellbeing.

Greater attention needs to be placed on improving the 'rest' side of being at sea. The SIM Project phase two concludes that social interaction for seafarers is more critical now than ever before, and that problem areas, where the boundaries between work and rest are compromised, need urgent attention, before mental health issues become a significant occupational hazard.

2. External sources of support for seafarers [such as ISWAN's free, confidential, 24-hour helplines SeafarerHelp and Yacht Crew Help] can also be signposted to. The contact channels are at the end of section 4.0.

1.0 Introduction

A dictionary search for the terms seafarer, mariner or seaman all describe work at sea or travel by sea but neglect to mention anything regarding the living aspect of this type of employment. Working at sea usually means working and living on board for 24 hours a day; and during COVID-19 this has often been without relief, with no shore leave being granted in most ports. When at sea, a seafarer's work and personal life all takes place in the same on-board environment.

“Separation of work and rest is therefore important and plays a vital role in how crew are able to relax and reset after a day at work...”

Maritime operations are driven by commerce and financial reward and although many shipping companies are keen to support their seafarers, the boundaries between a seafarers' work and personal time are often hazy, and a negative view can sometimes be taken towards them interacting or having fun in what is primarily viewed as a working, professional environment. Separation of work and rest is therefore

important and plays a vital role in how crew are able to relax and reset after a day at work but being permanently on board their workplace makes this a grey area. This can perhaps be attributed to the close relationship between the terms 'social interaction' and 'socialising' leading to the misconception that social interaction is a behaviour which should be reserved purely for leisure and rest time. The definition of social interaction is simply 'an exchange or reciprocal stimulation or response between two or more individuals' (University of Wolverhampton, 2022) and can be as straightforward as two crew mates taking the time to talk together about their days.

Social interaction has a positive effect on a person's mental health and wellbeing, however the pathways to this, particularly in maritime, are less known. Additionally, in professional environments there is often a disconnect between this knowledge and its application.

The SIM Project phase two trials have provided a unique insight into life at sea and some of the key influencers on seafarer mental health, supporting the focus on social interaction. The trials shone a light on the voyages of 21 vessels, from 10 different shipping companies, operating worldwide. Many seafarers of different nationalities and cultural backgrounds participated and for a duration of 10 months ISWAN had a privileged view into what life was like for seafarers working on board during COVID-19.

“Social interaction has a positive effect on a person's mental health and wellbeing, however the pathways to this, particularly in maritime, are less known.”

The pandemic has served to accentuate many existing welfare issues faced by seafarers. ISWAN's helpline, SeafarerHelp, reported a sharp increase in calls from March 2020 onwards as a direct result of the challenges faced. Cases increased threefold throughout May, June and July 2020 and as of May 2022, calls to the helpline were still double their usual pre-pandemic levels. Breaking this down further, the following COVID-19 related issues were reported:

SeafarerHelp cases –

1st April 2020 – 31st May 2022:

- Contract (repatriation) – 1296
- Health psychological (including mental stress and depression) – 517
- Fatigue (tiredness, exhaustion, lack of rest) – 150

Concerningly, there has also been a significant increase in the number of cases relating to suicide.

SeafarerHelp suicidal cases by financial year –

1st April – 31st March:

- 2019-20 = 10
- 2020-21 = 19
- 2021-22* = 31

The stark figures indicate a clear need for greater support for these key workers, and the sector as a whole needs to take a penetrating look at the reality of conditions on board.

Shipping companies allocate much resource towards becoming successful, profitable, commercial businesses. Those companies with a commitment to the welfare of their crew also recognise the importance of investing in the people who are the driving forces behind these successes. The SIM Project set out to demonstrate that it is not enough for companies to address only the working side of seafaring; it is of equal importance to performance, health and safety, and company reputation to provide also for the personal and social needs of their employees.

Project objectives

The main objectives of the SIM Project phase two were to:

- Obtain and present a first-hand view of the 'living at sea' part of seafaring as an occupation (as opposed to the 'working at sea' part).
- Raise awareness of, and demonstrate how, seafarers are socially interacting together and highlight any barriers to this.
- Assess the impacts of social interaction and social cohesion on seafarer mental health and wellbeing, and aspects of seafaring life.
- Examine how external influences can impact seafarers' ability to socially interact and affect the general mood on board.
- Provide actionable guidance and recommendations for the shipping industry to help improve and facilitate social interaction on board.

“Those companies with a commitment to the welfare of their crew also recognise the importance of investing in the people who are the driving forces behind these successes.”

Report structure

This report on the SIM Project phase two, initially provides the context for the project and presents the key findings and conclusions. The methodology for the trials is discussed in section 2.0, and further details about this can be found in the appendices. In section 3.0, the findings are presented along with two detailed case-studies. The project's guidance and recommendations are made in section 4.0; these also serve as a standalone document for use and reference by the shipping industry.

2.0 Project methodology

The SIM Project phase two was conducted between November 2020 and January 2022. To reflect the project's diversity, a mixed methods' approach was applied to the data collection. Demographic data relating to the vessels', facilities, voyage and crew members was collected at the outset of each of the phase two trials. Additionally, a freewriting daily log was completed by each Sea Ambassador and an activity log was collected on occasion of every

social interaction activity. Anonymous crew surveys were conducted weekly to gauge crew wellbeing, social cohesion and perceived company value. The Ambassadors took part in individual exit interviews on completion of their vessel's trial and also participated in an Ambassadors' Round Table discussion event held on Zoom. This data was supplemented by a focus group discussion with 12 participants, regarding social activities on board.

Summary of data collection methods employed for the SIM Project:

<i>Data collected</i>	<i>Method applied</i>	<i>Collection frequency</i>	<i>Collection responsibility</i>
First time data collection to test and develop methods	X4 pilot SIM trials	One time only	ISWAN and Shore and Sea Ambassadors
Information about the vessel, on board facilities, and Sea Ambassador	Completion of trial start-up form	One time only	Sea Ambassador
Information about the voyage, crew and Shore Ambassador	Completion of trial start-up form	One time only	Shore Ambassador
Daily log	Daily log	Daily for duration of trial	Sea Ambassador
Activity log	Activity log	On occasion of every social activity	Sea Ambassador
Mental health assessment	Crew surveys	Weekly (voluntary)	All crew
Feedback on key findings to date	Exit interviews with both ambassadors	On completion of the trial	ISWAN
Ambassador round table	Round table event	One time only	ISWAN
Activities focus group	Focus group event	One time only	ISWAN

Pilot trials

Four pilot trials were conducted with different shipping companies to help understand the practical limitations of the research and to validate and refine the research methodology. These were carried out with four vessels from four different companies, two of which entered other vessels into the following phase two trials.

SIM Ambassadors

One Sea and one Shore Ambassador were voluntarily recruited for each vessel in the SIM trials. They played a vital role in determining the success of the SIM trials and were the observers, reporters, and main communicators back to the SIM team throughout the project. The role and desired attributes of a SIM Ambassador are found in Appendix one.

Daily logs

The daily logs were free written by the Sea Ambassadors throughout their vessel's trial duration. The key themes impacting on social interaction, detailed below, were identified and evaluated by the number of times they were mentioned. The logs demonstrated the subjectivity of this type of reporting, for example if one Ambassador was particularly occupied with port calls or was dealing with medical problems, these were identified as key themes for that vessel.

Fatigue / tiredness	News (good and bad)
Port calls	Crew changes
Long hours, busy, paperwork	Health issues
Inspections	COVID-19
Time changes at sea	Completing tasks
Weather	On board visits
Voyage references	Family
Social activities	Exercise
Wi-Fi connectivity	Scenery
Occasions (birthdays etc)	Welfare (wellbeing)
Drills at work (for safety etc)	Shore leave
Food references	Rest
Social interaction	Happy
Competitions	
Mental health	

- Themes in light blue are broadly associated with impacting mental health and wellbeing.
- Themes in orange are broadly associated with impacting on social interaction.
- Themes in dark blue are broadly associated with contributing to fatigue.

Where possible, the Ambassadors' daily log entries have been used within this report to provide the voice of real seafarers regarding the issues being discussed. These accounts read like diary entries and paint a powerful, realistic picture of the various intricacies of life on board. The logs detail a variety of activities and social interactions, each recorded in a manner unique to the individual Ambassador.

The different reporting styles reflect a range of personalities, nationalities, engagement with the trials, and understanding of the purpose of the logs themselves. The result is a colourful variety of feedback which reflects what is important to the Ambassadors as individuals, and their often very personal interpretations of events that took place. No two logs are the same, which does have data limitations, but they demonstrate the intrinsic value of social interaction way beyond the benefit of entertainment.

Analysis of daily logs

Qualitative data analysis using thematic coding was applied to the daily logs, to identify key themes from these data sets which had a broad impact on social interaction and crew mental health (Given, 2008). Each theme impacted life on board in a variety of ways, at times both negatively and positively. For example, whereas Wi-Fi and food were often associated with positive mood and good social interaction; crew changes, health issues and difficulties staying in touch with family impacted negatively on crew mental health and their ability to socially interact. The theme 'Happy' was also noted to investigate potential links between recorded crew happiness and specific events.

Activity logs

The Sea Ambassador was asked to record all social activities taking place on board the vessel, both planned and informally arranged. These were recorded in an Activity Log (see Appendix Two) to provide additional information about the planning, engagement and reflective process following the event.

Crew wellbeing surveys

Crew wellbeing surveys were designed to be conducted weekly by all on board, using a well-established measure of wellbeing, the Warwick Edinburgh Mental Wellbeing Scales, (WEMWBS) was adapted (Warwick Medical School, 2021). This measure was adapted to examine three constructs – wellbeing, social cohesion, and perceived company value and how these changed over the duration of the trial, with a particular focus on impacts from social activities and fatigue (see Appendix Three). Each vessel had its own unique link to the self-complete anonymous survey, which was delivered using SurveyMonkey software.

Analysis

Due to heavy workloads and time constraints on board, limited survey information was collected. For example, missing data was particularly apparent during periods that covered port calls. Surveys with less than five responses in a week were discounted. For this reason, two case study vessels (Vessel Two and Vessel Five) with enough meaningful data present, were selected to analyse. Data from the surveys were exported from SurveyMonkey to Excel and coded by statements into the three constructs of wellbeing, social cohesion and perceived company value. The results are presented in section 3.0 of the project findings.

Consistency and limitations of data collection

A number of different variables, encountered in the project and identified below, have limited the consistency of the data collection and level of reporting. These included:

- The level of clarity and interpretation of communication between the Sea and Shore Ambassadors about the purpose of the trials and project.
- Sea Ambassador engagement with completing the daily and activity logs, and the level of detail provided.
- Written language barriers.
- Crew survey fatigue (answering the same questions weekly).

- Ambassador availability to complete exit interviews and/or limitations to communication caused by poor connectivity on board.
- Different contract durations meaning that Sea Ambassadors, as well as the rest of the crew, may have left the vessel during the project.
- Different trading routes meaning that different port state controls and different climatic conditions were encountered by each vessel.
- Varying number of port calls, meaning varying free time for each crew.

The data limitations identified in this project point to the need for further research in these areas and more focused examination of certain key findings, such as fatigue and its impact on mental health

Impact of the COVID-19 pandemic on research

Many of the notable impacts of the pandemic on seafarers are mentioned in this report. Additionally, it should be noted that any research conducted during the pandemic is likely to have resulted in skewed data results. This is particularly pertinent in research assessing mental health and human interaction.

Participating vessels

In total, 21 vessels participated in the SIM Project phase two research. Of these, four joined the pilot study, which helped to develop and refine the data collection tools and methods. The remaining

17 vessels participated in the SIM trials, which took place over several months from November 2020 to September 2021. Figure 1 shows the participating vessels by type.

The oldest vessel in the SIM trials was built in 2002; the newest in 2019.

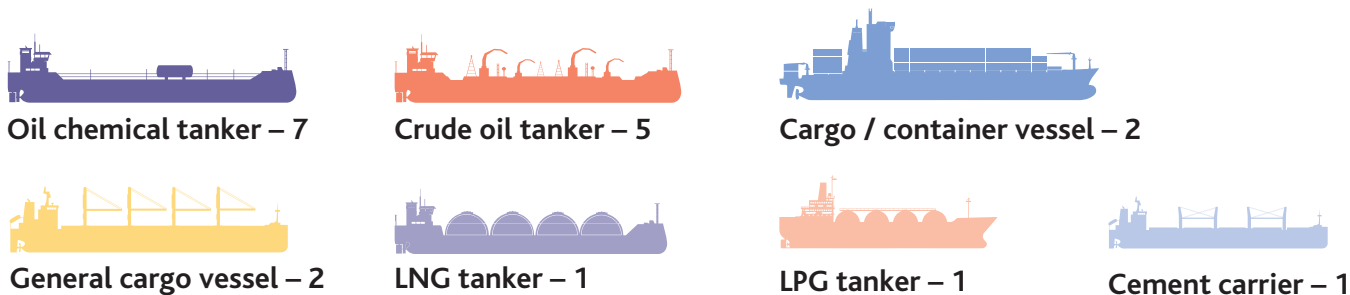


Figure 1 – Vessel types participating in the SIM trials

Crew nationality

The crews working on board the trial vessels were of 23 different nationalities. These are represented by their flags below (Figure 2).



Figure 2 – Crew nationality

3.0 Research findings

The research findings from the SIM Project phase two trials are reported here and build on the initial data collected in phase one. These findings explore the main influencers of, and barriers to, generating social interaction during on board leisure time. Full data sets were gathered from seven vessels in total. From these, two were selected to be presented as case studies. Partial data sets were collected from the remaining 10 vessels.

In order to provide reliable accounts, all trial participants were encouraged to be as candid as possible when completing the logs and surveys. It is as a result of the willingness of participants to share their personal experiences, that the SIM Project is so richly unique.

Recreation facilities

Our research shows that there are often recreation facilities provided on board which are not used. It would be more cost effective and productive to consult with crews to ensure that the right facilities are provided and that they are going to be used and enjoyed.

Recreation facilities varied from vessel to vessel and were sometimes restricted due to space issues as well as voyage patterns. For example, a smaller vessel operating in cold climates was unlikely to have a swimming pool on board. Figure 3 shows which recreation facilities were provided on board the participating vessels.

Recreational facilities – All 17 vessels

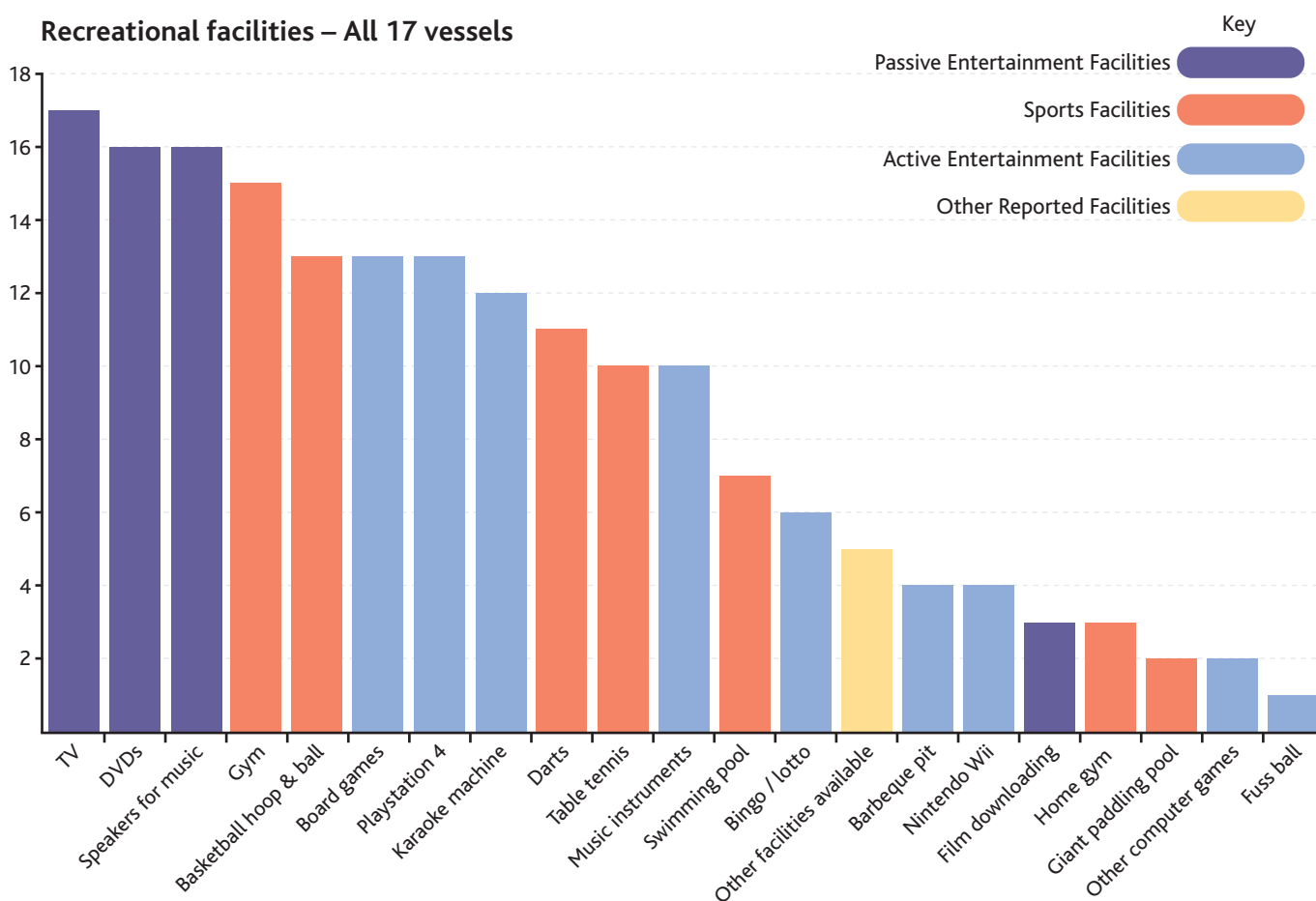


Figure 3 – Recreation facilities provided across all trial vessels

We categorised these facilities in relation to whether they were passive activities, sports/physical exercise, other active recreation types, or other activities that had been mentioned in the logs but were not associated with any particular facilities.

All vessels – Facilities and activities

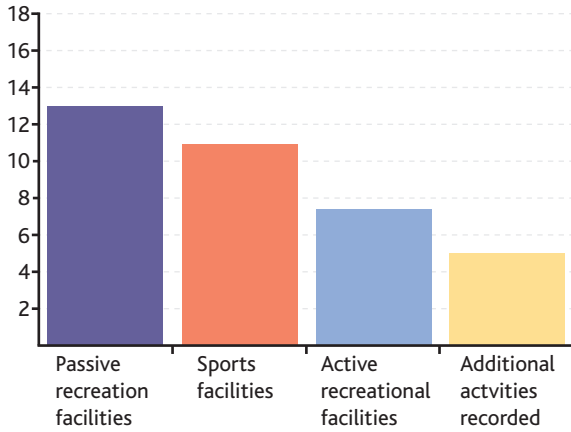


Figure 4 – All vessels – Passive, sports, other activities and activities with no recorded facilities

All vessels – Passive recreation facilities

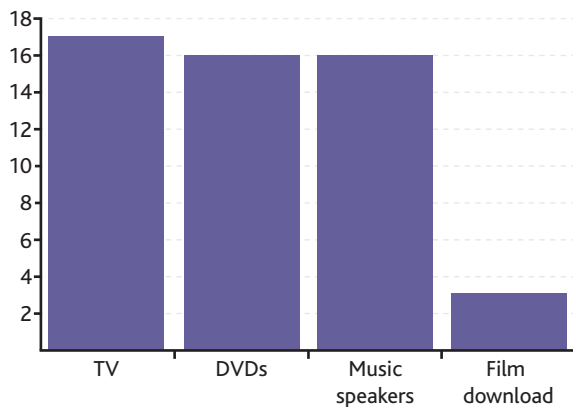


Figure 5 – All vessels – Passive recreation facilities

All vessels – Sports facilities

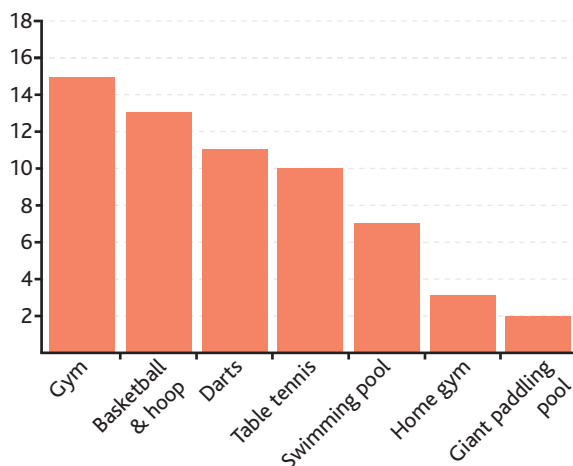


Figure 6 – All vessels – Sports facilities



Photos – Vessel 15 – Basketball tournament on board

Other activities

Other reported activities included recreation pastimes that had no reported facilities associated with them such as haircuts, dance competitions, steak dinner nights and sunbathing on deck (Figure 7).

All vessels – Other active recreational facilities

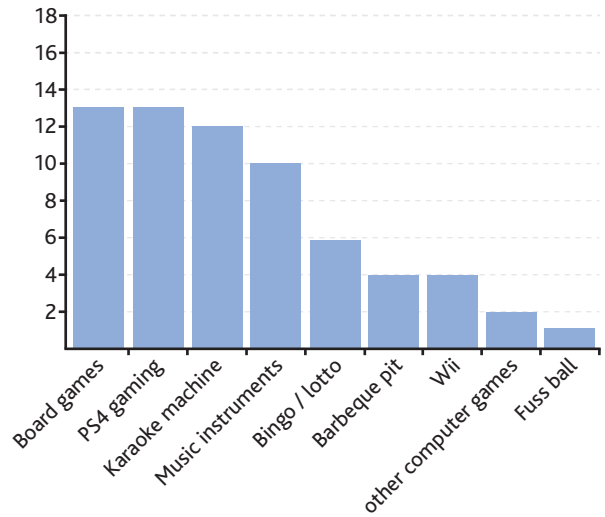


Figure 7 – All vessels – Other active recreational facilities



Communal spaces

The communal spaces available on board the trial vessels varied widely depending on the age and type of the vessel and were described by the Ambassadors at the beginning of each trial. These spaces had an influence on the type of activities that took place, with crew often adapting their recreation choices accordingly. For example, the image opposite shows the game corn toss being played in a corridor on board a smaller vessel. In another log the master mentions teaching some of the crew how to play cricket, an activity which requires significant space.



SIM trials case studies – Vessel Two and Vessel Five

The following case studies present detailed accounts from two vessels, Vessel Two and Vessel Five, that participated in the SIM trials. The data sets captured for these vessels were analysed to help illustrate how different factors can drive or hinder social interaction on board. Strong links were made between increases in happiness and positivity, good leadership, and participation in social activities and other interactions. The findings are also demonstrated by direct quotes from the relevant Ambassadors' logs. These are verbatim and sometimes contain grammatical errors.

The graphs show the survey results and are displayed according to three constructs including wellbeing, social cohesion and perceived company value³. These results are discussed in relation to comments from the daily log reporting and the number of port calls that each vessel made.

Vessel Two was a 94,500 dwt LNG tanker built in 2019. The crew were of mixed nationalities including British, Polish and Filipino. At the time of the trial, all crew were men. The vessel made deep sea voyages, with an average of 2.5 port calls a month. All crew were provided with Wi-Fi access and had a set daily data limit (not specified) which renewed every 24 hours at midnight. Due to crew changes during the trials, there were two Sea Ambassadors for Vessel Two, both the master of the vessel.

Vessel Five was a 17,567 dwt oil/chemical tanker built in 2010. The crew were of mixed nationalities including Filipino, Korean, Bangladeshi, Indian, Malaysian and Indonesian. At the time of the trial all crew were men, except the master who was a woman. In contrast to Vessel Two, this vessel made short voyages and averaged 10 port calls a month. This vessel had Wi-Fi available on board and 2GB was allocated to each crew member on a monthly basis. Vessel Five also had a change of Sea Ambassador during the SIM trial. Both Ambassadors were senior officers – a second engineer and a second officer.

Case study conclusions – Vessel Two

- The Ambassadors' understanding of the crew's general mood and their own could vary. These different perspectives were demonstrated by the occasional mismatch between the logs and the crew wellbeing surveys; highlighting the subjectivity of the records being kept and reflecting the Ambassadors' occasional biases.
- A link is shown between poorly perceived company value and the wellbeing measure 'I have been feeling optimistic about the future'. For Vessel Two, these were both low at the same time demonstrating potential concern and uncertainty about the company's culture and employee prospects.
- A change of leadership on board was reflected in the Ambassadors' different reporting styles and their choice on what to emphasise within their logs. For the crew, this can present a time of uncertainty as they adapt to a different style of command and a change to the on board culture. It demonstrates the human side of shipping, the influence of leadership on a vessel's environment and the necessity for senior officers to have good 'people skills' and an ability to consider the far-reaching consequences of their actions.
- Leadership on this vessel was strongly motivational. Displays of praise and gratitude from the master, senior officers and shore management teamwork are all equally valuable, and their support and approval for social activities on board was seen to be vital in engaging the crew.
- Port calls are strenuous, time-consuming, and can be exhausting for all involved. Prior to any port call there is much preparatory work, particularly paperwork, which is arduous for the senior on board team. Port operations have a significant impact on sleep and rest time. The surveys and logs generally showed a noticeable dip in mood both during and after a port call due to the related time pressures, increased workloads, and subsequent crew fatigue.

3. Refer to section 2.0 Methodology

Case study conclusions – Vessel Five

- Vessel Five's logs had a strong focus on good leadership. Despite the heavy workloads and high number of port calls recorded for this vessel, there was much positivity surrounding the efforts made by both the on board and shoreside leadership. The senior officers were well engaged with social activities, and this was reflected in numerous daily log comments as was the Ambassador's awareness of the required balance between work and social activities.
- Despite the vessel's numerous port calls, the Ambassadors proved that activities could still take place and be popular if they were well-organised and the crew were well-motivated to participate. It is clear that good management and an awareness of the crew's physical and mental state helped to achieve a healthy on board equilibrium, which meant that even difficult situations, such as multiple port calls, became more manageable.
- There was clear evidence that social activities helped to lift the mood on board. Social interaction was achieved through the crew finding time to spend together – even sharing a joke helped to keep spirits reasonably high, despite some of the logged hardships such as tiredness, long hours, tight turnaround times and poor weather.

Additionally

- Many of the recreation facilities on board both case study vessels were not recorded as being used. Some activities were taking place without use of facilities, or presumably with items brought from home. Recreation facilities on board therefore need more consideration to accurately reflect the needs of the crews using them. Their entertainment preferences and nationalities, as well as the vessel's voyage patterns, should all be taken into account.

Case study one – Vessel Two

Communal spaces and recreation facilities

Vessel Two was large (94,500 dwt) and accommodated separate bar and eating facilities for officers and crew which allowed a level of separation between ranks. However, it was noted that for communal events all ranks could easily come together. An internet café housing four PC's provided access to the ship's internet without affecting an individual's personal Wi-Fi limit. Amongst other facilities, there was a well-equipped gymnasium which was used by many, a table tennis room, a pool, and the space and equipment to play basketball.

Facilities and activities on board

Vessel Two was relatively well-equipped with leisure facilities compared to some of the other vessels in the SIM trials. The blue ticks in Figure 8 indicate which recreation facilities were recorded on board. Both blue and orange ticks indicate where these recorded facilities were used for social activities, for example swimming, gym, karaoke and barbeques.

However, the Sea Ambassadors' logs revealed that there were often additional activities taking place using facilities not mentioned in the start-up form (see orange ticks). These included cricket, horse racing (with board and dice), and playing cards. Despite being available (blue ticks), there was no mention in the logs of crew using the vessel's DVDs, table tennis equipment, darts, or board games. Other activities such as parties, sundowners, photography and celebrations, did not require any leisure facilities at all.

This indicates some discrepancy between the facilities provided and those which were actually used. It suggests that the crew could benefit from discussing their facility preferences with the management, to capture the social activities that they would most like to participate in. Such open dialog helps to promote engagement with activities and ensures that the correct equipment is available to facilitate them.

Vessel Two – Facilities and activities

Initial reported facilities on board



Additional facilities and activities noted from logs



Facility/Activity	Initial reported facilities on board	Additional facilities and activities noted from logs
TV		
DVDs		
Speakers for music		
Swimming pool		
Table tennis		
Gym		
Basketball & hoop		
Cricket		
Darts		
Karaoke machine		
Board games		
Music instruments		
Barbeque pit		
PS4 gaming		
Wii		
Horse racing night		
Photography		
Reading		
Steak dinner (weekly)		
Bar		
Sundowners on deck		
Sunbathing		
Party		
Playing cards		
Birthday celebrations		
Hot Tub		
Celebration (other)		

Figure 8 – Vessel Two – Facilities provided on board and those used

Social activities

This vessel logged 10 arranged social activities during their trial participation, although more casual interactions also happened on board throughout, including swimming, use of the gym with others, and meeting for coffee. The logged activities were diverse and included basketball, barbeques, horse-racing, cricket, sundowner get-togethers, and card games. On one occasion, the pilot supplied the crew with free Wi-Fi, and on

others the crew came together to celebrate birthdays and special dates in the calendar.

Unusually, the logs noted no engagement in passive activities like watching TV or DVDs or listening to music. This could be attributed to crew downloading content onto their own personal devices, or simply a lack of reporting on these 'everyday'-type activities. Either way, sports or other active pastimes were much more widely recorded.



Daily log reporting

The following graph highlights key themes from Vessel Two's daily logs and the number of times they were mentioned (Figure 9). The key references are split into the following categories:

- Dark blue themes are broadly associated with contributing to fatigue.
- Orange themes are broadly associated with influencing social interaction.
- Light blue themes are broadly associated with impacting mental health and wellbeing.

Key themes from Vessel Two's logs show predominant references to the weather, port calls and long hours as being major contributors to fatigue and barriers to social interaction. Food played a central role in social interaction for this vessel and was also discussed in the Ambassador's exit interview. Additionally, exercise was clearly important to the Ambassador who described feeling that it helped him and the rest of the crew to stay physically and mentally healthy. Further commentary on this follows in the comparative analysis for the social cohesion, wellbeing and perceived company value constructs.

Crew surveys and daily log observations

All crew were encouraged weekly to complete the confidential wellbeing assessment surveys, although the voluntary nature meant that the response rate varied. For the purpose of presenting meaningful data, the following graphs only display where five or more survey responses were collected within a week. Therefore, several gaps in weekly data will be noted where response rates were low. The following data tracks the mental health and mood of the crew over the trial period. The Sea Ambassadors' daily logs help to narrate and support the analysis of changes.

Vessel Two – Key references made in daily logs

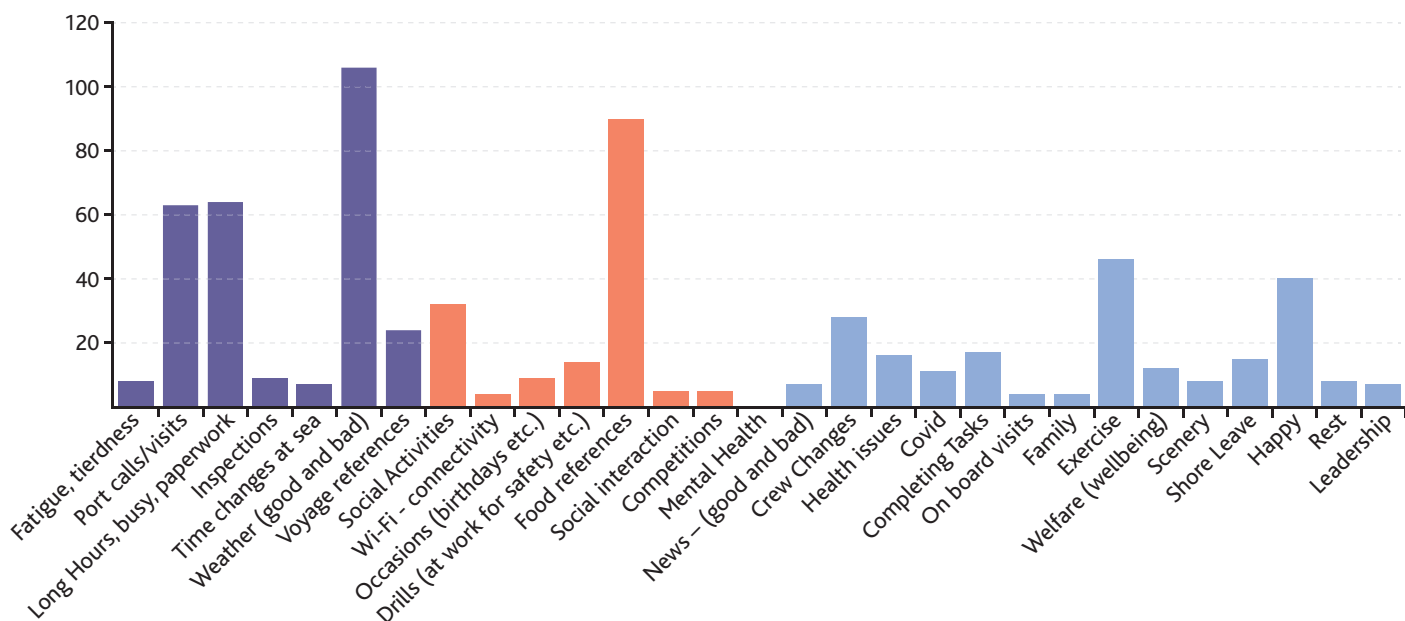
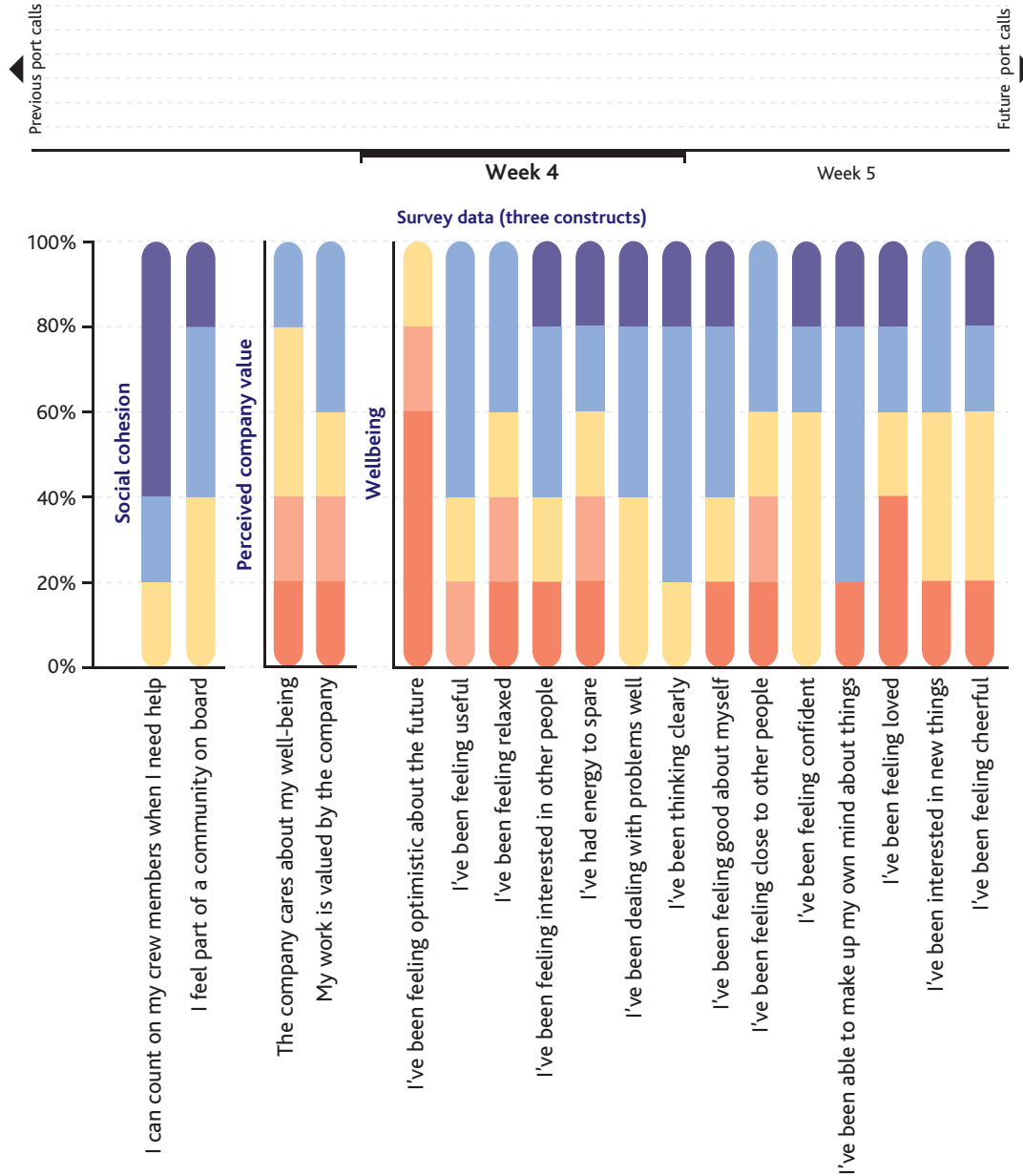


Figure 9 – Vessel Two – Key references made in the daily logs across all weeks

Vessel Two, week four Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



During week four, the Ambassador, the vessel's master, logged positive comments about the crew's mood, when in reality the survey results for the same week (Figure 10) show negativity in the perceived company value and some specific areas of the wellbeing measures including 'I've been feeling relaxed', 'I've had energy to spare', 'I've been feeling loved' and 'I've been feeling close to other people'. This discrepancy demonstrates firstly the subjectivity of the Ambassador's reports, and secondly a disconnect between the Ambassador's own positive mood and his assumption that the crew were feeling the same way. On 16th February 2021, one daily log comment may shine a light on this:

Vessel stopped at sea again to get some engine maintenance done. This helps improve feeling as work is done at a pace such that there is no time pressure, relieving stress."

A lack of time pressure to conduct engine maintenance work might have relieved the master's stress, but it is likely that the crew who actually carried out this work might have felt differently!

Interestingly however, the social cohesion measure is high for this week, indicating that the crew felt able to count on each other and part of a community on board.

When the master reflects on his own good mood during week four, we can see it is linked to his diminishing back pain, celebrating a birthday with others, an imminent crew change and helping the chief officer towards his career progression. It is interesting to notice the positive impact of a happy crew on the master's own mood during this week.

16th February – *"Today is the first day in the last three weeks I have woken up pain free with my back, which has really set my mood to a high. I didn't sleep overly well overnight but feel quite refreshed none the less. Ship's complement seem happy currently, and all are working well. The next port is due to see some crew changes, which always freshens things up, so this is also helping."*

18th February – *"Today has been a really good day for me. Birthday celebrations for some of the officers has left a nice feeling around everyone."*

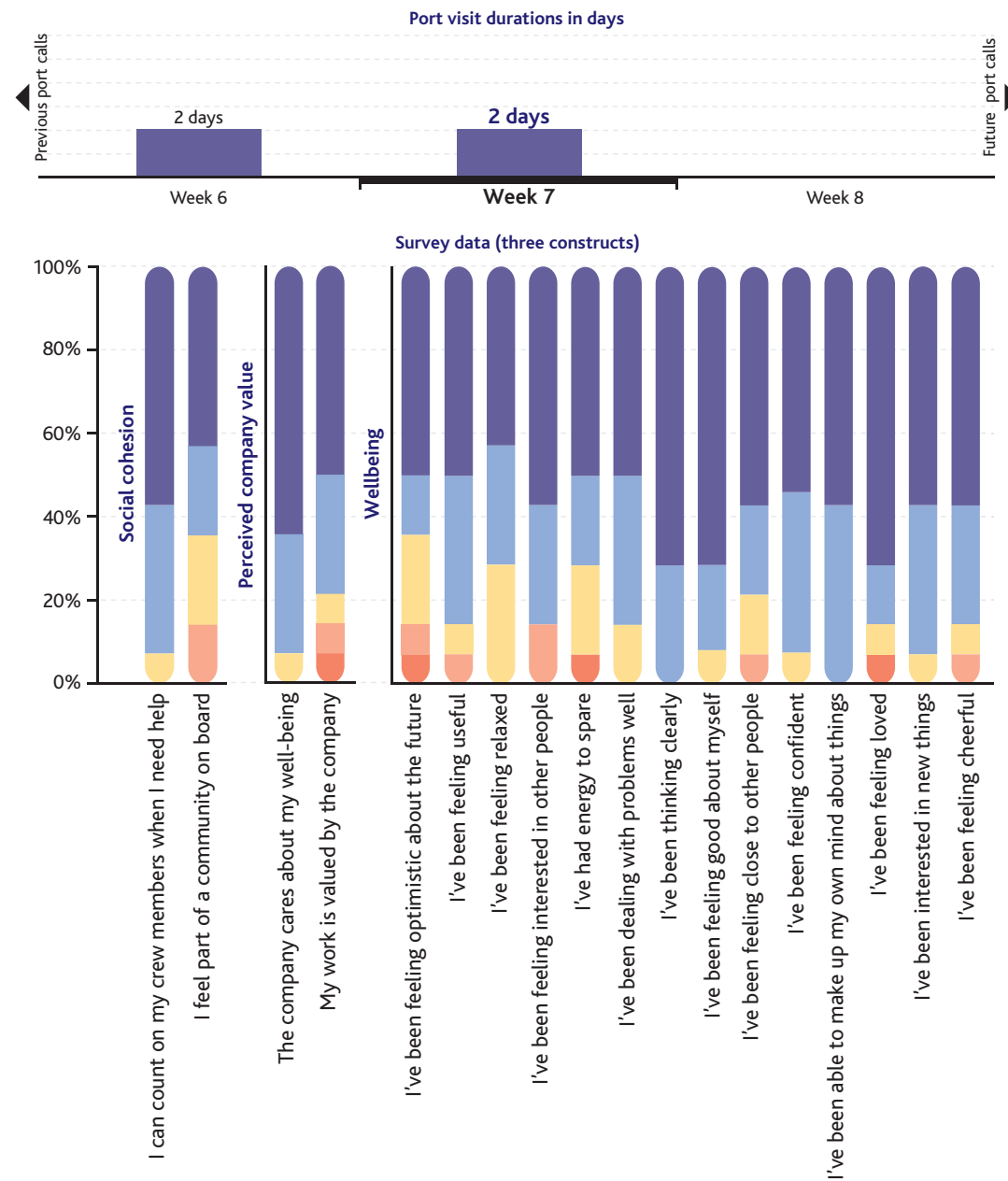
19th February – *"Feeling very positive about everything at present and enjoying life."*

20th February – *"Happy to be able to give the chief officer [the] experience of doing the master's role. Seeing others succeed is a real buzz for me, and something I like to encourage."*

Figure 10– Vessel Two, week four – Survey data and port calls

Vessel Two, week seven Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive



Week seven (Figure 11) shows a marked change towards positivity among the crew. In his daily logs, the Ambassador records the following explanations for this improvement to the overall crew mood, which include good weather, impromptu social activities, motivation from the shore office, a free Wi-Fi dongle from the pilot, interaction with the shore office, and the prospect (for some crew) of completing the voyage and leaving the vessel.

12th March – “Free Wi-Fi available through pilot’s internet dongle. The crew were very happy to have this option.”

13th March – “Having left Australia, the vessel is heading north again with fantastic weather to see us along the way. A few of the ship staff are now on the final leg of their time on the ship, so people are quite happy.”

14th March – “Crew had another impromptu karaoke session.”

15th March – “Vessel took part in a HSE Conference call with many of the Leadership team taking part. A good number of ship staff were present for this call, so many of the ship staff had some interaction with the shore staff. This opportunity does not happen very often, so [it] was good to get some positive feedback.”

“Some very positive feedback today for the ship and her staff during a HSE conference call. The team onboard were praised, and I feel this can emanate amongst all the ship staff that our efforts are appreciated.”

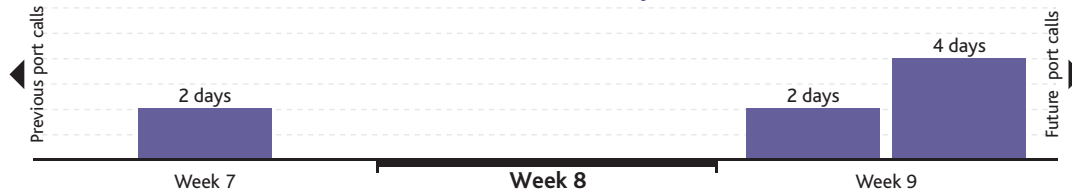
Despite a two-day port call in week seven, the perceived company value improved significantly, and the social cohesion measures remained good. All of the wellbeing measures were generally positive for this week, showing the significant impact of free Wi-Fi, good weather, positive feedback and social interaction.

Figure 11 – Vessel Two, week seven – Survey data and port calls

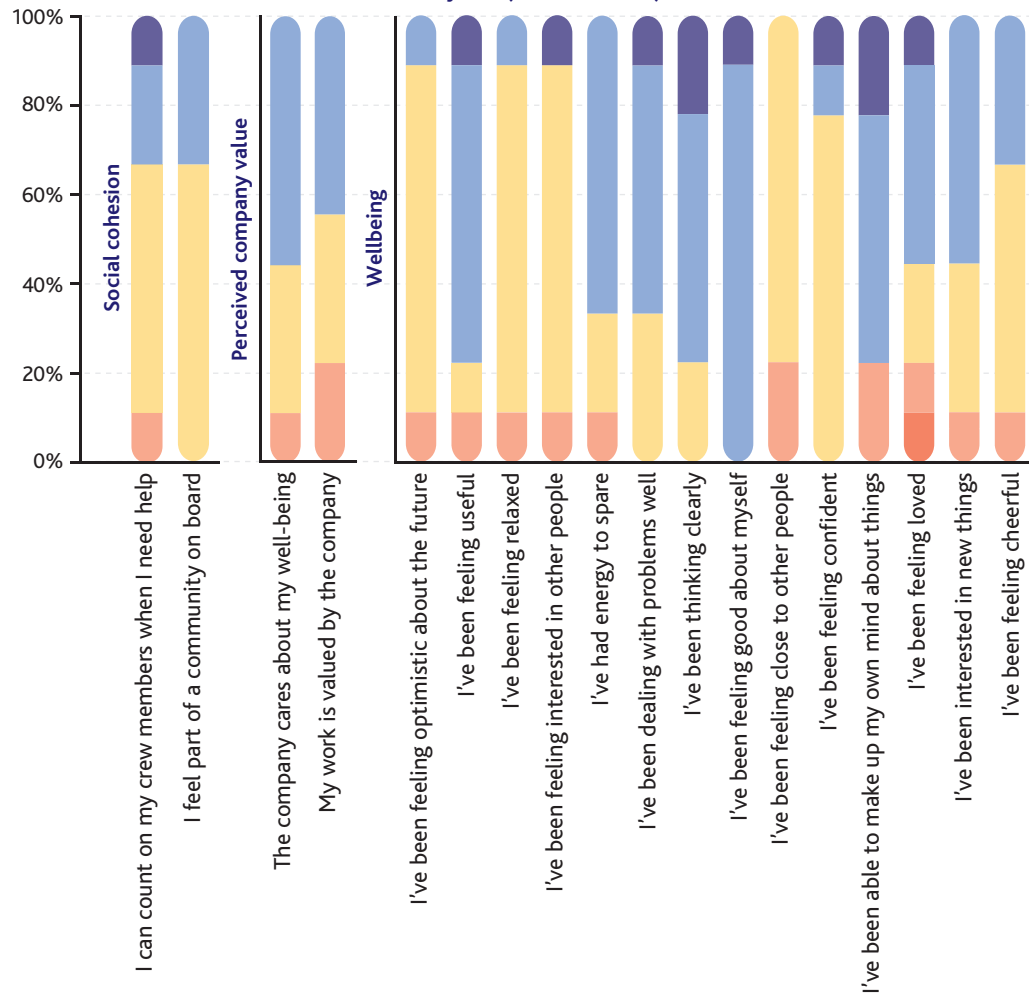
Vessel Two, week eight Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



The cancellation of a planned crew relief in week eight appears to have had a negative impact on morale, as evidenced in Figure 12.

The Ambassador comments on the crew mood:

18th March – *“Overall the mood is good, however news has come through that two of the planned crew reliefs may be cancelled due to a change in Philippine government arrival requirements. We are awaiting news on this, but the two staff concerned are naturally devastated.”*

21st March – *“The two crew who should have been going home are still not feeling great about their relief been cancelled, but fully understand this is out of the control of all. Hoping we can get them off in the next available port.”*

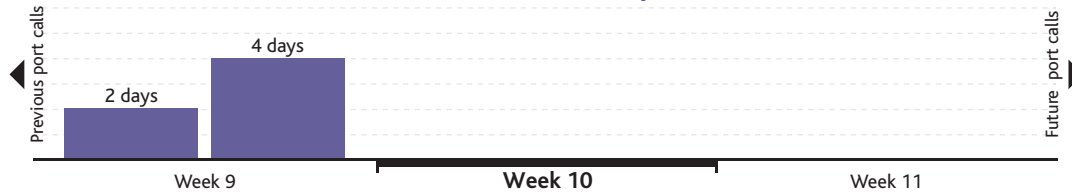
The impact of this changed the feedback in terms of perceived company value and a few of the wellbeing measures, including 'I have been feeling optimistic about the future', 'I have been feeling loved' and 'I have been feeling close to others'. Additionally, week eight followed a port call and there were a further two scheduled for the next week (week nine). This meant that there was likely to have been a heavy workload in preparation and possible fatigue.

Figure 12 – Vessel Two, week eight – Survey data and port calls

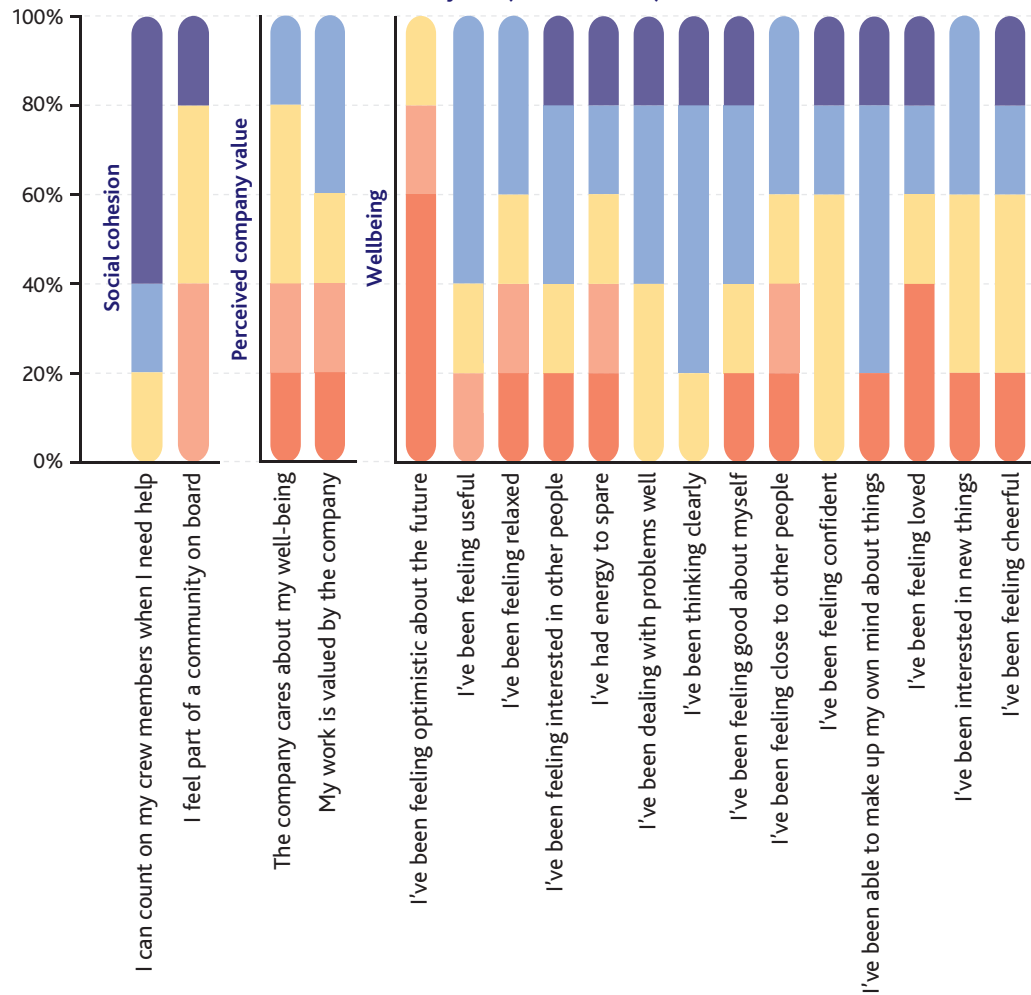
Vessel Two, week 10 Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



In week 10 there was noticeable negativity present in the surveys and logs. This may be attributed to the recent port calls in week nine, and tiredness and fatigue following the busy work schedule that is mentioned. The Ambassador felt that the fatigue he was experiencing was the cumulative result of tiredness over time. There are references to the crew enjoying an afternoon off and an extra hour in bed due to a time change, reflecting their need to catch up on sleep following a busy schedule.

The excerpts below are the Ambassador's logs about the crew.

"Today has been a Saturday, and most people have managed to take the afternoon off, which is always a good feeling."

"Clocks are being retarded one hour tonight, so everyone is looking forwards to an extra hour in bed."

The Ambassador logs about his own fatigue during this week.

1st April – *"I had gone to bed very early last night as cumulative fatigue had hit."*

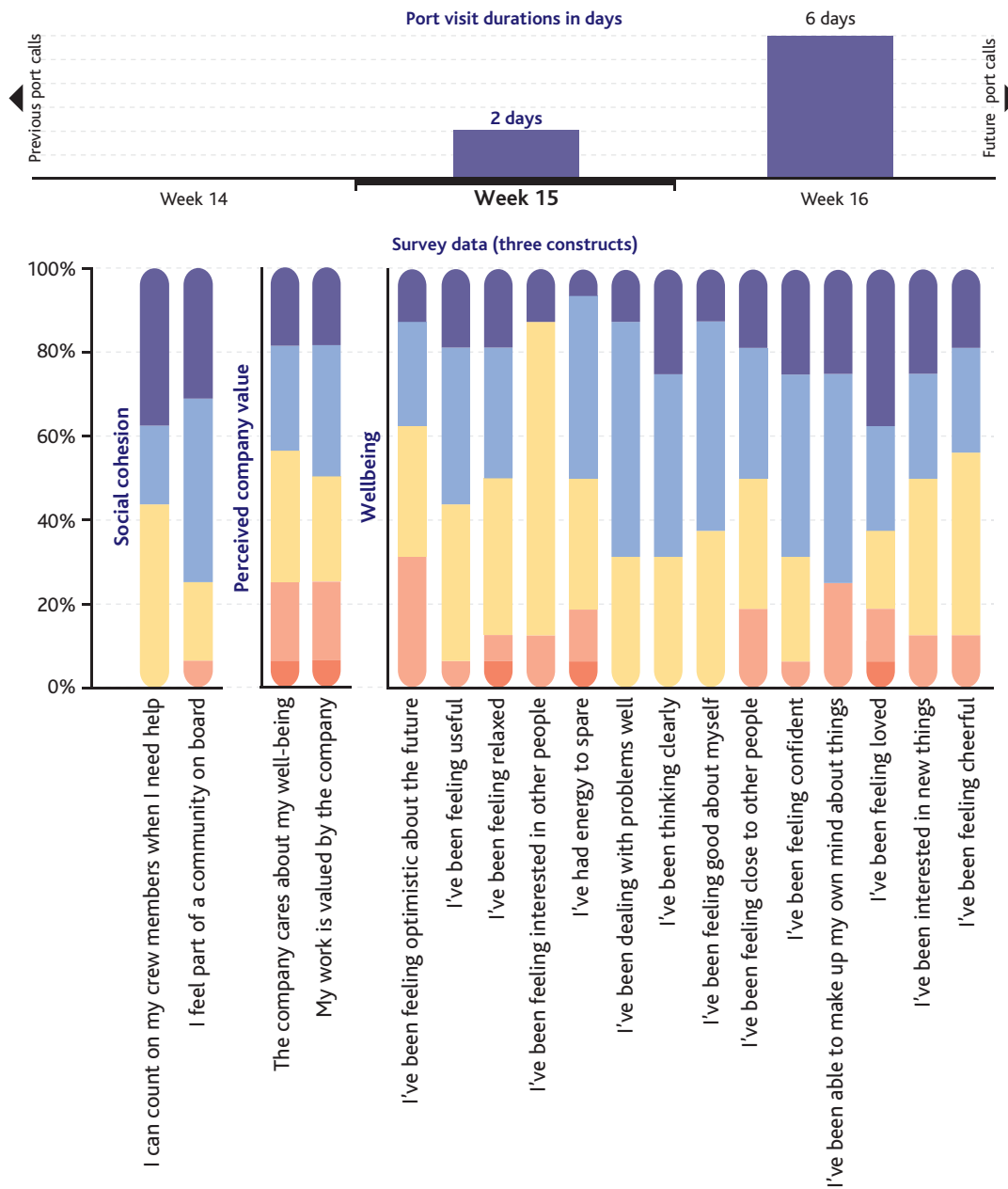
5th April – *"Vessel is making progress, but I am starting to feel a little fatigued. I am sure this will disappear soon, but after a very busy few weeks, things are starting to take their toll."*

The survey results for week 10 show a significant drop in perceived company value. Some of the wellbeing measures were also low, particularly 'I have been feeling optimistic about the future', 'I have been feeling relaxed', 'I have had energy to spare', 'I have been feeling close to others' and 'I have been feeling loved'. Social cohesion measures remained positive, suggesting that despite the fatigue and long hours there was still a good sense of community on board and that crew felt that they could count on each other.

Figure 13 – Vessel Two, week 10 – Survey data and port calls

Vessel Two, week 15 Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive



By week 15 there was an increase in positivity on board, as evidenced in some of the crew's survey comments. The bar had re-opened after leaving U.S. waters, and this allowed for a relaxing of restrictions and appears to have encouraged more social interaction. There was a changeover of master on 6th May, which had observable impacts the following week (16).

7th May – "Sailing from US port after successful USCG inspection"

8th May – "Saturday – Half day & bars re-opened after leaving US EEZ."

9th May – "Sunday steak day!"

"Bond/Slopchest⁴ issue, always boosts moral."

10th May – "Good one team atmosphere onboard"

Week 15 shows good social cohesion but slightly low perceived company value and negativity for the wellbeing measure 'I have been feeling optimistic about the future'. The other wellbeing measures for this week are generally positive, despite a two day port call which shows the positive impact of the slopchest issue, the organised steak day and social interaction.

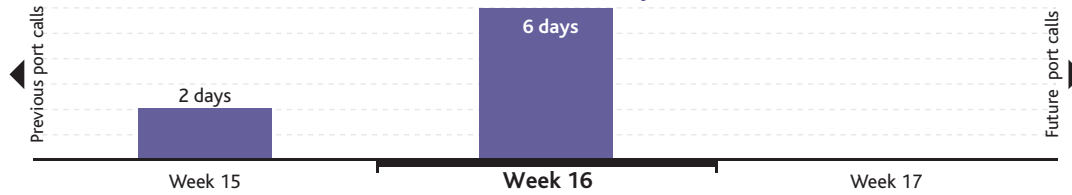
4. A ship's slop chest varies from vessel to vessel but tends to be a small on board shop stocking consumables like toiletries which seafarers can buy.

Figure 14 – Vessel Two, week 15 – Survey data and port calls

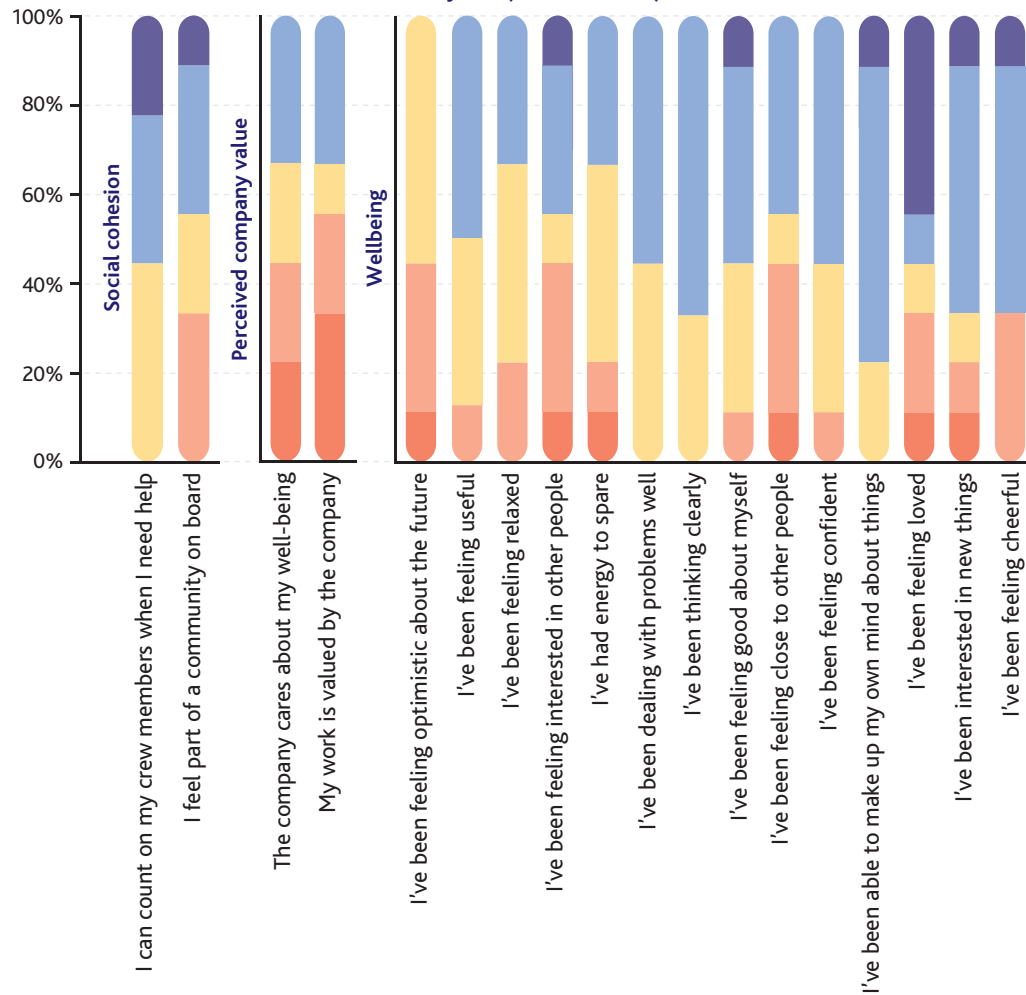
Vessel Two, week 16 Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often
Categorisation	Negative	Quite negative	Neutral	Quite positive

Port visit durations in days



Survey data (three constructs)



The changeover of master (who also became the new Sea Ambassador) in the previous week, led to an inevitable change in reporting style. The new Ambassador's logs were positive (as seen on left), although the results of the week 16 crew survey (Figure 15) had a more negative trend – indicating an initial lack of synergy between the new master and his crew. The survey results show a drop in perceived company value and a significant drop in five of the wellbeing measures. The social cohesion measure 'I feel part of a community' is also lower for this week.

The Ambassador's daily logs for this week detail that the crew were preparing the vessel for a Panama Canal transit, which meant a busy work schedule. There was also a six day port call, which followed a two day port call the previous week. This likely meant the crew were working long hours and experiencing tiredness, which may also have contributed to their lower mood.

14th May – "ER [Engine Room] work progressing. Good one team spirit onboard."

16th May – "Panama Canal transit always boosts moods, despite the long day for most of the ships compliment."

"Vessel at anchor Balboa, plenty of operations keeping everyone busy."

17th May – "Vessel at anchor Balboa, bunker 2 operations."

"Crew change for some Filipino crew."

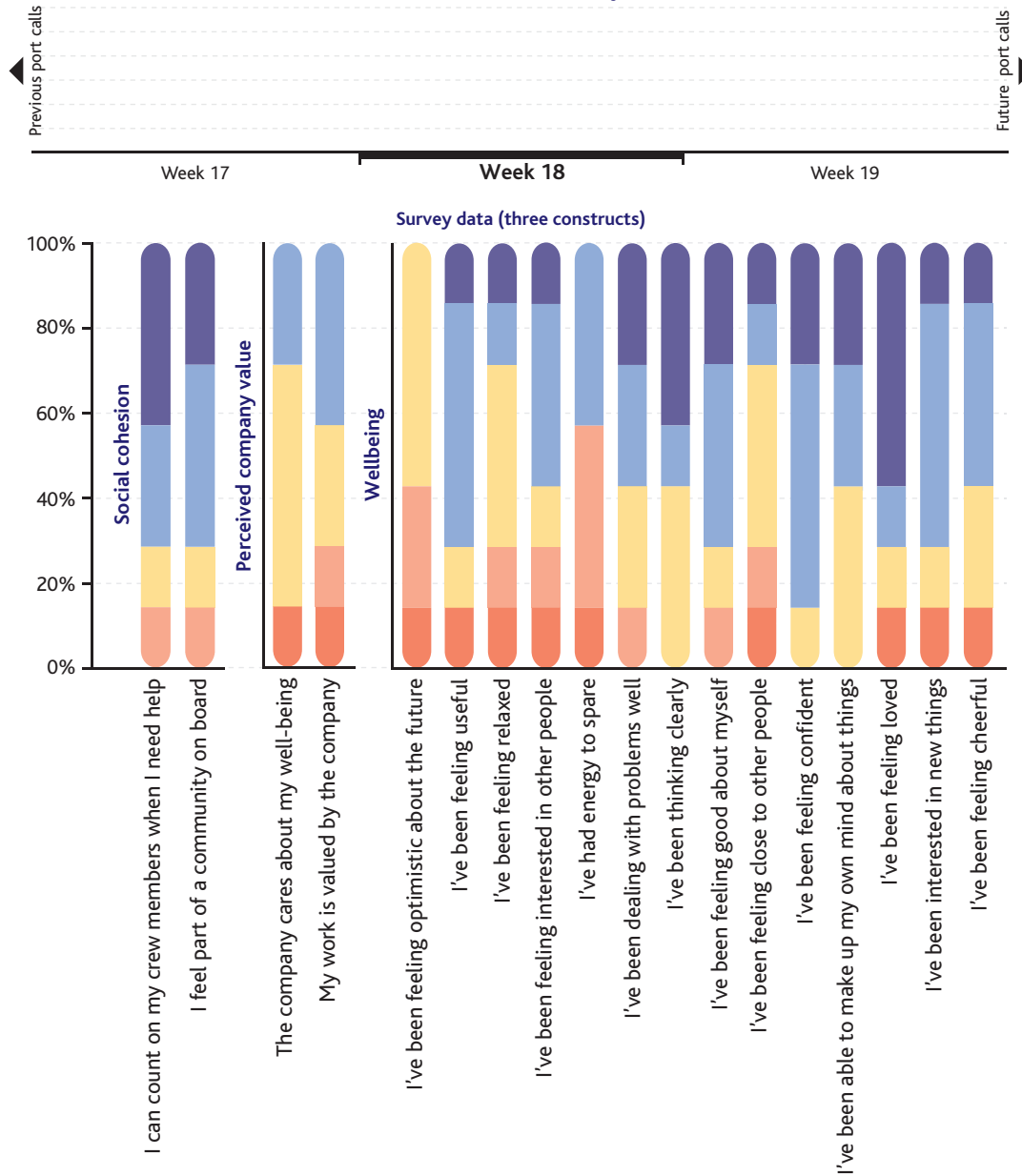
"Vessel sailed from Balboa in the evening for Pacific crossing. The long deep sea voyage lifts spirits."

Figure 15 – Vessel Two, week 16 – Survey data and port calls

Vessel Two, week 18 Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



In week 18 there was a significant swing towards more a positive outlook on board, a change that can quite clearly be explained by increased engagement in social activities and good weather (Figure 15).

26th May – “Vessel in the Pacific, with very good weather.”

“Meal times & Sundowners”

28th May – “Vessel in the Pacific, with very good weather.”

29th May – “Vessel in the Pacific, with very good weather.”

“Half day, so many took advantage of the good weather and spent the afternoon poolside.”

“Crew playing basketball.”

30th May – “Sunday steak day.”

Interestingly, there was a low score in wellbeing this week for ‘I have had energy to spare’. The ship was in between port calls, with good weather, and crew were relaxing and catching up on rest and recreation. It is possible that due to the previous port call, low energy was being experienced amongst the crew causing a drop in the feeling of wellbeing.

Figure 16 – Vessel Two, week 18 – Survey data and port calls

Observations from Vessel Two's Sea Ambassador's exit interview

- The vessel's involvement in the SIM trials generated a lot of interest on board and made a good talking point for the crew. It also helped to instigate important conversations about mental health.
- The Ambassador felt that as a result of his involvement he became more reflective, and that he thought more about the importance of social interaction and crew activities. He said, 'A happy crew work better and safer' and planned to carry on reflecting at the end of each day about the interaction on board.
- As a social activity, competitions worked particularly well and 'peaked [sic] interest'. The ambassador attributed this to seafarers having a competitive nature – 'It is the mental thought of winning something!'
- A reduction in the number of vessels within the company fleet meant that some of the crew already knew each other or had worked together in the past. This helped to facilitate a sense of continuity and familiarity amongst crew mates and made for easier handovers where they knew each other and/or had worked on the ship before. It made, in the Ambassador's words, 'for a seemingly transition' and helped crew to form better bonds.
- The most popular social activities were barbeques or anything that involved food. A barbeque meant that even the galley staff could enjoy time off, as they only had to prepare the food but not necessarily cook it. The act of cooking also became more sociable. Sports events, especially basketball, were also very popular; as were impromptu activities such as cards, table tennis and fishing.
- Weather had a big impact on the crew's ability to socially interact, with bad weather making this difficult.
- When crew replacements were ready to fly out to the ship, it used to mean that the individuals signing off could be certain of their leave. However, this was no longer guaranteed because the replacements could test positive for COVID-19 in the interim. This inevitably had a significant knock-on effect to the wellbeing of the crew concerned, with leave uncertainty causing stress and anxiety just when they should have been looking forward to resting and re-setting after their often long, and possibly extended, voyages.
- The Ambassador stressed the importance of leadership and 'buy-in' for successful engagement with social activities – 'The leadership makes it happen'.
- He felt that the company cared about its seafarers and pointed out the very good food on board and good facilities, including film screens and a swimming pool.

“The Ambassador felt that as a result of his involvement he became more reflective, and that he thought more about the importance of social interaction and crew activities.”

Case study two – Vessel Five

Communal spaces and recreation facilities

The Shore Ambassador for Vessel Five reported that the communal spaces on board included separate mess rooms for the officers and crew. Internet and Wi-Fi was available, with 2GB per month allocated to each of the crew.

Vessel Five had fewer recreation facilities on board compared with Vessel Two and was a smaller vessel altogether. The facilities are indicated with blue ticks in Figure 17. However, similar to Vessel Two, during the trials social activities were logged that did not make use of the facilities provided but still brought the crew together. These are indicated with orange ticks in Figure 17. Both blue and orange ticks on a row indicate where these recorded facilities were used for social activities, for example, TV, table tennis, basketball and karaoke. Other activities, such as dancing and taking afternoon tea together, did not require any leisure facilities at all.

Social activities

Vessel Five had a good range of recreation facilities available (Figure 17) although, as with Vessel Two, the gym equipment was not reported as being used during the trials. Other activities, such as cards, darts and board games, took place using equipment which was not reported as being available. This might have meant that in some cases, the crew were supplying their own recreation facilities.

A total of 11 planned activities were recorded for this vessel, five of which were competitions where cash prizes were often awarded to the winners. An additional 13 unplanned activities were logged (Figure 17) including cultural cooking, card games, basketball, karaoke, table tennis, darts and lemon tea drinking (in a group), although these numbers are likely to be even higher.

Vessel Five – Facilities and activities

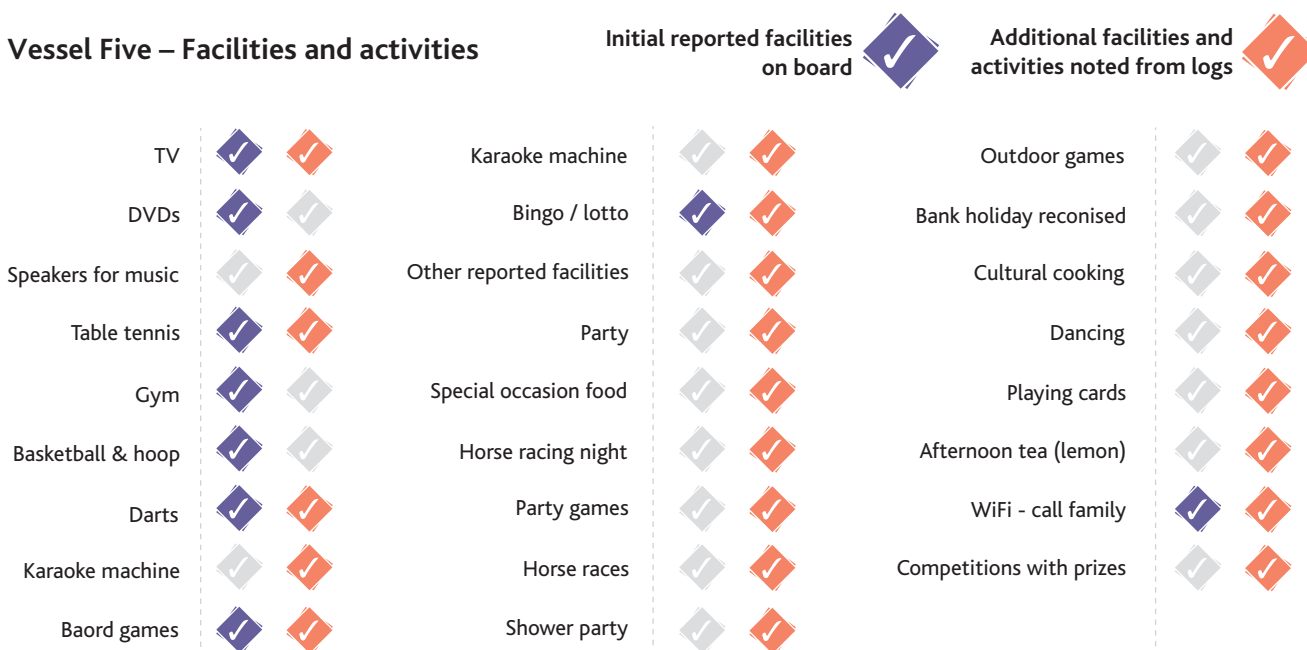


Figure 17 – Vessel Five – Facilities provided on board and those used

Daily log reporting

The following graph highlights key themes from Vessel Five's daily logs and their frequency of mention (Figure 18). Each theme impacted life on board in a variety of ways, at times both negatively and positively. During the trial period, Vessel Five made many port calls which were regularly referred to in the logs, alongside the long working hours and tiredness incurred as a result. Both planned and unplanned social activities were a regular feature on board and were frequently related to food. The influence of leadership was often noted, as were the many issues and concerns raised by COVID-19.

The key references made in the daily logs (Figure 18) based on the number of times they were mentioned, are split into the following categories.

- Light blue themes are broadly associated with impacting mental health and wellbeing.
- Orange themes are broadly associated with influencing social interaction.
- Dark blue themes are broadly associated with contributing to fatigue.

Vessel Five – Key references made in daily logs

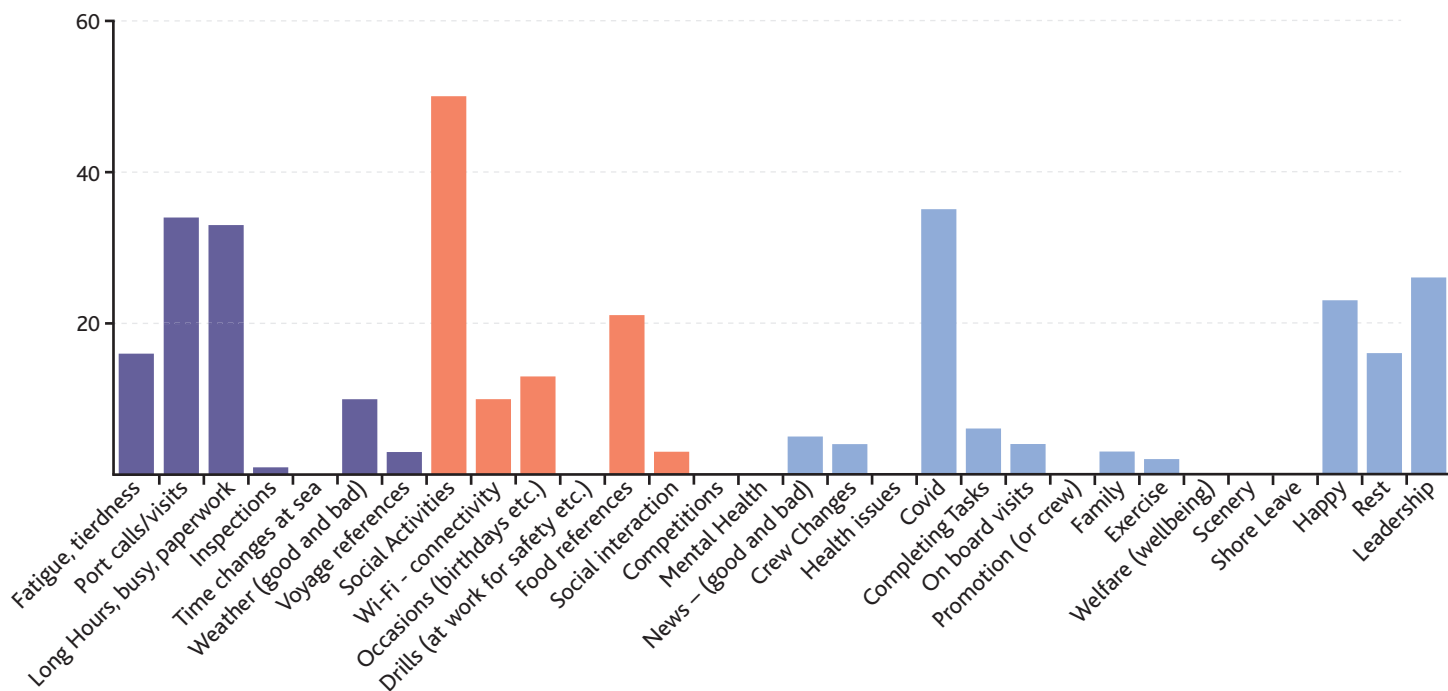
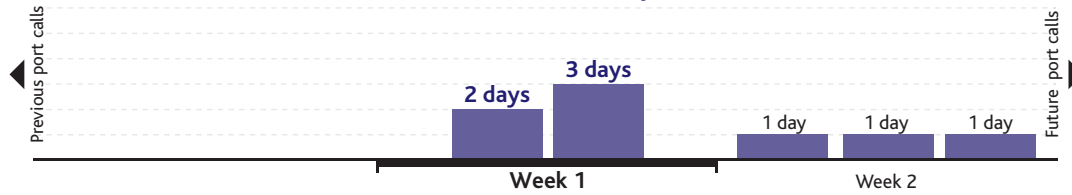


Figure 18 – Vessel Five – Key references made in daily logs

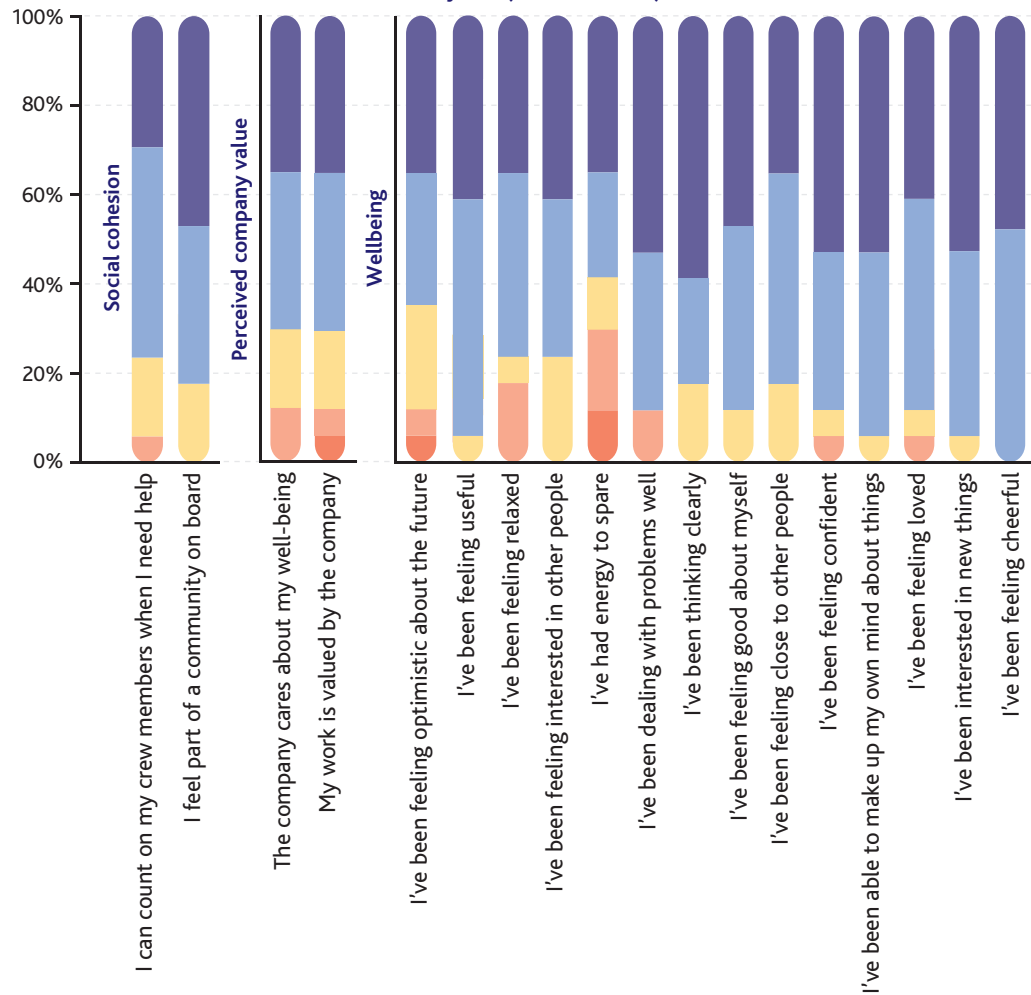
Vessel Five, week one Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



Despite it being the week before Christmas, with some social activities taking place, a low mood was reported in the week one logs. Some evidence of negativity also appeared in the survey results, mainly from the wellbeing measures, including, 'I have been feeling relaxed' and 'I have energy to spare'. This perhaps is unsurprising because there were two port calls in week one, which lasted two and three days respectively (Figure 19). Other potential contributing factors might be explained by the following observations from the Ambassador's daily logs.

17th December (2020) – “Vessel shifted from anchorage to berth, mooring operation during heavy rain, short stay in port, vessel is on tight schedule”

19th December – “Vessel departed port, tight schedule.

20th December – “Vessel is sailing to Myanmar, good weather, everyone took proper rest, but vessel received mail from office regarding Pumpman's exposure to [a] COVID-19 positive person before he joined the vessel, and he was instructed to isolate himself in his cabin until further notice.”

The pumpman's isolation due to COVID-19 exposure appears to have been a specific low point, impacting on the crew's mood in general. It would have meant being one pair of hands down during a busy time, as well as posing a health-risk to the rest of the crew and causing a potential knock-on impact on crew change.

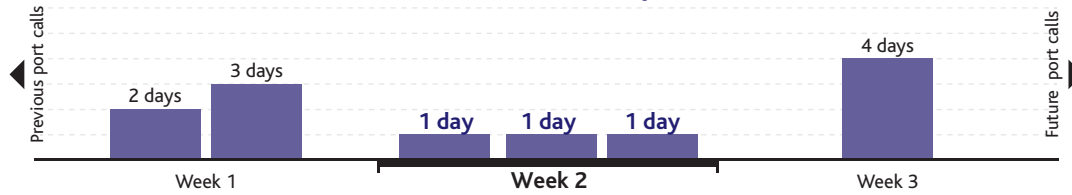
However, it should be noted that the perceived company value and the social cohesion measures were both generally positive, indicating good team camaraderie and belief that the company had their best interests at heart, despite the COVID-19 situation unfolding on board at the time.

Figure 19 – Vessel Five, week one – Survey data and port calls

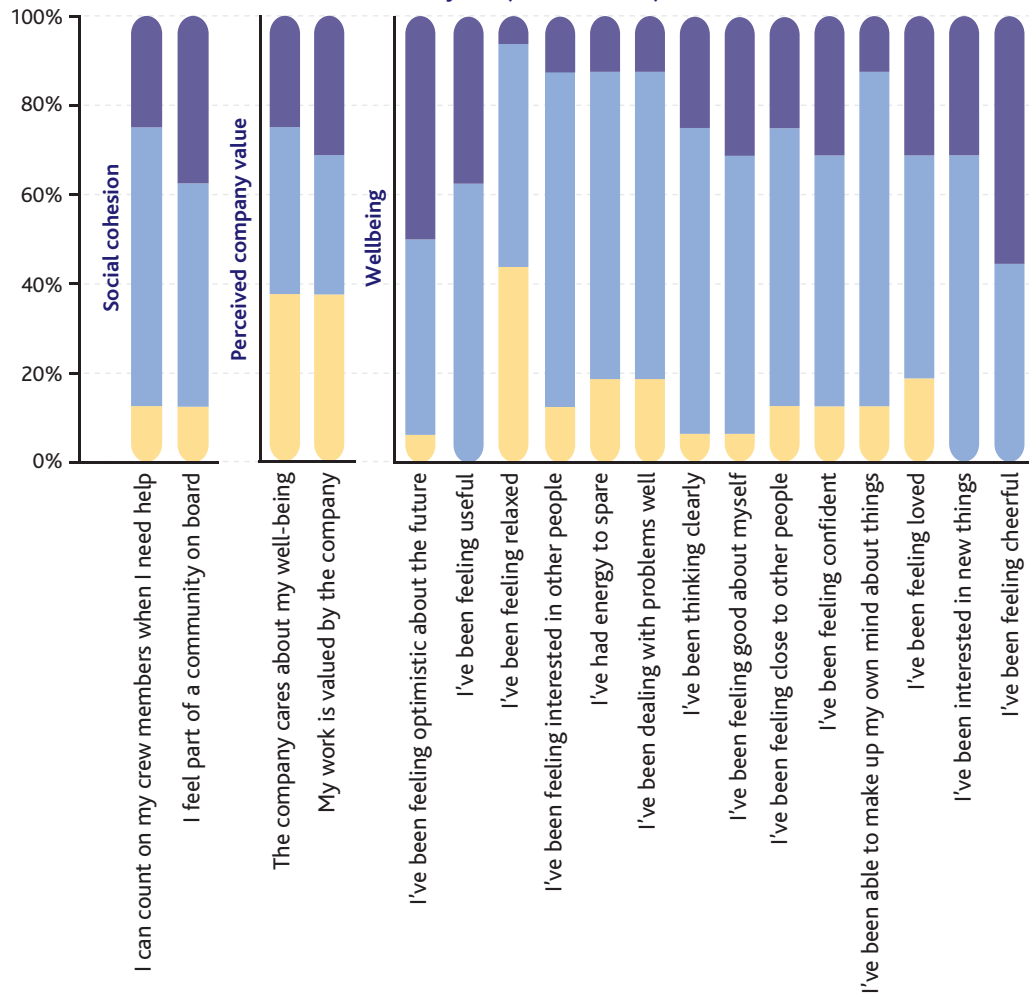
Vessel Five, week two Survey data and port calls

	None of the time	Rarely	Some of the time	Often	All the time
Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



There was strong positivity for week two (Figure 20) across all three constructs (wellbeing, social cohesion and perceived company value) despite three port calls taking place which lasted one day each. The Christmas period seems to have raised spirits, and there were many activities and preparations that brought the crew together to have fun. The following logs show the build-up to, and excitement surrounding, Christmas. It is notable that not only were the crew able to share in this with each other, but also with their families via Wi-Fi.

23rd December – “Vessel dropped anchor in Yangon anchorage, Myanmar awaiting for berthing schedule. All crew were busy preparing for Christmas party tomorrow here in the anchorage.”

24th December – “All crew helped in the preparations for the Christmas party, some cooked meals and some helped in preparing the Mess room, others prepared the party games. Started the party around 1900H and finished before midnight. Everyone enjoyed their meals and participated in the party games such as Bingo, Horse race etc. Mostly crew called their families after midnight to greet them Merry Christmas. It was a fun night indeed.”

25th December – “Vessel shifted from anchorage to terminal for discharging operations. Operation was normal and smooth. Everyone is in good mood as today is Christmas.”

“... Christmas today and everyone talked about the party last night.”

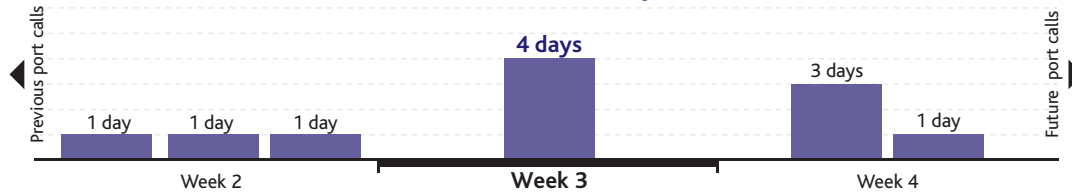
26th December – “Normal cargo operation, finished the discharging operation around afternoon time but vessel is scheduled to sail tomorrow morning due to tide schedule. Everyone got some time to rest while waiting for the departure.”

Figure 20 – Vessel Five, week two – Survey data and port calls

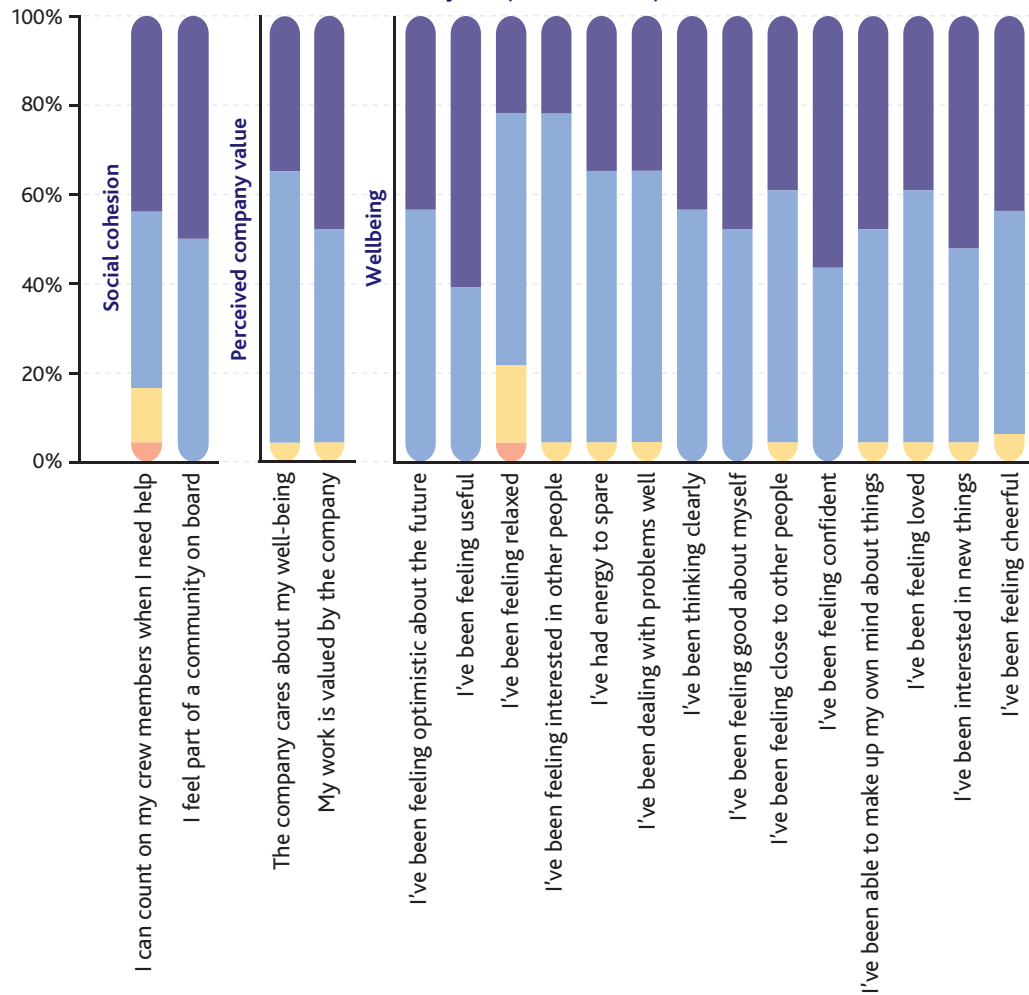
Vessel Five, week three Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



The week three surveys also showed strong positivity in wellbeing, social cohesion and perceived company value (Figure 21). This was a very busy vessel and there was another port call in week three which lasted four days. Nevertheless, the scheduled activity did not appear to have had a negative impact on the crew's wellbeing and the senior officers managed rest times carefully.

31st December – “Vessel shifted from anchorage to berth for loading operation. Chief cook prepared some meals for New Year's eve. Unable to carried out party due to cargo operations.”

1st January 2021 – “Normal working routine. Looking forward for pandemic to be over this year.”

3rd January – “Vessel at anchorage. Awaiting berthing schedule, mostly crew went for rest today.”

4th January – “Vessel shifted from anchorage to berth for discharging operation. Normal port cargo operation.”

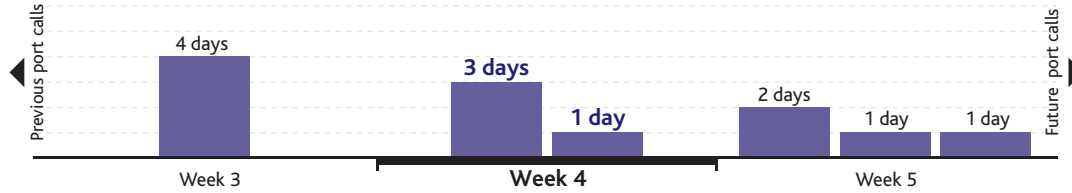
5th January – “Vessel shifted from berth to anchorage. Crew were busy doing the tank cleaning operation, preparing the cargo tanks for next loading operation.”

Figure 21 – Vessel Five, week three – Survey data and port calls

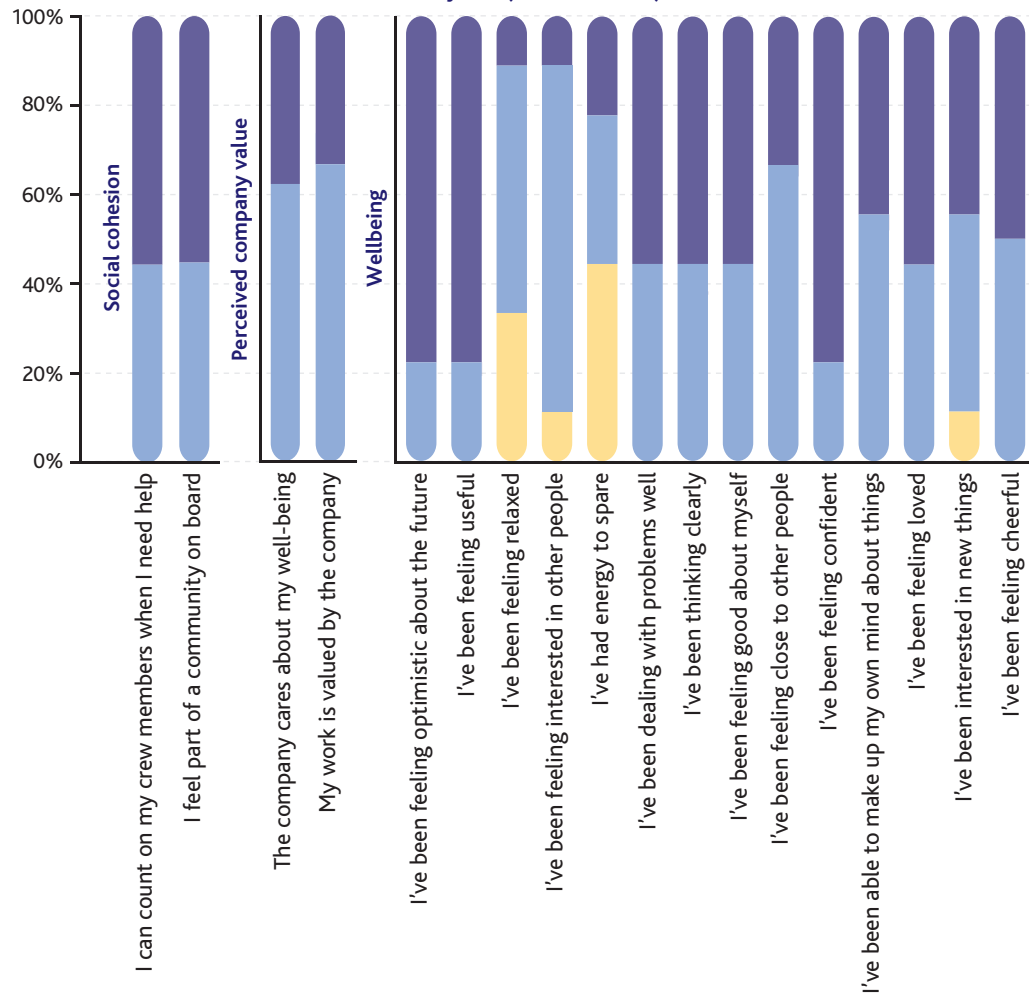
Vessel Five, week four Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



The crew survey reporting in week four clearly shows increased overall positivity (Figure 22) which can be attributed to good leadership, good weather, good rest and a variety of social activities which brought crew together and created 'joy' and 'camaraderie'. There was a slight negative change in a couple of the wellbeing measures including, 'I have energy to spare' and 'I have been feeling relaxed'. This was perhaps an inevitable outcome of the number of port calls the vessel was making, including a four day port call that week.

8th January (2021) – “good news and very good leadership”

9th January – “very good weather and very adequate management of work related matters”

cooking with everyone involved that brought the crew socially together.

10th January – “everyone played table tennis with a lot of enthusiasm and joy very good activity”

11th January – “good weather, stable ship and everyone well rested”

“singing songs and a bit of dancing brought camaraderie between each other”

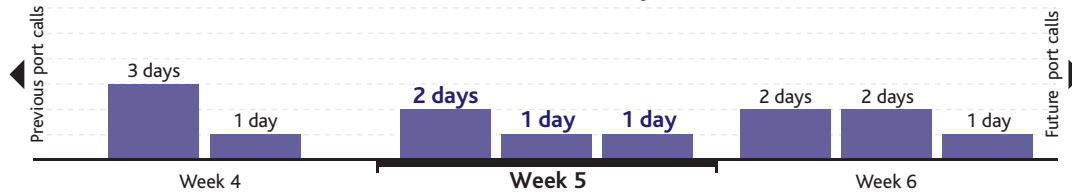
14th January – “very good environment in the engine room good management”

Figure 22 – Vessel Five, week four – Survey data and port calls

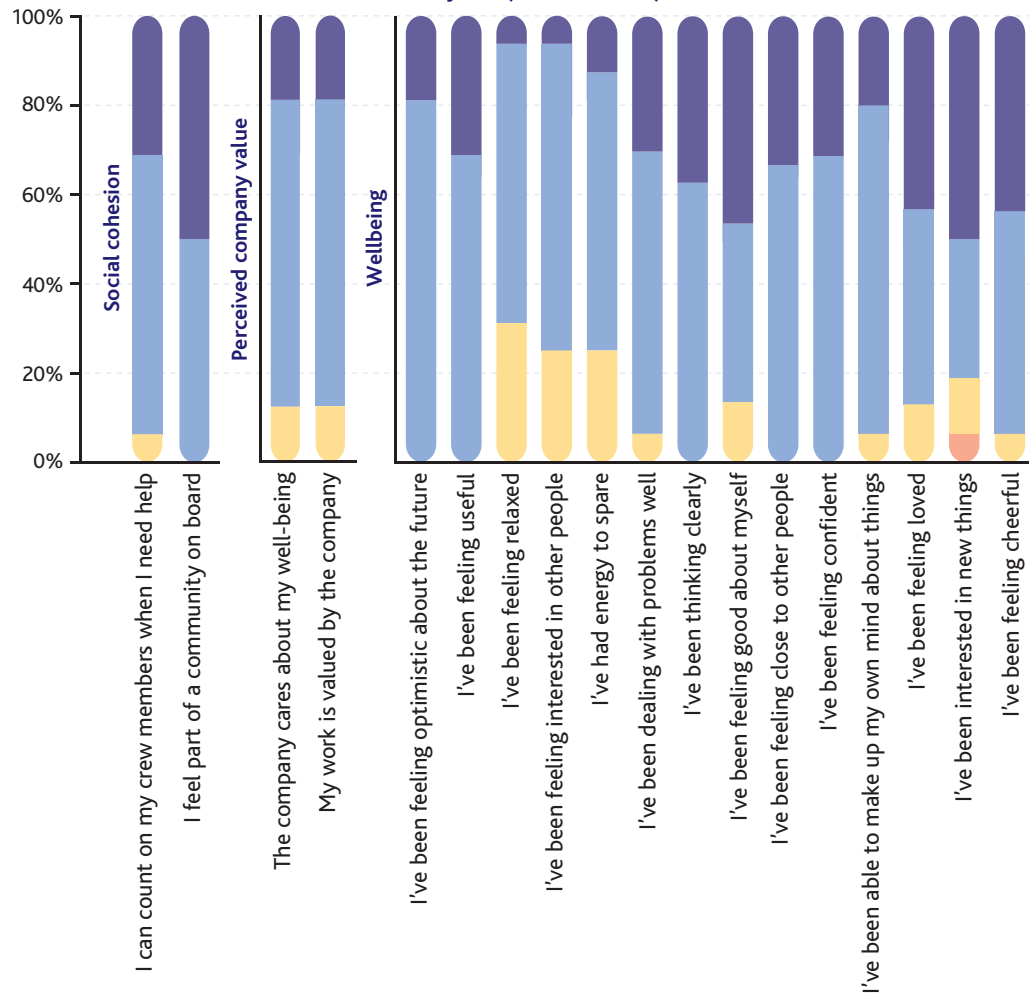
Vessel Five, week five Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



In week five there was a two day port call. The Ambassador's logs remained relatively positive but a little negativity could be seen appearing in the survey results (Figure 23). There was a small drop in social cohesion and perceived company value. The wellbeing measures also saw some minor negative changes for the statements 'I have been feeling relaxed', 'I have been interested in other people' and 'I have had energy to spare'. This week was full of contrasting influences that impacted the crew's mood but in the main appeared to balance each other out, as the logs below testify. For example, management issues were reported but then countered by some popular decisions such as allowing the crew more rest. Extra internet time, social activities and special seafood also raised spirits this week.

19th January – "Management issues" reported

"We finished a very big job today and it was appreciated by office."

Management issues can impact on all crew and increase tensions on board. In contrast, completing tasks, especially ones that are appreciated by management (in this case the shore office) usually helps to boost morale and confidence. The following

day (January 20th) the management gave the crew some additional rest time to compensate for the busy schedule they had been following.

20th January – *"good weather, stable ship and everyone well rested because management gave some rest to us."*

21st January – *"I am happy even we are busy we still managed to enjoy by playing cards and singing karaoke in youtube."*

23rd January – *"Work pressure because some machineries not properly working."*

"Feel relax because I have internet sim card. More time for social media happenings and updates."

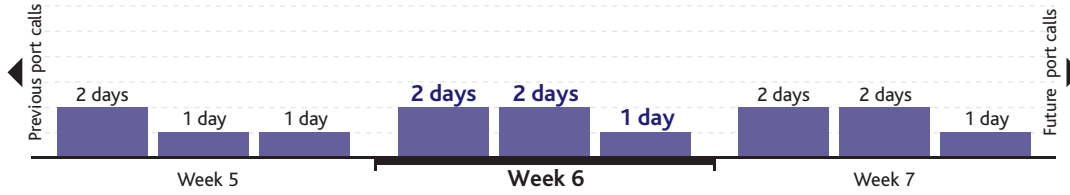
"[...] today galley cooked seafoods, [the] crew feel excitement."

Figure 23 – Vessel Five, week five – Survey data and port calls

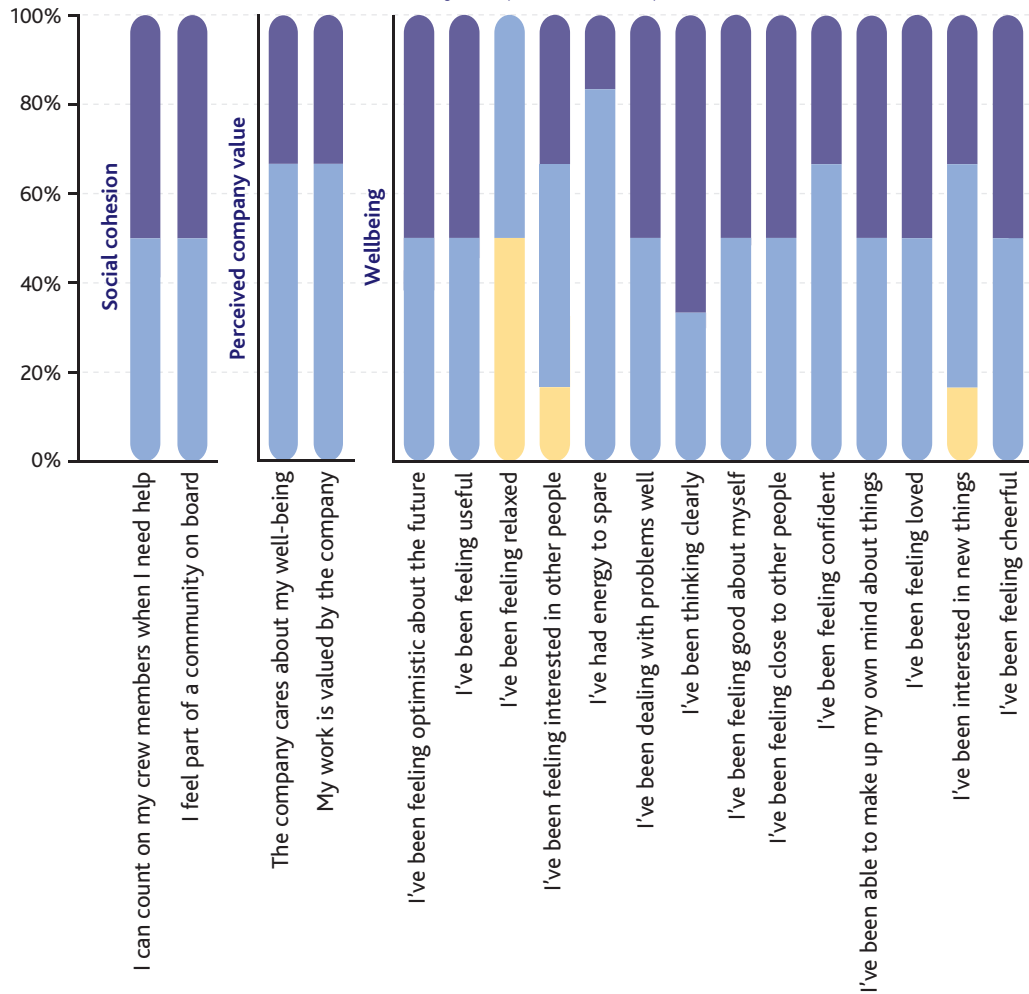
Vessel Five, week six Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



Relatively positive statistics were reported in the week six survey, despite the logs recording a mix of positive and negative influences (Figure 24). Social cohesion and perceived company value were both high. There was a slight negativity around the wellbeing measure, 'I have been feeling relaxed' which was likely related to the fact that there were two port calls in week six which lasted two days each.

26th January – “Ship was called to berth unexpectedly. Crew weren't prepared/ rested themselves earlier.”

“Too many people came onboard since we're in SBM operation. Crew taken precautionary measures.”

“Feel bad that plenty local people came onboard that we didn't expect especially this time of COVID”

27th January – “Crew very excited when we heard from [the] Captain [that] we will be having dinner together tomorrow.”

“Crew were tired due to ship's schedule.”

“Crew are still managed to talk and have joke times with each other despite [the] busy day.”

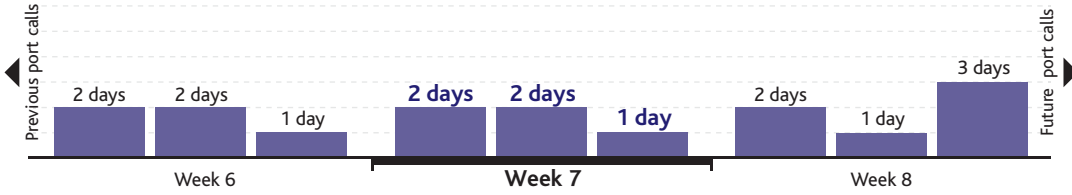
Negative impacts on the crew's mood during week six included tiredness due to the vessel's sustained heavy work schedule, and a long task list (Figure 24). Having too many people come on board during the port call was clearly viewed as a COVID-19 risk and caused stress. However, this was tempered by the crew having something to look forward to (dinner with the master the next day), and spending time together talking and laughing – despite everything else going on.

Figure 24 – Vessel Five, week six – Survey data and port calls

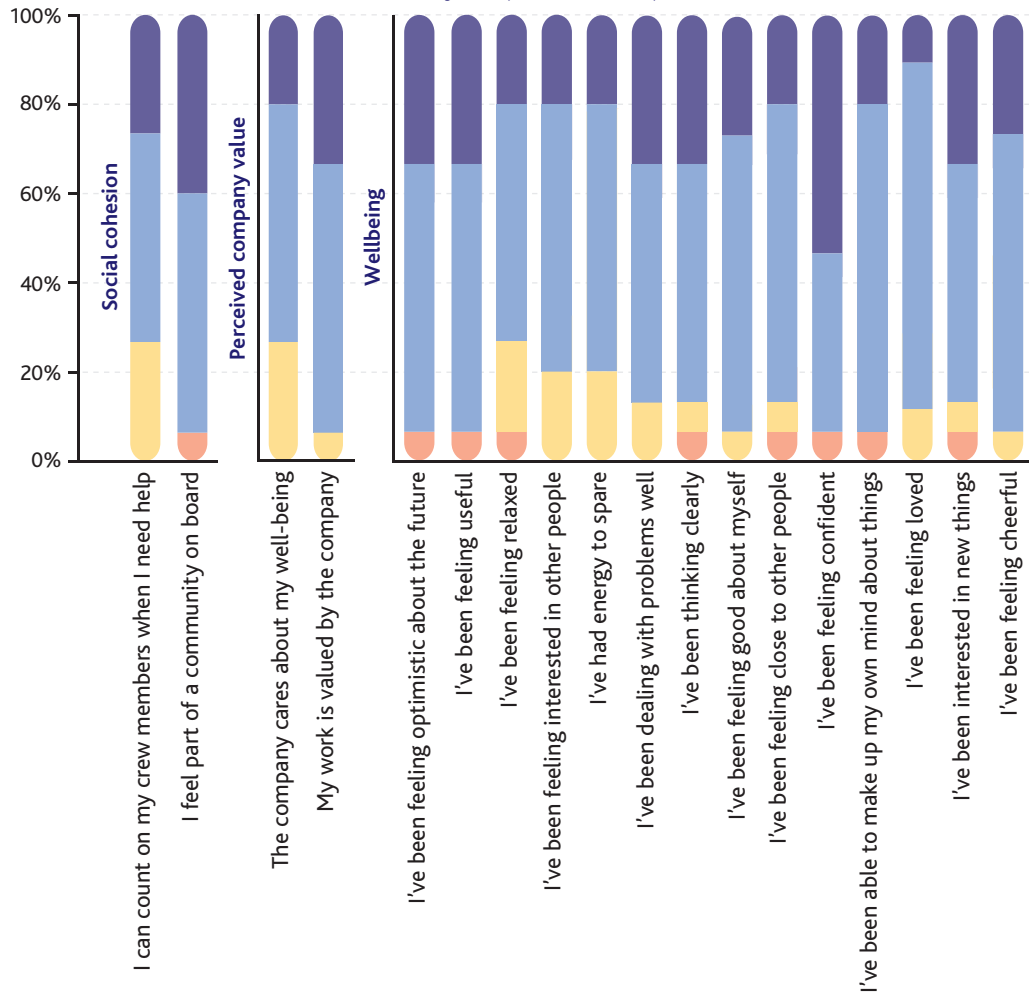
Vessel Five, week seven Survey data and port calls

	None of the time	Rarely	Some of the time	Often	All the time
Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



Week seven showed a little more negativity on board. There were negative changes across all three constructs. There were three port calls in week seven, two of which lasted for two days and one for one day (Figure 25). Some of the increased negativity reported can be correlated to this and some of the comments below.

1st February – “We experienced slow signal of ship’s Wi-Fi.”

“All crew were tired due to [the] short voyage.”

3rd February – “Management issue”

“Crew felt so [...] tired due to the jobs that we can’t do [in] port – some special jobs.”

“Bangladesh crew cooked cultural food.”

4th February – “Crew having [a] good management team are more productive and can still smile how[ever] tough the schedule.”

5th February – “Senior engineers decided [...] the crew wouldn’t do overtime for them to have enough power and strength for upcoming desludging operation and receiving lot of stores and provisions and other activities in Singapore.”

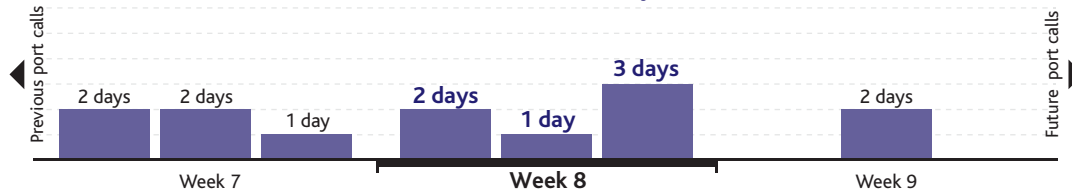
Week seven demonstrates the negative impact of crew tiredness on overall wellbeing (Figure 25). However, the importance of considerate leadership is also demonstrated here, in the decision to not to allow overtime so that the crew could maintain their strength for the next port call. There was also an attempt to raise spirits with some cultural cooking.

Figure 25 – Vessel Five, week seven – Survey data and port calls

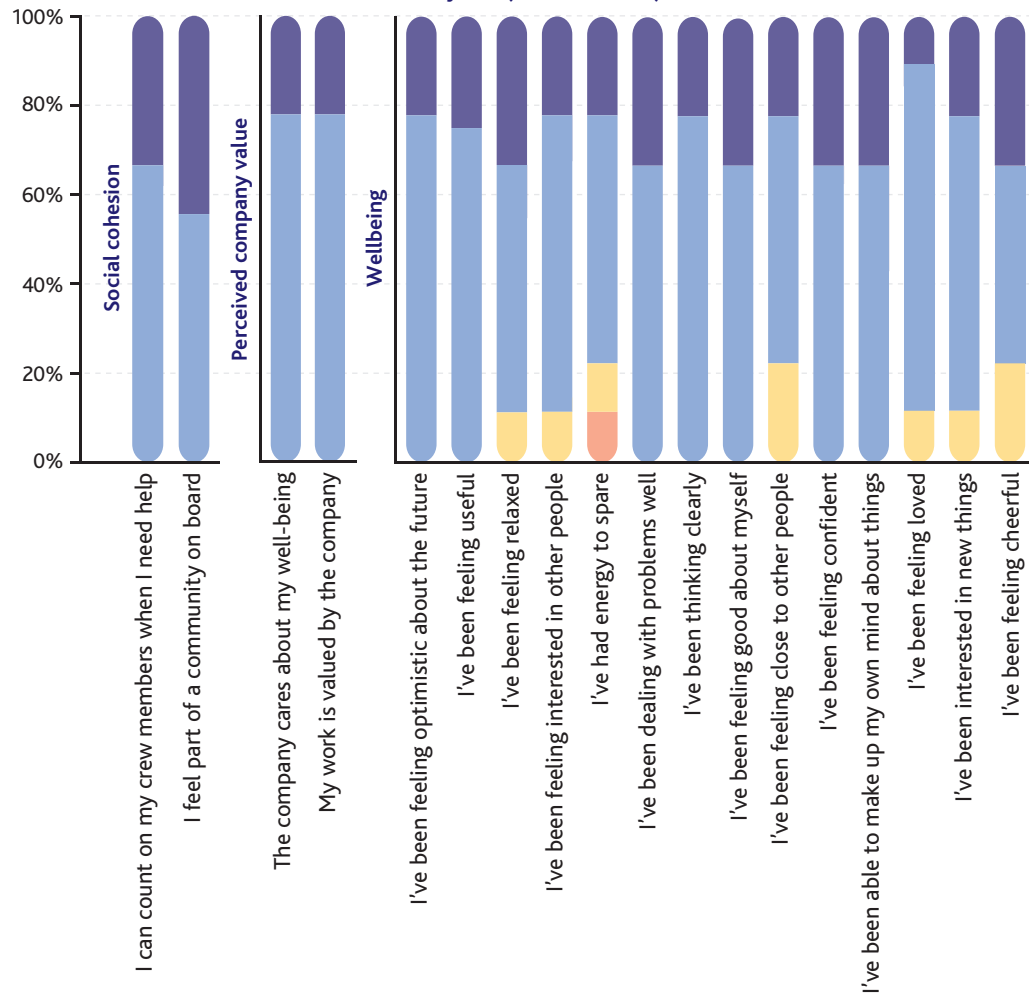
Vessel Five, week eight Survey data and port calls

	None of the time	Rarely	Some of the time	Often	All the time
Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



Week eight's survey results showed more positivity despite some negative daily log entries (Figure 26). The wellbeing measure 'I have energy to spare' was a little low but the social cohesion measure and perceived company value were positive. There were three port calls in week eight which lasted two, one and three days respectively. Again, the data shows that a mix of positive social interactions helped to counter stress on board, despite the crew's evident tiredness (tiredness which may also have contributed to the 'crew mistake' which is referred to).

15th February – *“Crew were tired due to big maintenance jobs throughout the weekend including bunkering operations.”*

“Senior engineer didn't appreciate hardship of crew of those maintenance”

16th February – *“Bad management feels like crew want to go home.”*

“Playing Chess”

17th February – *“Engineers obliged to do watchkeeping even in loading operation because of crew mistake.”*

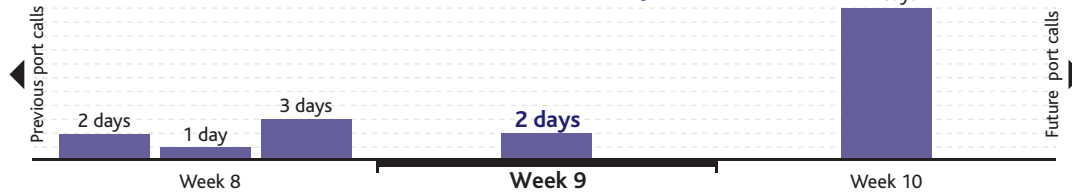
“Making most of the free time/ anchorage to play basketball as these made our stress relieved.”

Figure 26 – Vessel Five, week eight – Survey data and port calls

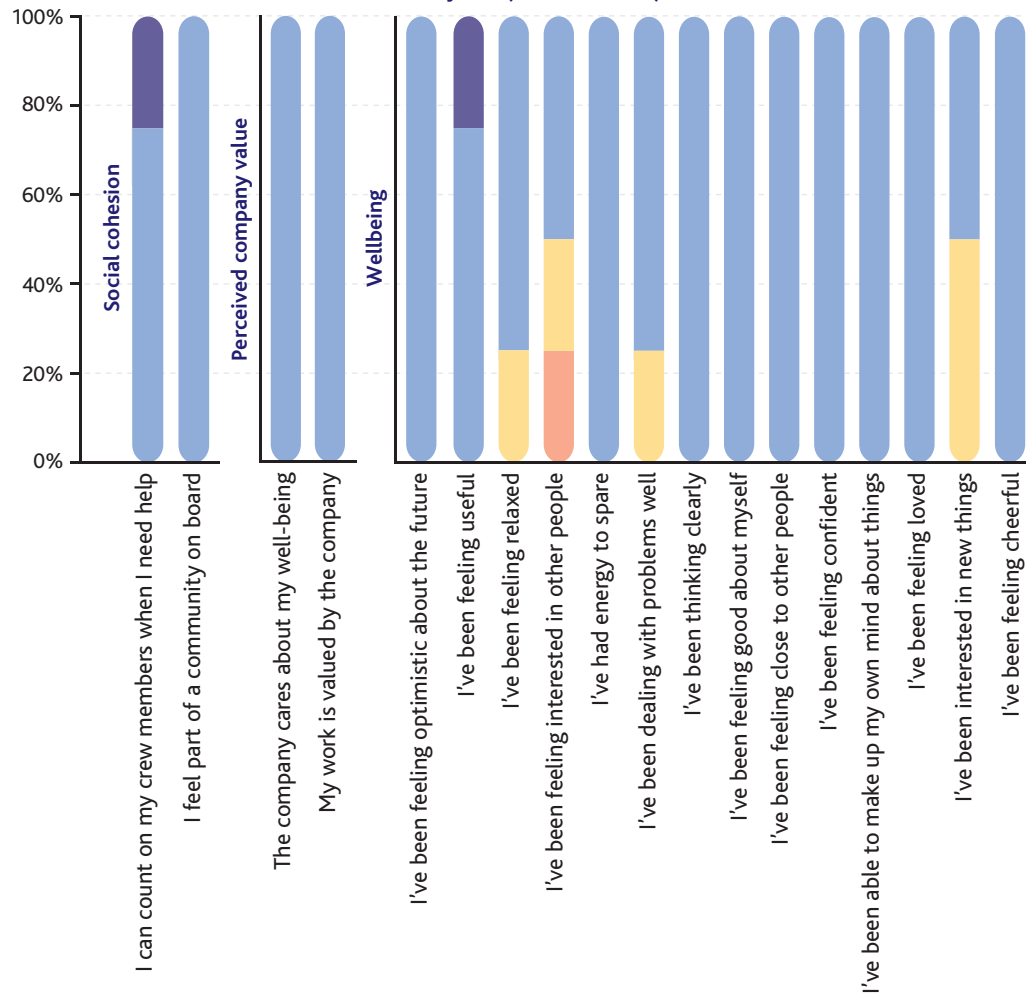
Vessel Five, week nine Survey data and port calls

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Port visit durations in days



Survey data (three constructs)



Despite a few negative survey responses in week nine, overall the statistics were relatively positive (Figure 27). This could be surprising because the daily log records that the crew were fatigued following a port call and major maintenance. However, once again it appears that a good balance was struck between work and leisure time, and that this seems to have kept the crew refreshed enough to tackle new demanding tasks every day. This provides good evidence for the benefits of seafarer social interaction.

23rd February – “Crew were tired. Just left from cross harbour voyage but grabbed the opportunity to do major maintenance.”

“Taking proper rest for the next day ahead with another big major maintenance.”

24th February – “Crew tried their very best to grab the chance to play any recreation just to relieve stress.”

25th February – “Major maintenance went on and crew were tired, but we had a party gathering that made us feel refresh”.

“Party games with prizes made the crew enjoy and more fun.”

27th February – “Good management will be a big factor for having good output or performance of the ship. Hoping [they] will try their [best] to keep themselves attached to the crew so that relationship will be better.”

Figure 27 – Vessel Five, week nine – Survey data and port calls

Observations from Vessel Five's master's exit interview

Vessel Five's Sea Ambassador was not available for an exit interview, so the master stepped in. The following summarises the key points from her interview.

- The master found the SIM trials "very good" and really enjoyed them. The Ambassadors tried to introduce a new activity nearly every week and were supported by the master in this. The crew enjoyed the trials as well, especially as they were taking place during COVID-19 times (this was evidenced by the survey responses). Many of them looked forward to upcoming activities and asked about their schedule.
- The master felt that repeating popular activities was acceptable.
- She felt that support from the senior officers was very important, and that good leadership was essential to encouraging engagement in activities.
- The master and senior officers regularly participated in the activities.
- She believed that crew engagement in social activities could be directly related to improved mood and enjoyment on board.
- She noted that during COVID-19, seafarers on her ship were more concerned about having a job than stressing too much about extended contracts.
- She found that prizes encouraged better engagement but were not absolutely necessary.
- Sometimes the crew were too tired to participate in any activities.



Social interaction

Many aspects of life at sea can influence social interaction on board, for example poor weather, port calls and food. During the SIM trials, opportunities for crew to engage in social interaction impacted on their state of mind, motivation and ability to work well together. Using extracts from the daily logs, these influencers, and the bearing that each has on social interaction, are discussed below within the context of **social activities, mental health, and fatigue.**

Social interaction and activities

Factors highlighted by the SIM Project as influencing the success of, and engagement with, social activities included:

- Activity planning
- Competitions
- Drills
- Wi-Fi
- Occasions
- Food

Activity planning

The research showed that planned events, such as basketball or table tennis tournaments, were associated with higher participation numbers than spontaneous activities, such as playing a game of cards or chess – although these also had a positive impact. A variety of activities was viewed as important, but equally activities could be repeated, particularly when competitions were being run on board. It is good practice to ensure that as many crew as possible engage in different ways and not always through devices such as mobile phones.

V12, *"We decide[d] a few activities [to] play together. We try not to repeat so it doesn't become monotonous. **There is always an instant positive mood change amongst the participants and the spectators.**"*

V15, *"**Games were played, and it was a lot of fun.** After which we had dinner, Singing, Dancing. A video was made by 3/Off and 3 A/E which was shown to everyone, this video has candid moments since we all joined the vessel. J/Off presented Capt a gift made on board from all of us."*

Planning activities according to the voyage schedule and the crew's work-load is important to help keep morale high on board. Making backup plans for important social events such as Christmas is also advisable so that expectations are maintained.

V16, *"**I'm planning Christmas activities and in case of port of call I'm planning to shift the event to one or two days later.** The video conference for Christmas wishes has been a really a good idea."*

Competitions

Competitions can help motivate crew to become involved with a certain activity and have fun together. They often encourage increased communication and teamwork and help crewmates to get to know each other as they work to achieve a common goal (medical-insights, 2021). Competitions tended to be popular on board and sometimes competitive activities were extended to include the shore office and/or other vessels within the same fleet. The daily logs noted many examples of entertaining and engaging competitions initiated by the Ambassadors and crew of the participating vessels, as well as four that were planned centrally by ISWAN. Here are some examples:

V1 – “Dart’s tournament conducted at 1900 hrs. Interaction was good amongst crew members and **the tournament was good way to get everyone together in the evenings after dinner.**”

V15 – “**There was a cooking competition between Capt and C/O it was fun, they had to make a desert with strawberries and cream within 15 Min[utes].**”

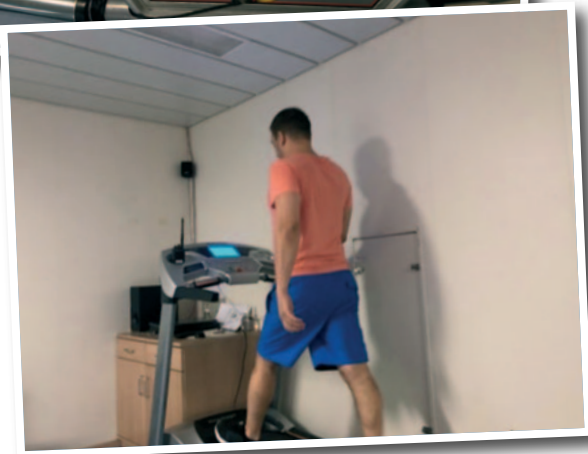
V16 – “**The deck officers decided to elect the AB [Able Bodied Seaman] of the month [...] each month. The winner will receive at the end of the month, candies, or chocolate. The winner will be evaluate[d] on a daily performance basis.**”

Figure 28 shows the four competitions run by ISWAN for the SIM trial vessels.



Figure 28 – Competitions between vessels in the SIM trials

Images of crew participating in some of the SIM competitions



Vessel Three – 'How far can you go?' competition

Prizes

Prizes were not always awarded for competitions and were not essential to the success of the event. However, it was noted from the Ambassadors' logs that giving prizes for competitions could help to generate excitement around an event and increase engagement. Our research shows that even token prizes, such as a chocolate bar, adds to the sense of achievement that comes with winning and enhances the enjoyment of participating. During the SIM trials, some of the prizes provided by the involved shipping companies included additional Wi-Fi time/data allowance, battery packs for phones, and small money bonuses. Other crews made an activity out of designing and making their own trophies to award to competition winners.

For the competitions organised by ISWAN, winning vessels were awarded with small gifts and enjoyed the honour of seeing their success published in the SIM Project's weekly newsletter, which was circulated to all trial vessels. These prizes generated keen interest and feedback from the crews, who emailed ISWAN to share their competition photos. The following two extracts from the daily logs demonstrate the value of competitions and awarding prizes.



Vessel 13 – Weight loss and healthy eating competition

V1 – *"The final day of a successful basketball tourney. All [the] ship's complement was present to cheer [..]. The most exciting day of the tournament, people [were] found practicing well before the commencement of the grand finale. The master has shown his leadership quality once again by leading from the front! The team of [XX and XX] won the trophy. [A] well-deserved victory and once again successful teamwork [...]. The organization and participation of the tournament was excellent. Handshakes all around. Congratulations to the winning team."*

V13 – *"After lunch, all crew gathered in the recreation [....] to announce the winner for the month of May. The winners are [xx, xx and xx] and each received a cash prize. After that, the raffle draw started (G-shock Edition) and each crew are very excited who's going to bring home the prizes. [...] This activity strengthens the bond between crew onboard and creates a good ambiance making it a stress-free environment."*



Vessel 12 – Home made trophies



Certificates from ISWAN for Vessel 15 winning the 'How far can you go?' competition

Drills

It was evident throughout the trials that mandatory safety drills often created the opportunity for additional social interaction. Comments from the logs characterised these as enjoyable activities which brought crew together and provided a sense of satisfaction, particularly if the drill was well executed and praised by the shore office. More generally, completing tasks satisfactorily promoted a good mood on board and provided crew with something they could work on together as a team.

Although safety drills are classed as work and not leisure, we found that in many cases they helped to convene crew and presented the opportunity for them to enjoyably interact. The following extracts from the daily logs provide good examples of this.

V2 – *“The launching and recovery of the FRC [Fast Rescue Craft] and FFLB [Free Fall Life Boat] brings the ships’ teams together as it is a team effort to launch and recover the same. Although this is work, it also brings everyone together to work as a team which is good for morale.”*

V9 – *“After lunch an unexpected live helicopter drill with the Spanish coastguard. [It was] not difficult and always nice for some spectacular pictures for the family at home. An almost normal working day cheered up by the helicopter drill.”*

V12 – *“There was a drill conducted and officers shared their experience of any incidence. Some crew also shared their experience. So, it was a good happy day, and the crew and officers learned many new things.”*



Wi-Fi

Ship-to-shore connectivity continues to be a contentious issue in relation to its impact on social interaction. Some feel that too much connection to those at home leads to increased isolation because it prevents seafarers from being in the here and now and getting to know their 'on board family'; whereas others view a reliable internet connection as an essential lifeline to family and friends. Seafarers rely heavily on Wi-Fi to stay in touch with family and friends, and for some forms of social interaction, and often experience a low mood if it is not available or unstable.

A report commissioned by the Sailor's Society, Royal Holloway, University of London and Inmarsat (2018) showed the importance of reliable connectivity and its positive impact on mental well-being, operational efficiency and safety (Jensen and Swift, 2018). As one research participant puts it: *"Connectivity hasn't damaged social cohesion; smaller crews, ship architecture, and less time in ports have."*

Recent changes to the Maritime Labour Convention (MLC) now stipulate that ship owners, where possible, should provide seafarers sailing on their vessels with internet access. This provision should be with reasonable or no charges (ILO, 2022). This is a welcome development that will benefit many seafarers if implemented correctly.

"Seafarers rely heavily on Wi-Fi to stay in touch with family and friends, and for some forms of social interaction, and often experience a low mood if it is not available or unstable."

The following log entries show how poor Wi-Fi can have a significant impact on crew wellbeing. During COVID-19 times, when shore leave has been heavily restricted or in many cases stopped entirely, connectivity has become more crucial than ever before. Crew need the reassurance of regularly speaking to their families and this is often the only outside contact they will have from

the moment they board the vessel. Additionally, the playing of online games and activities on phones in cabins was noted positively, particularly when crew felt too tired to interact with anyone else face to face.

All vessels in the SIM trials had Wi-Fi on board but for most this was restricted to a daily time and/or data allowance. Some crews were required to pay for internet access. Our data shows that crews who experienced poor quality Wi-Fi or times when internet was inaccessible, tended not to be happy. The Seafarers Happiness Index (2021) also endorses the importance of good Wi-Fi access and connectivity on board and highlights how most seafarers view it as a priority, emphasising the benefits it brings them from a welfare perspective (Mission to Seafarers, 2021).

These log entries indicate some of the positive and negative impacts of Wi-Fi connectivity.

V8 – *"Internet sometimes weak, we cannot make a videocall to our family. [...] Of course if there is a chance to speak their family the crew can feel more relaxed."*

V14 – *"Slow internet connection is affecting crew mood onboard, making it more difficult to communicate with their families."*

V16 – *"Despite a lot of work during the day, the crewmembers were happy to get Italian data signal so they spoke with family and made video call".*

V16 – *"After 2 days of hard work the crew got rest and they made video call with them family, They downloaded new songs and the made some funny games."*

Occasions

Many of the participating vessels recorded the celebration of various special occasions on board. These included birthdays, becoming first-time fathers, religious festivals, and the Day of the Seafarer. Often the celebrations involved special activities like throwing a party, singing karaoke, or baking a festive cake. The celebration of special occasions provides an opportunity to bring people together to take part in something enjoyable. There are some specific examples from the daily logs extracts and images below.

V4 – “Crew and officers joined together to celebrate 2nd Officer’s birthday”

V12 – “It was International Seafarers Day, so celebrated it by ringing bell & horn at 1200hrs. Some officers played PS4 game and [a] few other crew were watching movies.”

V16 – “The online Festive Countdown for seafarers promoted by ISWAN SeafarersDeliveringChristmas campaign has been welcome with interest by all crew members. Every day, seafarers can open a shipping container door to reveal a surprise.”

V17 – “Christmas brings smile to all of our faces. Happy mood, happy vibe onboard.”



Food

The preparation of food which accommodates the different religious and cultural backgrounds of crew is important. Mealtimes are social times which bring people together and can be the highlight of a seafarer's day. Generating conversation during mealtimes is a good interaction and is particularly valuable when other types of socialising are difficult to facilitate, or time is short. Crew relaxing and eating together helps conversations to flow and is an opportunity for people to get to know one another better.

The MLC 2006, Regulation 3.2, requires all seafarers to have access to sufficient food and drinking water which is of appropriate quality and prepared by trained catering personnel (EduMaritime, 2022). However, food has the potential to be much more than merely sustenance and with the right creativity and skills, mealtimes can be turned into a real occasion or celebration. Access to a variety of different (including healthy) food options is vital to maintaining good physical and mental health on board (ISWAN, nd). During the SIM trials, many observations were made about food and how it can be used to bring people together and lift the mood. These log extracts show the value of 'special' food and how it can lift the mood on board.

V1 – *“Crew were happy with the food prepared by Cook during the day. Cook made delicious Biryani and freshly baked cookies. Everyone enjoyed the food.”*

V6 – *“Today was the Italian Republic Day and we enjoyed a meal all together. Great time, this increase[d] the mood of the crew a lot.”*

V15 – *“Having tasty and healthy food makes the day.”*

Certain foods are seen as a treat and obtaining snacks like chocolate or pizza when in port can really help to lift spirits. During COVID-19 this has been much harder to do, but some port welfare services have stepped in to help bring seafarers their favourite goodies.



Social interaction, mental health and well-being

Social interaction factors highlighted by the SIM Project as influencing mental health and wellbeing included:

- Physical health and exercise
- Poor health on board
- COVID-19
- Crew changes
- Contact with family and friends
- Shore leave
- Security
- Leadership
- Happiness and enjoyment

There are many variables that can affect seafarer mental health and wellbeing. The SIM Project has helped to map some of the conditions that can impact both positively and negatively on mental health on board. It is striking from the research how quickly the overall mood can change on board. For example, a kind gesture from a port pilot bringing small gifts to the ship, or praise from the shore office for a job well-done, can raise spirits enormously. Conversely, bad weather and a rolling, vibrating ship; or a challenging port call where the crew experiences poor treatment from authorities, can rapidly change the mood for the worse.

Physical health and exercise

Physical and mental health are intrinsically linked (Ohrnberger et al. 2017), with many advocates now arguing that they should be viewed simply as health. Even short bursts of physical activity have been demonstrated to have a positive impact on mental alertness and energy levels (Mental Health Foundation, 2022). Regular exercise can help to reduce stress and anxiety and prevent the development of mental health illnesses (Department of Health, 2010). Physical activities that can promote good mental health include sports, exercise (activities specifically designed to improve physical health or fitness) and unstructured activities just for enjoyment (known as play). On board, even where space is limited, physical activities can still be carried out to some degree or another.

For some, engaging in on board exercise and physical activities was very important, as the log entries below demonstrate:

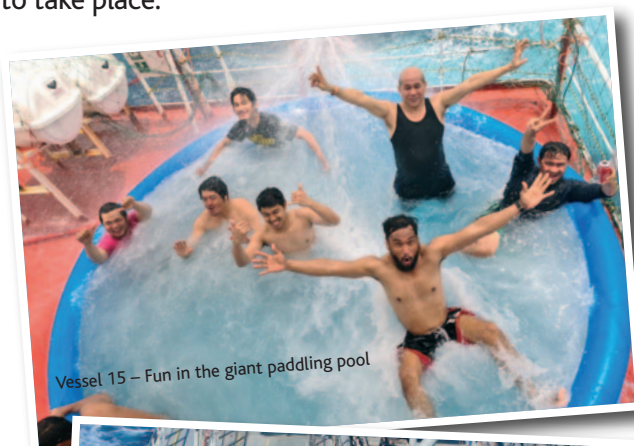
V2 – *“Many people on the ship are using the gymnasium which is very good to see. This is both officers and crew. I am a firm believer that physical activity aids in mental wellbeing, and this certainly seems to be bearing fruit.”*

V5 – *“Stress relieving table tennis games and basketball.”*

V10 – *“Our chief cook is doing his daily routine walking after his work. [...] I see that it’s a good feeling for him to pass time and keep healthy.”*

V11 – *“Our fitter repair[ed] the on board treadmill which is very important to me.”*

Physical activities took place often and were sometimes planned as a tournament, or otherwise happened spontaneously in spare time. Although some vessels were well equipped with recreation facilities, many activities required minimal facilities to take place.



Vessel 15 – Fun in the giant paddling pool



Vessel Nine – Dip in the ocean



Vessel 13 – A game of basketball on deck

Poor health on board

The following logs from Vessel Nine show some of the additional stress that can be placed on a master due to cases of poor health on board. It is a testament to this master's strong leadership that he was able to identify a serious health issue and take the right course of action. This example shows how all-consuming situations like these can be, leaving little time for anything else, including crew social interaction. Given the strong influence of leadership on board, this situation was likely to have impacted the entire crew. Additionally, the need for clear and effective communication⁵ is emphasised in relation to safety and is also a leadership quality that can help to avert dangerous situations.

Week 10 – June 14th – *“Ch. Eng. reported a medical problem at 17:00, immediate action was required. The only luck I had was that he reported it before departure and not after. He didn't realize that his life was at risk. For that reason, he was surprised that I took immediately action and refused to depart before the problem was solved.”*

21:30 *“Ch. Eng. back on board from hospital, we departed but I'm still worried regarding Ch. Eng.”*

Week 10 – June 16th – *“Medical issue of Ch. Eng., [the] Doctor only stated in the document to visit a doctor again after one week, [there were] no remarks [regarding] if an operation is required and if so, how soon it is necessary.”*

“[Poor] communication with Ch. Eng. due to lack of his English knowledge, so I also can't find out what the Doctor exactly said to him. Due to all these facts, the problem and risk stays on board and remains my responsibility. As the medical problem is not solved permanently, it may happen again. On top of that crewing department was asking if he can stay till the end of his contract which is 2.5 months more as it is difficult to find a reliever.”

Week 10 – June 18th – *“Busy with arrangements for the crew change, but relieved by knowing that I can send the Ch. Eng. immediately to the hospital if complications appear.”*

Week 10 – June 19th *“another day at the waiting berth, reliever of Ch. Eng. will arrive Sunday morning.”*

COVID-19

COVID-19 was prevalent for the duration of the SIM trials. Although none of the Sea Ambassadors were critical of their own companies, who often went above and beyond to make life better on board for their crews, they each discussed at some point the impact of the pandemic in terms of the overwhelmingly indifferent treatment of seafarers. Amongst the top highlighted issues of concern were delayed crew changes, quarantine, isolation, denial of access to shore leave, concern for family and friends at home, personal health worries, and the apparent inequalities of treatment between shore staff and seafarers.

The submissions below provide a snapshot of life at sea during the pandemic and how, at a time when the wellbeing of seafarers was already severely challenged, social interaction was sometimes constrained as a result. Despite the issuing of ample guidance throughout the pandemic to assist seafarers (including ICS, 2021 and IMO, 2021) and seafarers being recognised as key workers by international bodies, little was achieved to alleviate the difficulties they faced due to the crew change crisis (amongst others). These log entries highlight some of the challenges:

V5 – *“Crew are confuse[d] regarding [the] COVID vaccine because of news reports that some people died after vaccinated. We are hoping this pandemic come to an end because it really hit us hard in every aspect of our life.”*

V6 – *“One of the repeated topics among some crew members, apart from the always present vaccination questions and doubts and the fear that COVID can infect family members, [and] the fact that some have been for almost a year, blocked on [board] the ship by [the] sea authorities and ashore by lockdowns or very heavy restrictions. The fear of returning home and being forced again to stay at home really scares some [people]. Some are really scared that last year's course of event[s] will repeat again.”*

COVID-19 concerns were a regular topic of conversation on board all trial vessels. Sporadic news updates often increased apprehensions and highlighted the need for regular, clear communication about pandemic developments and reassurance, where possible, from the shore office. Simply 'not knowing' (about e.g. crew change dates, new regulations, and/or new variants of the disease) caused unnecessary stress.

5. This article by ISWAN, 2022 corroborates this point: <https://www.seafarerswelfare.org/news/2022/talking-point-addressing-the-human-element-making-a-difference-by-improving-communication-at-all-levels-in-maritime-companies>

On board visits and COVID-19

The daily logs showed that on board visits from shore staff during port calls sometimes increased anxiety on board and caused disruption to routine, including the ability to hold social activities. When a vessel is in port, various people may need to visit as part of the loading/unloading process, to carry out maintenance, or to re-supply provisions. Some SIM Ambassadors spoke of these visitors as 'intruders' or felt concerned about the crew's safety when coming into contact with potential sources of infection. Concerns about crew treatment by the port authorities were also raised. The following extracts from the daily logs demonstrate these issues.

V2 – *"Vessel arrived at Dapeng, China. Vessels' Officers and Crew treated like a plague ship by Chinese authorities."*

V5 – *"[We] Feel bad that plenty [of] local people came onboard that we didn't expect, especially [during] this time of COVID"*

V9 – *"There were people from [the] office on board and that makes things different. The ship doesn't feel like home anymore due to the intruders."*

V9 – *"At the moment we have a lot of guests on board for the stern tube and main engine. We have to eat in shifts due to lack of space. During the meals there is no time for socializing which is not according [to] our habit. Socializing we do now only when there are no extra people on board and the vessel is ours again in the evening."*

It is clear that these visits caused the crew some anxiety and impacted on them socialising together.

Crew changes

The COVID-19 pandemic has served to accentuate the negative impacts of many well understood and documented problems at sea, such as extended contracts, unreliable crew changes and protracted time away from family and friends.

The following series of log entries from Vessel One, written over a period of nearly three months, demonstrate how demoralising such situations can be and how crew can be so severely impacted that work is not even possible (see comment below: Week 18 – 14/06/21). They highlight the Ambassador's frustrations about the worsening situation, and touch on the significant stress that the master was under during this voyage, with responsibility to not only oversee the safe operation of the vessel, but to also maintain the morale and motivation of the crew. Although it is clear that the master was well-supported by the shore management team during this period, the logs show the developing impact on the crew's mental health and the increased importance of social interaction.

Excerpts from Vessel One's daily logs

10th May (2021) –

“We are facing issues with crew change as nearly half of the ship's complement was to go home from Korea having completed their tenures, but the plan was cancelled. We understand that this is difficult time to arrange crew reliefs, but Korea / USA are the only countries presently allowing crew change. **If we are unable to arrange crew change in Korea despite a long voyage of 24 days, then it is unfair to expect crew to be in a "good mood".**

18th May –

“Vessel arrived in Ulsan, Korea and anchored. Shore leave is not possible, and neither could crew relief be arranged. **Personnel who have completed their tenures are disappointed.**”

“Personnel who have completed their tenures would like to go home. We can temporarily distract them with games and activities, but it is quite apparent that they would much rather be home with their families during this pandemic.”

28th May –

“Many crew members are due for sign-off and this is uppermost on their minds. One of the crew members has a medical emergency at home but he cannot do anything about it... The general consensus is that Governments only give lip service to seafarers which is disappointing, to say the least.”

29th May –

“**These are stressful times for us seafarers. Personnel on board continue to be worried about their loved ones back home. In addition, they have completed their contracts and would now like to go home. Period.**”

30th May –

“**We are doing our best improve morale on board but we can only do it for short periods of time. The Ship Management Team is well aware of the situation on board (they themselves are overdue for relief) and are discussing crew relief regularly with the office. But things continue to look bleak – seafarers appear to be at the bottom of Government priority lists!**”

31st May –

“Vessel enroute to Malaysia for discharge and Singapore for bunkers. Crew change is not permitted in either of these countries due to covid restrictions. Personnel who have completed their tenures are waiting to go home. **It is not easy to uplift morale on board when all people are thinking about is going home!**”

Excerpts from Vessel One's daily logs continued

4th June –

○ *"We can feel the frustration building but are helpless to do anything about it. From our perspective, it is so unfair that shore personnel can board our ship for normal operations/inspections, but we are not allowed to go ashore or go home. It should work both ways – no one boards the ship; we don't go ashore."*

8th June –

○ *"Personnel on board are going about their business professionally but the desire to go home remains topmost on their minds."*

11th June –

○ *"One of the crew members onboard had a loss of life in his family and he could not get repatriated in Malaysia due to the covid restrictions imposed by the local authorities."*

13th June –

○ *"Vessel alongside at Kerith, Malaysia. Cargo operations in progress. People are busy with port operations and watchkeeping. One of the officers received the sad news that his father had passed away due to Covid. All efforts were made to sign him off in Kerith but without any luck."*

14th June –

○ *"Vessel alongside at Kerith, Malaysia. Cargo operations in progress. People are busy with port operations and watchkeeping. The officer who lost his father in inconsolable and is in no state to work."*

15th June –

○ *"Efforts are being made to send the officer home from Malaysia but now it looks like Singapore."*

17th June –

○ *"Discharging in Pengerang, Malaysia. People are busy with various port operations and watchkeeping duties. It is **ironical that personnel from the ship cannot go home from any port but shore personnel are able to come on board as if life were normal.** It is as if Governments think that only WE can give THEM covid but not the other way around!"*

18th June –

○ *"Vessel then proceeded to Singapore where the officer was finally allowed to sign off. It is quite clear that seafarers are NOT key workers. Governments do not care about their plight – the company is helpless as without Government's permission/flights, no crew changes can take place."*

Excerpts from Vessel One's daily logs continued

20th June –

“Personnel on board have resigned to their fates. Leaving the ship is now a distant dream. The company is obviously concerned and would like us to continue working as normal. We are doing our best under the circumstances, but we can see that personnel are distracted and tired.”

27th June –

“It's been a month since the vessel [was] trading in Singapore but a crew change is still in a state of uncertainty. Vessel will be proceeding to Australia after loading in Singapore, by the time all the officers and most of the crew will be due for sign off. Hopefully something can be arranged there.”

1st July –

“Vessel was on a hectic run past one month and safely carried out more than 12 port operations. The ship management team well appreciated people on board for the dedication and commitment on their professional excellence amid the disappointment of not getting relieved even after a month of port stay in Singapore. People are very much hopeful about the crew change in Australia.”

3rd July –

“Vessel received information that the crew change in Australia is not possible due to some ticket/visa issues. People are very much disappointed as this was totally unexpected, and everyone was hopeful that the prolonged wait would be finally over in Australia. Many officers will be completing twice their usual tenure by the time vessel reaches Australia. [...]The morale is low as we do not expect any other convenient port call till the next month.”

4th July –

“Vessel enroute to Australia. Life goes on!”

18th July –

“Planning in progress for a voyage from Kwinana to India and hopefully the crew change will happen in India, fingers crossed! Thank you ISWAN for your understanding and guidance with respect to the various shipboard activities & crew change issues. Thank you for motivating us to conduct various indoor/outdoor activities which boosted our morale helped ease some stress during these strange times!”

At this point the vessel completed their SIM trial before a crew change was possible. However, the company was able to provide us afterwards with an update about the outcome, as follows:

The remainder of the crew from Vessel One signed off in Vadinar, India on August 3rd, 2021. They had continued to work on board during the interim time and had called at nine more ports before they were finally allowed to leave the ship and change crews.

Contact with family and friends

The ability to keep in touch with family and friends at home is fundamental to seafarers and has a significant influence on their wellbeing. Whether this is possible largely depends on the reliability of, and access to, Wi-Fi connections. Seafarers are often financially supporting their families back home. It is extremely important for them to know whether their loved ones are safe and well, and when this is not the case, they will have even more need to regularly communicate with them. Receiving news from home can have both a negative as well as positive impact, but not being able to communicate with home on a regular basis undeniably deteriorates mood and wellbeing. The daily logs that follow demonstrate the positives and negatives of staying in touch with home.

V2 – *“I have also heard, a friend of ours has a sister who is close to death which is imminent. This is the second sister she will have lost in just over a year, so my mind is a little pre-occupied with home events.”*

V8 – *“Of course if there is a chance to speak [to] their family the crew can feel more relaxed.”*

V9 – *“If things are not OK at home, that will be noticed immediately and has influence on the mood among the crew.”*

“Receiving news from home can have both a negative as well as positive impact, but not being able to communicate with home on a regular basis undeniably deteriorates mood and wellbeing.”

Shore leave

The reality of seafaring life is that you live and work in the same place, with your colleagues, with little chance of leaving the vessel (especially during COVID-19) until the end of your contract. Over the last couple of years, very few vessels have been permitted to let crew disembark when in port. During the SIM trials, only two out of the 21 vessels involved had any shore leave. The others were restricted primarily by the new COVID-19 regulations.

Shore leave provides new stimulus and a release from on board pressures. It is essential for the good mental health of seafarers, some of whom, during the pandemic, have been on board for over a year. Wherever possible, port welfare organisations have stepped in to offer 'gangway support'⁶ but it far from compensates for the benefits of getting off the vessel and walking on solid ground once in a while.

The logs below provide examples of how shore leave can lift crew mood or have the opposite effect if not permitted.

V2 – *“Still no shore leave allowed, so a little frustrating for the team but this is something we have all grown accustomed to unfortunately.”*

V10 – *“Shore leave time is always depend[ing] on the berthing time, how long the vessel will stay on port and your hours of duty. Some will be frustrated, and some will be happy if they manage.”*

V10 – *“Mostly work-related interaction with co officer. It's always a good feeling for the crew if they can able to go ashore. Even for just a short period of time to relax the mind.”*



6. For example, see the Mission to Seafarers: www.missiontoseafarers.org/news/five-steps-for-supporting-seafarers-during-covid-19.

Security

Piracy is still a significant threat faced by seafarers who transit high-risk regions. Those seafarers who have encountered a piracy attack or have been held hostage are likely to experience lasting impacts on their psychological wellbeing (Seyle et al., 2018). For others, the threat of such encounters are real and disturbing. Shipping companies have reacted by increasing security measures when transiting these regions. These measures, along with the uncertainty and threat of piracy, can have a negative impact on seafarers' mental health.

Some of the SIM Project trial vessels travelled through piracy hotspot regions, and examples from the Ambassadors' logs of the extra security measures required, such as piracy watches, blackouts and extra lookouts, are presented below. The impact of being on high alert when travelling through such regions caused additional workload, and created a stressful environment to live and work in. Heightened security puts crew under increased pressure and uses additional resources. As a result, the inclination for pursuing social activities, as well as the time available to undertake them, likely decreases.

“The impact of being on high alert when travelling through such regions caused additional workload, and created a stressful environment to live and work in.”

V1 – *“Vessel entered full lockdown for transit of Security area Red Sea and Gulf of Aden. No light entering windows, so the workplace is a little depressing. No outside access.”*

V2 – *“Accommodation locked down with no natural light”*

V14 – *“Departure Fujairah, security measures preparations in progress and antipiracy watches maintained for transiting HRA”*

V17 – *“Vessel transiting Malacca strait. Crew engaged with Piracy watch and extra look out posted for Navigational watch.”*



Leadership

Empathetic leadership that puts people and their safety first, is essential for cultivating a positive on board culture (Pike, 2019b). The SIM Project has shown that taking care of crew wellbeing leads to increased productivity and a happier, safer ship. The behaviours and attitudes of senior officers, particularly the master, greatly influence crew cohesion and are important for promoting an inclusive environment that supports the wellbeing of all. A master has multiple roles and balancing them all can be complex. Among the many considerations of leadership, the crew's cultural mix, and how to ensure they are motivated and performing to their best, must be taken into account. Clear and consistent communication is a vital part of ensuring that this happens. As seen in the trials, each master has their own leadership style and a change-over in master during a voyage will be felt by everyone.

There is significant evidence from other industries and specifically maritime, that high performing teams are the result of those leadership qualities which include communication, teamwork, trust and transparency, all of which are enhanced and further developed by social interaction (Forbes, 2020).

A few positive words from a senior officer can increase crew motivation; and being noticed for good performance can boost morale. For example, despite its relentless schedule and numerous port calls, Vessel Five (detailed in case study two) demonstrated best practice of motivational and caring leadership by mitigating long work hours with social activities, which the crew responded well to. To establish a culture that promotes social interaction, leadership must be visible, engaged, and approachable. Consistent, supportive leadership from the shore management team also helps to establish a strong company ethos and provides consistent messaging that seafarers' wellbeing matters. The logs below support these points.

V2 – *“Today I have been very proud of the team I have working with me. Having received plaudits from the office staff for the work and effort we have put in to achieve the good safety results we have.”*

V2 – *“Today has been chaotic with so many services ongoing but with a good management team onboard we kept on top of everything happening and managed a very successful outcome. **It's days like today that the team shines, and though I am nominally the leader of this team, it is only through the efforts of all we have these outcomes.** I am once again proud to be a part of this team.”*

V5 – *“Crew very excited when we heard from captain, we will be having dinner together tomorrow.”*

V10 – *“**Most of the time there [are] changes of mood during [a] crew change especially when it comes from senior officers.**”*

V10 – *“Changes of crew especially with [a] senior officer had an influence on the crew, **it will always depends on their characteristics, work ethics and how they project as a senior officer to their subordinates.**”*

V11 – *“After any meeting crew normal[ly] feeling satisfied because **our master very good listener and managing our vessel very well.**”*

V13 – *“**The Master also expresses gratitude to every officer and crew for the successful vetting inspection and encouraged them to continue to perform in highest possible standard onboard.** This activity strengthens the bond between crew onboard and creates a good ambiance making it a stress-free environment.”*

V15 – *“**Captain cracking jokes and having fun with all crew member makes everyone happy.**”*

V16 – *“**It's important that I [the captain] can see the crew if [I] have one hour available [we] try to stay together and socialize as much as possible.**”*

Happiness and enjoyment

At sea, feelings of happiness and boosts to mood can be experienced when speaking to family, engaging in activities with others, or simply enjoying a beautiful view like the ones in the photos here. Sometimes other people's happiness proves infectious, as reflected in the comment from Vessel Six below.

V6 – *"In navigation to Koper. All the crew I saw this morning were smiling. This gives me a lot of satisfaction."*

Most references to crew happiness and enjoyment were as a result of social interaction. For example, playing sports, chatting, and socialising around food.

V1 – *"People enjoyed their evening time at the pool and playing basketball after the drills. People seemed happy and relaxed while engaging themselves in these activities."*

V1 – *"Crew seems much [happier] after activity."*

V16 – *"These kinds of activities made crew happy and relax[ed] and they do not feel so distance[d] from home."*

V17 – *"Sunday is half workday for crew. So best time to speak to their family and relaxed and feel happy. Happy Sunday."*



Social interaction and fatigue

Fatigue factors identified by the SIM Project influencing social interaction included:

- Port calls
- Voyages
- Weather
- Inspections
- Long hours

Tiredness and fatigue are well-documented maritime issues and were frequently mentioned throughout the Ambassadors' daily logs. Symptoms include slower reactions, reduced concentration, and a reduction in mental and physical performance which can lead to accidents and injuries. Many situations at sea can increase tiredness and contribute to a sleep-debt. This cumulative lack of sleep can negatively impact seafarer mental health and increase safety risks. Additionally, *"sleep disorders are more likely to occur in shift workers leading to an increased risk of chronic sleep disturbance, excessive sleepiness and fatigue; cognitive impairment and depression; reduced performance, work related errors and accidents ..."* (NICE, 2019).

Tiredness happens to everyone after certain activities or by the end of the day, whereas fatigue is indicated by a daily lack of energy and what can be described as 'whole body tiredness' (psychologyanswers, 2022).

Previous research has established a link between fatigue, poor seafarer mental health and performance (HSE, nd). However, tiredness and fatigue are also often mentioned in such research as a regular part of life at sea, where those working over 33 hours a week report less than six hours of sleep per day. Long working hours, lack of support, and adverse environmental conditions such as poor weather, are all associated with sleeping difficulties and therefore with health and safety risks, including accidents and injuries (Oldenburg, 2010). Poor sleeping habits are also linked to poor mental health and reduced performance, which can in turn impact on safety (Afonso et al., 2017).

Longer working hours are often experienced during busy schedules, including preparation for port calls, preparing to go into berth, port operations such as loading and discharging, and inspections and audits. Such activities contribute to long hours being worked, the creation of a noisy environment and an accumulation of tiredness. Over time this can develop into fatigue. Different voyage patterns mean that whereas some vessels frequently call at ports (see case study two – Vessel Five), others have longer at deep sea and potentially more time available for crew to relax. The weather, whilst predictable, can greatly impact comfort and sleep when it is bad, and might result in additional duties or maintenance issues. Ship inspections and audits can increase workloads and mental pressures for those preparing the ship and relevant paperwork.

“Many situations at sea can increase tiredness and contribute to a sleep-debt. This cumulative lack of sleep can negatively impact seafarer mental health and increase safety risks.”

Vessel Nine reported the following influences on tiredness and fatigue:

“Interrupted sleep by immigration, stores, shifting, provision, bunkers. Tired at the end of the day.”

These influencers are discussed in more detail in the following sections.

Port calls

The frequency of port calls varies according to a vessel's trading route and schedule. Ports are active, noisy places that operate around the clock, facilitating the loading and discharging of cargo from all over the world. Port calls can be immensely intensive in terms of crew workload, as their full involvement is often required immediately before, during and leaving the port. Alongside this, senior officers have to deal with heavy bureaucracy to satisfy the regulatory requirements of each new port which can distract from their other important responsibilities, including monitoring crew wellbeing.

Aside from extended working hours, higher levels of disturbance from loading or unloading cargo and other associated activities, inevitably impacts on the amount and quality of sleep that crew can get. As evidenced during the SIM trials, frequent port calls can contribute to crew accruing sleep-debts, and many of the Sea Ambassadors referred to being profoundly tired as a result of the processes involved.

The Ambassador from Vessel Nine reported:

V9 – *“We are making short voyages at the moment of maximum 36 hours till the next pilot. That is not only a lot of disturbance of a regular sleep / work schedule, but also means a lot of administration regarding pre-arrival documents.”*

Where the logs report long hours, hard work and tiredness, there is often a lack of opportunity and willingness from crew to socialise. As the entry below illustrates, this lack of social interaction can subsequently increase crew stress-levels.

V10 – *“Morning arrival at port changes the mood of the crew. Mostly crew that you [have to] wake up for arrival.”*

Port calls are also used for crew changes, shore leave and for shore workers to board the ship for inspections and maintenance.

V14 – *“Vessel arrived 1st Chinese discharging port and is planned for total four short port calls in China with short sailing between them which is not allowing much time for using recreation facilities onboard and increasing workload/stress for most of crew and affecting their work schedule.”*

Another tiring aspect of port calls is the requirement for crew to be up and ready for the ship's arrival into berth, regardless of their usual shift pattern. This impacts on the mood on board and the crew's ability to get enough sleep, as reported next.

Voyages

Throughout the SIM trials, the Sea Ambassadors commented frequently on the different voyages undertaken by their vessels and the impact these had on the crew. For example, sailing in a piracy region meant heightened security measures, longer working hours and increased stress. As discussed in the 'Security' section, these often place extra pressure on crews and leave little time for social interaction. Conversely, longer voyages can mean that there is more time to organise social activities or competitions. The following daily log comments offer some insight into these differences.

V2 – *“Panama Canal transit always boosts mood, despite the long day for most of the ships compliment.”*

V4 – *“I prefer navigation day. It is [easier] to plan the routine and all the other kind of work that may arise during the ship's operations.”*

V14 – *“As [the] vessel is [undertaking] long sailing and loaded voyage currently, [the] crew is having a better chance to use [the] recreation facilities such as gym room, table tennis and day room for watching movies and series.”*

V16 – *“The ship sailed from Novorossiysk without problems and proceeding to Mersin. Crewmembers are happy to have four days and half at sea.”*



Weather

The weather can greatly impact the way people feel and influence their mental health. For example, experiencing frequent cold temperatures, gales, and rain can trigger lower life satisfaction (BBC, 2022); whilst spending more time in sunny, outdoor light is associated with increased happiness (Burns et al, 2021). Additionally, Seasonal Affective Disorder (SAD), which is a type of seasonal depression caused by reduced exposure to sunlight, can impact those living in colder darker climates (NHS, 2018).

For seafarers working on a moving vessel at sea, the impacts of changeable weather can be even more significant. In bad weather the ship will pitch and roll which can be uncomfortable for the crew and impact on their sleep. The daily logs were full of weather references which helped to illustrate not only the way mood and social interaction could be affected by weather, but also the impact on the vessel itself and the knock-on effect this could have on workloads. For example:

V1 – *“inside [the] Mediterranean and the swell reduced. People were happy that the rough weather [...] subsided.”*

V1 – *“Bad weather throughout the day. No outdoor activities.”*

V3 – *“[The] vessel is drifting near Port Elizabeth. The weather is getting worse. Got big rolling from time to time because of swell. [It’s] hard to keep [the] vessel with no rolling during bridge watch, it makes people nervous.”*

V4 – *“Bad weather, No Social Interaction Activities.”*

V8 – *“Bad weather, vessel heavily pitching and rolling. The crew does not seem to get enough sleep.”*

V8 – *“Extremely hot weather, uncomfortable temperature inside of accommodation. Crew looking tired.”*



V14 – *“Heavy weather is affecting crew work as it is making routine jobs more difficult and also affecting quality crew rest/sleep times. Heavy weather is also limiting activities that can be practiced as is not safe/possible to use gym room, play table tennis or play music and karaoke parties.”*

V16 – *“The weather condition[s] do not allow to any social activities.”*

V17 – *“Because of Heavy weather in South China Sea Vessel is Pitching and shipping sprays on deck. . Everyone has given indoor jobs inside accommodation or Pumproom.”*

Inspections

Ship inspections and audits can cause considerable additional work for crew and reduce available time for socialising together. Preparing for inspections can be time-consuming and stressful for the master and officers, as ensuring they go smoothly is of great importance to the shipping company. A successful inspection can be the difference between incurring delays and costs, or keeping to the planned schedule. Due to the heavy workload inspections and audits can cause, social interaction is often not possible during these periods.

However, once an inspection is successfully passed, it can provide crew with a shared sense of satisfaction and general happiness. The following logs show a range of reactions and impacts resulting from inspections and audits.

V4 – *“No social interaction activities due to US Coast Guard inspection.”*

V6 *“We finished the loading. In the afternoon we concluded the vetting with a positive result. I’m happy for me professionally and for everyone on board.”*

V9 *“Due to early arrival I had a short night, in the afternoon my sleep was interrupted by an environment inspection ..”*

V14 – *“Crew will be much happier after [the] inspection.”*

V15 – *“Vetting Inspection at Tokuyama during discharging. Cleared inspection with Nil remarks. People super happy.”*

V16 – *“All visits, and inspections carried out in Venice went in the right way, so I was happy to receive congratulations by company inspectors.”*

Long hours

Long working hours are an inevitable part of a seafarer’s life but can lead to tiredness and fatigue if not managed well. Heavy workloads on board or in port means social interaction becomes less of a priority, or even impossible. Following long hours, the crew needs to rest and are not likely to be interested in doing much beyond eating, speaking to family and friends, and sleeping. The following logs highlight some situations contributing to long hours, when tiredness and fatigue are likely to build.

V5 – *“Major maintenance went on and crew were tired, but we had a party gathering that made us feel refresh[ed].”*

V9 – *“In the afternoon I was deeply asleep without being disturbed. We are making short voyages at the moment of maximum 36 hours till the next pilot. That is not only a lot of disturbance of a regular sleep / work schedule, but also means a lot of administration regarding pre-arrival documents. Since the computer became common on board of ships, we became more administrators than navigators. That’s not what I had in mind and were I was trained for when I started sailing. To me it is also not an improvement of the safety (on the contrary) or to make our job easier.”*

V9 – *“Arrival at Holtenau is becoming later than I hoped for. Kiel Canal passage will be mainly during night time. Again, a short and broken night. Now I’m older [...] this is having more impact than 10 years ago.”*

“Ship inspections and audits can cause considerable additional work for crew and reduce available time for socialising together.”

Positive impacts of social interaction – feedback from the SIM trials

In their exit interview, Vessel 16's Shore Ambassador noted that vessel inspectors who visited during the SIM trial period commented on the 'good and happy atmosphere' on board this ship. This example has therefore been selected for its additional observations about the SIM trials themselves, and their impact on the crew. Photos sent from this ship during the trials are also used to illustrate.

The following log entries were made by the Sea Ambassador of Vessel 16. This Ambassador was the 2nd officer of a chemical and oil product tanker, built in 2012 and 39,310 dwt. He was an enthusiastic Ambassador who kept detailed logs and helped to engage the crew. His narrative presents a summary of experience that reflects that of many other seafarers who took part in the trials and shows the value of bringing people together.

Sea Ambassador logs – Vessel 16

W8⁷ – 30th January (2021) – *"I am happy that my contribut[ion] to the project is getting success and all crewmembers are following me in the activities."*

W8 – 31st January – *"Today I am particularly happy because the Sim project is going so well [and we were mentioned in] the Weekly update received from ISWAN, exclusively for ships taking part in Social Interaction Matters (SIM) Project. [It showed] images of the week from our [vessel] that had an active week with a general fitness competition and ping pong tournament."*

W8 – 4th February – *"After activities success on board and from last week report I decided as Ambassador, with the Third mate [xx] to suggest to all crew members to prepare a personal carnival mask to wear on Carnival Day and the best mask will be elected as the best one and it will receive free MBs to spend during the month."*

"All crew members were so happy listening the new activity and start[ed] to think about [what] masks to create and wear at the carnival party next week."



Vessel 16 – Table tennis tournament

7. W8 refers to week eight of Vessel 16's trial.

W8 – 5th February – *“Today I received the notice that one my dear friend is becoming father for the first time, and I share my emotions with my colleagues because on board we are like a family.”*

W9 – 6th February – *“Tomorrow is the carnival party day. I’m focusing on all aspects [of this] in order to have the best result from the activity. I am happy to have this role in the project and all my colleagues are following me with interest.”*

“The crew looks relaxed. After work all crew members spoke with their family by ship’s free Wi-Fi and some of them [completed] their carnival masks”

W9 – 7th February – *“The carnival party activity had a great result. I could never imagine that one social activity can link people like this. When I look at my colleagues, I was so happy and satisfy of the result.”*

“Most of the crew members send carnival pics and spoke about activity with their family. They look happy and relaxed. I never see people on board with this behaviour.”

W9 – 13th February – *“The berth has been cancelled again due to bad weather but after dinner the captain, chief engineer and some ratings organized a ‘buraco’ challenge.”*

W9 – 14th February – *“I received from our main office the confirmation that I will sign off and back home at Bosphorus transit. I am so happy to [be going] back home, but I’ll never forget the time shared on board with other crewmembers. It’s the first time that I can feel little bit sad to leave the ship.”*

W11 – 15th February – *“Suddenly, [it started] snowing. We organized an activity. The activity was a snowman preparation”!*

W11 – 18th February – [...] *“early morning the captain, cook and messman signed off. Crew members were little bit sad about this because we spend four beautiful months together.”*

“Like other crewmembers I was little bit sad for crew signing off, but this is our life. I’m happy to [have] met these kinds of people on board and spend my free time with them.”

W11 – 21st February – *“Crewmembers were little bit sad to see that their ambassador is going home. All crewmembers made a good wish to him, and they hope to meet him again in the future.”*

“Today I completed my contract. It’s the first time that I feel so sad to leave a ship. On board this vessel I established between me and my colleagues a wonderful cooperation. I socialize with all crew members, and we did a lot of activities together.”

Appendix four details some of the further support and praise for the project.



4.0 Guidance and recommendations for crews and shipping companies

During the Social Interaction Matters (SIM) Project trials (phase two), many activities were identified from the Ambassadors' logs that helped to engage the crew and bring people together. These activities were sometimes formalised and planned as events, requiring time to prepare and execute. Other activities were spontaneous and ad hoc, requiring no planning. Certain activities needed recreation facilities to take place but there were also many that required none.

The use of technology and Wi-Fi on board remains a contentious issue. Some feel that they cannot interact without it, whereas others believe that it is causing crews to become more isolated from each other. The report discusses the importance of providing good connectivity on board but, ultimately it is important that a balance is struck between engaging with technology and engaging with other seafarers. Additionally, technology can also be used for, or as part of, social interaction, as some of the activities proposed in this guidance show. Technology can provide different opportunities to interact, away from traditional board games for example.

The benefits of appointing a social Ambassador on board for the initiation of and engagement with social activities was emphasised by the research. During the SIM trials, this role was always voluntary and tended to be given to an enthusiastic individual who enjoyed convening people. Most of the SIM Ambassadors were senior officers, although this does not need to be the case. However, it is important that they always have the support of the senior officers, who should also aim to engage in activities with the rest of the crew as much as possible. Even minimum effort from the Sea Ambassador was shown to be effective in bringing people together and improving the mood on board.

The following actionable guidance and recommendations present a range of activities that can help to bring crew together and can be used in different situations on board. These have been developed from the SIM Project phase two trials, and further endorsed and expanded through the findings from the 'Social Activities On Board' focus group held by ISWAN in February 2022. As well as considering space restrictions on board, the activities take into account different scenarios that a vessel and crew might be undergoing, such as poor or good weather conditions, port calls, long navigation times, and hot or cold climates. Rather than produce guidance based on vessel type, the proposed activities are instead recommended by a crew's access to communal spaces and facilities required, which makes them more adaptable to any seagoing vessel. Each activity specifies what type of space and facility is required to undertake it.

These guidance and recommendations can form a stand-alone document. If you are reading this section independently, please note that the main report can be found via [this link](#) and provides further context and academic justification for the following.

Guidance to support or enhance crew experience of living and working together on board:

- 1 Social Ambassador** – The shore-based leadership teams and/or senior officers on board should assign a Social Ambassador to help manage activities. All leadership should encourage crew to engage with this Ambassador and help them to recognise the advantages of creating this role on board. Ideally, the Ambassador should volunteer for the role or be voted as suitable by their peers.
- 2 Nationality** – Consider the crew’s cultural mix which can determine the types of activities they like to engage with. When a Social Ambassador is nominated, the shore based management teams should help to equip them with the necessary skills for this role and encourage them to ask for suggestions and ideas to understand what the crew enjoy doing in their rest time.
- 3 Engaged leadership** – Senior officers should be supportive of developing an on board culture that encourages social interaction. All leadership teams, both on board and ashore, should be encouraged to regularly discuss the wellbeing of the crew and recognise its importance in the overall performance of the vessel – particularly in relation to crew harmony, cohesion and ultimately safety.
- 4 When to initiate activities** – Activities must take the vessel’s voyage plan into account and be organised when they can have the most impact to lift the mood on board, for example, following an inspection or port call. Plan accordingly and invite the rest of the crew to comment on the suggestions. Having a work planner is considered essential for crew who are well used to thinking ahead. A social planner will be a natural extension of this and will help to generate motivation for events and avoid crew missing opportunities to connect.
- 5 Compliance with company policies** – Whilst selecting any of the activities suggested below, always ensure that they comply with your company policies beforehand. Not all of the activities maybe suitable for your vessel but many can certainly be adapted to suit most circumstances.

Social Activities

There are many positives to seafarers interacting together. Often when crews join a new vessel, they will not know each other, although exceptions can be seen in smaller fleets or where stable crewing is implemented.

The benefits of social interaction and getting to know everyone on board include:

- Improved mental and physical health.
- Getting to know the people you work with.
- Building trust and good relationships.
- Building strong teams.
- Encouraging familiarity.
- Helping to integrate new joiners quickly.
- Improved mood and morale on board.
- Development towards an improved safety culture.
- Increased likelihood of crewmates noticing if someone is struggling or not behaving like themselves.

Recommended social activities are discussed in the following section and are structured into the following categories:

- 1 Sporting**
- 2 Food and drink**
- 3 Other entertainment**
- 4 Technology**
- 5 Relaxing and calming**

Facilitating a variety of different activities will provide the best mental and physical stimulation. Depending on the weather and time available, activities can be selected from the suggestions below to provide entertaining, enjoyable, relaxing, and sometimes challenging, ways to unwind and enjoy leisure time on board. The activities suggested are designed to provide ideas and can be selected to suit the current vessel schedule and crew mood. They are presented in alphabetical order.

Sporting activities

Exercise and keeping fit plays an important role in maintaining physical as well as mental health. Sports games are particularly good for initiating competitions and providing a great way of staying fit. The SIM Project phase one findings showed that

outside activities are generally preferred over inside ones, helping to refresh body and mind. The following sporting activities will help both to increase fitness but provide entertainment with others.

1. Sporting activities

Activity	Conditions	Space required	Facilities	Preparation time
Basketball	Good weather, calm seas	Deck space	Basketball & hoop (& netting if available)	None or up to an hour if part of the league game
	Basketball is a popular team sport with seafarers, which lends itself well to being played as a competition. It promotes strenuous physical activity, and it can be played successfully on deck with the use of netting to stop the ball going over the side.			
Boxing	Good weather, calm seas	On deck	Boxing gloves	None
	Boxing provides good cardiovascular exercises and increases strength. It can take place on deck with boxing gloves and a sparring partner.			
Cricket	Good weather, calm seas	Clean, empty hold	Cricket bats ball and wicket	10 minutes
	Cricket games are possible on board bulk carriers that have been discharged and have a clean, empty cargo hold. This is more convenient than playing on deck where the ball is likely to disappear!			
Dancing	Good weather, calm seas	Communal area such as mess or game room	Music and speakers	Minimal
	Dancing is great for the mind and body, and good music often gets people up onto their feet. The SIM trial logs recorded some impromptu dancing on board and at some of the planned parties. Dancing can be encouraged by getting crew to select some of their favourite dance tracks for a playlist.			
Darts	Good weather, calm seas	Communal area such as mess or game room	Dart board and darts	None
	Darts was one of the most popular sports on board. The equipment takes up very little space and is suitable for crew at any level of fitness.			
Gym	Any, although calmer seas better	Dedicated gym room or a space for a few gym facilities	A range of gym equipment for strength & cardio	None
	All SIM trial vessels had a gym on board. These were frequently used and crew often worked out together when off duty.			
Table tennis	Good weather, calm seas	Communal area such as mess or game room	Table tennis table, nets, bats, and balls	5 minutes
	Table tennis is a popular indoor sport played on board and can easily be made into a tournament to encourage greater participation.			
Steps	Any, although calmer seas better	Stairs on the vessel	None	None
	Walking up and down steps is very good exercise and help to build up strength and cardiovascular fitness over time. Use of various equipment around the vessel can be an option for step exercising.			
Swimming/ dipping	Good weather, calm seas	Deck space	A fixed swimming pool, or giant free standing paddling pool	As required
	Swimming and splashing around in water are a great way to relax with crewmates in warmer weather. Pools can usually be filled using sea water from the fire mains, but the water does need to be changed after a few days to keep it clean. Cargo holds filled with ballast water can also be an option when deemed safe.			
Walking	Good weather, calm seas	Deck space	None	None
	Walking is gentle but good exercise to help keep the body mobile. Crew can take walks together around a large deck space.			

Additionally...

The use of league tables and creating prizes and trophies works well for competitions and tournaments. If you can, let the office team know about such events, and if your company has social media channels, post the results and images to encourage your colleagues to join in and promote your ship. Raising money for charity can also be a useful way to motivate others to join in and maintain continuity of effort.

Food and drink activities

As well as being a daily necessity, during busy schedules food can sometimes provide the only opportunity for people to come together. As a bare minimum, sitting down with others at

mealtimes and engaging in conversations (particularly when non-work related) can help crew to learn more about each other and provide a much-needed opportunity to relax.

2. Food and drink activities

Activity	Conditions	Space required	Facilities	Preparation time
Barbeques (if permitted on board)	Good weather, calm seas	Deck space	Barbeque and fuel	Preparation of barbeque foods
	Barbeques are very popular in good weather and gather many of the crew together. They provide a great way to socialise outside, with minimal cooking on the chef's part.			
Celebration cakes	Any, although calmer seas better	A mess room or other communal space to eat cake	The necessary ingredients	Recipe dependant
	Celebrating special occasions such as birthdays, promotions or a job well-done are a great opportunity to make individuals feel valued and their achievements recognised. Our research showed a direct correlation between receiving praise and improved crew mood. And for the rest of the crew – who doesn't like eating cake?!			
Celebration meals	Any, although calmer seas better	A mess room or other communal space to eat together	The necessary ingredients	Recipe dependant
	Recognising different cultural occasions helps a mixed nationality crew to feel valued and more at home. Celebration meals can be planned for cultural events like Christmas dinner, Diwali, Italian Republic Day feast, Day of the Seafarer, and many more.			
Coffee/tea break times	Any	Communal space to drink and talk	Kettle, tea, coffee and biscuits	5 minutes
	Drinking tea and coffee together is an easy way to interact on board and find out more about other crew, and requires no advance planning. Best practice suggests that when senior officers join the coffee breaks of different departments on a regular basis, it helps to build trust and co-operation between crew and on board leadership.			
Cooking different cultural dishes	Any, although calmer seas better	The galley	The necessary ingredients	Recipe dependant
	Adapting the menu on board to reflect crew nationalities provides the opportunity for different cultural dishes to be shared and enjoyed by all. It can help to generate conversations and can be advertised in advance as something to look forward to. Crew could help the cook to work out the meal plan for the cultural night in question.			
Eating meals together	Any	Mess room	The necessary ingredients	Menu dependant
	When time is short and crew are tired, eating together still provides the opportunity to interact together in any weather. More can be made of mealtimes generally, such as encouraging conversations or starting an impromptu game of cards at the table following the meal for example.			
Steak nights, pizza night, etc.	Any	Mess room	The necessary ingredients	Menu dependant
	Many of the SIM trial crews looked forward to a planned special meal together at least once a week. These included steak nights, pizza nights and 'Biryani Sundays' – but almost any favoured meal would work well for this. Planning is important to ensure that necessary ingredients can be purchased.			
Swap the cook for a senior officer/master for example	Any, although calmer seas better	A mess room or other communal space to eat together	The necessary ingredients	Recipe dependant
	A 'cook swap' provides the opportunity for other crew members to show off their culinary talents and introduce others to their favourite dish – perhaps with a particular meaning or memory attached to it – and can help to stimulate conversation about home life and traditions, and encourage closer bonds. This also allows the cook a break.			

Additionally...

- Adding food and drink treats to any activity will turn it into more of an occasion. For example, popcorn with a film night or pizza with a televised sporting event.
- Acknowledging special or cultural occasions with a cake or party food will help to make individuals feel special and valued and encourage others to gather for the celebration.
- Barbeques offer cooks the opportunity to join in with the event as they only need to prepare the food but do not necessarily have to cook it.

Other recreational activities

There are so many different activities that can take place on board. The ones suggested below need very little preparation time and would therefore work well for impromptu get togethers. Some of

the activities in this section, such as hair cutting and fussball, do not involve many people but they are still valuable sources of social interaction and can contribute to offering a boarder range of activities.

3. Other recreational activities

Activity	Conditions	Space required	Facilities	Preparation time
Bingo/lotto	Any, except very rough seas	Mess room or other communal space	bingo draw	Minimal
Bingo and lotto are easily understood, and therefore inclusive, games which can be played with many participants. During the SIM trials, some vessels introduced these as a weekly planned event complete with prizes.				
Board games	Any, except very rough seas	Mess room or other communal space	A table and chairs	None
Providing crew with a selection of popular board games is an easy way to facilitate social interaction between two or more players. Crew could be encouraged by shore-based management to recommend their favourites, to ensure preferences are met.				
Cards	Any, except very rough seas	Mess room or other communal space	A table and chairs	None
There are many different card games and the possibilities for entertainment are endless. Crew can take it in turns to select and teach different games of their choosing, with the additional option to play for small stakes.				
Film nights	Any, except very rough seas	Mess room or other communal space	TV or DVD player	Minimal
Crew can take in turns to choose the film they would like to watch.				
Fishing ⁸	At anchor	Various places on deck	Fishing rod, bait and bucket	Minimal
Fishing can be a relaxing pastime that is sometime rewarded with a fish or two. During the SIM trials, fishing often took place when the vessel was at anchor. When there was a catch, the cook could incorporate it into part of the meal.				
Fussball (table football)	Good weather, calm seas	Communal space	Fussball table	None
This game is for two to four players and can get quite intense and provide great entertainment. Fussball is easily turned into a competition.				
Hair cutting	Good weather, calm seas	Small areas	Chair, scissors and/or clippers, mirror and comb	Minimal
Haircutting was mentioned as a beneficial self-care activity in the SIM logs. After several months at sea, it is important to some seafarers that they have the opportunity to tidy themselves up with a haircut before returning home.				
Horse racing	Good weather, calm seas	Mess room or other communal space	A track (sometime made of cloth) and horses (often made with wooden pegs)	Minimal
Horse racing was mentioned many times in the SIM trial logs and helped to bring officers and ratings together. Horse racing is easy to set up and can provide a night's entertainment for all.				

8. Fish caught can make a tasty Barbeque or other meal prepared by the cook

Other recreational activities

Activity	Conditions	Space required	Facilities	Preparation time
Jamming sessions with musical instruments	Good weather, calm seas	Communal area big enough for at least four musicians (bigger if there is a drum kit)	Instruments that crew know how to play	Minimal
There are often hidden talents on board and providing a few instruments (after consulting with crew to understand their abilities) can be a good way to bring out people's creativity and musical skills.				
Karaoke	Any, except very rough seas	Mess room or other communal space	Karaoke machine	None
Karaoke is a favourite on board and can be enjoyed as either a spontaneous get together or a planned event. Karaoke gives all the crew an opportunity to get involved and can make a good competition.				
Led discussion groups	Any	Mess room or other communal space	No facilities but a willing group moderator or panellists are recommended	None
During the SIM trials, examples of led discussion group topics included the COVID-19 situation and religious beliefs. Other suggestions are discussions based on a documentary watched together or article read. Crew can also be invited to make suggestions about topics they would like to discuss in future groups.				
Sunbathing and relaxing	Good weather, calm seas	Deck space	Sun cream and towels	None
Enjoying a sunny day with fellow crew presents a great opportunity to relax together, soak up some Vitamin D, and experience a shared sense of happiness.				
Watching a box set or TV series together	Any	Mess room or other communal space	TV or DVD player	Minimal
Great for escapism and generating conversation that isn't about work				
Quizzes	Any, except very rough seas	Mess room or other communal space	Paper and pen for each team or participant	Quiz questions can be downloaded before sailing
Quizzes are a great way to generate excitement and can give crew the chance to show off their general or specialist knowledge skills. Nominating different quiz masters each time will give the opportunity to design quizzes that appeal to a variety of interests and knowledge.				

Activities using technology

There is an argument to say that technology isolates crew and prevents social interaction. However, many seafarers view technology as an essential part of modern seafaring life, and so it is in the best interests of a company to work with this

attitude rather than against it. With the right input, technology can be used imaginatively to promote interaction in certain situations and bring people together in a positive way. There is always a balance that can be struck to achieve this healthily.

4. Activities using technology

Activity	Conditions	Space required	Facilities	Preparation time
Computer games	Any, except very rough seas	Mess room or other communal space	Games console (e.g. PS4), choice of games, and controllers	None
	Although most computer games do not encourage physical activity, they can still provide good social interaction opportunities and therefore improve seafarer wellbeing. Many computer games can be setup to allow for multiple players and make for a fun and distracting respite from work.			
Multiplayer mobile games	Any, except very rough seas	Mess room or other communal space	Mobile device (e.g. phone or tablet) and relevant apps/ games	Minimal
	Many games can be downloaded onto an Android or iOS smartphone or tablet for free, e.g. Scrabble GO or Words With Friends, Kahoot (make your own quizzes), Heads Up! (within the House-party app), Ball Pool. Encouraging crew to select multi-player functions helps to facilitate social interaction and connection with others when playing.			
Participating in viral trends	Any, except very rough seas	Mess room or other communal space	Mobile device (optional: internet access for keeping up with trends and posting videos)	Minimal
	The rise in popularity of content-sharing apps like TikTok provides a great opportunity for crew to join in entertaining trends from across the globe. Such apps are popular amongst seafarers and are a great way for them to have some easy fun. Crew can get together to film a trending dance routine or challenge and share to social media if appropriate within company policy.			
Sea and ship photos to share/ send home	Any	Any	Mobile phone	None
	Being at sea provides the opportunity to photograph some unique, and often beautiful, scenery and wildlife. Seafarer photography can be made into a competition or developed into a shared-interest group – where the crew could tackle different subjects or photographic skills, such as night photography, portraits and seascapes.			
Vlogging	Any	Any depending on the video focus	Mobile phone	None
	Vlogging is an increasingly popular activity, especially amongst the digital generations. Encouraging crew to think of themes that capture their collective interests, or promoting company-wide ideas, can provide a good opportunity for competitions and inter-ship events.			
WhatsApp groups on board, with other vessels in the fleet	Any	Any	Mobile phone	Minimal
	WhatsApp groups can be used to stay in touch with different groups of people at home as well as on board. They can be set up to share event details and notifications about who is leading in a competition for example. They also provide a good way to share photos and video clips.			
Wii	Any, except very rough seas	Mess room or other communal space	Wii console	Minimal
	The Wii can be a multi-player computer game that can also include various sports where some activity is necessary. These can entertain as well as be competitive.			

Additionally...

- Activities and photos can be captured on phones and sent via WhatsApp groups to keep family and friends updated.
- Notably, the activities in this section can be carried out in most sea or weather states and with very little preparation, making these 'go to' activities when conditions deteriorate, or time is short.
- Technology can also be used to engage crew members in social activity planning, e.g. voting for favourite activities using polling apps or signing up to events via mobile.
- Posting on company-approved social media can provide a source of easy fun and interaction between crew members, families and different ships.

Relaxing and calming activities (for times of low energy or stress)

These activities will help to counter fatigue and refresh crew before or after stressful or tiring situations.

5. Relaxing and calming activities

Activity	Conditions	Space required	Facilities	Preparation time
Audio recordings to aid a good night's sleep	Good weather, calm seas	To accommodate number of participants. Comfortable space free from interruptions.	Audio recordings (e.g sleep stories, sleep podcasts, sleep sounds) and speakers. Something comfortable to sit or lie on e.g., chairs, sofa, bean bags. Low lighting if possible	None
Audio recordings developed specifically for meditation or sleep can help to ease those who have difficulty falling asleep into a calm and relaxed state. Ensuring audio is downloaded before leaving shore and encouraging crew on similar shift patterns to listen together as a group, can help to improve collective sleep hygiene routines. Take advantage of any company-provided health and wellbeing apps for supporting good sleep and stress management.				
Led meditation	Good weather, calm seas	To accommodate number of participants on mats. Comfortable space free from interruptions.	Yoga mats (or soft flooring) and someone to lead meditation	Minimal
Meditation was developed by monks and has a longstanding tradition for centring the body and mind and inducing a calm state. It can be used to help reduce stress and anxious thoughts and promote mindfulness.				
Listening to calming music	Good weather, calm seas	To accommodate number of participants. Comfortable space free from interruptions.	Music playlist and speakers. Something comfortable to sit or lie on e.g., chairs, sofa, bean bags	None
Regularly listening to calming music can reduce stress levels and release tension, which in turn can promote a better night's sleep. Crew can be invited to contribute their relaxing music choices to a group playlist, which can in turn facilitate an environment of interaction and 'coming together'.				
Sundowners (watching the sunset with drinks)	Good weather, calm seas	Deck space	Galley or bar to prepare drinks. Non-alcoholic, or alcoholic if provided. Comfortable chairs	10 minutes to prepare drinks
Watching a beautiful sunset across the water from the deck can be a relaxing and social experience. Sundowners provide the opportunity to have a drink with fellow crew whilst enjoying the scenery. Being in nature is known to benefit mental wellbeing, aid concentration, and increase positive emotions such as serenity and joy.				
Yoga	Good weather, calm seas	To accommodate number of participants on mats. Comfortable space free from interruptions.	Yoga mats (or soft flooring) and someone to lead yoga positions safely. Calming yoga music and speakers can make this a more relaxing experience	Minimal
Yoga is an ancient discipline that combines physical, mental and spiritual practices. It helps support stress management, mental health, mindfulness, strength and flexibility, and aids good quality sleep.				

Recommendations

Social interaction

- Appoint a voluntary social Ambassador⁹ on board each vessel to help arrange social events, gather ideas and feedback on these from the crew, and encourage maximum engagement and participation. The Social Ambassador should respond to the crew's social activity preferences and reflect on the success of past events to effectively develop future ones.
- Encourage a balance and variety of activities, taking into account the crew nationality mix and the voyage patterns of the vessel. Planned activities should be varied to ensure that there is something to interest everyone and that they provide the best mental and physical stimulation. Selecting a range of activities from the five categories in the Guidance and Recommendation section 4.0, can help to achieve this balance.
- Provide advanced notification of events to allow seafarers to anticipate and discuss them with others. A calendar to advertise upcoming social events can be shared with all crew in communal areas and can also be populated with crew birthdays, religious festivals and special dates, for example Day of the Seafarer.
- Plan social events sensitively to help provide respite following, for example, heavy workloads, long hours and bad news. Planning ahead can help to counter these tiring or stressful situations and provide activities which help the crew to relax and reset.
- Initiate ice-breaker activities for newly joined crew to help them integrate with their fellow crew more quickly. Ensure that a small social event happens within the first week of a crew change, whether it is to welcome ten new seafarers or only one.
- Use competitions to generate interest for certain activities and help increase activity participation over time. These can be arranged between crew on board, inter-fleet, with the shoreside office and even with other fleets. Awarding prizes can help to raise the stakes and further increase interest for the activity but are not essential.

- Always consider the safety aspects of different activities before they are initiated, and all equipment and facilities need to be thoroughly and correctly maintained with a servicing schedule (e.g. for gym equipment) where applicable.

Leadership

- Leadership on board must be visible and engaged, helping to establish a culture that promotes social interaction. It is recommended that social interaction, including the facilities needed to support it, is made a standing agenda item for senior leadership meetings which include the shore management team. In addition, meetings should be convened to discuss ideas, and workshops or seminars should be held to explore the importance of social interaction for mental health and wellbeing.
- Promote and encourage the importance of supportive leadership and good communication, both on board and from the shore office.
- Establish a strong company ethos and provide consistent messaging that seafarers' wellbeing matters.

General recommendations

- Shipping companies and charterers need to support their seafarers and take measures to ensure that they can adequately relax and interact with each other during their rest-time.
- Provide free and best possible Wi-Fi services to ensure seafarers can stay connected with those at home and the outside world.
- Consider the lessons learned throughout COVID-19 and be aware of the impact of allowing visitors on vessels during port calls. Promote awareness about the correct safety precautions to take.
- The data limitations¹⁰ identified in the SIM Project point to further research in these areas and more focused examination of certain findings, such as fatigue and its impact on mental health.

9. The role of a social Ambassador is discussed on page one of these guidance and recommendations.

10. Refer to data limitations in the Project methodology section.

Helplines

ISWAN's helplines offer free, 24-7, multilingual support and guidance to seafarers and their families in need.



SeafarerHelp

Email: help@seafarerhelp.org
SMS text: +44 (0) 7860 018 538
Skype: [info-seafarerhelp.org](https://www.skype.com/info-seafarerhelp.org)
Phone: +44 (0) 20 7323 2737
Live Chat: www.seafarerhelp.org
WhatsApp: +44 (0) 7909 470 732
Facebook: www.facebook.com/SeafarerHelp/



Yacht Crew Help

Email: help@yachtcrewhelp.org
Phone: +44 (0) 20 3713 7273
Live Chat: www.yachtcrewhelp.org



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Appendix one

Role of the SIM Sea and Shore Ambassadors (Social Ambassadors)

Desired Ambassador attributes included:

- Willing and interested volunteers.
- Good communicators.
- Observant and able to keep thorough records of even minor social events.
- Able to initiate and encourage social interaction.
- Committed to staying in regular contact with the ISWAN SIM team throughout the trials.
- Willing to participate in post-trial exit interviews to feedback on their experiences.

Role of the Sea Ambassador

- Commit one to two hours a week to the project.
- Work with and provide feedback to the SIM Shore Ambassador and the ISWAN SIM team.
- Help senior officers to engage with the crew and be willing to participate in and encourage social interaction.
- Record if port calls were made and whether the crew could go ashore. Record whether there were any ship visits from the Missions etc.
- Record the general mood on board throughout the voyage and note possible causes of changes to this.
- Monitor and record social interaction activities that were initiated for the trial.
- Monitor and record social interaction activities that were initiated outside of the trial.
- Record any safety incidences on board or other disruptions e.g. bad weather during the trial duration.
- Note any particular interaction issues or benefits arising from the COVID-19 situation.

Role of the Shore Ambassador

- Commit one hour a week to the project.
- Work with and support the Sea Ambassador(s) wherever possible.
- Provide feedback on the voyage or anything that was likely to have an impact on the trial.
- Provide details about the crew demographics, such as numbers, nationalities, gender mix and frequency of crew changes.
- Provide details of the ship's IMO number, voyage route, length of voyage, cargo, time in port, shore leave permitted, and port facilities available.
- Detail availability of internet facilities and conditions of use.
- Describe the general environment on board, communal spaces and available recreation facilities etc.
- Provide regular feedback and updates to the ISWAN SIM team.

Appendix two

Activity log record

Date _____

Activity _____

Where activity took place on board? _____

Was it a competition? _____

Did the crew get involved with choosing the activity? _____

Where did the activity take place on board? _____

If you did not initiate the activity – who did? _____

Was the activity spontaneous or planned? _____

If planned, how far in advance? _____

No. of officers who engaged in the activity? _____

Did the Master get involved? _____

No. of ratings who engaged in the activity? _____

How well do you think the activity went?

Good

OK

Bad

Please say why the activity went like this. _____

How much time did it take to set up the activity? _____

Was there a prize awarded for the activity? _____

What was the prize _____

If this activity were run again, how would you improve it? _____

Any other comments? _____

Appendix three

Weekly crew survey statements

Crew wellbeing surveys were designed to be conducted weekly by all on board, using a well-established measure of wellbeing, the Warwick Edinburgh Mental Wellbeing Scales (WEMWBS) (Warwick Medical School, 2021). This measure was adapted to examine three constructs – wellbeing, social cohesion, and perceived company value – and how these changed over the duration of the trial, with a particular focus on impacts from social activities and fatigue Crew responded to the following statements.

Social cohesion measures

- I can count on my crew members when I need help
- I feel part of a community on board

Perceived company value measures

- The company cares about my well-being
- My work is valued by the company

Wellbeing measures

- I've been feeling optimistic about the future
- I've been feeling useful
- I've been feeling relaxed
- I've been feeling interested in other people
- I've had energy to spare
- I've been dealing with problems well
- I've been thinking clearly
- I've been feeling good about myself
- I've been feeling close to other people
- I've been feeling confident
- I've been able to make up my own mind about things
- I've been feeling loved
- I've been interested in new things
- I've been feeling cheerful

The crew were requested to respond to each of the statements using the following scale:

None of the time, Rarely, Some of the time, Often, All of the time

The responses were categorised as follows:

Survey response	None of the time	Rarely	Some of the time	Often	All the time
Categorisation	Negative	Quite negative	Neutral	Quite positive	Positive

Appendix four

Praise for the SIM Project

Apart from the extraordinary interest from shipping companies involved in the SIM Project, and their willingness to participate in the research and live trials, we also received many accolades for the project from the Sea and Shore Ambassadors.

Messages from some Sea Ambassadors

Vessel Five

Please be informed that myself will sign off on 06th April.

Will handover to Incoming master about the ISWAN SIM Project.

I had a great time during my tenure due to the ISWAN SIM Project.

Hopefully, this project goes well and helps all seafarers to enjoy a life on board.

Thank you for your good support

Have a beautiful day!

In reference to the second ISWAN competition 'How far can you go?'

Good day Madam,

Very happy to share with you my involvement in the competition for the last one week ... Hardly getting time to relax myself each day is crossing very fast, I don't know why for me now this competition is everything. I used to do regular exercise and I train myself for almost six years by now. This is the first time I have got a chance to show what I have been trained for so many years. Thank you for conducting this competition and I will remember this throughout my life madam.

Good day Madam,

Thank you very much for making me to feel Very happy and very much satisfied by your reply. Once again Thank you madam from my deep heart for all your response and time, which makes me to involve and give my best for this competition. Out at sea 14 days during this competition gone like a minute and [have] given me positive & strengthening memories which will remain with me throughout my life. I wish you and all at ISWAN for good health and happiness.

RGDS

Vessel Two

The ISWAN competition for next week recording walking and running distances will keep me a little more motivated to try and achieve things in the coming week.

Vessel 13

Saturday 12 June 2021 vessel conducted training for all crew.

- Immersion suit
- Fireman's outfit
- CBT training

On board, most of the vessel crew find out training was a boring activity – but let us blend the ideas of fun games and prizes....

What fun it is to see, even for the senior officer's, participation for the training and enjoy every moment of it..

The result was captivating.....

And of course, the winner will have additional four hours internet connection for a week, not a bad idea and its tax free!!!

Vessel 16

My daily work performances are going in the right [...] way. I have a good relationship with all crew members. Moreover, the SIM Project made me interested and happy to reach the campaign['s] required goals.

[17TH Dec 2020] The Christmas festival countdown for seafarers and SIM Project have been welcome[d] by all crew members

Messages from some Shore Ambassadors

Crew manager for Vessel 13

Thanks for your email below and it is motivating to read that ISWAN will award the crew with a special commendation.

That will have a very positive impact on crew morale on board.

Crew manager of Vessel Five – winner of 'How far can you go part2' competition

Very nice to hear smoothing words from you.

We are happy to share these pics with SIM Ambassadors next Friday.

We would like to thank you for conducting such a wonderful competition.

Thanks, and best regards

Crew manager for Vessel 16

Listening to the comments and congratulations of the crew on the activity, they [have] given me great satisfaction, saying that it was all 'perfect'.

Crew manager for Vessel 13

Thanks for the complement, this is the only thing we can offer to the crew on their hard work and dedications, and we are glad to have this project. It really boosts the morale of my crew, and to the company who offers a lot for their wellbeing.

Mental wellness really a big issue [for] us amidst of this pandemic. I hope sooner or later everything be back to normal. [...]

Hope we can contribute more next week.

Crew manager for Vessel One

Thank you ISWAN for your understanding and guidance with respect to the various shipboard activities & crew change issues. Thank you for motivating us to conduct various indoor/outdoor activities which boosted our morale helped ease some stress during these strange times!

Crew manager for Vessel Eight

I received a very proud message from the mv Glory Ocean. They were in the newsletter!!!

They were very proud of that.



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