

## FOREWORD

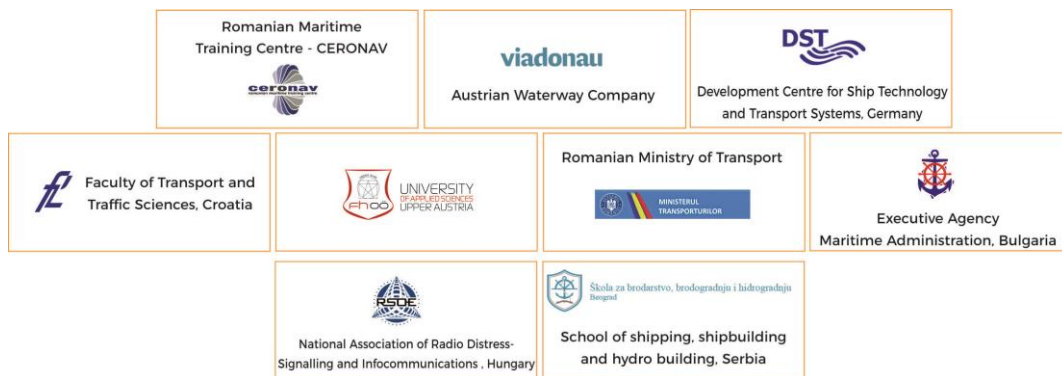
To assist education and training entities in the Danube region in building their institutional and organizational capacity so as to match the Standards of competence for inland navigation personnel- Management level- ML 6 – Communication, required by EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation, the transnational model course on **Human resource management and social responsibility** on board was developed.

This course compendium will be a useful transnational training tool for conducting the Train the trainer session and is intended to assist education and training providers and their teaching staff in organizing and introducing new education & training programmes, or in enhancing, updating and supplementing existing didactical materials with the ultimate end results of raising quality and effectiveness of the education & training programmes.

Since education & training systems as well as the cultural background of inland navigation topics differ considerably from one country to another, the model course compendium has been designed so as to identify the basic entry requirements and trainee target group for each training module of this model course.

Technical content and levels of knowledge and abilities are in line with the applicable EU Directive on essential competence requirements for Boatmaster, to perform human resources management, be socially responsible, and take care of organization of workflow and training on board the vessel.

The following consortium conducted the development of this model course compendium during Danube SKILLS project financed by the Danube Transnational Programme:



# **HUMAN RESOURCE MANAGEMENT AND SOCIAL RESPONSIBILITY ON BOARD – MANAGEMENT LEVEL**

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MODULE I



Project co-funded by European Union funds (ERDF, IPA)



**TRAIN  
THE  
TRAINER**

**PRINCIPLE AND GOOD PRACTICE  
IN SHIPBOARD HUMAN RESOURCE MANAGEMENT**

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## 1. INTRODUCTION

This course compendium was designed both for trainers who will be involved in training of such training module and the trainees as learning aids in order to facilitate the learning process.

**This course compendium aims** to assist in the implementation of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and in meeting the requirements of the Standards of competences for inland navigation personnel- Managerial level that will be part of this legislative act.

**The main objective** of this course compendium is to develop guidance material to assist the improvement of safety leadership on board of inland navigation vessels.

## 2. COMPETENCE AND LEARNING OUTCOMES

### 2.1 Competence

*Organize and stimulate teambuilding and coach the crewmembers regarding shipboard duties and, if necessary, take disciplinary measures.*

### 2.2 Learning outcomes

*By the end of this course, trainees will be able to:*

- *State some physiological and psychological limitations of human factors;*
- *State some of the factors that lead to human failure;*
- *Define attitude, behaviour and motivation;*
- *Define situational and cultural awareness;*
- *Understand influence of risk assessment in the principles and practice of decision making.*



**Credibility** – companies must ensure that they remain the best brand to most of their clients by maintaining their credibility. They should put in place strategies that ensure all employees have a clear sense of direction to a common goal.

**Change** is inevitable for business- the fastest a business embraces change in management of their human resources the better is placed to produce better results.

**Commitment** – every company has objectives which they intend to meet both for themselves and for their clients. To meet these goals, companies need committed staff therefore it is the company responsibility to keep their employees motivated so as to ensure they are committed to the company course.

### 3.2 Team building techniques

The first rule of team building is an obvious one: to lead a team effectively, you must first establish your leadership with each team member. The most effective team leaders build their relationships of trust and loyalty, rather than fear or the power of their positions.

The main important team building techniques are:

- **Consider each employee's ideas as valuable.** Remember that there is no such thing as a stupid idea;
- **Be aware of employees' unspoken feelings.** Set an example to team members by being open with employees and sensitive to their moods and feelings;
- **Act as a harmonizing influence.** Look for chances to mediate and resolve minor disputes; point continually toward the team's higher goals;
- **Be clear when communicating. Be careful to clarify directives;**
- **Encourage trust and cooperation among employees on your team.** Remember that the relationships team members establish among themselves are every bit as important as those you establish with them. As the team begins to take shape, pay close attention to the ways in which team members work together and take steps to improve communication, cooperation, trust, and respect in those relationships;
- **Encourage team members to share information.** Emphasize the importance of each team member's contribution and demonstrate how all of their jobs operate together to move the entire team closer to its goal;
- **Delegate problem-solving tasks to the team.** Let the team work on creative solutions together;
- **Facilitate communication.** Remember that communication is the single most important factor in successful teamwork. Facilitating communication does not mean holding meetings all the time. Instead it means setting an example by remaining open to suggestions and concerns, by asking questions and offering help, and by doing everything you can to avoid confusion in your own communication;
- **Establish team values and goals;** evaluate team performance. Be sure to talk with members about the progress they are making toward established goals so that employees get a sense both of their success and of the challenges that lie ahead. Address teamwork in performance standards;
- **Make sure that you have a clear idea of what you need to accomplish;** that you know what your standards for success are going to be; that you have established clear time frames; and that team members understand their responsibilities;
- **Use consensus. Set objectives, solve problems, and plan for action.** While it takes much longer to establish consensus, this method ultimately provides better

decisions and greater productivity because it secures every employee's commitment to all phases of the work;

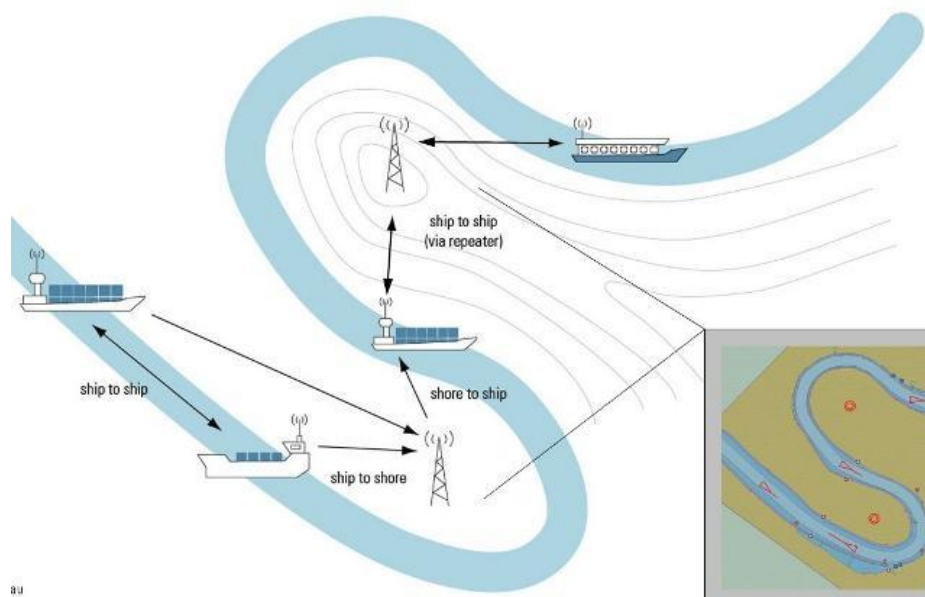
- **Set ground rules for the team.** These are the norms that you and the team establish to ensure efficiency and success. They can be simple directives or general guidelines, but you should make sure that the team creates these ground rules by consensus and commits to them, both as a group and as individuals;
- **Establish a method for arriving at a consensus.** You may want to conduct open debate about the pros and cons of proposals, or establish research committees to investigate issues and deliver reports;
- **Encourage listening and brainstorming.** As supervisor, your first priority in creating consensus is to stimulate debate. Remember that employees are often afraid to disagree with one another and that this fear can lead your team to make mediocre decisions. When you encourage debates you inspire creativity and that's how you'll spur your team on to better results;
- **Establish the parameters of consensus-building sessions.** Be sensitive to the frustration that can mount when the team is not achieving consensus. At the outset of your meeting, establish time limits, and work with the team to achieve consensus within those parameters. Watch out for false consensus; if an agreement is struck too quickly, be careful to probe individual team members to discover their real feelings about the proposed solution.

## 4. COMMUNICATION WITH THE CREW

### 4.1 Communication and navigation

Communication and navigation are intrinsically linked. Right from the start of voyage planning, crew members need up-to-date information that will affect the voyage of the vessel, such as chart correction. This information needs to be effectively communicated to the vessel and presented in a format that aids decision-making.

During the voyage, communication is essential not only among the bridge team on board, but also with shore authorities and with other vessels.



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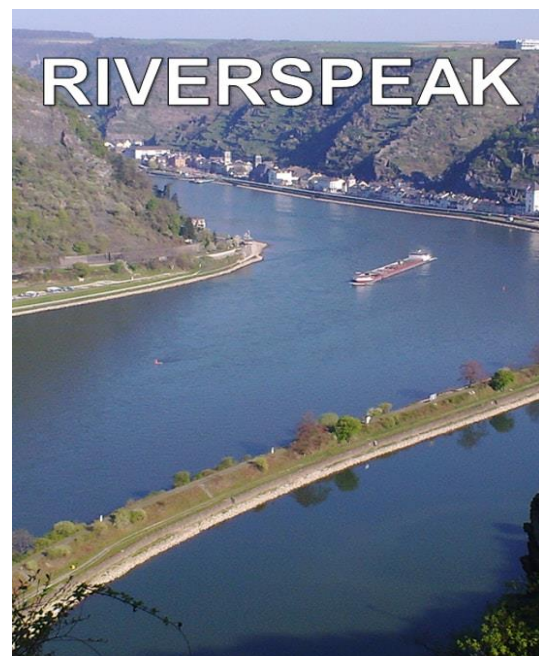
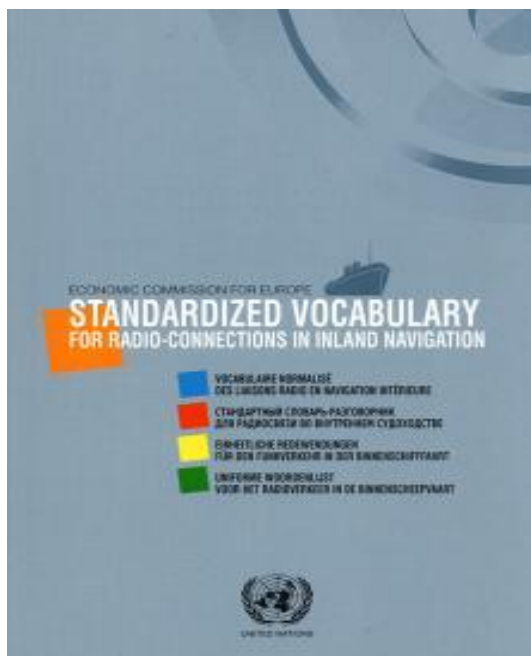
**Giving clear understandable instructions** is one of those things that sounds easy to do but in real life can actually be more complex, especially in the vessel environment or within a business. Mixed messages, assumptions and multiple options mean that the message received might differ from what we actually meant.

### Effective bridge communication

The purpose of communication is to convey your thoughts to another person, and to get them to carry out the actions you want them to take. It is important to encourage them to speak their mind too, so that you are sure that your message has been clearly understood. If the communication fails in getting the listener to carry out the desired action correctly, it could lead to an accident.

Considering the multi-national environment in the inland navigation world, it is essential that when you speak, you do so clearly and slowly. Use simple words and short sentences and ensure that you are loud enough to be heard above the general sound level in the surroundings.

It can be used: Standardized UNECE Vocabulary for Radio-Connections in Inland Navigation, RIVERSPEAK or any other applicable standardized vocabulary for inland navigation.



After speaking wait to be sure if the instructions are understood by the listener. As a general rule, the policy on board should require the listener to repeat what they have heard and for the speaker to then acknowledge that what the listener has just repeated was correct. This is generally referred to as “Closed Loop Communication”.

The speaker’s duty does not end once the listener has repeated the communication. To avoid accidents, the speaker must then observe and verify that the correct action has been carried out.

## 4.2 Communication subtleties

These rules of speaking and listening are taught in most colleges as part of their specific training course.

However, there are several other important aspects of communication not taught quite so often. For example, it's important to note your own tone and body language, as this can affect the listener's response to the communication.

An angry or irritable tone discourages the listener from sharing his or her thoughts in the future. He or she will be reluctant to convey their doubts about the navigational situation and thereby reduce the overall effectiveness of the bridge team. Imagine if, due to being afraid of angering a senior person, the operational person from the crew members, fails to report that the vessel is setting off towards the wrong side of the channel.

An encouraging tone helps give bridge team members the confidence to share their thoughts and concerns. A smile or convivial pat on the shoulder while talking to someone, or even a simple encouraging nod to acknowledge the contribution of a team member, can go a long way in establishing a stronger rapport and sense of team spirit on the bridge.

We often hear the words "planning" and "risk assessment" on board vessels. While I'm certainly not advocating carrying out a risk assessment every time you speak, it's nevertheless important to consider "planning" your more important communications, especially if you are not very comfortable in the language being spoken.

It's a good idea to prepare your questions and perhaps even keep notes ready, in order to ensure that you achieve the required goals through the conversation. If you are concerned about the clarity of your speech, or your accent, try to practise as often as you can.

Watching movies in that language is also an effective learning tool. Thanks to shorter stays in ports, and difficulties arising from security concerns, it may no longer be possible to make friends ashore to practise your language skills on.

### **4.3 Stay alert**

Navigating a vessel requires constant alertness and vigilance, especially in congested or shallow waters and during port approaches and berthing. Verbal communications on the bridge should therefore be kept to the minimum required for navigating. It's easy to get distracted discussing the football game or the latest movie. Too many or too few communications become harmful to safe navigation; getting the balance right is the key.

### **4.4 Communication issues during operation of the vessel**

The main important ten points to take away for communication action to bear in mind when you are on duty on board of the vessel are:

#### **Sharing**

Communication is about sharing or exchanging information by any means. Two of the most important means of communication are by talking (verbal) or by electronic exchange.

#### **On target**

Good communication and good information exchange are absolutely essential to good navigation. Navigators need to be sure that the information they communicate is both sent and received accurately.

#### **Talking of disaster**

Miscommunication or the use of poor information is a leading cause of accidents and costs us all clearly in terms of reputation, money and environmental impact.

#### **Body talk**

Bridge team communication can include body language, tone and verbal communication. All of these are essential for good bridge team management.

#### **Plan to succeed**

The awareness of risk, and the safe management of risk is far more effective when shared amongst all professionals on the bridge, including navigators, pilots where appropriate engineers.

#### **Listen and look**

Encourage all participants to “speak their minds” to ensure that your message has been clearly understood. The speaker’s duty does not end once the listener has repeated the message. To avoid accidents, the speakers must then observe and verify the action.

### **Overload**

If too much data is displayed or it is presented in an inappropriate way, navigators can be distracted, focus on the wrong things or waste valuable time.

### **Human and machines**

Navigators need to make sense of what computers are telling them. Most of all, they need to combine their human abilities and their technological strengths to develop effective communication using the strengths of both.

### **Does it make sense?**

Information provided by electronics is not always useful or accurate. Navigators must always question what they see and use common sense and professional knowledge to evaluate it.

### **Silence can be golden**

While good verbal communication is essential on board in a bridge team, for accident avoidance the applicable navigation rules have been designed to be a rule-based system, avoiding the risk inherent with voice communication.

## **5. PROFESSIONAL AND SOCIAL BEHAVIOUR IN SHIPBOARD OPERATIONS**

### **5.1 Human element**

The human element is a critical feature of all aspects of vessel and system design and operation. Human element considerations do not just start when a vessel is launched and end when it is sold on or scrapped- they exist throughout its lifecycle, including at the conception, design and build stages. This means that the company ashore, at all level of management, is as important as the crew members themselves in ensuring that the human element is addressed effectively. Properly addressing the human element requires genuine, demonstrable commitment from the very top of the company. The significance and role of human element at work in the world of practice is well articulated in a concise way here. First, it is value and of interest as something that can have a major impact. Second, successful management of human element involves specialist knowledge and skills of the professional process. Third, it also involves more general abilities to push ideas through, to make things happen, to have credibility and to be able to drive change.

There is no accepted international definition of the human element. In the navigation context, it can be taken to embrace anything that influence the interaction between a human and any other human, system or machine on board of the vessel.

Human element is part of people management that deals with the process of facilitating, guiding and coordinating work-related learning and development to ensure that individuals, teams and organization can perform as desired.



Inland navigation industry needs good, qualified, and motivated shore and crew member's staff to operate effectively. People are important. They need to be provided with the proper tools and be adequately trained to be able to conduct their business in a safe and efficient manner.

## 5.2 Professional behaviour on board

In terms of inland navigation crew members, the quality of the end product depends not only on the standard of education and training provided, but also on how well basic human needs of the mind, the body and the spirit are met.

### The Mind

#### Competence

The level of competence depends on good education and effective training based on realistic objectives, a personal ability to absorb knowledge and to understand the subject, and individual skills and proficiency.

#### Attitude

Attitudes to education and training are driven by mental ability, intelligence, personality, character and sensitivity, through self-awareness and self-evaluation.

#### Motivation

Fair terms of employment and reward structures, good communication, direction, clear responsibilities, teamwork, empowerment and character building lead to motivation and a sense of leadership, interoperability and adaptability.

### The Body

#### Happy and healthy lifestyle

Encouraging a balanced diet, good hygiene, exercise, rest and recreation, together with acceptable standards of habitability and regular medical screening ensures that the person has sufficient energy, physical fitness, physical strength, stamina and wellbeing to enable him or her to do the job.

#### Safe and secure working environment

Good ergonomics, safe working practices, and the provision of protective equipment, together with proper physical security, will lead to an improved safety culture and greater security awareness.

### The Spirit

#### Self-actualisation

Personal ethics, conscience, cultural integration and leadership, together with proper supervision and adequate remuneration, generate a sense of pride and purpose, identity, loyalty, fellowship and personal job security.

#### Moral values

Decency, honesty and integrity, together with an appreciation and tolerance of the beliefs of others, are the key moral values to be displayed. Personal faith and self-discipline are drivers towards cultural awareness.

Some of these attributes can be taught, and some are developed through self-education, while others fall to the ship owner or ship manager to develop and encourage. The ship owner or ship manager has a duty to employ quality people, and provide them with a safe and secure working environment, together with decent working and living conditions and fair terms of employment.

The relevance in human element in ship board operation is in **Performance management process**:

- the shipping industry is run by people, for people;
- people design vessels, build them, own them, crew them, maintain them, repair them and salvage them;
- people regulate them, survey them, underwrite them and investigate them when things go wrong;

While these people vary in all sort of ways, they are all, nevertheless, people-with the same basic set of capabilities and vulnerabilities.

### 5.3 Social behaviour on board

Humans are not simply an element like the weather. They are at the very centre of shipping companies. They are the secret of its successes and the victims of its failures. It is human nature that drives what happens every day at work- from the routine tasks of the ship's rating, right to the policy decisions of the international regulatory body.

Fortunately, there is a lot that is known about human nature, and a a lot of practical things that can be done to ensure people play their strengths while avoiding the pitfalls.

The eight basic aspects of human nature are:

#### **People actively make sense of things**

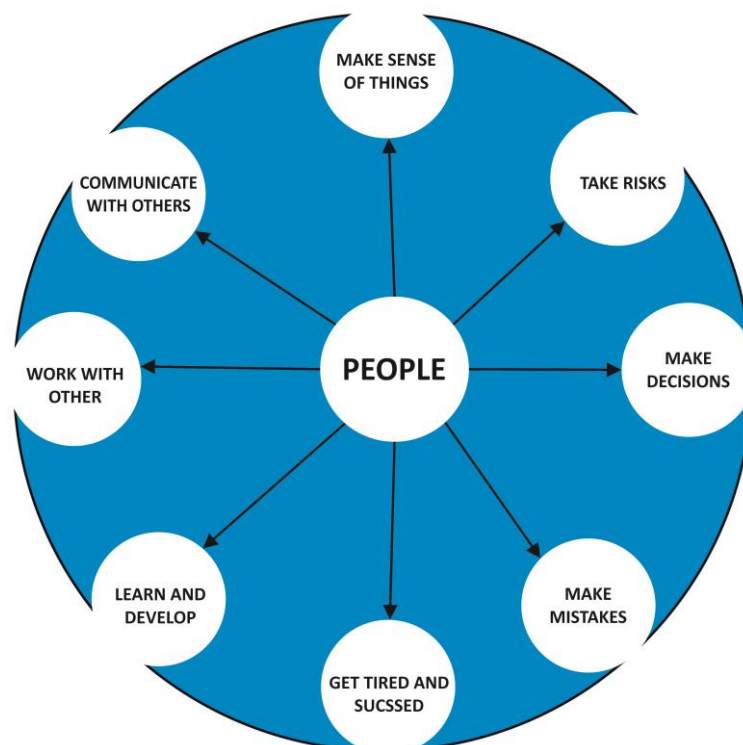
What is obvious to you may be far from apparent to somebody else. We explain how it is that most of what you see and understand is down to you and your expectations, rather than a response to "what's out there". The key problem is ensuring that the sense you make of things is enough for you to deal effectively with the reality of a continuously unfolding situation- a situation that you may share with your colleagues.

#### **People take risks**

Everybody takes risks all the time. In a world that is essentially uncertain, this is not only normal but inescapable. We explain how the human perception of risk is quite different from the probability with which events actually can occur. The key problem is in ensuring that your own perception of risk maps onto the world with which you are interacting.

#### **People make decisions**

We explain the difference between how people think they make decisions and how they actually do it, and how experts' decision making is quite different from the way they did it when they were learning. We also explain why experience does not always lead to expertise, but that expertise always requires experience, and lots of it. The key problem is to understand what the components



of a good decision are, and how to recognise when you are about to make a bad one.

#### **People make mistakes**

A fundamental human strength depends directly on the ability to make, and then recover from, mistakes. Without error there can be no learning or development. And without these, organisations cannot achieve their goals. The main problem here is in ensuring that potentially harmful or expensive mistakes are prevented, caught or minimised before they have a chance to

get far enough to matter. We explain how this depends as much on organizational culture as on individual competence.

#### **People get tired and stressed**

We explain causes and consequences of fatigue and stress, and explain what you can do to avoid them or lessen their impact. We also explain why workload turns out to be as much to do with your own experience, as the actual demands placed on you by the job.

#### **People learn and develop**

People learn all the time. They can't stop themselves. The main problem is in ensuring that you learn the right things at the right time. People also have aspirations which can be managed by an organization to further its own safety and profitability. However, in the absence of good management, people's aspirations will either be ignored or permitted to dominate.

#### **People work with each other**

Working with each other sometimes requires us to work as individuals in pursuit of our own goals, and at other times as members of a team with a common purpose. Either way, the key problem is in ensuring that we have effective "people skills", as well as technical skills. We explain what these other skills are, why they are important and what can go wrong when they are absent.

#### **People communicate with each other**

Successful communication involves the clear transmission of a message. Actually this is only a part of the story. We explain what has to happen for communication to be successful. We explain the responsibilities of both listener and messenger, and how apparently successful communication can continue for long periods until disaster suddenly strikes, all because both parties were inhabiting completely different worlds of their own construction with disastrous consequences either way. We explain the enormous power that effective, well-timed training can give to an organization.

## **6. PRINCIPLES OF TASK AND WORKLOAD MANAGEMENT**

### **6.1 Shipboard workload management**

Effective shipboard workload management is more than workload allocation. It also includes the optimal use and regular review of human resources in order to identify ways in which to improve overall performance while enabling the crewmembers to take responsibility for the effective planning and delivery of their work tasks.

Workload management is underpinning by the following principles:

- Managing workloads and the change that occurs on board of the vessels on a daily basis is the responsibility of managers and forms part of routine operations and project planning processes;
- Be driven by the vessel Safety Management System and aligned with the Company Strategy, focusing on what is to be achieved and how;
- Results in equitable, fair and safe workloads for crewmembers;
- Be developed and implemented with crewmembers in mind and transparent;
- Offer comparability across the fleet, while ensuring sufficient flexibility to address individual vessels;
- Focus on vessel on board duties or tasks for which there are set procedures and range of industry norms, but acknowledge other activities;
- Take into consideration the level of complexity of the duty/task and the level of experience of the crewmember;
- Cover all the domains of activity such as navigation, engine maintenance, cargo operations, stability, dealing with passengers etc. but recognise that the crewmember will contribute in different ways as appropriate;

- Review the workload management annually but allow for review throughout the year to accommodate changing circumstances;
- The maintenance of safe work environments and safe work practices, and adherence to vessels health and safety policy are a priority objective of workload management;
- Workload management processes must comply with inland water transport legislation, awards and agreements including hours of work and remuneration legal provisions;
- Workload management and associated workload allocation supports the pursuit of strategic priorities, and is to be linked to vessel operational and workforce planning processes in addition to individual crewmembers performance management processes;
- Workload management decisions should take account of the work-life balance of crewmembers;
- Crewmembers and managers understand and accept that in each workplace there can be natural peaks and troughs in term of workload that is associated with service delivery requirements;
- Crewmembers should not be required to undertake work that significantly and regularly exceeds ordinary working hours unless exceptional circumstances exist such as an emergency;
- Workload management is to be informed by effective identification and analysis of data/information and accurate and consistent performance reporting within the context of business function;
- The processes undertaken and the information collected as part of workload management must take into account the privacy of, and confidentiality of issues raised by, individual crewmembers;
- Workload management should include issue escalation processes and dispute resolution mechanism.

## 6.2 Task management

Task management is the process of managing tasks through their life cycle. It involves planning, testing, tracking and reporting. Task management can help either individuals achieve goals, or groups of individuals collaborate and share knowledge for the accomplishment of collective goals. Tasks are differentiated by complexity, from low to high.

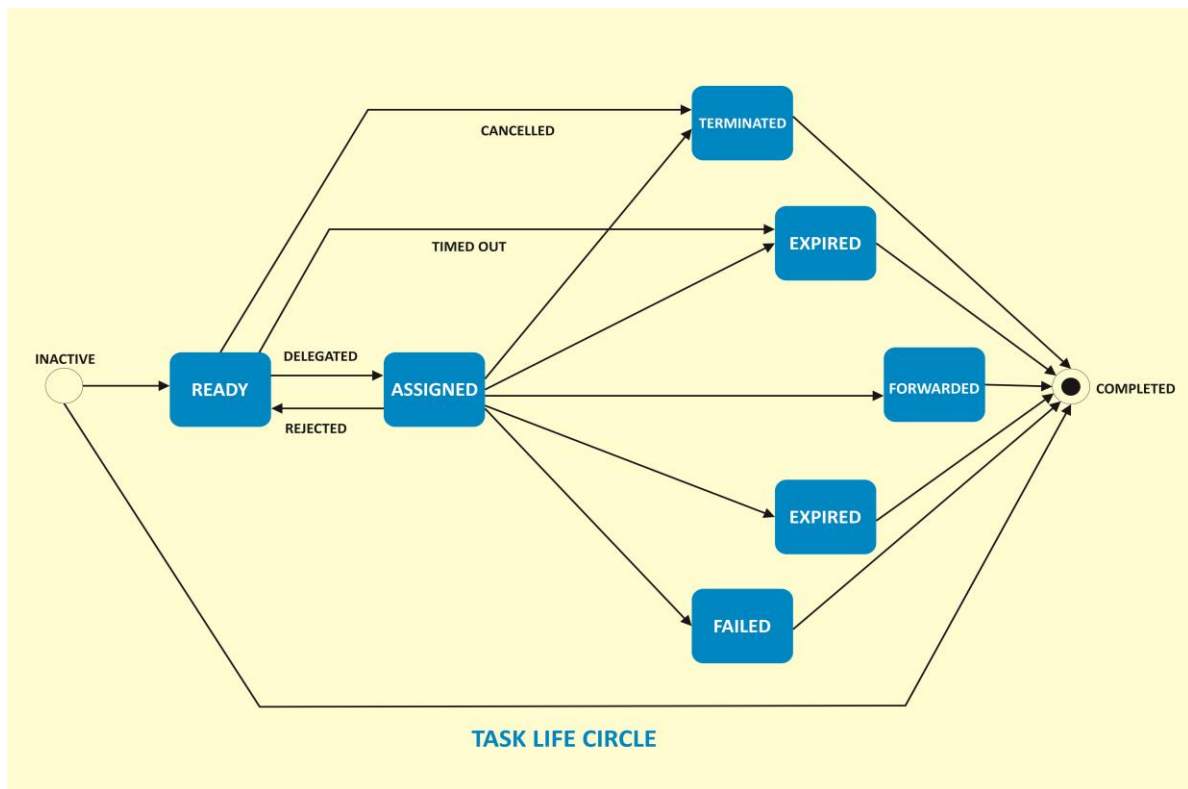
Effective task management requires managing all aspects of a task, including its status, priority, time, human and financial resources assignments, re-currency, notification and so on. These can be lumped together broadly into the basic activities of task management.

Managing multiple individual or team tasks may require specialised task management software. Many people believe that task management should serve as a foundation for project management activities. Task management may form part of project management and process management and can serve as the foundation for efficient work flow in an organization.

### Task life cycle

The status of tasks can be described by the following states:

- Ready;
- Assigned;
- Terminated;
- Expired;
- Forwarded;
- Finished;
- Failed.



The above diagram describes different states of a task over its life cycle.

### Activities supported by task

**Creative activities** pertain to task creation. In context, these should allow for task planning, brainstorming, creation, elaboration, clarification, organization, reduction, targeting and preliminary prioritization.

**Functional activities** pertain to personnel, sales, quality or other management areas, for the ultimate purpose of ensuring production of final goods and services, for delivery to customers. In context these should allow for planning, reporting, tracking, prioritizing, configuring, delegating, and managing of tasks.

**Project activities** pertain to planning and time and cost reporting. These can encompass multiple functional activities but are always greater and more purposeful than the sum of its parts. In context project activities should allow for project task breakdown, task allocation, inventory across projects, and concurrent access to task databases.

**Service activities** pertain to client and internal company services provision, including customer relationship management and knowledge management. In context these should allow for file attachment and links to tasks, document management, access rights management, inventory of clients and employee records, orders and call management, and annotating tasks.

**Performance activities** pertain to tracking performance and fulfilment of assigned tasks. In context these should allow for tracking by time, cost control, stakeholders and priority; charts, exportable reports, status updates, deadline adjustments, and activity logging.

**Report activities** pertain to the presentation of information regarding the other five activities listed, including graphical display.



## 7. FATIGUE IN NAVIGATION ACTIVITIES

### 7.1 Fatigue

Fatigue can be defined in many ways. However, it is generally described as a state of feeling tired, weary, or sleepy that results from prolonged mental or physical work, extended period of anxiety, exposure to harsh environments, or loss of sleep.

The effects of fatigue are particularly dangerous in the shipping industry. The technical and specialised nature of this industry requires constant alertness and intense concentration from its workers. Fatigue is also dangerous because it affects everyone regardless of skills, knowledge and training.

It must be recognized that the navigation personnel is captive of his/her work environment:

- Firstly, the average navigation personnel spends long time working and living away from home, on a moving vessel that is subject to unpredictable environmental factors;
- Secondly, while serving on board the vessel, there is no clear separation between work and recreation;
- Thirdly, today's crew is composed of people from various nationalities and backgrounds who are expected to work and live together for long period of time.

The most common causes of fatigue known to navigation personnel are lack of sleep, poor quality of rest, stress and excessive workload. There are many other contributors as well, and each will vary depending on the circumstances (i.e. operational, environmental).



### 7.2 Factors of fatigue

There are many ways to categorise the causes of fatigue. To ensure thoroughness and to provide good coverage of most causes, they have been divided into 4 general categories:

- Crew specific factors;
- Management factors;
- Ship-specific factors;
- Environmental factors.

#### 7.2.1 Crew specific factors

The crew specific factors are related to lifestyle behaviour, personal habits and individual attributes. However, fatigue varies from one person to another and its effects are often dependent on the particular activity being performed.

The crew-specific factors include the following:

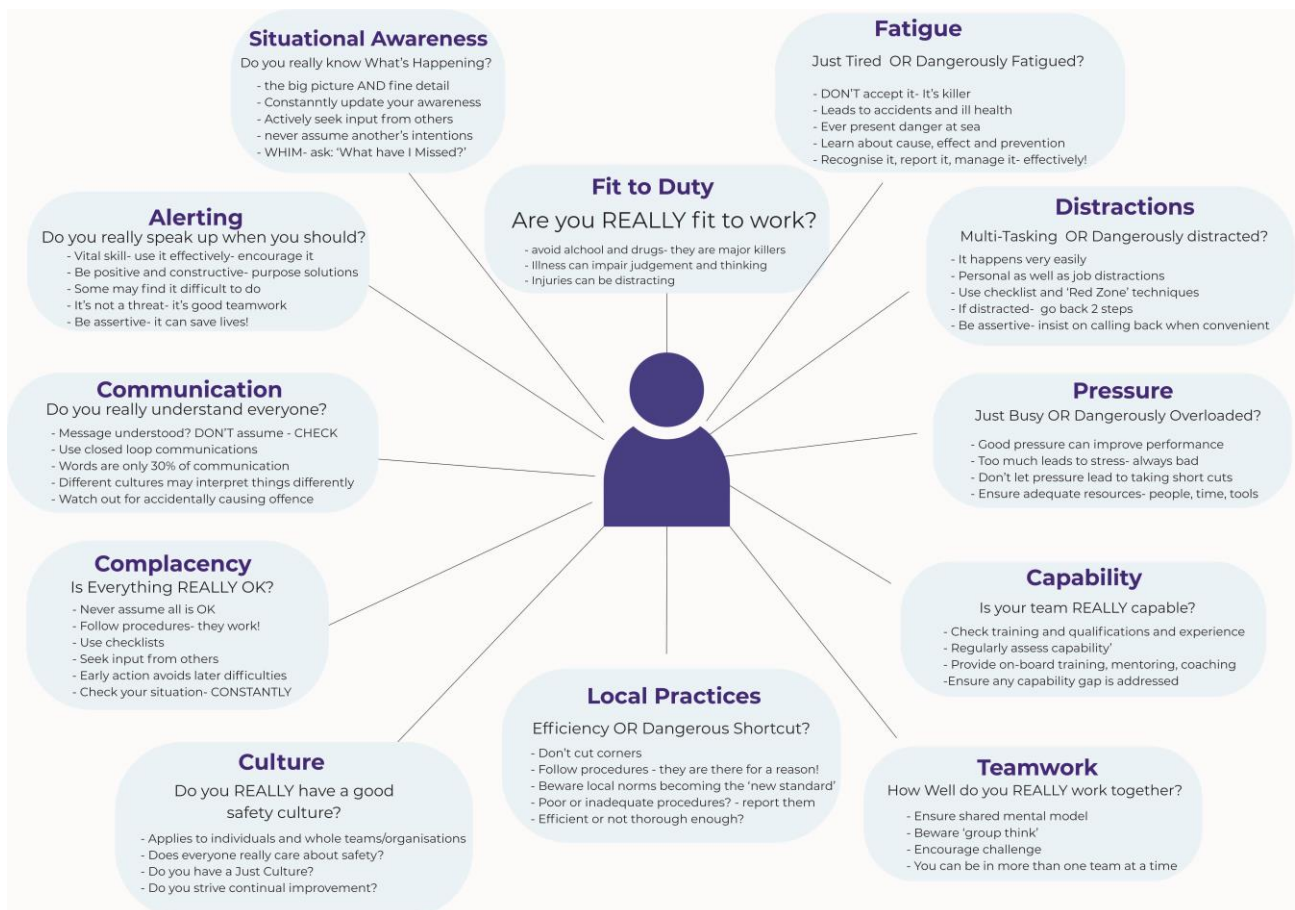
- Sleep and rest:
- quality, quantity and duration of sleep;

- sleep disorders/disturbances;
- rest breaks.
- Biological clock/circadian rhythms;
- Psychological and emotional factors, including stress:
- fear;
- monotony and boredom.
- Health:
- diet;
- illness.
- Stress:
- skill, knowledge and training as it relates to the job;
- personal problems;
- interpersonal relationships.
- Ingested chemicals:
- alcohol;
- drugs (prescription and non-prescription);
- caffeine.
- Age;
- Shift work and work schedules;
- Workload(mental/physical);
- Jet lag.

### 7.2.2 Management of specific factors

The management factors relate to how vessels are managed and operated. These factors can potentially cause stress and an increased workload, ultimately resulting in fatigue. These factors include:

- Organizational factors:
  - staffing policies and retention;
  - role of riders and shore personnel;
  - paperwork requirements;
  - economics;
  - schedules-shift, overtime, breaks;
  - company culture and management style;
  - rules and regulations;
  - resources;
  - upkeep of vessel;
  - training and selection of crew.
- Voyage and scheduling factors:
  - frequency of port calls;
  - time between ports;
  - routing;
  - weather and water condition on route;
  - nature of duties/workload while in port.



### 7.2.3 Ship specific factors

These factors include vessel design features that can affect/cause fatigue. Some vessel design features affect workload (i.e. automation, equipment reliability), some affect the crew's ability to sleep, and others affect the level of physical stress on the crew (i.e. noise, vibration, accommodation spaces etc.).

These factors include:

- vessel design;
- level of automation;
- level of redundancy;
- equipment reliability;
- inspection and maintenance;
- age of vessel;
- physical comfort in work spaces;
- vessel motion;
- physical comfort of accommodation spaces.

### 7.2.4 Environmental specific factors

Exposure to excessive levels of environmental factors, e.g. temperature, humidity, excessive noise levels, can cause or affect fatigue. Long term exposure may even cause harm to a person's health. Furthermore, considering that the environmental factors may produce physical discomfort, they can also cause or contribute to the disruption of sleep.

Vessel motion is also considered an environmental factor. Motion affects a person's ability to maintain physical balance. This is due to the extra energy expended to maintain balance while moving, especially during harsh water conditions. There is a direct relation between a vessel's motion and a person's ability to work. Excessive vessel movement can also cause nausea and motion sickness.

Environmental factors can also be divided into factors external to the vessel and those internal to the vessel. Within the vessel, the crew is faced with elements such as noise, vibration and temperature (heat, cold and humidity). External factors include port and weather conditions and vessel traffic.

There are a number of things that can be done to address these causes. Some contributors are more manageable than others. Opportunities for implementing countermeasures vary from one factor to another (noise can be better addressed during vessel's design stage, breaks can be addressed by the individual crew member, training and selection of the crew can be addressed during the hiring process etc.)

### 7.3 Causes of fatigue

Fatigue may be caused and/or made by one or a combination of the following:

#### **Lack of sleep**

Only sleep can maintain or restore your performance level. When you do not get enough sleep, fatigue will set in and alertness will be impaired.

#### **Poor quality of sleep**

Fatigue may be caused by poor quality of sleep. This occurs when you are unable to sleep without interruptions and/or you are unable to fall asleep when your body tells you to.

#### **Insufficient rest time between work periods**

Apart from sleep, rest between work periods can contribute to restoring your performance levels. Insufficient rest periods or postponing assigned rest times can cause fatigue.

#### **Poor quality of rest**

Disturbances while resting such as being woken up unexpectedly, on call, or unpredictable work hours can cause fatigue.

#### **Stress**

Stress can be caused by personal problems, problems with other crew members, long work hours, work in general etc. A build-up of stress will cause or increase fatigue.

#### **Boring and repetitive work**

Boredom can cause fatigue. You may become bored to the point of fatigue when your work is too easy, repetitive and monotonous and/or bodily movement is restricted.

#### **Noise or vibration**

Noise or vibration can affect your ability to maintain physical balance. Maintaining balance requires extra energy, which can then cause fatigue. A vessel's pitching and rolling motions mean you might have to use 15-20% extra effort to maintain your balance.

#### **Food (timing, frequency, content and quality)**

Refined sugars (sweets, doughnuts, chocolates etc.) can cause your blood sugar to rise rapidly to a high level. The downside of such short term energy is that it usually results in a rapid drop in blood sugar. Low blood sugar levels can cause weakness, instability and difficulty in concentrating and in the extreme cases unconsciousness. Eating large meals prior to a sleep period may disrupt your sleep.

#### **Medical conditions and illnesses**

Medical conditions and illnesses, such as the common cold, can cause or aggravate fatigue. The effect depends on the nature of the illness or medical condition, but also the type of work being carried out. For example, common colds cause slow response time and affect hand-eye coordination.

#### **Ingesting chemicals**

Alcohol, caffeine and some over-the counter medications disrupt sleep. Caffeine consumption can also cause other side effects such as hypertension, headaches, mood swings or anxiety.

### **Jet-lag**

Jet-lag occurs following long flights through several time zones. It is a condition that causes fatigue in addition to sleep deprivation and irritability.

### **Excessive work load**

Working consistently “heavy” workloads can cause fatigue. Workload is considered heavy when one works excessive hours or performs physically demanding or mentally stressful tasks. Excessive work hours and fatigue can result in negative effects such as the following:

- increased accident and fatality rates;
- increased dependence upon drugs, tobacco or alcohol;
- poor quality and disrupted sleep patterns;
- higher frequency of cardiovascular, respiratory or digestive disorders;
- increased risk of infection;
- loss of appetite.

## **7.4 Effects of fatigue**

Alertness is the optimum state of the brain that enables us to make conscious decisions. Fatigue has a proven detrimental effect on alertness this can be readily seen when a person is required to maintain a period of concentrated and sustained attention, such as looking out for the unexpected (e.g. night watch).

When a person’s alertness is affected by fatigue, his or her performance on the job can be significantly impaired. Impairment will occur in every aspect of human performance (physically, emotionally and mentally) such as in decision-making, response time, judgement, hand-eye coordination, and countless other skills.

Fatigue is dangerous in that people are poor judges of their own level of fatigue.

The following are examples of fatigue’s known effects on performance:

Fatigued individuals become more susceptible to errors of attention and memory (for example, it is uncommon for fatigued individuals to omit steps in a sequence);

Chronically fatigued individuals will often select strategies that have a high degree of risk on the basis that they require less effort to execute.

## **7.5 Prevention and mitigation of fatigue**

There are a number of steps that can be taken to prevent fatigue. Many of the measures that reduce fatigue are unfortunately beyond a single person’s control, such as voyage scheduling, ship design, and work scheduling.

Steps such as the following are important in the prevention of fatigue on board vessel, and are within the Boatmaster’s ability to influence and implement:

- Ensure compliance with applicable legislations (minimum hours of rest and/or maximum hours of work);
- Take strategic naps;
- Develop and maintain good sleep habits, such as pre-sleep routine;
- Eat regular, well-balanced meals (including fruits and vegetables, as well as meat and starches);
- Exercise regularly;
- Drink sufficient amounts of water;
- Use rested personnel to cover for those travelling long hours to join the vessel and who are expected to go on watch as soon as they arrive on board;

- Create an open communication environment (e.g. by making it clear to crew members that it is important to inform supervisors when fatigue is impairing their performance and that there will be no recriminations for such reports);
- Schedule drills in a manner that minimises the disturbance of rest/sleep period;
- Assign work by mixing up tasks to break up monotony and combining work that requires high physical or mental demand with low-demand tasks (job rotation);
- Schedule potentially hazardous tasks for daytime hours;
- Emphasise the relationship between work and rest periods to ensure that adequate rest is received;
- Re-appraise traditional work patterns and areas of responsibility on board to establish the most efficient utilisation of resources;
- Ensure that shipboard conditions, within the crew's ability to influence, are well maintained;
- Establish shipboard practices for dealing with fatigue incidents and learning from the past;
- Increase awareness of long term health benefits of appropriate lifestyle behaviour.

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MODULE II



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# TRAIN THE TRAINER

**INFORMATION & COMMUNICATION SYSTEM,  
AND DATA MANAGEMENT**

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## 1. INTRODUCTION

This course compendium was designed both for trainers who will be involved in training of such training module and the trainees as learning aids in order to facilitate the learning process.

**This course compendium aims** to assist in the implementation of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and in meeting the requirements of the Standards of competences for inland navigation personnel- Managerial level that will be part of this legislative act.

**The main objective** of this course compendium is to develop guidance material to assist the improvement of communication on board of inland navigation vessels and of management of data with regard to data protection laws.

## 2. COMPETENCE AND LEARNING OUTCOMES

### 2.1 Competences

- *Instruct crew on information and communication system.*
- *Collect, save and manage data with regards to data protection laws.*
- *Describe circumstances by using relevant technical and nautical terminology.*
- *Retrieve, evaluate and use information with relevance to safety on board as well as nautical-technical issues.*

### 2.2 Learning outcomes

By the end of this course, trainees will be able to:

- *Identify various types of information and communication systems and methods;*
- *Apply best practices in communications;*
- *Be aware of barriers in communication and how these may adversely affect situational awareness.*

## 3. INFORMATION AND COMMUNICATION SYSTEM ON BOARD THE VESSELS

### 3.1 Information and communication systems available on board

**Communication and navigation** are intrinsically linked. Right from the start of voyage planning, the navigators need up-to-date information that will affect the passage of the ship, such as chart corrections, information for safety of navigation, weather reports etc. This information needs to be communicated to the vessel and presented in a format that aids decision-making.

During the voyage, communication is essential not only among the bridge team on board, but also with shore authorities such as VTS and with the other vessels.

A radiotelephone is a sender and receiver for inland navigation communication. Via the radiotelephone you can make contact with other vessels and with VTS stations on the shore, such as locks, traffic supervisors.

All inland navigation vessels, with some exceptions, are required to have a radiotelephone installation on board. It is advisable to use this equipment on inland waterways in order to enhance safety of navigation.

### 3.2 Using radiotelephone equipment

Using of radiotelephone installation is mandatory according to applicable legislation in this field, legislation which provides applicable regulations also for equipment and for users of this equipment, such as radiotelephone operators.

If you have a radiotelephone on board, you are required to use it to listen to it. On the inland waterways the radiotelephone has to be set on channel mentioned in the applicable legislation as channel for navigation communication.

A radiotelephone is a sender-receiver for short distances that operates on VHF (Very High Frequency). A radiotelephone is essential for communication in navigation.



A mobile telephone is not an alternative for the radiotelephone, because when using a mobile telephone, you have contact with only one organization or person and your reach is limited as is the capacity on the batteries.

A walkie-talkie has less reach than does a radiotelephone and its battery capacity is limited.

An emergency call via radiotelephone is heard by everyone in the area who is listening. This considerably increases the chance of being helped.

The main four important reasons to use radiotelephone are:

- By listening to the radiotelephone you know what is happening in your surroundings, which vessels are in the area and what manoeuvres they are making; using this information helps you to choose a safe course;
- The radiotelephone is important for contacting traffic supervisors, bridge men and locks operators;
- Your emergency call via radiotelephone is heard by everyone listening in the area around you;

- You receive simple safety messages on board such as weather forecasts, storm warnings and shipping news.

### **Traffic supervision**

In areas with risks for navigation and/or with navigation restrictions, waterway supervisors direct traffic from traffic posts and central stations. A traffic supervisor gives information and advice as well as instructions in order to ensure a safe and smooth flow of vessels. If a traffic post or central station calls you, you are required to answer and to provide requested information

Bridge and locks

If you have a radiotelephone on board when you are approaching a bridge or a lock, you must listen to the radiotelephone channel indicated on the signs.

Always use the radiotelephone correctly and according to the prescribed procedures. If necessary, make notes beforehand, practice using the radiotelephone and familiarize yourself with broadcasting language. A radiotelephone is for your safety, and correct usage helps to increase this safety.

An important aspect of this correct usage is the way of carrying on conversation that was developed especially for navigation: the conversation procedures. This was developed to make radio messages uniform and to avoid misunderstandings.

Conversational discipline

Correct conversational discipline is necessary to have clear radio contact without static. You can achieve this by:

- Using the radiotelephone channels as they were intended;
- Acting according to required procedure;
- Discussing only relevant subjects on the channels meant for ship- ship communication, nautical information, communication between a ship and harbor authorities and communication on board;
- Do not press the broadcast button longer than necessary.

### **3.3 Using other media systems**

Automated digital communication will become increasingly important, with **AIS- Automatic Identification System**- being a crucial example.

AIS is an identification system that automatically transmits information about the name, position, speed and course of a vessel. If a vessel is equipped with AIS, data is automatically sent to shore-based installations called AIS base stations. Through AIS you can even automatically exchange data with other vessels in the vicinity. AIS has been in use for a long time in maritime shipping. To better respond to the specific needs of inland shipping, an Inland AIS has been developed.

# What is AIS ?

## Automatic Identification System



Picture source: pixabay.com

AIS supports and facilitates navigation and increases safety. Thanks to AIS, the infrastructure can be put to better use, traffic stations can be operated more efficiently and shippers and terminals can improve their logistics planning. In this way, AIS strengthens the competitive position of inland navigation.

AIS is an electronic device that broadcasts its identity and position at regular times to other vessels as well as other information with respect to ship and cargo. The AIS is also able to receive the same sort of information from other vessels. AIS was in the first place a ship- to-ship communication device to display position course over ground and its use was in the first place for collision avoidance. The structure of the messages and the way it was broadcast gave rise to the use of an AIS device on shore where an observer could observe the movements of the vessels in range. This principle is taken by authorities to observe the vessel traffic. Special devices were developed that could not only observe the traffic but also affect the traffic or relate to one vessel in the traffic. This device developed to the so-called base station. In order to obtain a surveillance stretches of water larger than the range of one base station, these were developed into networks. Apart from the normal messages that are sent at (different) time periods, special messages were developed, the so-called binary messages.

**Inland ECDIS** is a system for the display of electronic inland navigation charts and additional information. Its purpose is to contribute to the safety and efficiency of inland navigation and thus also to the protection of the environment. Inland ECDIS is used simultaneously to reduce the workload when navigating the ship as compared to traditional navigation, and for information methods.



Inland ECDIS also provided the basis for other River Information Services (RIS), e.g. Inland AIS. The electronic chart developed according to the ECDIS standard differs fundamentally from a paper chart. Its presentation on a screen has some advantages over a paper chart.

The electronic display of the chart is only one aspect of ECDIS. Inland ECDIS is also an information system, which enables its users to recall other information about the displayed objects besides their graphics presentation.

## 4. COLLECTING, STORING AND INTERPRETING DATA

### 4.1 Data and information

Data is “raw”, non -interpreted information.

Information can, conversely, be described as “interpreted data”. For data to become information, they must be meaningful to a human operator, in terms of both the task at hand and its overall context.

For example, the computer message, “error 468” is data, while “error GPS 1 is off line” is information that a human user can understand and act upon. To achieve meaningful communications, it could be argued that we need to deal with information, not just data. Unless we understand the meaning of the message, there is little point in having communication (at least where humans are involved).

### 4.2 Personal data protection

The protection of natural person with regard to the processing of personal data and on the free movement of such data, are documented in the **EU Regulation 2016/679 of the European Parliament and of the Council**.

The protection of natural persons in relation to the processing of personal data is a fundamental right.

This Regulation is intended to contribute to the accomplishment of the area of freedoms, security and justice and of an economic union, to economic and social progress, to the strengthening and the convergence of the economics within the internal market, and to the well-being of natural persons.

Rapid technological developments and globalization have brought new challenges for the protection of personal data. The scale of the collection and sharing of personal data has increased significantly. Technology allows both private companies and public authorities to make use of personal data on an unprecedented scale in order to pursue their activities. Natural persons increasingly make personal information available publicly and globally. Technology transformed both the economy and social life, and should further facilitate the free flow of personal data within the Union and the transfer to third countries and international organizations, while ensuring a high level of the protection of personal data.

The principles of data protection should apply to any information concerning an identified or identifiable natural person.

The principles relating to processing of personal data, included in the EU Regulation are:  
Personal data shall be:

- processed lawfully, fairly and in a transparent manner in relation to the data subject;
- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes;
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed;
- accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that personal data that are inaccurate, having regard to the purposes for which they are processed, are erased or rectified without delay;
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed;
- processed in a manner that ensure appropriate security of the personal data, including protection against unauthorized or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organizational measures.

### 4.3 Information management

New technologies bring with them increased communication possibilities and better access to



data. Today, the challenge is to make relevant data/information available at the right time. If there is “too much” data or if it is presented in an inappropriate way, extra time and efforts will have to be spent on interpreting the data’s basic content, rather than analyzing its implications for the present situation and during it to inform future actions.

The right information therefore has to be available, but not in such large amounts that we become overloaded by it. If machines were smart enough to run without human interaction, they would know what information to present and when. Currently, humans remain better than machines at data interpretation, unless they are drawn in too much of

it at once. You need to manage the amount of information available to you by focusing on the task at hand and knowing what you need to perform and when. It is also too easy to be sidetracked by too much information in all at once.

### 4.4 Information needed on board

Settings on bridge equipment should always be appropriate to the situation you are in, lower ranges on the radar, for example, when closer to land or a large object, as well as choosing the band according to current weather conditions. Consider, too, who is on the bridge. Is it just you, or is there a whole team? Different people may need different sets of information. What might work for you may not be the ideal setting for others. Standardization is often hailed as a solution, but it does not mean you will always have things in your way.

The more notice you have before an action needs to be performed, the more information you can have on your screen/s. Yet the closer you get (in distance or time), the more you need to unclutter your screen. You need to make sure you have both time to think and time to act. As people gain experience, they spend more time examining the situation at hand and less time considering multiple potential options.

Novices, on the other hand, spend more time thinking about the options and less on comprehending the situation.

As your experience grows, your “library” of situations and options will also expand, and you can recognize what to do quickly and more easily.

When you don't have enough time to think things through, you will have to make a trade-off usually between thoroughness and efficiency. To save time, you may well have to take a shortcut or find a work-around. Be aware of this and plan well in advance, while you still have the time.

#### **4.5 Trustworthiness and accuracy**

A lot of information today is presented in a graphically appealing way, which may mislead us at first. We humans judge trustworthiness like this when we meet new information. If it seems and looks trustworthy, we consider that it probably is. However, this may not always be true. We must manage the available time and resources to try and find time to check the information out.

Flaws in data and information may come from:

- Origin – i.e. they exist within the system from the beginning;
- Installation or maintenance- i.e. the systems are not correctly integrated;
- Operational error;
- External manipulation- this is more common than you might think.

There will always be a risk when basing a decision on incomplete information. AIS is one innovation that has given us many benefits, but also some new risks.

If, for example, you make a decision to pass a ship based on the AIS data on the next port of call or the ship's speed, that data may be faulty due to programming or incorrect incoming sensor data. It will therefore lead to what will look like a bad decision after the event. Always be wary, and double check your information any way you can.

#### **4.6 Checking information**

There's a reason you were told as a trainee to always use more than one source of information.

The hardware may have changed, but the basic principle remains the same. Technology is not always trustworthy on its own, and human judgment may sometimes be based on incomplete data.

Using both technology and human instinct in combination will help strengthen the approach and ensure a safer operation.

## **5. EFFECTIVE COMMUNICATION ON BOARD**

### **5.1 Importance of effective communication**

Communication is an essential part of human interaction. The benefits of effective communication are many and obvious as they enhance all aspects of our personal and professional lives. Ineffective and misunderstood communications in our personal lives may give rise to problems or embarrassment but in our professional lives the results of misunderstandings may have much more serious problems. In the world of international shipping, with crewmembers from many countries sailing on vessels trading to all parts of the world, effective communication between those on board and between ship and shore is vitally important.

Many accidents are found to be due mainly to operational issues of proper procedure, maintenance and design, rather than to proper implementation of regulations but effectiveness of bridge resource management and particularly ineffective relationship between Boatmaster and

crewmembers are recurrent. Communication difficulties often occur in these areas due in part to cultural differences but also to language “barriers”.

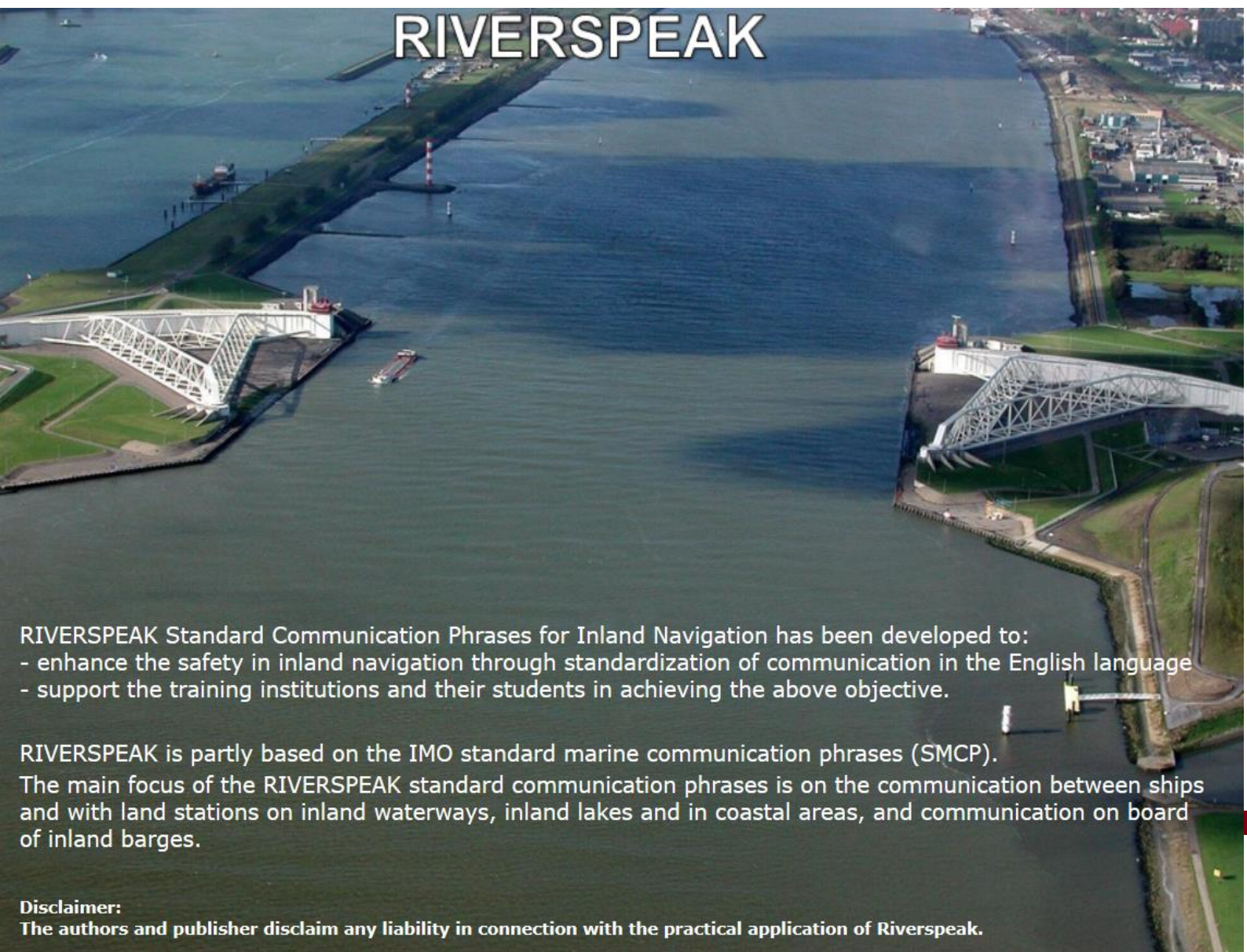
It is a self-evident fact that people speaking different languages can generally not converse at all and even people speaking their own language can misinterpret spoken messages. Many will recall playing games where a message passed through a series of people can become quite unrecognizable from the original message after being re-worded or abbreviated by individuals passing a message one to the other.

For effective communications, when the sender of a message communicates with the intended recipient, there has to be a correlation between what the sender is thinking about. Text or words must therefore be used in a consistent way, and the first requirement for communication is a set of messages that are used consistently.

If we know why we fail sometimes to send the intended communications we can start to address the problem. The most obvious solution to the problem of failure of communications through different languages is, of course, to use the same one.

The language usually used on board of the vessel is the national language of the crew. However, in these days of multinational crews, a variety of language may be used or alternatively one working language adopted. Whichever is used, ships trading internationally must conduct ship to shore communications in a language that can be understood. Navigational and safety communications must be precise and unambiguous to avoid confusion and error.

It is recommended to use Standard navigational vocabulary such as, Standardized UNECE Vocabulary for Radio-Connections in Inland Navigation, RIVERSPEAK- EDINNA Standard Inland Navigation Communication Phrases.



RIVERSPEAK Standard Communication Phrases for Inland Navigation has been developed to:

- enhance the safety in inland navigation through standardization of communication in the English language
- support the training institutions and their students in achieving the above objective.

RIVERSPEAK is partly based on the IMO standard marine communication phrases (SMCP). The main focus of the RIVERSPEAK standard communication phrases is on the communication between ships and with land stations on inland waterways, inland lakes and in coastal areas, and communication on board of inland barges.

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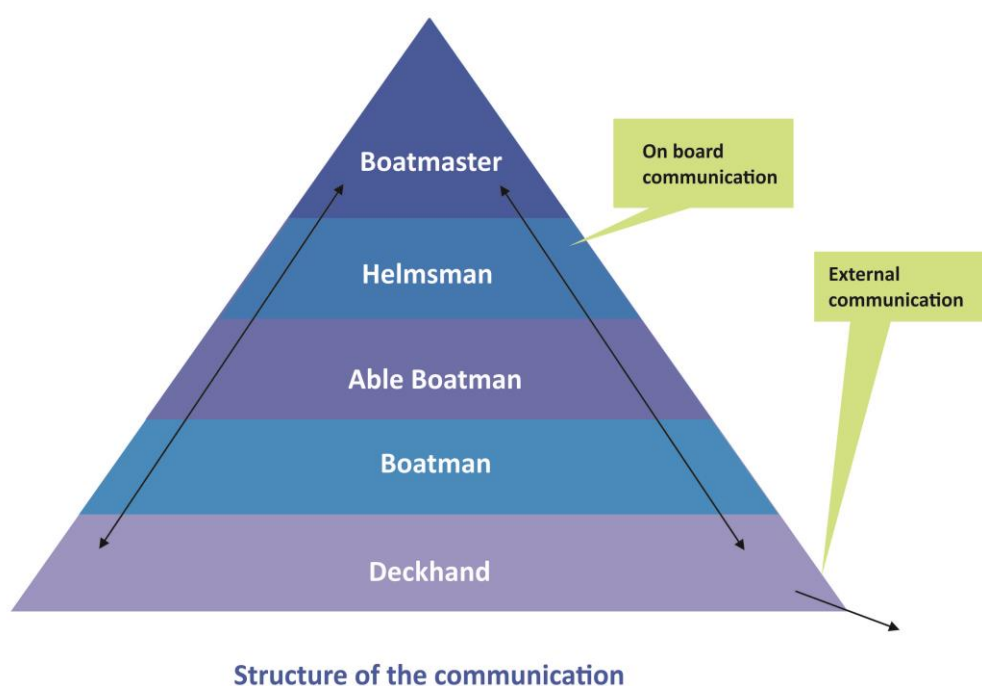


These Standards are not mandatory but rather that through constant repetition on board of the vessels and in training institutes the phrases and terms were expected to become normally accepted and used amongst crewmembers in preference to words of similar meanings. Effective communications are an essential ingredient to safe and efficient ship operations. Communication can be achieved in many ways but the prime method for operational communications is through speech. And when in an operational situation such as berthing a ship or fighting a fire, it is vitally important that those involved can communicate effectively.

## 5.2 Structure of the communication

In psychology it is accepted to call the person transmitting the information as **communicator**, and the person who accepts the information as a **recipient**. For example, the Boatmaster is the communicator, and the crewmembers are the recipients. The communication in navigation is information interaction which is maintained by crewmembers during performance of their functional duties. The communication may be internal and external one.

Picture source: CERONAV



On board of the vessel (internal communication) there may be two types of professional communications: the so called descending communications- the communications of the Boatmaster with the subordinated staff. Besides this the external communication with the other vessels and shore stations is playing a big role.

The example of such communication between the Boatmaster and subordinated staff is presented in the image above.

In shipping industry the so called **controlled communication** prevails. Controlled communication is the information interaction of crewmembers which is fixed in the duty rules and mandatory procedures determined by national and international regulations. Controlled communications procedures may be appreciable, calculable and planned beforehand. Standard vocabulary for navigation and VHF communication procedures may be an example.

But in emergency there may occur an **uncontrolled communication**, that may not be planned beforehand.

The formal criteria of completeness of the communicative act is the fact of an observable reply by the communicator of his/her message from the recipient, i.e. presence of an authentic feedback from the recipient about physical receiving of the message. For example, the helmsman should repeat the Boatmaster's command prior to realize it.

The basic steps of communication process which determine efficiency of communicative influences on the person can be designated as follows:

- Comprehension of idea of the message by the communicator;
- Nonverbal behavior of the communicator (nonverbal coding of information: gesture, a pose, a mimicry etc.);
- Verbalization of messages by the communicator;
- Perception of nonverbal behavior by the recipient which may be influenced by various types of hindering;
- Perception of the verbal message that may be received in noise conditions;
- Realization of action incorporated in the message.

### 5.3 Communication effectiveness

The communication is considered as **effective to the process** when the communicator has received the confirmation of acceptance of his message by the recipient.

The communication is considered as **uncompleted** if there is no feedback confirming the reception by the recipient.

The communication is considered as **effective to the result** when during the dialogue the communicator has reached the goal by means of communication.

In most cases the people communicate by means of dialogue. Dialogue is a method or tool to solve facing to people problems by means of communication.

The most complicated task in communication is to formulate the idea of a message so that the interlocutor has no strain after its acceptance, internal translation and understanding.

### 5.4 Verbal and written communications with others

#### 5.4.1 Principles of communication

There are many types of communications with those on board and ashore, such as:

**Interpersonal communication** is the foundation of human interaction. Its importance for innovation and change can hardly be overemphasized. Communication is a two-way process of giving and receiving information through any number of channels. Whether one is speaking informally to a colleague, addressing a conference or meeting, the following basic principles apply:

- Know your audience;
- Know your purpose;
- Know your topic;
- Anticipate objections;
- Present a rounded picture;
- Communicate a little at a time;
- Present information in several ways;
- Develop a practical, useful way to get feedback;
- Use multiple communication techniques.

### 5.4.2 Ways of communication

Communication is done in three ways:

- Verbal;
- Visual;
- Written.

**Verbal communication**- spoken communication occurs in many different settings during the course of successful innovation and change. These may be divided into three main types:

- The formal and informal networks in which peers exchange information, such as professional associations, work units, work teams etc.;
- The activity of change agents, opinion leaders;
- The contacts established at team meetings, conferences, training course etc.

**Visual communication**, is about showing picture, graph, painting for a real work situation. These are some of the reasons why SHOWING is such an important form of communication.

Most people understand things better when they have seen how they work. Involved, complex ideas can be presented clearly and quickly using visual aids. People retain information longer when it is presented to them visually. Visuals can be used to communicate to a wide range of people with differing backgrounds. Visuals are useful when trying to condense information into a short time period. Visual aids used imaginatively and appropriately will help your audience remember more. People think in terms of images, not words, so visuals help them retain and recall technical information. Visuals attract and hold the attention of observers.

Visuals simplify technical information. Visuals may be useful in presenting technical information to a non –technical audience.

#### **Written communication**

Written materials often bear the greatest burden for the communication of new ideas and procedures. Effective writing is the product of long hours of preparation, revision and organization. Clear, vigorous writing is a product of clear, vigorous thinking. Clarity is born of discipline and imagination.

Written communication is used when the sender wants a record for future references. The receiver will be referring to it later. The message is complex and requires study by the receiver. The message includes a step by step procedure. Verbal communication is not possible because people are not in the same place at the same time. There are many receivers.

**Communication and consultation**, involves a dialogue between employer and employee, which can help to build the ways in which employees feel valued by their employer and the employer values the employee's contributions. Just as importantly, ensuring that people can feed their views upwards in organizations can help support effective corporate governance and risk management by allowing staff to air concerns over problems with customer service, product quality, inappropriate behavior or other potential risks to the business at an early stage.



### 5.4.3 Providing constructive feedback



**Getting and giving feedback** is one of the most crucial parts of good communication. Like any other activity, there are specific skills that can enhance feedback. Listening is a key part of getting feedback.

Listen to the complete message. Be patient. This is especially important when listening to a topic that provokes strong opinions or radically different points of view. In these situations, it's important not to prejudge the incoming message. Learn not to get too excited about a communication until you are

certain of the message. Work at listening skills. Listening is hard work. Good listeners demonstrate interest and alertness. They indicate through their eye contact, posture and facial expression that the occasion and the speaker's efforts are a matter of concern to them. Most good listeners provide speakers with clear and unambiguous feedback.

#### **Eliminate distractions**

Physical distractions and complications seriously impair listening. These distractions may take forms: loud noises, stuffy rooms, overcrowded conditions, uncomfortable temperature, bad lighting etc.

There are also internal distractions: worries about deadlines or problems of any type may make listening difficult.

#### **Think efficiently and critically**

On the average, we speak at a rate of 100 to 200 words per minute. However, we think at much faster rate, anywhere from 400 to 600 words per minute. What do we do with this excess thinking time while listening to someone speak? One technique is to apply this spare time to analyzing what is being said. They critically review the material by asking the following kinds of questions:

- What is being said to support the speaker's point of view? (Evidence)
- What assumptions are being made by the speaker and the listener? (Assumptions)
- How does this information affect me? (Effect)
- Can this material be organized more efficiently? (Structure)
- Are there examples that would better illustrate what is being said? (Example)
- What are the main points of the message? (Summary)

#### **Sending messages**

Messages should be clear and accurate, and sent in a way that encourages retention, not rejection. Use verbal feedback even if nonverbal is positive and frequent.

#### **Focus feedback on behavior rather than on personality**

It's better to comment on specific behavior. For example, instead of calling a colleague inefficient, specify your complaint.

#### **Focus feedback on description rather than judgment**

Description tells what happened. Judgment evaluates what happened. For example, in evaluating a report don't say: "This is a lousy report!!". Instead try: "The report doesn't focus on the information that I think needs emphasis".

#### **Make feedback specific rather than general**

If feedback is specific, the receiver knows what activity to continue or change. When feedback is general, the receiver doesn't know what to do differently. For example, in an office situation, instead of saying: "These folders are not arranged correctly" it's better feedback to say: "These folders should be arranged chronologically instead of alphabetically".

**Selecting the best communication methods in communicating with decision makers**, use the most appropriate communication method. One way to do this is to ask yourself the following questions:

- What is the purpose of your message?
- Do you plan to tell them something new?
- Do you plan to change their view?
- What facts must be presented to achieve your desired effect?
- What action, if any, do you expect decision makers to take?
- What general ideas, opinions and conclusions must be stressed?
- Are you thoroughly familiar with all the important information on the innovation?
- What resources and constraints affect adoption of the innovation?
- How much time is available?
- How much money is available?
- Which method, or combination of methods, will work most effectively for this situation?

**Personal contact** requires scheduling, time and interpersonal skills.

**Telephone contact** requires good verbal skills and an awareness of voice tones as nonverbal communication.

**Letter** requires writing skills.

**Informal e-mail** needs to be short and to the point, but not get lost in clutter. May requires frequent follow-up.

**News release** requires writing skills and cooperation of the media and time.

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MODULE III



Project co-funded by European Union funds (ERDF, IPA)



**TRAIN  
THE  
TRAINER**

**LEADING AND MANAGING TEAMS**

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## 1. INTRODUCTION

This course compendium was designed both for trainers who will be involved in training of such training module and the trainees as learning aids in order to facilitate the learning process.

**This course compendium aims** to assist in the implementation of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and in meeting the requirements of the Standards of competences for inland navigation personnel- Managerial level that will be part of this legislative act.

**The main objective** of this course compendium is to develop guidance material to assist the leadership management on board of inland navigation vessels in order to ensure a good social working environment.

## 2. COMPETENCE AND LEARNING OUTCOMES

### 2.1 Competence

*Ensure a good social working environment.*

### 2.2 Learning outcomes

*By the end of this course, trainees will be able to:*

- *Define challenge and response mechanism and establish importance of team involvement for providing safety operations at all times;*
- *State the steps in forming an effective team;*
- *Identify the different stages of team development and how a leader can support the team at each stage;*
- *Understand and identify team processes and the leader's role;*
- *Apply decision making procedures taking into account the factors that may influence the process;*

### 3. LEADERSHIP



Source: pixabay.com

#### 3.1 Attributes of an effective leader

Leaders should constantly be developing their leadership abilities. There is a common thread of characteristics that effective leaders share.

**Trust-** is a key aspect of any relationship. Individuals with integrity who live honest lives are generally those whom others want to follow. An effective leader should be trustworthy so that the people whom they serve can look up to them.

**Enthusiasm-** a positive attitude contributes greatly to the work environment. A leader can excite people about projects that they are working on, helping them to see the final product of the task at hand. This enthusiasm can trickle through the work environment to others so that others will want to be around the individual.

**Self-confidence-** everyone has different strengths and weaknesses, but a leader should have a high degree of self-confidence. They should know where they are going and how they are going to get there. It is hard for individuals to follow an unstable person. Confidence attracts individuals as they know that the leader believes in him or her as well as those who are following him.

**Innovation** – there are those who pull out textbook when there is a problem so that they can find the correct answer. An effective leader will develop new ideas and ways to fix things. They will not come up with the reply: “No solution”. They will use creativity to find reasonable solutions to problems.

**Accountability-** a good leader will be accountable for events and will not blame them on others. They will correct others when needed, but will take responsibility of situations that lie ahead of them.



**Effective communicator-** where there is no communication, problems arise. Effective communication is important to those who are leading and following. An effective leader will make sure that those who are following understand what their tasks are and will follow through with them.

**Commitment** –when we know someone is committed to the task at hand, they are dependable. Effective leaders are reliable and get job done no matter what the costs. When they make a commitment, they see to it that it gets completed.

### 3.2 Basic of successful leadership

Three sets of practices comprise a common core of basic leadership practices.

- I. **Setting directions** (accounts for the greatest proportion of leader’s impact)
  - Developing a shared vision that serves as the framework for vision and goals;
  - Using goals to motivate people and helping them make sense of their work;
  - Monitoring organizational performance;
  - Promoting effective communication.
- II. **Developing people**
  - Providing intellectual stimulation;
  - Providing support for individual needs;
  - Providing examples of best practices crucial to a well-performing organization
- III. **Redesigning the organization** into one that supports the performance of administrators, teachers and students
  - Strengthen district and school culture;
  - Modify organizational structure;
  - Build collaborative processes.

When we talk about self-managed team as one of the best practices it is seen leading to better decision making and the achievement of more creative environment. Best practice which talks about employee involvement and participation emphasises an open communication, team work, ideas put forward by workers.

When integrating best practice to leadership there should be stressed that leaders who are engaged in developing their reports are more effective at setting expectations, linking learning to strategic priorities, and providing relevant coaching.

### 3.3 Core safety leadership qualities

Following are 10 qualities for effective safety leadership:

- Instil respect and command authority;
- Lead the team by example;
- Draw on knowledge and experience;
- Remain calm in a crisis;
- Practice “tough empathy”;
- Be sensitive to different cultures;
- Recognise the crew’s limitations;
- Motivate and create a sense of community;
- Place the safety of passengers and crew above everything;
- Communicate and listen clearly.

Leadership both creates and addresses challenges and goals at the strategic, cultural level of an organization. Leadership is the key to the success of an organization. Leadership involves influence over, and responsibility for, individuals (both internally and externally to the organization). Understanding and enhancing human behaviour is the key. Leadership involves a continuous process. Leadership must be viewed within its context.

### 3.4 Decision making

#### 3.4.1 Decision making stages

The different stages of decision making are:

- Orientation stage- this phase where members meet for the first time and start to get to know each other;
- Conflict stage- once team members become familiar with each other, disputes, little fights and arguments occur. Team members eventually work it out;
- Emergence stage- the team begins to clear up vague opinions by talking about them;
- Reinforcement stage- members finally make a decision, while justifying themselves that it was the right decision.



#### 3.4.2 Decision making steps

Each step in the decision making proves may include social, cognitive and cultural obstacles to successfully negotiating dilemmas.

**Different steps of decision making are:**

- **Identification of the purpose of the decision-** in this step, the problem is thoroughly analysed. There are a couple of questions one should ask when it comes identifying the purpose of the decision, such as:
  - What exactly is the problem?
  - Why the problem should be solved?
  - Who are the affected parties of the problem?
  - Does the problem have a deadline or a specific time-line?
- **Information gathering-** in the process of solving the problem, you will have to gather as much as information related to the factors and stakeholders involved in the problem;

- **Principles of judging the alternatives-** in this step, the baseline criteria for judging the alternatives should be setup. When it comes to define the criteria, organizational goals as well as the corporate culture should be taken into consideration;
- **Brainstorm and analyse the different choices-** for this step, brainstorming to list down all the ideas is the best option. Before the idea generation step, it is vital to understand the causes of the problem and prioritization of causes;
- **Evaluation of alternatives-** use for judgement principles and decision-making criteria to evaluate each alternative. In this step, experience, and effectiveness of the judgement principles come into play. You need to compare each alternative for their positives and negatives;
- **Select the best alternative-** the selection of the best alternative is an informed decision since you have already followed a methodology to derive and select the best alternative;
- **Execute the decision-** convert your decision into a plan or a sequence of activities. Execute your plan by yourself or with the help of subordinates;
- **Evaluate the results-** evaluate the outcome of your decision. See whether there is anything you should learn and then correct in future decision making. This is one of the best practices that will improve your decision- making skills.

### 3.5 Leadership and decision making in team

The most important problem that every team must resolve is the question of navigation: “How will set a course and steer the vessel, in particularly in bad weather?”.

Leadership helps team develop a shared sense of direction and commitment. Otherwise the team becomes rudderless or moves in directions that no one supports. A key function of leadership is setting a compelling direction for the team’s work that, is challenging, energizes team members and generates strong collective motivation to perform well.

Another key function of leadership in teams is managing relationships with external constituents.

#### **Relational leadership**

This strand of leadership study not only emphasises the need for leader at all levels to engage and develop good relations hips with those who work for them, but also explore the important role of “followers” and the concept of shared leadership, suggesting that power can be shared across the team.

Communication, approachability, flexible approach and individual consideration all become central to the leadership skill-set, and the perception of those being also form part of the picture. The leaders who achieve success in the long term will be those who can both engage their people and ensure that resilience is achieved through looking after employees’ well-being and avoiding stress-related problems, and do all of this despite a context in which pressures are ever higher and engagement harder to achieve.

This engaged, relational and even shared form of leadership is likely to become ever more significant as the expectations of the modern workforce change through the generations.

#### **Values-based leadership**

This developing area of leadership theory brings ethics, morals, integrity and honesty into the mix through models such as ethical and authentic leadership. It complements the previous, relational perspective on leadership in that it speaks to relational elements such as trust and authentic relationships, and it looks at the importance of followership for the perception and effectiveness of leadership.

Central to this aspect of leadership are honesty, integrity, transparency of process, shared values and fair treatment. Authentic leadership models suggest that to achieve a values-based approach a leader must have self-awareness, understand the impact of their behaviour on others and be able to present themselves openly as well as having their own inner moral

compass. Leaders therefore need to develop the ability to reflect on their inner world and their effect on others.

This area is not just about leadership, but also about the culture of the whole organization. Values-based leaders facilitate the development of an ethical climate within their organization. They do this partly through their position in the organization structure and the processes they put in place, but equally, if not more importantly through how they role-model a values-based approach, behave towards and share power with others.

### **Contextual leadership**

Leaders will have difficulty in providing direction when there are no easy answers and solutions-finding depends on rapid, effective knowledge-sharing. Instead of operating through a hierarchy, leaders need to share responsibility and decision-making. Leadership becomes more about genuine collaboration towards achieving a shared purpose.

From this perspective, leaders are challenged to be agents of change in subtle and implicit ways through their self-management, behaviour and relationships, as well as instigating more explicit leadership factors such as creating direction and power-sharing processes. Leaders themselves need to have a strongly systemic perspective, combined with organisational understanding and wider perspective on the business, sector, national and international context in which they are operating. They need to be ready to share power and collaborate effectively with people across their organisation.

### **Leadership in normality and crisis**

Leadership in a crisis situation is very different from leadership in a time of normal conditions.

**Tension and stress-** in any crisis, leaders are thrust into a stressful and tense environment that puts them under enormous psychological, mental, and physical strain. Even the most minor decision made under these circumstances can result in catastrophic impacts.

**Speed** – everything may initially happen at warp speed, giving little time for thoughtful consideration or consultation. In a crisis, worlds collide and time is the first victim.

**Personnel-** the right people may not be available to respond to the crisis, resulting in untrained and inexperienced leaders being called upon to step into the chaos. Without the right people the organization will stumble in normal times, but during a crisis the problems are accentuated exponentially.

**Organization-** business and governments are not necessarily organized to handle crisis. In fact, the organizational hierarchy may be a hindrance to response and recovery. The flexibility to adapt the organization to the situation is critical to success.

**Stakeholders-** the list of stakeholders will rapidly expand, bringing in to play new channels of communication, new expectations, and new players- all simultaneously. Suppliers, regulators, customers, law enforcement will require a leaders' time and interaction.

**Communication-** the normal channels of communication may not be operative or may be overloaded, requiring new channels and protocols that must be quickly mastered.

**Media-** the leader in crisis has the media spotlight suddenly amplified, all waiting to report and find fault

**Simplicity-** is the key in a crisis. Simply understanding the impact a crisis has on the leader is critical to stepping up to the podium as an instructor or facilitator.

For effective safety leadership:

- Instil respect and command authority;
- Lead the team by example;
- Draw on knowledge and experience;
- Remain calm in a crisis;
- Practice “tough empathy”;
- Be sensitive to different cultures
- Recognise the crew’s limitations;
- Motivate and create a sense of community;

- Place the safety of passengers and crew above everything;
- Communicate and listen clearly.

## 4. TEAM LEADING

### 4.1 Leadership effectiveness

Leadership effectiveness indicates that leader's most important behaviours are those that facilitate the team's self-management through self-observation, self-evaluation and self-reinforcement. Leader is interpreted as someone who sets direction in an effort and influences people to follow that direction. Leadership involves creating a compelling vision of the future, communicating that vision, and helping people understand and commit to it.

#### Importance of delegation



The top priority for team leaders is delegation. No matter how skilled you are, there's only so much that you can achieve working on your own. With a team behind you, you can achieve so much more and that's way it's so important that you delegate effectively.

Successful delegation starts with matching people and tasks, so you first need to explain what your team's role and goals are. A good way of doing this is to put together a

team charter, which sets out the purpose of the team and how it will work. Not only does this help you to get your team off to a great start, it can also be useful for bringing the team back on track if it's veering off course. Only then will you be in a position to think about the skills, experience and competencies within your team, and start much people to tasks.

#### Motivating your team

Another key duty you have as a leader is to motivate team members.

Whatever approach you prefer to adopt, you also need to bear in mind that different people have different needs when it comes to motivation. Some individuals are highly self-motivated, while others will under-perform without managerial input.

#### Developing your team

Teams are made up of individuals who have different outlooks and abilities, and are at different stages of their careers. Some may find that tasks you have allocated to them are challenging, and they may need support. Others may be "old hands" at what they are doing, and may be looking for opportunities to stretch their skills. Either way, it's your responsibility to develop all of your people.

The most effective way of developing your people is to ensure that you give regular feedback to members of your team. Many of us are nervous of giving feedback, especially when it has to be negative. However, if you give and receive feedback regularly, everyone's performance will improve.

## Communicating and working with your team

Communication skills are essential for success in almost any role, but there are particular skills and techniques that you will use more as a leader than you did as regular worker. These fall under two headings: *communication with team members* and *communicating with people outside your team*.

### *Communicating with people in your team*

As a team leader, you are likely to be chairing regular sessions as well as one-off meetings. Meeting of all kinds, and regular ones in particular, are notorious for wasting people's time, so it's well worth mastering the skill of running effective meetings. Many meetings include brainstorming sessions. As a team leader, you will often have to facilitate these, so you will need to be comfortable with doing this. There is more to this than simply coming up with creative ideas, as you do when you are just a regular participant in such a session.

Active listening is another important skill for leaders. When you are in charge, it can be easy to think that you know what others are going to say, or that listening is less important, because you have thought of a solution anyway.

Don't fall into this trap. Most good leaders are active listeners, this helps them detect problems early, avoid costly misunderstandings, and build trust within their teams.

### *Communicating with people outside your team*

Your boss is probably the most important person you need to communicate with. Take time to understand fully what your boss wants from you and your team.

Don't be afraid to ask your boss to coach and mentor you. You can usually learn a lot from him, but he may not be proactive about offering this.

Also, as a leader, part of your job is to look after your team and protect it from unreasonable pressure. Learn skills like assertiveness and win-win negotiation, so that you can either turn work away, or negotiate additional resources.

Another part of your job is to manage the way that your team interacts with other teams. Use stakeholders' analysis to identify the teams that you need to deal with. Then talk with these people to find out what they want from you, and what they can do to help you.

## Managing discipline

Discipline may be subtly different from basic feedback, because it doesn't always relate specifically to the employee's work. You can give feedback on their phone manner, for example, but handling problems with timekeeping or personal grooming can need a different approach. Obvious breaches of the law or of company policy are easy to identify and deal with.

On one hand you don't want to seem petty. On the other hand, you can't let things go that should be dealt with.

Use these rules-of-thumb to decide whether you need to take action. If the answer to any is yes, then you need to arrange a time to speak to the employee in private.

### **Traps to avoid**

There are a number of common mistakes that new leaders tend to make. These are:

# Meeting





**Thinking**, that you can rely on your existing job knowledge and technical skills to succeed as a manager. It is essential that you take time to develop good management and people skills as well- these can be more important than your technical skills.

**Failing, to consult regularly with your boss**, in a misguided attempt to show that you can cope on your own.

**Approaching your boss** without having thought a problem through, and without having considered how the problem could be solved.

**Embarrassing your boss**, or letting her get a nasty surprise. Follow the “no surprises” rule.

**Doing anything that requires your boss to defend you to others.** This can cause your boss to “lose face” with his peers and superiors, and it makes it look as if his team is out of control.

**Failing to talk to your customers** about what they want from yourself and your team.

**Using your authority inappropriately-** make sure that everything you ask people to do is in the interests of the organization.

Many of these points sound obvious, however it’s incredible easy to make these mistakes in the rush of everyday managerial life.

## 4.2 Considering team experience

Success of the team depends on the experience of the team and its size. The first step of building high performing team involves transitioning through the stages of forming and performing as quickly as possible. Collaborating as a team in brainstorming, planning, and engaging in team-building activities will help achieve the good relationships and mutual trust required, where people begin to see themselves as members of a team.

Provide mentoring and guidance for less experienced team members to assist them in quickly becoming productive contributors. Also consider development needs for the team as a whole, and focus on any training or skills building that will help you cover your responsibilities and benefit your project.

Engaged the most experienced members of your team in this mentoring and training, emphasizing your appreciation for their expertise and value to the team. Set up rewards for creativity and problem solving. When dealing with members of your team who have a long history of project successes, focus discussions on what the project needs to accomplish, leave the details of how to do the work mostly up to them. Ownership and responsibility for key parts of the project are key motivating factors. Encourage self-management, and trust people with experience to do what they have committed to do at least until you have reason to believe otherwise.

Considering team size small teams and even to some extent on large ones, team building activities and rewards for creativity can be quite effective.

When the team becomes so large, the primary responsibility for encouraging innovation and maintaining relationship and trust needs to be delegated to the leaders of each small team.

## 4.3 Recognise team potential and limitations

In the workplace, it is common to encounter a mix of different personalities, viewpoints, past experience, expectations, communication issues and conflicts. It is ambitious to get such different people to work as an effective team. Work on their communication, resolve and prevent conflicts and make employees succeed in today’s fast-paced environment effectively. SWOT analysis (strength, weakness, opportunity, threat) can be helpful in recognising the limitation of a particular aspect and then can work on improvement in that particular area. By definition, Strengths and Weaknesses are considered to be internal factors over which you have some measure control. Also, by definition Opportunities and Threats are considered to be external factors over which you have essentially no control. It can also be done through Jung Typology Test. It is specifically created to address the needs of the workplace and is aimed at

organizations and businesses. Assessing employees' potential and optimizing their job responsibilities accordingly, moreover assessing the propensity for, and developing and optimizing the use of, leadership skills of your staff can lead to improve results. Furthermore, Conflict Management, Improving Supervisors, subordinate and peer-to-peer work relationship, improves teamwork as well as evaluation of candidates for promotion.

#### 4.4 Optimising the skills and ability of the team

The characteristics of a good team are that it has common purpose, complementary skills, interaction shared resources, consensus decision-making on major issues synergy.

##### **Stages of team development**

Building a team requires a period of goal-setting and strategy development for completing goals. Once a team has been established and roles are clarified, the team usually progresses through a series of development stages.

**Forming-** this stage includes building a common purpose, understanding personal expectations and interests, clarifying accountability, recognition and rewards.

**Storming-** the storming stage gets the team focussed on goals, managing processes, conflict-resolution procedures, integrating everyone in the team and building good relationships between team members.

**Norming** – at the stage, team members begin to work towards consensus on issues and develop the processes for information sharing and feedback. Team members are given more opportunities to lead.

**Performing** team members seek to improve tasks and relationships, test for better methods and approaches, and celebrate successes.

#### 4.5 Leading multicultural teams effectively

Company does business internationally. You are probably leading teams with members from diverse cultural backgrounds. Those differences can present serious obstacles. Barriers to a multicultural team's ultimate success are direct versus indirect communication. Troubles with accent and fluency, differing attitudes toward hierarchy and authority, and conflicting norms for decision making are the most important aspects. To get the team moving again, avoid intervening directly. Instead, choose one of three indirect interventions. When possible, encourage team members to adapt by acknowledging cultural gaps and working around them. If your team isn't able to be open about their differences, consider structural intervention (e.g. reassigning members to reduce interpersonal friction). As a last resort, use an exit strategy (e.g. removing a member from the team). The most successful teams use four strategies for dealing with problems:

**Adaptation** –acknowledge cultural gaps openly and working around them);

**Structural intervention-** changing the shape of the team;

**Managerial intervention** – setting norms early or bringing in a higher-level manager;

**Exit-** removing the team member when other options have failed.

Adaptation is the ideal strategy because the team works effectively to solve its own problem with minimal input from management and, most important, learns from the experience.

##### **Motivating team**

Motivating your employees is a delicate and purposeful challenge. Just like getting in shape or learning a new language, bolstering the motivation and performance levels of your employees won't happen overnight. There are ways you can improve performance and motivation in your workplace.

It can be done by **making expectations clear**:

Employees without goals will be naturally aimless. Provide them with clear achievable goals and make sure there are measurable standards in place to evaluate their performance. Employees must know what action they are expected to take and that it will yield the desired performance. Your employees should understand what they are expected to do, how they are expected to do it, and how they will be judged on it.

#### **Provide continuous feedback**

Immediate, continuous feedback lets an employee know that their actions affect the company. It's hard for you, and the employee, to remember specific incidents when employee performance review time rolls around. Goal-settings theory predicts that employees are motivated by settings goals and by receiving continuous feedback on where they stand relative to those goals.

#### **Correct privately**

Most people are not motivated by negative feedback, especially if they feel it's embarrassing. The only acceptable place to discuss an on-going, performance-related issue or correcting a recent, specific error is in the employee's office or your own, with the door closed.

#### **Believe in your employees**

Present weakness or errors in the context of, "I know you can do better. You are smart and capable... and that's why I expect more from you". The perception of leaders' trust is a key component of transformational leadership.

#### **Praise publicly**

Feeling under-appreciated encourages complacency- there's a reason so many companies celebrate and employee of the month. People love praise and they thrive on it. Some research even suggested we are willing to sacrifice incentive bonuses for public recognition. Make it a standard practice.

#### **Make rewards achievable**

Individuals must also see the desired performance and linked reward as possible. Set up a series of smaller rewards throughout the year to motivate on- going performance excellence. For example, instead of an annual trip, award several three-day gateways for each quarter. Vary the basis of the awards. Recognize the several types of excellence motivate your employees to focus on additional areas of their performance.

#### **Setting clear and achievable goals**

You must set clear achievable goals. You must set them for your team as a whole and you must set them for the individuals within your team. They must be unambiguous and they must be mutually attainable. That is to say, no one individual's goal should in any way conflict with that of another individual. In fact you want it to be in everybody's interest that each individual achieves his own goal. Design the goals, accordingly. You must try to build a team that works together with common aims, all working towards the same final goal. When writing goals, it's helpful to keep the following tips in mind:

- Goals must align with the organization's mission and strategy;
- They must be clear and easy to understand;
- They must be accepted and recognized as important by everyone who will have implement them;
- Progress towards goals must be measurable;
- Goals must be framed in time, with clear beginning and ending points;
- They should be supported by rewards;
- They should be challenging, but achievable.

#### **Using authority and influence effectively**

To influence to make commitments to the goals of the organization depends on how leaders define and use power, influence, and authority. Deciding what type of authority system to create is part of the managerial responsibility of organizing. Compare for example two leaders. One accepts or rejects all ideas generated at lower levels. The other gives the authority for making some decisions to employees at the level where these decisions will most likely affect those

employees. How leaders use their power, influence, and authority can determine their effectiveness in meeting the goals of the organization. Leaders must somehow use influence to encourage workers to action. If they are to succeed, leaders must possess the ability to influence organization members. Influence is the ability to bring about change and produce results.

### **Setting and maintaining high standards**

Exceptional leaders set high performance standards to achieve results for their organizations. Leadership is more than being a leader. It is about delivering the results the organization needs to fulfil its mission. This means that as a leader, you must set high standards and stick to them. Constantly evaluate the quality of work done on board. No matter how well things are going, realize that improvements are always possible.

### **Avoiding a blame culture and promoting just culture**

Blame culture is neither feasible nor desirable, as some unsafe acts are egregious and warrant sanctions. In a just culture the culpability line is drawn clearly. A just culture is closely linked to a reporting culture, i.e. an organizational climate in which people are prepared to report their errors and near-misses. A reporting culture supports an informed culture in which the leaders and operators have god knowledge of all factors that determine the level of safety.

We can reason just culture as “an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour”.

A just culture is founded on two principles, which apply simultaneously to everyone in the organization:

- Human error is inevitable and the organization’s policies, processes and interfaces must be continually monitored and improved to accommodate those errors;
- Individuals should be accountable for their actions if they knowingly violate safety procedures or policies.

## **4.6 Obtaining and maintaining the situational awareness**

Situational awareness is the ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regards to the mission. More simply, it knows what is going on around you. It is important that team members share accurate understanding of current and predicted vessel state, navigation path and external environment/engine room. Situational awareness is dynamic, had to maintain, and easy to lose. Knowing what is going on at all times is very difficult for any person, especially during complex high stress operations.

## **4.7 Gender equality**

Transport is the one of the most segregated industrial sectors, with only 22% of the EU workforce represented by women. The ETF- European Transport Workers Federation, believes that the challenges for transport unions reside in addressing the feminisation of workforce in transport, by unionising women in the emerging sectors and companies, by developing strategies to tackle low quality employment, by mainstreaming the gender dimension in trade union policies and collective bargaining, by dealing with segregation and by improving working conditions and tackling pay-gaps, by achieving gender balance representation in union structures and negotiation bodies, by improving participation of women in all aspects of trade union life and by disseminating information on ETF gender action amongst trade unionists.

The transport sector remains male-dominated and unattractive for women who are still over-represented in occupations that are poorly paid and are predominant in flexible types of employment, such as part-time working, fixed-term contracts. Flexible jobs come with a high risk of job insecurity, poor working conditions, limited access to social security and benefits,

training, career development. A gender-segregated industry will always create and perpetuate discrimination. For example, the fact that jobs can be perceived as 'feminine' or 'masculine' influences hiring and firing decisions.

One of the main goals of ETF is to unify existing trade union training on gender equality and set up a common agenda, goals, standards, objectives and principles according to the programme adopted by all its affiliates at the last congress. The uneven playing field across Europe in gender equality training in the workplace is a great challenge. At the same time, this new initiative should not be in conflict with or undermine the training systems and traditions in every country and union, aiming instead to complete and build on them, rather than to replace them. Bringing together existing materials on gender equality in the transport workplace was necessary to reach the goals set by the ETF's programme and also to support transport sectoral social dialogue at European level.

The **ETF Inland Waterways section members** debated on **gender aspects in inland navigation**, the section members expressed the following concerns with regard to the situation of women in this sector:

- the hotel vessels / passenger liners employ nowadays a growing number of female workers while working conditions and pay on board vessel are unacceptably low. This sub-sector is poorly unionised due to the limited capacity of trade unions to deal with the extremely mobile and seasonal workforce. Hence the risk for greater flexibility, less protection, further decline of the quality of jobs. Section members pointed out that the status of workers employed on this type of crafts is rather of catering personnel and thus social standards negotiated by unions for crews do not apply to this particular segment of workforce;

- the case of women working on family-owned crafts as self-employed is alarming: their work is considered as contribution to the family business and thus generally speaking it is not paid for. Their situation is even more vulnerable as they may not be denied access to social security systems and benefits;

- apart from the leisure boats, participation of women in the sector is extremely low. This is due to the hostile working conditions and lack of accommodation conditions for mixed crew on board vessel in the freight transport;

- the lack of possibility to strike the right balance between work and family life is one of the key reasons to prevent large scale women's participation in the sector.

The Section concluded the gender equality debate by agreeing that the following type of action may be taken in order to improve the situation of women workers in the sector:

- being aware and mainstream the gender dimension in section activities – the ETF may ask the European Commission to reflect this dimension in the Commission official documents relevant to the sector (the upcoming Commission Communication may include specifications on attracting women in the profession, training, work-life balance; the ETF should make sure that social dialogue outcome (e. g. agreements) cover the female-dominated occupations with the aim to improve the quality of their work;

- with regards to addressing work flexibility and precarious jobs – the case of hotel vessels – the section members suggested a campaign to raise general awareness on the right to decent working conditions on board vessel

## 5. SHIPBOARD TRAINING, LEARNING, COACHING, MENTORING, ASSESSMENT AND DEVELOPING SHIPBOARD PERSONNEL



### 5.1 Training

Training has been defined as learning and development undertaken for the purposes of supporting development and maintenance of operational capability in employment: skills for work and in work, on job or off job to enable effective performance in a job or role.

Training takes place whenever a new technology has been introduced to the shipping industry to assist navigation personnel in performance of their duties.

The training regimens accompanying these technological advances have had a common purpose: first, to teach the general operational theory of the equipment, second, to demonstrate the operational use of the equipment and third, to explain how to interpret the display of the equipment output.

Not one of this training regimes has taught the Boatmaster how to incorporate the technology in question into the bridge team, or for that, how to use its associated equipment efficiently as an integral component of bridge resource management. This continues to be, a significant weakness.

Students today are very comfortable with changing technologies. They have grown up with computer hardware and software that undergo rapid, constant development: they are familiar with cell phones and text messaging as their primary methods of communication. Video games and virtual simulation programs are common sources of entertainment. Accessing the Internet for all sorts of information is as commonplace as watching the nightly news on TV was 30 years ago. Unfortunately, this familiarity with changing technologies, and student's obvious level of comfort in relying on technology, creates one notable concern because most of the students are

more comfortable with virtually than reality. They may be more prone to believe in the veracity of their electronics display outputs than to trust what they see with their own eyes out of the bridge windows.

### **Shipboard training**

Most shipping companies favor the responsibility being placed upon the ship's senior staff to give overall supervision, with designated crewmember as shipboard trainer. This places an extra burden on already busy people, so some companies have taken the other approach to delivering training, which is to use travelling trainers who move from vessel to vessel.

**Advantages of travelling trainers** are the following:

- are selected for their skills as trainers;
- can be briefed ashore on the latest company edicts and priorities;
- can carry with them selected training and assessment material;
- may carry out safety audits prior to carrying out training and concentrate on the weaknesses they discover;
- can transfer the lessons learned across the fleet;
- report back directly to managers and keep fleet records;

**The disadvantages for travelling trainers** are the following:

- have only a limited time on board;
- teach trainees who may be busy or tired;
- can only carry a limited amount of training material;
- above all, a travelling trainer does not have time to offer his or her services as a mentor, developing the skills of junior crew members over a prolonged period.

### **Shipboard trainer**

The best shipboard trainer is someone who is well trained as a trainer and interested in training and can motivate other people to play their part. Shipboard trainer should be given clear instructions, provided with proper facilities and training aids and above all, enough time to take on responsibilities additional to their normal work.

Advantages of designated shipboard trainer are:

- familiarity with the vessel, its equipment, procedures, manuals etc. allowing lesson learned to applied directly in the workplace;
- knowledge of crewmembers;
- the opportunity to initiate and encourage long-term mentoring programmes to develop the skills of junior staff under experienced seniors;
- the ability to schedule the work over weeks or months and take advantage of learning opportunities (loading, unloading, bunkering dry docking etc.);
- training your own junior staff can give you much better understanding of their strengths and weaknesses.

**Possible disadvantages** include:

- lack of interest in training or motivation;
- lack of skills as a trainer;
- lack of time;
- lack of facilities/space for training;
- lack of training and assessment materials;

The ideal combination is if a company that has a comprehensive training policy can send the travelling trainers to carry out audits, make reports and initiate training programmes. The designated shipboard trainer can then continue once the other person has left, creating an optimum and continuing training environment.

We are often told "leaders are born and not made" the same could be said about good teachers and trainers. We have all come across people whose natural ability made them approachable, whose teaching was a pleasure for us and easy for them.

Most teachers are not perfect, but do a reasonable job. With a trainer training they could be much better.

## 5.2 Mentoring

Mentoring can be defined as “a learning and development relationship between two people”. It depends on essential human qualities such as commitment, authenticity, trust, integrity and honesty. It involves the skills of listening, questioning, challenge and support.

Mentoring is one of the most effective ways of transferring this knowledge from one generation of navigation personnel to the next. In addition inland water transport sector is in desperate need of attracting new, bright young people.

Mentoring is not training. Training and mentoring have different goals, teach different knowledge, and require different techniques and tools.

Mentoring is a confidential, trust-based, voluntary relationship between a mentor (someone with significant experience in some area) and a protégé (someone who either wishes to work in that area, or is working their way through the ranks).

The mentor is able to provide guidance based on his/her experience to help the protégé make more informed professional choice.

The most important characteristics of a good mentor, other than expertise and experience, include a genuine desire to be helpful, good communication skills and patience.



**Good mentoring relationships and interactions have a number of characteristics:**

- **Long-lived-** the mentor has much more intimate knowledge of the personality, goals and context of their protégé. It is this intimate knowledge that enables the mentor to provide appropriate guidance;
- **Personal-** the implication of the mentor’s guidance to the life of the protégé are significant, and the personal connection creates a responsibility to the protégé to respect this significance. Likewise, protégés need to feel as though they can trust their mentor, and this trust only comes from respect and, for lack of a better word, intimacy,
- **Unconflicted –** mentors should never be in a position of conflict or influence with respect to their protégé. While is true that many successful mentoring relationships do not obey this rule, such relationships can never reach their full potential due to the constraints placed on open discussion;
- **Mutual benefit-** mentoring benefits for the protégé are generally well understood. But interestingly, mentors also invariably feel these to be highly satisfying and rewarding experiences. Being a mentor challenged you, kept you sharp, and kept you connected with, and informed about the needs and issues of youngsters.

Mentoring is a timely and valuable activity in the shipping industry, yet it is underutilized due to the operational constraints.

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MODULE IV



Danube Transnational Programme  
**Danube SKILLS**

Project co-funded by European Union funds (ERDF, IPA)



**TRAIN  
THE  
TRAINER**

**INTERNATIONAL POLICY  
TO CONTROL THE OPERATION OF THE VESSEL AND  
CARE FOR PERSON ON BOARD**

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## 1. INTRODUCTION

This course compendium was designed both for trainers who will be involved in training of such training module and the trainees as learning aids in order to facilitate the learning process.

**This course compendium aims** to assist in the implementation of the EU Directive 2017/2397 on the recognition of professional qualifications in inland navigation and in meeting the requirements of the Standards of competences for inland navigation personnel- Managerial level that will be part of this legislative act.

**The main objective** of this course compendium is to develop guidance material to assist the leadership management on board of inland navigation vessels in order to apply relevant and related international conventions and recommendations, codes of practice and guidelines to control the operation of the vessel and care for persons on board at the management level.

## 2. COMPETENCE AND LEARNING OUTCOMES

### 2.1 Competences

- *Apply national, European and international social legislation;*
- *Follow strict alcohol and drug prohibition and react appropriately*
- *in cases of infringement, take responsibility and explain consequences of misbehaviour.*
- *Organise provisioning and preparation of meals on board.*

### 2.2 Learning outcomes

*By the end of this course, trainees will be able to:*

- *Apply relevant international policies to control the operation of the ship and care for persons on board at management level;*
- *Ensure compliance with applicable legislation and awareness of company rules on alcohol and drugs;*
- *Plane provisioning and prepare meals on board.*

### 3. INTERNATIONAL SOCIAL LEGISLATION

#### 3.1 Standard of competence for professional qualifications in inland navigation

The safety and security of life during navigation activities and protection of environment depends mainly on the professionalism and competence of navigation personnel.

**EU Directive 2017/2397** on the recognition of professional qualifications in inland navigation and repealing Council Directives 91/672/EEC and 96/50/EC, is the European framework addressing the issue of minimum standards of competence for personnel involved in inland navigation activities on board of the vessels.



The main objectives of the newly adopted EU Directive are: to facilitate mobility, to ensure safety of navigation and to ensure the protection of human life and the environment.

All these aspects are essential for deck crew members, and especially for persons in charge of emergency situations on board the vessels. Those considerations also apply to young persons, for whom it is important that their safety and health at work is protected in accordance with Council Directive 94/33/EC.

The harmonisation of legislation in the field of professional qualifications in inland navigation in Europe is facilitated by the close cooperation between the Union and the CCNR- Central Commission for the Navigation on the Rhine, and by development of CESNI Standards. The CESNI-European Committee for drawing up Standards in Inland Navigation, draws up standards in the field of inland navigation including standards for professional qualifications, standards which will be adopted by implementing and delegated acts.

This Directive lays down the conditions and procedures for the certification of the qualifications of persons involved in the operation of a craft navigating on Union inland waterways, as well as for the recognition of such qualifications in the Member States.

The essential competence requirements at operational and management level are set out in the Annex II of this EU Directive.

#### 3.2 Health and Safety at work

##### 3.2.1 Communication (2014) 332 final from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the regions on an EU Strategic Framework on Health and Safety at Work 2014-2020

EU actions on occupational safety and health (OSH) have pursued over the years within a strategic policy framework that includes two key components:

- A comprehensive body of EU legislation covering the most significant occupational risks and providing common definitions, structures and rules that are adapted by Member States to their different national circumstances; and
- A series of multiannual action programmes between 1978 and 2002, followed by European strategies (covering 2002-2006 and 2007-2012), to identify priorities and common objectives, provide a framework for coordinating national policies and promote

a holistic culture of prevention. As a result of the 2007-2012 strategy, 27 Member States have put in place national strategies.

Risk prevention and the promotion of safer and healthier conditions in the workplace are key, not just to improve job quality and working conditions, but also to promoting competitiveness. Keeping workers healthy has a direct and measurable positive impact on productivity, and contributes to improving the sustainability of social security systems.

Investment on OSH contributes to the well-being of workers and is cost-effective.

The results of the evaluation of 2007-2012 OSH strategy confirm the value of an EU strategic framework for policy action in the field of OSH and show strong stakeholder support for a

continuing EU-level strategic approach. The evaluation highlights the need to review objectives, priorities and working methods to adapt the EU policy framework to changing patterns of work, and new emerging risks.

In proposing a strategic framework on health and safety at work for 2014-2020, the Commission took due account of several contributions, all in favour of launching a strategic policy initiative, in particular those received from the European Parliament, the Advisory Committee on Safety and Health (ACHS) and the Senior Labour Inspectorate Committee (SLIC).

This communication sets out key

strategic objectives and a range of actions for promoting worker's health and safety, based on an identification of the outstanding problems and major challenges.

**3.2.2 Communication COM (2004) 62 final from the Communication to the European Parliament, the Council, the European Economic and Social Committee and Committee of Regions on the practical implementation of the provisions of the Health and Safety at Work Directives 89/931(Framework), 89/654 (Workplaces), 89/655 (Work Equipment), 89/656 (Personal Protective Equipment), 90/269 (Manual Handling of Loads) and 90/269 (Display Screen Equipment).**

Prevention is the guiding principle for occupational health and safety legislation in the European Union. In order to avoid accidents from happening and occupational diseases to occur, EU wide minimum requirements for health and safety protection at the workplace have been adopted.

The aforementioned EU Directives were already transposed and implemented into the national laws of EU Member States, and this report examines how these Directives have been transposed and applied within the Member States.

The 1989 Directive lays down the principles for the introduction of measures to encourage improvements in the safety and health of workers and provides a framework for specific workplace environments, developed in individual directives. The goal of instilling a culture of prevention rests on the double foundation that the minimum requirements provide a level playing field for business operating within the large European domestic market and provide a high degree of protection to workers, avoiding pain and suffering and minimising the income foregone for enterprises as a result of preventing occupational accidents and diseases.

The EU legislation reportedly has had a positive influence on the national standards for occupational health and safety. At the same time, the health and safety measures at the workplace



are reported to have widely contributed towards improved working conditions, boosting productivity, competitiveness and employment.

A high level of protection of the safety and health of workers which is the overriding objective of the Framework Directive 89/391 and its five first individual directives, can only be achieved if all actors concerned, employers, workers, worker's representatives, national enforcement authorities, make the efforts necessary for an effective and correct application and engage in a co-operative interaction.

The reinforced commitment to address the miscellaneous flaws identified in this report will bring about the changes that will improve the implementation and application levels of the Health and Safety Directives and make the health and safety protection a tangible reality for all workers, contributing in this way to the improvement of productivity and quality of work.

The Commission will continue its work towards a simplification and rationalisation of the Community legal framework by making the necessary legislative proposal for, on one hand, the consolidation of existing directives to make them more comprehensible and, on the other, for the simplification of the provisions of the various Directives related to the implementation reports in view to foresee a single report on their implementation.

### 3.3 Working time

**Council Directive 2014/112/EU implementing the European Agreement concerning certain aspects of the organisation of working time in inland waterway transport, concluded by the European Barge Union (EBU), the European Skipper Organization (ESO) and the European Transport Worker's Federation (ETF)**



This agreement shall apply to mobile workers employed as members of the navigation personnel (crew members) or in another function (shipboard personnel) on board a craft operated within the territory of a Member State in the commercial inland waterways transport sector.

Directive 2003/88/EC concerning certain aspects of the organization of working time lays down general minimum standards which, with the exception of the areas set out in Article 20(1) (daily rest, breaks, weekly rest, duration of night work), also relate to the organization of working time in inland waterway transport. However, as these regulations do not take the specific working and living conditions in the inland waterway sector sufficiently into account, more specific rules are necessary.

These more specific rules should safeguard a high level of health and safety for workers in the inland waterway sector.

Inland waterway transport is an international form of transport characterised first and foremost by cross-border activities on the European inland waterways transport network. The European inland waterway transport sector should therefore work towards creating homogenous framework conditions for the labour market in this sector and preventing unfair competition based on differences between statutory working time structures.

The organization of work varies within the sector. The number of workers and their working time on board varies depending on the way in which the work is organised, the undertaking concerned, the geographical area of operation, the length of the voyage and the size of the craft. Some vessels sail continuously, i.e. 24 hours a day, with the crew working in shifts. By contracts, medium-sized undertakings in particular tend to operate their vessels 14 hours a day for five or six days per week. In the inland waterway transport sector, the working time of a worker on board is not the same as the operating time of a craft.

One of the special features of the inland waterway transport sector is that it is possible for workers to have not only their place of work but also their accommodation or living quarters on board the vessel. It is therefore usual for workers to spend rest periods on board. Many workers in the inland waterway transport sector, especially those who are a long way from home, work several consecutive days on board in order to save on travelling time and then be able to spend several days at home or another place of their own choosing. With a 1:1 pattern, for example, a worker has the same number of rest days and working days. For this reason the number of consecutive working days on board and the number of rest days can be correspondingly higher than in case in land-based employment.

Average working time in the inland waterway transport sector usually includes a significant amount of on-call time (for example as a result of unplanned waiting time at locks or during the loading and unloading of the craft), which may also occur during the night. The maximum daily and weekly working times which are laid down may therefore be longer than those stipulated in Directive 2003/88/EC.

At the same time it must be recognised that the workload in inland waterway transport sector is influenced by several factors, such as noise, vibration and the organization of working time. Without prejudice to the provisions of Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work, provision is made for annual health checks to protect workers, taking into account the specific working conditions in this sector.

Account should be taken of the additional demands made on crew members during night work by limiting the maximum permissible number of night-time hours and by organising work appropriately.

The working and living conditions on passenger vessels differ from those in other forms of inland waterway transport and thus special provisions are warranted. The different social environment, different work activities and seasonal nature of this sub-sector of the European inland waterway transport sector are reflected in differences in the way in which work is organised.

## 4. LEADERSHIP ON THE SAFETY OF OPERATIONS

There is well established research both in the inland navigation and other hazardous industries that confirms the huge impact of leadership on the safety of operations. Whilst the international applicable social legislation has been a major step forward in improving safety standards, effectiveness of these standards depends heavily on how leaders approach their implementation, and this in turn depends heavily on the skills and qualities of leaders- both on board of the ships, at the ship-shore interface, and on-shore.



Virtually all navigation leaders want to

do their best of safety, but sometimes real life makes things difficult- time pressure, economic constraints and every day circumstances sometimes seem to conspire against good safety leadership.

While improving your leadership skills you could also ask a colleague or one of your subordinates to give you feedback on how well you are doing and how you could improve. What really counts is how leaders behave in everyday situations. Your crews will draw inferences about your safety leadership based on what they see you do and what hear you say, far more than what you might declare in a speech or a written communication.

The ten core safety leadership qualities are:

- Instil respect and command authority
- Lead the team by example;
- Draw on knowledge and experience;
- Remain calm in a crisis;
- Practice “tough empathy”;
- Be sensitive to different cultures;
- Recognise the crew’s limitations;
- Motivate and create a sense of community;
- Place the safety of crew and passengers above everything;
- Communicate and listen clearly.

## 5. ALCOHOL AND DRUGS PROHIBITION IN THE WORKPLACES

### 5.1 Applicable rules on alcohol and drugs

#### **An ILO (International Labour Office) Code of practice- Management of alcohol and drug related issues in the workplace**

Problems relating to alcohol and drugs may arise as a consequence of personal, family or social factors, or from certain work situations, or from a combination of these elements. Such problems not only have an adverse effect on the health and well-being of workers, but may also cause many work-related problems including a deterioration in job performance. Given that there are multiple causes of alcohol and drug related problems, there are consequently multiple approaches to prevention, assistance, treatment and rehabilitation.



While the elimination of substance abuse is a highly desirable goal, experience has shown the difficulty of achieving this. However, workplace policies to assist individuals with alcohol and drug related problems, including the use of illegal drugs, would seem to yield the most constructive results for workers and employers alike.

It was for this reason that Governing Body of the ILO decided at its 259<sup>th</sup> Session in March 1994, to convene a meeting of experts in Geneva in January 1995, to consider a draft code of practice on the management of alcohol and drug related problems at the workplace.

The practical recommendations of this code of practice are intended to provide guidance to all those who have the responsibility for addressing alcohol and drug related problems at the workplace. This code is not intended to replace international standards, national laws, regulations or other accepted standards. Alcohol and drug policies and programmes should apply to all staff, managers and employees and should not discriminate on grounds of race, colour, sex, religion, political opinion, national extraction or social origin.

## **5.2 Prevention, reduction and management of alcohol and drug related problems in the workplace**

The following constitute the key points in the implementation of applicable rules on alcohol and drug in the workplace:

- Alcohol and drug policies and programmes should promote the prevention, reduction and management of alcohol and drug related problems in the workplace;
- Alcohol and drug related problems should be considered as health problems, and therefore should be dealt with;
- Employers and workers and their representatives should jointly assess the effects of alcohol and drug use in the workplace, and should cooperate in developing a written policy for organization;
- The same restrictions or prohibitions with respect to alcohol should apply to both management personnel and workers;
- Information, education and training programmes concerning alcohol and drugs should be undertaken to promote safety and health in the workplace and should be integrated where feasible into broad-based programmes;
- Employers should establish a system to ensure the confidentiality of all information communicated to them concerning alcohol and drug related problems;
- Testing of bodily samples for alcohol and drugs in the context of employment involves moral, ethical and legal issues of fundamental importance, requiring determination of when it is fair and appropriate to conduct such testing;
- Workers who seek treatment and rehabilitation for alcohol or drug related problems should not be discriminated against by the employer and should enjoy normal job security and the same opportunities;
- It should be recognized that the employer has authority to discipline workers for employment -related misconduct associated with alcohol and drugs. However, counselling, treatment and rehabilitation should be preferred to disciplinary action.

## **5.3 Alcohol and drug related problems versus safety of navigation**

Drug and alcohol abuse and its adverse effects on safety is one of the most significant social problems of our time. It is, appropriately, receiving attention both in the public eye and in government legislation.

Poor judgement in a high-stakes situation could result in substantial damage to property and the environment, loss of vessels, injury to personnel and even death. When proper judgement is impaired by substance use and key decisions must be made, the risks increase dramatically. Vessel owners/operators and managers cannot therefore afford to ignore any issues that affect productivity.

In any alcohol and drug prevention programme, responsibility for the various tasks and duties needs to be identified. Administrations, international organisations (IGO's), nongovernmental organisations (NGO's), training institutes, shipping communities and organisations, vessel owners/operators, trade unions, managers, manning agencies, masters and crew members all have a role to play and a responsibility to fulfil. All inland waterway transport companies and organisations are to be encouraged to develop and institute drug and alcohol abuse prevention programmes as failure to do so could adversely affect the interdependency and relationship that binds such companies and organisations.



The degree of responsibility and involvement of every company and organisation should be determined according to the potential effects of failing to act. From the perspective of an administration, there is a responsibility to provide guidance and support and enabling legislation. At the other end of the spectrum, vessel's crewmembers have a responsibility to actively participate in any prevention programme that affects the safety of the vessel, their fellow crew members and, of course, themselves.

Responsibilities of government commence with formulation, adoption and promulgation of policies, laws and regulations to protect the health and safety of its citizens and workers, including crew members even though they may be employed outside the country by foreign concerns. Laws and regulations should not only address restrictions and the imposition of penalties but also provisions for assisting persons deemed to be dependent on drugs and alcohol through prevention and rehabilitation programmes

**Promoting Prevention** through:

- **Health checks and medical examinations:** ensuring checks for drug and alcohol abuse are included in the crew members' medical examination both on initial screening and during crew members' periodic medical checks;
- **Training & education:** provide the support, guidance and expertise to assist the development of schemes to prepare trainers, the application of training and the education of crew members and shore workers in the effects, symptoms and results of drug and alcohol abuse;
- **Promoting and raising the profile of prevention:** coordinate accident reports and provide risk assessment data and other information that may be used by the country's naval transport industry to raise the profile of the subject and to promote the dangers posed by drug and alcohol abuse;
- **Setting safety limits:** prescription of a maximum blood alcohol level for crew members as a minimum safety standard and any other prohibitions on the consumption of drugs, including prescribed medications, or alcohol that can impair the ability of crew members or those on board engaged in safety sensitive operations;

- **Provision of rehabilitation services:** provide rehabilitation services for those crew members diagnosed as having or who have acknowledged a drug or alcohol abuse problem;
- **Non-discrimination:** develop and introduce legislation that ensures rehabilitated crew members, following an individual's successful completion of an approved treatment programme, are not discriminated against by employers;
- **Declaring drug and alcohol abuse to be a medical condition:** encourage those with drug and alcohol abuse problems to seek assistance thereby reducing health and safety risks to fellow seafarers on board ships;
- **Focal point:** to act as a focal point for industry and to express and share the national views/experiences gained from prevention programmes at international level.

## 6. PROVISIONING AND FOOD PREPARATION ON BOARD

### 6.1 Provisioning

Provisioning a craft is an important responsibility. Trying to predict where you will be able to restock after leaving a major port can be stressful. Having to plan what you and the crew will eat for days, weeks and months in advance, is a major responsibility. Location, dietary requirements, facilities on board and how you cook all play a part in how you stock on board. And there is no right way to provision or a magic list of "must have" foods.

A good place to start when provisioning is in the pantry. Non-perishable foods like canned goods, dry-stores and general pantry items have a long shelf life and can be bought well in advance of departing port relieving some of the last minute anxiety. As I stow and sort I can see what more I need to buy or if I have forgotten anything.

Preserved foods have always been a necessary evil on a craft. Although quality pre-package foods are easy to find these days, shelf stable product can also be crammed with salt and other preservatives. It pays to take a few minutes to read labels and try to make not only convenient but healthy purchases.

Lots of good quality food items can be preserved in glass because of their acidity and shouldn't be overlooked.

Don't forget about the everyday items like oil, vinegar, mustard, ketchup, sugar, butter, tea and coffee. Some of these things can be found in larger cans or bottles and decanted for use in the galley or, if spoilage is a concern, be sure to buy several containers that will easily fit in the fridge. Buying in bulk is great way to save money and cut down on packaging.

The items like rice, sugar, cornmeal, powdered milk, pasta, dried beans etc. should be stored in airtight containers. Proper storage will prevent spoilage and bugs.

This is also a good time to consider what you and your crew like snack on, as it is easy to toe at food on board, especially when on passage.

Shopping for meat can sometimes be the hardest and more expensive part of provisioning. Ordering larger cuts of beef, pork or lamb, and breaking them down yourself is a cost effective way to buy meat. Doing some basic butchering yourself allows you to control portion sizes and reduce waste. The same rule can be applied for fowl.

Fresh fruits and vegetables are the last things to stock up on before leaving port.

Markets are also the best place to get the fresh eggs, which can keep to a month unrefrigerated.

When we hear the word provisioning we automatically think on foodstuffs, but there are a host of other consumables that have to be considered, water is very important. Know your tankage and your replenishment methods and before leaving on an extended voyage, pay attention to your weekly eater consumption. These will determine if you need to stock extra water on board. It is important to having at least some bottled water for emergencies.

The buying part of provisioning is only half the battle, once back on board you still need to stow all that booty. Make sure you have enough time to unpack and put everything away properly without the pressure of everyday duties.

## 6.2 Food preparation

### 6.2.1 Health and hygiene

Catering staff should be properly trained in food safety and personal hygiene, as they are responsible for ensuring that high standards of personal hygiene and cleanliness are maintained at all times through the galley, pantry and mess rooms. For food preparation the following requirements have to be taken into consideration.

There should be no smoking in galleys, pantries, store rooms or other places where the food is prepared or stores.

Hands and fingernails should be washed before handling food using a dedicated hand basin, a



bacterial liquid soap from a dispenser and disposable towels. It is important to thoroughly wash and dry hands after using the toilet, blowing your nose or handling refuse or contaminated food. An alcohol gel may be used to supplement the use of soap and water.

All cuts, however small, should be reported immediately and first-aid attention provided to prevent infection.

An open cut, burn or abrasion should be covered with a blue waterproof dressing which must be changed regularly.

Anyone with a septic cut or a boil etc.

should stop working with food until it is completely healed. Illness, coughs and colds, rashes or spots, however mild, should be reported immediately when the symptoms appear.

A person suffering from diarrhoea and/or vomiting, which may be signs of food poisoning or a sickness bug, should not work in food-handling area until medical clearance has been given.

Catering staff should wear clean protective clothing, including appropriate protective gloves if necessary, when handing and preparing meals.

Catering staff should not wear jewellery, apart from a plain wedding band.

The cleanliness of all food, crockery, cutlery, linen, utensils, equipment and storage is vital. Cracked or chipped crockery and glassware should not be used. Foodstuffs that may come into contact with broken glass or broken crockery should be thrown away.

Fresh fruits and salad should be thoroughly washed in fresh water before being eaten.

Foodstuffs and drinking water should not be stored where germs can thrive. Frozen food must be defrosted in controlled conditions. Food should be prevented from sitting in the thaw liquid by placing it on grids in a container or on a shelf. Frozen food that has been defrosted is not to be refrozen.

The risks of cross contamination should be eliminated by thoroughly stripping and cleaning the relevant parts of equipment when successive different foods are to be used (especially raw and cooked foods). It is important to wash hands after handling raw meat, fish, poultry or vegetables.

Raw food should be kept apart from cooked food or food that requires no further treatment before consumption (e.g. milk). Separate refrigerators are preferred although, if stored in the same unit, the raw food must always be placed at the bottom to avoid drips contaminating ready prepared food. Food should also be covered to prevent drying out, cross contamination and adsorption of odour.

Separate work surfaces, chopping board and utensils should be set aside for the preparation of raw meat and must be used for the preparation of foods that will be eaten without further cooking. Colour coding is an established way to ensure separation between the two activities.

Ensure all food is kept at the correct temperature to prevent the multiplication of bacteria.

Crockery and glassware should not be left submerged in washing up where it may easily be broken and cause injury. Such items should be washed individually as should knives and any utensils or implements with sharp edges. Crockery, glassware and utensils should preferably be washed in a dishwasher, where much higher temperatures can be achieved compared with hand washing.

Some domestic cleaning substances contain bleach (sodium hypochlorite) or caustic soda (sodium hydroxide) whilst some disinfectants contain carbolic acid (phenol). These substances can burn the skin and they are poisonous if swallowed. They should be treated with caution and should not be mixed together or used at more than recommended strength. Inadvertent contact with toxic chemicals or other harmful substances should be reported immediately and the appropriate remedial action taken. Cleaning substances and materials should be stored in a suitable locker/cupboard separate from food-handling areas. Wherever possible, cleaning products that are not injurious to individuals or the environment should be used.

Food waste, empty food containers and other garbage are major sources of pollution and disease and should be placed in proper covered storage facilities safely away from foodstuffs.

## 6.2.2 Diet and nutrition

The ship owner and the Boatmaster of a vessel must ensure that food and drinking water are suitable in respect of quantity, nutritional value, quality and variety.

A good variety of food provides a healthy diet. Meals should provide a balance of carbohydrates, protein, fat, fibre, vitamins and minerals. Food should be prepared and cooked with minimum levels of salt, fat and sugar. As a general guide:

Carbohydrates- high energy food which includes bread, potatoes, rice, pasta and breakfast cereals.

Proteins- include fish, meat, poultry, eggs, milk and other dairy products.

Vitamins and minerals are contained in fruits and vegetables, fresh, frozen, dried and canned included fruit juice.

Drinks as with food a balanced intake is important. Not too much sugar, caffeine and calories. Water, fruit juices and low fat milk are all good alternatives.

Provisions should be made for any special needs because of religion, special dietary requirements, or customary dietary practices where certain rules or requirements in relation with some food or with the way food is prepared must be observed.

Catering staff should be aware of the dangers associated with food allergies. If a person with a food allergy inadvertently eats even a small amount of that food this can make them very ill or in extreme cases cause death. Some problem ingredients are: peanuts, nuts, gluten, fish, soya, celery, mustard, sesame seeds, sulphur dioxide.

This list is illustrative only as there are likely to be other ingredients that can cause adverse reactions in persons who are sensitive to them.

## 6.3 Catering department

### 6.3.1 Slips, falls and tripping hazards for catering staff

Suitable footwear, with slip-resistant soles, should be worn at all times. A large proportion of injuries to catering staff arise because they wear unsuitable footwear such as sandals, plimsolls or flip-flops, which do not grip greasy decks or protect the feet from injury, burns and scalds if hot or boiling liquids are spilt.

Decks and gratings should be kept clear from grease, rubbish, ice etc. to avoid slipping. Any spillage should be cleared up immediately.

Broken glass or crockery should be cleared away with a brush and pan and never with bare hands.

The area of deck immediately outside the entrance to refrigerated rooms should have an anti-slip surface.

Care should always be taken using stairs and companionways; one hand should always be kept free to grasp the handrail.

Trays, crates, cartons etc. should not be carried in such a fashion that sills, storm steps or other obstructions in the path are obscured from view.

Lifts that involve reaching up too high or too low should be avoided. Personal should not stand on unsecured to reach articles which are out of reach.

### **6.3.2 Galley stoves, steam boilers and deep fat fryers**

Vessels using oil-fired stoves should operate safety procedures according to the manufacturer's instructions, particularly when lighting the stove. Instructions should be clearly displayed in the galley.

Catering staff should not attempt to repair electric or oil-fired ranges or electric microwave ovens. Defects should be always reported so that proper repairs may be made. The equipment should be kept out of use and a warning notice displayed until it has been repaired.

The indiscriminate use of water in hosing down and washing equipment in the galley can be very dangerous, particularly when there are electrical installations. Whenever the galley deck is washed down, power to an electric range and all electric equipment should be switched off and isolated from the supply, and water kept from contact with the electric equipment.

Range guardrails should always be used in rough weather. Pots and pans should never be filled to the extent that the contents spill over when the vessel rolls.

All catering staff should be fully instructed in avoiding burns from hot surfaces on hot serving tables, bains-marie, steamers and tilting pans.

Dry clothes or pot holders and heatproof oven gloves that are long enough to cover the arms should always be used to handle hot pans and dishes. Wet cloths conduct heat quickly and may scald the hands.

No one should be directly in front of an oven when the door is opened- the initial heat blast can cause burns.

The steam supply to pressure cookers, steamers and boilers should be turned off and pressure released before their lids are opened.

### **6.3.3 Liquid petroleum gas appliances**

Suitable means for detecting the leakage of gas should be provided and securely fixed in the lower part of the galley as gas is heavier than air. A gas detector should incorporate an audible and a visible alarm, and should be tested frequently. A suitable notice, detailing the action to be taken when an alarm is given by the gas detection system should be prominently displayed.

Equipment should be fitted, where applicable, with an automatic gas shut-off device operates in the event of flame failure.

When gas burning appliances are not in use, the controls should be turned off. If they are not going to be used again for some length of time, the main regulators close to the storage bottles should be shut.

A safe system of working, training and supervision over lighting and operating procedures should be established.

Defects in joints, valves and connections can be detected by smell. Catering staff should not attempt to repair electric, oil or gas appliances.

### 6.3.4 Deep fat frying

Water should never be poured into hot oil; the water turns to steam, throwing the oil considerable distances. This may cause severe burns to personnel, and possibly start a fire.

If fat catches fire in a container, the flames should be smothered using a fire blanket if practicable and the container removed from the source of heat. Otherwise a suitable fire extinguisher should be used. In no circumstances should water be used.

The flashing point of the cooking medium should be no lower than 315° C.

Deep fat fryers should be provided with suitable safety lids, which should be kept in position when the fryers are not in use.

To minimise the risk of fire from failure of the control thermostat, all deep fat fryers should be fitted with a second thermostat set to provide a thermal cut-out.

Electrically operated deep fat fryers should be switched off immediately after use.

A safe system of work for cleaning and draining fat fryers should be established.

A strict schedule of cleaning for galley uptakes/grills should be established so that fat deposits are not allowed to accumulate.

A notice should be displayed prominently, detailing the action to be taken in the event of a deep fat fryer fire.

### 6.3.5 Microwave ovens

When microwave ovens are used, it is important to ensure that the food is cooked thoroughly and evenly. This is particularly important with deep frozen foods, which should be thoroughly defrosted before cooking. The instruction issued by the oven manufacturers should be followed carefully, in conjunction with the information on the packaging of the foodstuff.

No microwave oven should be operated if the oven door or its interlock is out of use, the door broken and or ill-fitting or the door seals damaged. Each microwave oven should carry a permanent notice to this effect. Microwave radiation checks should be carried out at regular intervals.

### 6.3.6 Catering equipment

Except under the supervision of a competent person, no one should use catering equipment unless trained in its use and fully instructed in the precautions to be observed.

Dangerous parts of catering machines should be properly guarded and the guards kept in position whenever the machine is used.

Any machine or piece of equipment should be inspected routinely for faults, wear and tear, damage or defective parts. Any machine or piece of equipment that is found to be damaged, faulty or defective in its parts, guards or safety devices should be reported and taken out of service, with power disconnected, until repair.

When a power-operated machine has to be cleaned or a blockage in it removed, it should be switched off and isolated from the power supply. Some machines will continue to run for a while thereafter, and care should be taken to see that dangerous parts have come to rest before cleaning is begun.

A safe procedure for cleaning all machines should be established and carefully followed.

Unless properly supervised, a crewmember under 18 years of age should not clean any power-operated or manually driven with dangerous parts that may move during the cleaning operation.

Appropriate kitchen tools, not fingers, should be used to feed materials into processing machines.

Electrical equipment should not be used with wet hands.

All electrical equipment should be regularly inspected by a competent person.

### 6.3.7 Knives, meat saws, choppers

Sharp implements should be treated with respect and handled with care at all times. They should not be left lying around areas where someone may accidentally cut themselves. They should not be mixed in with other items for washing up but cleaned individually and stored in a safe place.

Knives should be kept tidily in secure racks or sheaths when not in use.

The handles of knives, meat saws, choppers etc., should be securely fixed and kept clean and free from grease. The cutting edges should be kept clean and sharp.

Chopping meat requires undivided attention. The chopping block must be firm, the cutting area of the meat well on the block and hands and body clear of the line of strike. There must be adequate room for movement and no obstructions in the way of the cutting stroke. Particular care is when the vessel is moving on the water. Appropriate gloves for use, when cutting meat should also be supplied.

A falling knife should be left to fall, not grabbed.

### 6.3.8 Refrigerated rooms and store rooms

All refrigerated room doors should be fitted with a means of opening the door from both sides. It should be possible to sound an alarm from inside the room.

A routine testing of the alarm bell and checking of the door clasps and inside release should be carried out regularly, at least at weekly intervals.

Those using the refrigerated room should make themselves familiar with the operation, in darkness, of the inside release for the door and the location of the alarm button.

All refrigerated room doors should be fitted with an arrangement of adequate strength to hold the door open during the voyage of the vessel and should be secured open while stores are being handled. These doors are extremely heavy and cause serious injury to a person caught between the door and the jamb.

Anyone going into a refrigerated room should take the padlock, if any, inside with them. Another person should be informed.

Cold stores or refrigerated rooms should not be entered if it is suspected that there has been a leakage of refrigerant. A warning notice to this effect should be posted outside the doors.

Metal meat hooks not in use should be stowed in a special container provided for the purpose. Where hooks cannot be removed easily, they should be kept away from passageways or areas where people are working.

For entry into meat and fish storage rooms, appropriate thermal personal protective equipment should be readily available.

## 7. REFERENCE DOCUMENTS

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