

ΑΚΑΔΗΜΙΑ ΕΜΠΟΡΙΚΟΥ ΝΑΥΤΙΚΟΥ ΜΑΚΕΔΟΝΙΑΣ

ΣΧΟΛΗ ΠΛΟΙΑΡΧΩΝ

ΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ

ΘΕΜΑ: "SHIP FAMILIARIZATION"



ΣΠΟΥΔΑΣΤΡΙΑ: ΜΑΥΡΟΤΕΛΗ ΒΑΣΙΛΙΚΗ

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1. Abstract

Maritime education operates on the basis of the standards for training, certification and watchkeeping standards of the 1978 STCW International Convention, with its revisions of 1995 and 2010. The revisions arose because the Convention had high expectations but its implementation was unsatisfactory, according to the IMO. The most specific terms in the fields of education are applied consistently and directly affect maritime work. The need for STCW is due to the multinational crews serving on the ships. STCW ensures that all crew members, regardless of their country of origin, have received the basic knowledge. However, the IMO does not cease to consider the education and training of seafarers to be vital, and at every meeting of the IMO Maritime Safety Committee it is a matter of debate, since it has been established that in maritime accidents the human factor is responsible for about 80 % and one way to reduce this percentage is to provide training. Both Greece and Europe and the international community, consistently strive to meet the requirements of the Convention and improve both the regulatory framework and the programs, resulting in officers and crews, combined with experience and practical knowledge gained on ships, to become experienced and trained seafarers for the safe operation of the ship and the protection of the marine environment, trusted by the shipowners of Greece and other countries.

Every seafarer on board must first have completed basic training in occupational safety, security, medical care and rescue operations to be prepared to deal with any emergency, that is, to be familiar with the ship. In the continuation of the work we will identify the seafarers' familiarization areas as defined by the STCW standards.

2. Certificates for seafarers

The term "certificates" covers all official documents required under STCW 2010 (Manila Amendments). Includes certificates of competency, visas, as well as evidence that the contract requirement has been met.

Certificates are the main evidence that a seafarer has to prove that his level of naval education and training, professional competence, good medical condition and age during his service at sea comply with STCW standards. Each contracting party should ensure that certificates are issued only to seafarers who meet STCW standards.

2. 1. Standards of competence

This term refers to the minimum knowledge, understanding and competence that seafarers must demonstrate in order to obtain certification. The tables in Part A of the STCW Code set out the competency standards that seafarers must meet. The rationale behind the division of all responsibilities, functions and levels of responsibility is that certificates should be issued on the basis of the seafarer's specific duties on board and not on the basis of the ship's parts (deck / engine room). The term "Competence" is analyzed by:

1. Definition (Column 1)
2. Knowledge, understanding and competence (Column 2)
3. Demonstration methods (Column 3)
4. Evaluation criteria (Column 4)

Certificate of competence: This document is a certificate issued and approved by the flag for GMDSS masters, officers and radio operators in accordance with the provisions of Chapter II, III, IV or VII of the Annex and which enables its rightful holder to serve in the capacity and perform the duties set out therein. It certifies that the holder has the required level of competency in a particular task, i.e. meets the

STCW competency standards in specific functions related to safety, personal care or cargo.

The term "Certificates" covers all official documents required under the STCW. It includes certificates of competence, endorsements, proficiency, special certificates and any other proof that a requirement of the contract has been met. Certificates are important as they are the main evidence a seafarer has at his disposal to prove his level of naval education and training, length of service at sea, his professional ability, his medical fitness and his age. Comply with STCW standards.

- Certificate of Proficiency: It is issued by one administration as a formal recognition of the validity of the certificate issued by another administration. According to the 2010 amendment, Regulation I / 2 has been changed and all seafarers serving on foreign ships must obtain approval. In most cases, they will have to pay a processing fee that will vary depending on the type of certificate approved and the fees charged by different administrations. An STCW recognition approval can only be issued by an administration provided that the certificate recognized is in accordance with STCW requirements and the original of the certificate presented is genuine.

- Endorsement: A document issued to masters and officers, either as part of the certificate or as a separate document certifying that the national certificate has been issued in accordance with all STCW requirements. Otherwise, it is the recognition of a certificate by the flag. Some flags require approval for the entire crew.

- Endorsement of recognition: this document is issued by a flag as the official recognition of the validity of a certificate issued by another flag. This process is necessary as many merchant fleets are manned by seafarers certified by other flags. In other words, if the seafarer has a certificate from country "x" but serves on a ship registered in country "y", then he must apply to the maritime administration of country "y" for a certificate allowing him to serve ships registered under its flag.

To receive endorsement of recognition, the seafarer must submit the original or a copy of his national certificate of competency to the representative of the issuing flag. A seafarer may not apply for an endorsement on the basis of another endorsement. Most flags will require a fee that will vary depending on the type of certificate approved and the charges set by different flags. If he works, the employer (shipowner or manning agent) will normally take care of all the necessary bureaucratic procedures and remuneration.

Although not a requirement of the contract, there are some flags that now require a certificate of employment as part of the supporting documents of an application for endorsement of recognition. The way documents are submitted varies from administration to administration. While some flags will accept a postal application and copies of the documents, others will insist that the sailor appear in person with all the original documents. These personal applications are submitted to a representative of the flag at a competent office, eg a consulate.

An endorsement of recognition may only be issued by a flag provided that the recognized certificate has been issued in accordance with STCW requirements and the original certificate presented is genuine. This means validation / certification. To verify that the certificate in question has been issued in accordance with all the requirements of the Convention, a flag may inspect the training facilities and certification procedures of another flag.

To verify that the certificate is authentic, documents submitted to a foreign administration will be checked for authenticity (this will include a visual check to verify security features such as a certificate number or other details, by email). The verification process may take some time, so the flag will issue a letter stating that the application is being processed. Upon presentation of this letter the seafarer is able to serve on board a ship registered under the flag processing the application for a maximum period of three months.

In practice, an officer submits his Greek certificates to a company, which promotes them under the Maltese flag for an endorsement issue, which takes three months to issue. In the meantime, a seafarer may board a Maltese-flagged ship without being illegal, and bring with him, either the original or a copy, the "Acknowledgment of application", which is a temporary certificate of identity until the endorsement is issued.

- Special certificates: These are documents issued to the seafarer to certify that he has met the required competency standards in a particular task. They include certificates for personnel serving certain types of ships (tankers, Ro-Ro passenger ships and other passenger ships) as well as for persons with safety and pollution prevention duties. Ensure that the holder meets STCW proficiency standards in specific functions related to safety, personal care or cargo.

- Documentary evidence: It is a document that is not necessarily issued or recognized by the flag (and therefore not called a certificate). Documents issued by the shipowner or master of the vessel to certify that the seafarer has participated in safety exercises or completed some type of training (eg familiarization courses) are examples of documentary evidence. It is important for seafarers to keep these documents as a means of proving that they are proficient in a particular task (eg basic safety training). Under the amended STCW 2010, all seafarers must meet the minimum standards of competence, age, medical ability and approved maritime service. These standards are set by each national administration, but must at least reflect the standards of the amended STCW 2010. The certificates that a seafarer is required to maintain depend on his classification, the responsibilities assigned to him and the type of vessel on which he is signed.

Example: If a seafarer is a watch-keeping officer working on a chemical tanker and his duties include being the crew of a fast rescue boat, then he should hold certificates covering all these aspects. The same applies to a member of a crew (Rating) serving on Ro-Ro ships with designated safety duties or to a bartender working on a passenger ship and assigned to assist passengers in an emergency. The "Security awareness" certificate has no value. Since all crew members have emergency duties, the "Security designated duties" certificate is required. Before joining a ship, a seafarer must make sure that he has all the valid certificates he needs to cover the functions he will perform on board.

These documents demonstrate its capability and will be subject to inspection by the master, flag State and port State inspectors and are related to the company's ISM

system. To obtain STCW 2010 certification, a seafarer must first successfully complete a flag-approved training program or complete an approved maritime service period. Most certificates will require a combination of both. Some training may be provided at sea, but for more specialized and longer courses you will need to attend an onshore training. Certificates are issued as soon as they are able to demonstrate their competence and knowledge of the duties covered by the certificate, and to the required standards.

Shipowners should be aware that between 1 July 2013 and 1 January 2017 all seafarers must receive additional training in accordance with the provisions of the Manila 2010 amendment to the STCW International Convention. However, many sailors were on ships very close to the deadline (January 1, 2017) with the result that their certificates have not been renewed according to the Manila 2010 amendment. If we add to the above the delays of the flags towards the issuance of new certificates then the number of seafarers without the necessary updating of certificates is increasing more.

In view of the difficulties that will arise in the near future during the control of ships by the port states (PSC) whose officers according to the current institutional framework consider January 1, 2017 as the deadline for the International Maritime Organization (International Maritime Organization - IMO) through the Maritime Safety Committee (MSC) issued the circular MSC.1 / Circ.1560 according to which the Officers of the Port Authorities (PSC) are required to carry out checks on the certificates of seafarers, considering the 1st July 2017 as the most realistic deadline for compliance of seafarers and flag States with the Manila Amendment 2010.

Seafarers who are not provided with the appropriate certificates must attach to the existing certificates the IMO circular MSC.1 / Circ.1560 in order to facilitate the control in order to avoid arrestment of ships or any other action by PSC officers. The IMO circular in any case should not necessarily be considered binding by the port states and it is advisable long before the expiration date and on the second date for shipowners to ensure that the seafarers on board their ships are provided with the certificates required for compliance with the above amendment of the STCW contract.

3. Familiarization Training

The STCW International Convention, which aims to ensure that seafarers are aware of the hazards on board and respond appropriately in the event of an emergency, requires seafarers to be provided with "familiarization training" and "basic safety training" , which includes basic firefighting knowledge, basic first aid, personal survival, personal safety and social responsibility.

Every seafarer on board must first have completed basic training in occupational safety, security, medical care and rescue operations to be prepared to deal with any emergency. The officers in the certification of their suitability for the position of Captain, must have completed a training that will comply with the requirements of specific chapters of the International Convention on the Training and Certification of seafarers. In more detail, the specific chapters mentioned above are analyzed as follows:

3. 1. Basic Safety Training

It is a single and indivisible course of study consisting of independent areas that relate to the basic safety and rescue knowledge that every seafarer intending to board a ship must have. According to the provisions of both Greek and international regulations¹² it is obligatory even for the junior crews to have completed the specific training before requesting the publication of a nautical booklet to travel. Regarding the diplomas given to the seafarer's, after the end of the training the seafarer's are granted official certification that they have successfully completed the Basic Cycle. In Greece, however, a certificate is issued by the School of Rescue and Firefighting, which includes among the Basic Cycle and other areas of education, such as Ship Safety, Rescue, Advanced Firefighting and First Aid, which are analyzed in the following subchapters.

When every sailor watches a training course is stamped on the Certificate by the competent Authority of the title of the course attended. As regards the duration of this certificate, under the new amended provisions, each seafarer is required to undergo a knowledge update every five years. A basic condition for the candidate to apply for modernization monitoring is to have a certified maritime service of at least three months within the last five years.

The first independent area concerns individual survival at sea¹³, where the goal is for every seafarer to be able to survive, if required, when forced to leave the ship and find themselves at sea. More specifically, to be able to wear his personal life jacket, to wear and use a immersion suit, to jump safely in the water calculating the height, to be able to swim while wearing a life jacket or to float without a life jacket, to restore an inverted wind instrument wearing his life jacket, board a lifeboat while wearing his personal life jacket, be able to do the right thing when boarding the lifeboat to increase the chances of survival and know how to use the equipment inside it, and finally, to use a floating anchor and tracking devices. In other words, the trained sailor learns the safety instructions to be familiar with, the differences between lifeboats and rescue boats, as well as the types of lifeboats, so that he knows how to use each one properly. In addition, they are trained on the alarm signals and how each one should be treated.

Learns to know well the use of life-saving equipment carried by ships, the equipment of lifeboats, the location of life-saving equipment and, above all, the principles governing rescue, including the value of gymnasiums, personal clothing and safety equipment . At the same time, the training aims to familiarize each sailor with their turn actions and procedures followed in case of danger, always observing the safety rules. That is, collecting the stations where the lifeboats are located, the correct abandonment of the ship, the procedures to be followed when the boat is now in the water, the identification of the risks after the abandonment of the ship, the treatment of panic and the principles of survival at the sea. He is trained in the use of life jackets, thermal protective aid (TPA) and immersion suits, in launching lifeboats and free-falling boats, controlling the flow of the boat at sea using either a parachute flares or an anchor, the use of positioning devices including the vhf.

What is most important is the right time and the correct sequence of procedures that combined with the method will ensure rescue and survival in situations of danger and emergency. The second independent cycle is related to fire prevention and control. In this course, the goal is for every seafarer, when informed of an emergency, to be able to react, fully complying with accepted practices and procedures.

More specifically, the seafarer should be able to recognize danger and concentration signals, to do the right thing in the signal he perceived, to be properly trained to use different types of fire extinguishers, independent breathing apparatus, to put out smaller fires, can recognize when to put out fires with water, foam, dust or any other chemical, be able to put out fires indoors by wearing an independent breathing apparatus, deal with oil fires, use dry dust or foam for firefighting and finally, be able to carry out rescue in a smoky area. The training includes general knowledge regarding safety instructions, compliance with safety rules, fire theory, its components and what are the sources of ignition. At the same time, the seafarer must be trained in the properties of flammable materials and temperatures which are marginal for each of them.

At the same time, fire has modes of transmission and is also classified into categories according to its firefighting modes. Therefore, the trainee must learn to distinguish the different types and the causes that caused it, so that he is able to fight it before it spreads. Equally important, however, is the protection of the ship from fire, which is achieved by well-structured ship fire protection systems, both active and passive, by properly constructed and updated ship fire protection plans, by crew patrols, by automatic fire detection systems and from the adequacy of firefighting equipment on board and finally, frequent on-board training to comply with the action plan in the event of such a phenomenon. The third cycle concerns basic first aid.

Due to the fact that an accident or illness can occur inside the ship, the regulations stipulate that every sailor must know basic first aid in order to be able to take care of himself and the rest of his colleagues. The goal is once the training is completed to be able, initially, to choose the appropriate way and time to call for help, taking into account the nature of the accident and the need for medical care. Also, be able to determine as quickly as possible the probable cause, nature and extent of the injuries, in order to decide the priority of the actions that should be taken. Finally, every sailor

must be able to care for injuries properly and reduce the risk of consequent injuries or consequences. In more detail, the trainee in this field learns about the anatomy and physiology of the human body, as well as elements of the functioning of the most basic organs of the human being. In addition, he is informed about common situations he will be called upon to deal with, such as fainting, shock, drowning, bleeding, whether internal or external, injuries and burns, injuries, fractures, heat stroke, cold stroke, poisoning, hypoglycemia and electric shock. She is trained to recognize for each of these causes, the symptoms and how it is treated. At the same time, he learns to inject and use the first aid kit. Overall, that is, after the end of the course, to be able during his contract on the ship, to be well trained for the basic principles of first aid.

The fourth and final area of the basic cycle is personal safety and social duties. This is an area that includes, on the one hand, the seafarer's compliance with established emergency response plans and procedures, the ability to detect emergency alarms and take the right steps when doing gymnasium. On the other hand, it includes the seafarer's awareness of its obligations regarding pollution, safety, prohibitions on alcohol and drugs and the importance of communication and harmonious cooperation with other crew members. In detail, his training includes the basic precautions that must be taken before entering in an enclosed space area, the most important safety devices of the crew and their use, the actions that must be done in cases of danger and the relevant alarm is heard, the emergency signals and the specific tasks as set out in the special tables, the importance of complying with the protection work required by the relevant international conventions.

Also, the course and the basic elements for the marine environment and its protection are not missing, such as the actions for prevention of pollution, the effects of possible pollution of the marine environment and how the biodiversity is affected. Also, in the part of cooperation and communication, the topics taught by the trainee concern the necessity of maintaining cooperative relations, individual rights, the importance of keeping and understanding the commands and the responsibility for severing good relations between crew and third parties., such as passengers. The last part concerns the policy on drugs and alcohol, which are strictly forbidden in terms of possession and taking.

They are trained in personal hygiene, hygiene practices, fatigue control, the importance of protecting the body from overwork and stress, adherence to schedules, protection against communicable diseases and infections, and generally everything that ensures a better and, in particular, a better standard of living on board ships.



3. 2. Rescue and speed rescue boats

A prerequisite for seafaring is the good knowledge and ability of lifeboats, lifeboats and rescue boats, which is the content of the two courses of knowledge in which seafarers are trained in accordance with the regulations. Upon completion of the training, the sailors are certified for the successful monitoring of the cycles with relevant certificates. In Greece, these circles are included in the certificate of the Rescuers, which was mentioned above and with the completion of each cycle , the said title is sealed respectively by a competent authority. The first cycle concerns advanced knowledge in rescue media. The conditions that each candidate must meet are on the one hand, to have completed the 18th year of age and on the other hand to

have 12 months of maritime service or to have attended a training program combined with maritime 6 months service in special schools.

More specifically, a seafarer should be able to take on duties on a lifeboat or rescue boat during and after landing, as well as be able to operate the lifeboat engine. The knowledge required for the above-mentioned skills is a good knowledge of the construction and equipment of the lifeboat and rescue boat and the individual components of their equipment. Particular characteristics and installations, different types of devices and methods used for launching lifeboats and resuscitating them after launch in the wild sea, risks associated with the use of load-releasing devices and a good knowledge of maintenance procedures.

In practice, the above knowledge is shown when: First, when the seafarer while wearing a life jacket, is able to return to the correct position an inverted rescue plans. Second, when it recognizes the importance of the various indications on lifeboats, in terms of people who fit and other issues of safe operation. Thirdly , when it is able to give proper instructions for launching and boarding the lifeboat, the safe evacuation of the ship and the management of the people until they disembark. In addition, prepare and launch or return rescue vessels, whether under load or unloaded, be able to collect lifejackets and embark lifeboats safely, having the ability to reposition release mechanisms with or without load. Also, a very important element is the propulsion required to navigate the lifeboat and the maneuvers that will be required, as well as the knowledge of starting and operating the engine mounted on an open or closed lifeboat. For their navigation, every sailor must know how to row and steer a boat, be able to steer with the help of a compass, be able to use tracking devices and portable radio equipment, use signal equipment, and manage injured people during and after abandonment, using the first aid kit. All of the above are needed in order to be able to manage emergencies.



3. 3. Advanced Fire Fighting

Seafarers assigned to control firefighting must first have completed specialized training in firefighting techniques with particular emphasis on organization, strategy

and control in accordance with STCW. In case this training is not included in the diploma of suitability then a special certificate is given by the special schools. In Greece, it is included as a title in the certificate of the life saving and fire fighting appliances. The goal is for the trained sailor to be able to take all the necessary actions to deal with fires. This means that he is able to have made a correct and complete assessment of the events, taking into account all the information and to be able to be familiar with the order of priority, the time and the sequence of actions to be taken. It is equally important to convey information promptly, accurately and clearly, identifying the causes of the fire and evaluating the effectiveness of firefighting measures.

The ability to assess the situation, however, requires knowledge of fire theory, the elements of fuels, whether solid, liquid or gaseous, the conditions for fire to occur and the factors that affect it, such as oxygen, heat, combustible material and extinguishing materials and the characteristics of flammable materials. What is particularly important is proper training in safety and precautionary instructions and training and organization of the fire crew. Firefighting is influenced by factors that must be taken seriously, as well as the risks posed by the occurrence and spread of fire. In this cycle he is also educated about the health problems that can be caused by fire and how they are treated, whether it is burns, hyperthermia or poisoning.

To meet proficiency standards, seafarers assigned to control firefighting must attend a training program.

- The certificate or proof must be validated every five years.
- Competence can be achieved with a course offered by a recognized educational institution or by a recognized on-board training course.
- The persons concerned are holders of operational level licenses and other crew members who perform basic functions in the field of firefighting.
- No special approval is required for the course, but it is a flag decision. After attending the course, participants should be able to take on the functions, duties and responsibilities.
- STCW-95 certified officers have this function included in the certificates. their. Others will receive a special certificate or document.



3. 4. Medical First Aid and Medical Care

On each ship all seafarers must have basic training in basic first aid to be able to cope with emergencies of illness or injury. At the same time, specific officers are defined as responsible for medical and pharmacy issues, who receive additional training and a prerequisite is the possession of the appropriate certificate of fitness.

The persons concerned are the crew members responsible for providing first aid in the medical field, the ordinary holders of operational diplomas and the crew members performing duties in the field of first aid on the ship. Persons designated to provide first aid on board, other than officers and therefore eligible for this responsibility, could be e.g. the bosun, ab/s or similar persons.

The certificate or proof must be validated every five years and competence can be achieved with a course offered by a recognized educational institution or hospital. Officers certified under STCW-95 have this function included in their certificates. Others will receive a special certificate or attestation after proof of competency is provided by examination or demonstration. The form of this proof must be determined by the State issuing the certificate or proof.

The persons concerned are the crew members who are responsible for medical care on board, usually holders of diplomas at operational or management level. The persons designated to provide medical care on board are generally the Captain and the Chief Officer. The certificate or proof must be validated every five years. Competence can be achieved with a course offered by a recognized educational institution. Holders of diplomas are advised to undergo additional training, preferably in a hospital. Officers certified under STCW-95 have this function included in their certificates. Others will receive a special certificate or proof of competence provided by examination or demonstration.

Seafarers are trained in first aid in the following areas:

- i. Using the first aid kit.
- ii. The anatomy of the human body and its functions.
- iii. The toxicological hazards posed on the ship. To respond to these hazards, follow the Medical First Aid Guide for Accidents involving Dangerous Goods (MFAG)
- iv. Spinal cord injuries.
- v. Examination of the patient or the injured.
- vi. Burns, and the effects of cold and heat on the human body.
- vii. Fractures, dislocations or muscle injuries.
- viii. Pharmacology.
- viii. Proper sterilization.
- ix. The medical care that the rescued people need.
- x. The reaction to cardiac arrest, drowning

Medical care, on the other hand, concerns a special training that the Chief Officer and the Master undergo and must have the appropriate certification of suitability. Above all, these two officers are required to be fully trained in health, to be able to recognize the symptoms of disease, based on clinical examination and medical history, to recognize the change of symptoms, whether it worsens or improves the condition, and to know from pharmacology, to be able to administer drugs and at appropriate dosages. In any case, the Master or the Chief Officer is called to be calm, reassuring, confident and unwavering personal attitude, cool and fully informed and familiar with health and care issues.

The range of knowledge on medical subjects is wider and more specialized, while the training is renewed every five years, in order to modernize and renew the knowledge. Basic skills acquired are on the one hand the medical care of the sick and injured for the entire duration of their stay on the ship and on the other hand, the ability to participate in coordinated medical assistance programs on ships. Knowledge includes:

- i. Care in case of accident. This involves injury to the head or spine, nose, neck, ears or eyes. In addition, it concerns internal and external bleeding, burns, frostbite, dislocations, muscle injuries, wound care and healing, infection care, wound suturing techniques, dressing, pain relief, treatment of acute abdominal problems and the ability to perform microsurgical treatments.
- ii. The principles of nursing. More specifically, the Master or Chief Officer must have good knowledge and familiarity with the basic principles governing nursing care and with the required actions and processes for patient safety and care required.
- iii. The medical conditions and sudden critical situations caused by sexually transmitted diseases, tropical diseases and infectious diseases.
- iv. The effects that alcohol and substances have on the body, either as isolated cases or as an addiction and the right reaction to the sufferer.
- v. Dental care.
- vi. The basic principles of gynecology, pregnancy care and delivery.
- vii. The actions to be taken in case of death at sea.
- viii. The medical care of people who have been rescued from an accident at sea or from a shipwreck.
- ix. The general principles of hygiene.
- x. The right way to vaccinate.
- xi. The basic principles for disinfection and disinfestations.
- xii. Maintaining a medical history in accordance with international and national medical regulations

In addition, Ship Master should be able to accept external assistance in cases of medical need. For example, to receive remote medical advice from a doctor or hospital while in the middle of the sea, or to report an incident to the local port or

medical authorities or to talk to an outpatient specialist at the nearest port for instructions and arrangements. the transport and hospitalization of a member of his crew who is ill or injured.

All the above communications should be made via wireless or e-mail and this implies the ability of the Master to describe the complete picture of the situation accurately and then to be able to immediately understand what is being said and to practice it successfully. It should also be able to manage the safe transport of the sick or injured to land, even if this requires transport by ship by helicopter.

3. 5. Basic safety familiarization

Basic safety familiarization provides information and guidance on what seafarers should do in an emergency. Before being assigned to a ship, seafarers must receive either approved training in personal survival techniques or sufficient information to be able to:

- communicate with other persons on the subject of safety
- know the procedures in case a person is found at sea, fire or smoke detected and abandonment of the ship
- locate assembly and boarding stations
- identify escape routes,
- locate and tie lifebuoys,
- use fire extinguishers,
- take immediate action in the event of an accident or other medical condition

Note: Basic training in training is different from basic safety training.

3. 6. Security Training

The 2010 amendments are characterized by:

- Integration of training requirements and certification of ship security officers, as defined in the International Ship and Port Facility Security Code ISPS.
- Introduction of new familiarization and training requirements for other categories of ship personnel. Seafarers will already be able to comply with these new safety requirements through maritime services, performing security duties, approved tests or approved training. However, after January 2014, seafarers had to be trained in safety in accordance with the new provisions of 2010. As a result of these amendments, Chapter VI of the Convention and the STCW Code were revised.
- Incorporate new elements against piracy and armed robbery into these requirements for security training in response to the growing number of armed attacks.

There are basically four levels of safety training and depending on the tasks assigned to them, seafarers should have the appropriate qualifications. All seafarers must receive safety training or instruction, which can be carried out on board or on land. This is common and does not differ by ship type and should only be completed once. All persons on board, except passengers, must receive safety training prior to being assigned duties on board, enabling them to:

1. Report a safety incident, including a threat of piracy; or armed robbery or assault.
2. Know the procedures to follow when recognizing a security threat
3. Participate in emergency procedures related to safety.

This training should be carried out by the ship security officer or an equally qualified person. Due to the special nature of the ship, it must be carried out every time someone arrives on a ship for the first time or if there are changes in safety procedures on board. It should be emphasized that this type of training is also necessary for other personnel involved with the ship, such as supervisors, auditors and other visitors.

Sailors assigned to security duties, including activities related to the fight against piracy and armed attacks, are required to demonstrate new skills as defined in the STCW Code.

Even if a crew member only has a duty to perform such tasks occasionally, this level of safety training is still required. Ship security officers (as defined in the ISPS Code) are required to demonstrate more advanced skills as defined in the STCW Code, including the fight against piracy and armed attacks. A certificate of competency must be issued.

Tanker Requirements

The 2010 Manila Amendments have introduced significant changes to STCW Chapter V on tanker training. The STCW Code includes comprehensive Adequacy Tables for tanker operations carrying petroleum, chemical and gas at a basic and advanced level.

Basic Tanker Training

Officers and crews who have taken on specific duties and responsibilities related to cargo or equipment in oil tankers or oil tankers of chemicals should now have a basic training certificate for oil tanker and tanker companies. Virtually all officers and special ranks with any task related to transporting oil, chemicals or liquefied petroleum gas should follow relevant basic training, as set out in the Schedule of Competencies contained in Chapter V of the STCW.

To achieve this certificate in basic training, seafarers are required to have at least 3 months of maritime service for the relevant type of tanker and to meet the standard set out in the relevant Competency Schedule. Alternatively, a basic training course in oil, chemical or liquefied gas, as appropriate, may be conducted, which has been approved by the state to meet the required competency standards.

Advanced Tanker Training

STCW requires masters, first engineers, chief officers, second engineers and anyone directly responsible for loading, discharging, transit care, cargo handling, tank

cleaning or other Cargo transport operations on oil tankers, chemical tankers or liquefied gas tankers must hold the relevant certificate for cargo operations on tankers (tanker cargo operations). The STCW Code contains guidance on the concept of direct liability: "Responsible person" means the person who makes decisions regarding loading, discharging, care during transit, handling of cargo, cleaning of tanks or other cargo-related transport operations. [STCW Code Section B-V / 1].

It is therefore reasonable to assume that all decision makers during cargo operations should have advanced training.

To achieve advanced certification there are two options available:

1. After completing the approved training that meets the required competency standards (and meeting the requirements for basic training), the seafarer must obtain at least 3 months of approved seagoing service in the appropriate type.
2. Recognizing the benefits of on-board structured training, seafarers who meet the above requirements can reduce their offshore time requirement to 1 month, provided that they perform at least three loading and unloading operations during that period and that their training is documented in an approved training record book, taking into account the instructions in Part B of the STCW Code.

In practice, it is unlikely that seafarers will complete all the required training with just one month of maritime service. However, the use of an approved training record book and the option to reduce the length of the sea should allow seafarers to achieve advanced certification in less time. It may also be advantageous to use an approved on-board training record book even if a quarterly program has been selected to ensure that a structured training is properly conducted and recorded.

Advanced certification will be either in the form of a certificate of competency, or by validation on an existing certificate of competency or competence. Extensive tanker training instructions are provided in Part B of the STCW Code GMDSS equipment and meet all its operational requirements. In addition, be able to provide wireless services in emergencies. To achieve this it must be able to search for and operate radio communications, including the procedures of the International Aeronautical and Marine Search and Rescue Manual. Also be aware of the ways to prevent the

transmission of false alarms by radio and the procedures for mitigating the effects of such hazards, such as abandonment, fire at sea or even partial or total collapse of the system. At the same time, he must know the ship's reference system, the medical services provided by radio, the use of the global signal system and the basic standard phrases of maritime communication. Finally, he must be fluent in English and fluent, both orally and in writing, in communicating and exchanging maritime safety information. The training is done in simulators and laboratories with wireless equipment. The aim is for communication between officers to be effective and in accordance with international regulations and procedures, ensuring that they handle all messages related to the safety of the ship and its occupants as well as the protection of the marine environment. Operational techniques include beacon indications, emergency response, receiving and sending NAVTEX messages, use of wireless rescue devices and of course radio frequency and frequency adjustment.

However, the persons most directly involved in the management and care of the special cargo, such as the responsibility for its loading and discharging, for the care of its transport, for the washing and maintenance of the tanks that are stored and transported and generally with any other function related to it, they will have to go through an additional, more advanced training. Such specialties are the Master, the Chief officer and the other officers of the Bridge, the Engineers A 'and B' Class, as well as the other officers of the Engine Room. The specialties must first have completed the basic training and then have a marine service in oil or chemical tankers, which will either last at least three months in the specialty, or last one month as a surplus specialty. meaning that the seafarer is enlisted as an additional specialty beyond the basic composition of the ship, having the character of a trainee, provided that he has participated in at least three loadings and three dischargings and that this service will be recorded in his training logbook.

4. Ship specific familiarization

This training gives seafarers the opportunity to learn about other parts and processes about the ship, such as:

- Radio communications and wireless operators
- Bridge simulator and harmonic team work on the bridge
- Electronic Chart Display and Information system (ECDIS)
- Cargo management

This training should be completed as soon as possible after boarding the ship and before assigning tasks.

4. 1. Radio communications and wireless operators

Mandatory requirements are set out in the Wireless Regulations and the International Convention for the Safety of Life at Sea⁴⁷. All directives have been adopted by the Global Maritime Distress and Safety System (GMDSS) related to the A3 and A4 marine areas as adopted by Resolution A. . The relevant minimum requirements regulations are IV / 1 and IV / 2 of the STCW Convention. The first regulation mentioned concerns the basic application of radio communication and stipulates that all deck officers must be able to perform the duties of radio operators if they serve on ships operating under the GMDSS system, as defined by the SOLAS 1974 Convention. seafarers serving on ships that do not comply with the GMDSS requirements of Chapter iv of SOLAS and perform the duties of a radio operator may comply with STCW Regulations but must also comply with the Wireless Regulations.

Also the flag to certify that their certificates of suitability are issued in accordance with the relevant Wireless Regulations. In order to serve as a pilot, seafarers must be at least 18 years old and have completed the relevant training. The regulations of paragraph IV / 2 state the minimum mandatory requirements for the certification of GMDSS radio operators. The minimum knowledge, understanding and ability required is that which will be sufficient for the proper performance of the duties, so that each officer can receive and transmit information, using the auxiliary systems and

the GMDSS equipment and meet all its operational requirements. In addition, be able to provide wireless services in emergencies. To achieve this it must be able to search for and operate radio communications, including the procedures of the International Aeronautical and Marine Search and Rescue Manual. Also be aware of the ways to prevent the transmission of false alarms by radio and the procedures for mitigating the effects of such hazards, such as abandonment, fire at sea or even partial or total collapse of the system. At the same time, he must know the ship's reference system, the medical services provided by radio, the use of the global signal system and the basic standard phrases of maritime communication.

Finally, he must be fluent in English and fluent, both orally and in writing, in communicating and exchanging maritime safety information. The training is done in simulators and laboratories with wireless equipment. The aim is for communication between officers to be effective and in accordance with international regulations and procedures, ensuring that they handle all messages regarding the safety of the ship and its occupants as well as the protection of the marine environment. Operational techniques include beacon indications, emergency response , receiving and sending NAVTEX messages, use of wireless rescue devices and of course radio frequency and frequency adjustment.

4. 2. Bridge simulator and harmonic team work on the bridge

This is a training program for officers that understands the operation of the bridge and the importance of harmonious cooperation between those who work there and the importance of proper navigation. provisions⁵². It combines the theoretical background, providing all the information and knowledge of the basic principles required for navigation and the planning of a voyage, with the practical part, through a ship deck simulator. Each trainee is familiar with the characteristics of both the bridge and the types of ships and the required basic maneuvers. Learns about the administration and management and how to inform about a voyage and how to report it. In addition, emphasis is placed on the proper planning of a voyage, informing

about the factors that must be taken into account. Such factors include weather, winds, currents, shallow water, narrow canals, shoreline morphology, and loading conditions. Thus, the future captain should be able to know how the above affect the voyage, how the rudder and the engine react when the conditions are not normal, how the anchoring and mooring process of the ship is affected. In addition, he is trained in the importance of the human factor in the ship's navigation and ways to manage it, while minimizing the rate of human error. In addition, a Captain is called upon to manage the cultural diversity of his crew, but also of the port workers he visits with his ship and is called upon to cooperate smoothly as well as different behaviors. Also, he must be properly trained to be able to make the right decisions and to be able to perform under situations of stress, pressure and fatigue, while he must be always ready to manage crisis situations and excessive workload in the best possible way. The aim is to better understand the importance of more efficient ship management procedures and the bridge watchkeeping , as well as the role played by proper planning and maneuver planning and the ability to plan an alternative route, which deviates from the planned, where deemed necessary. He is trained in practical issues, such as changing duties, how duties are done in different areas and situations and what he should pay special attention to in them. Recognize visual observations and interpret what it receives via radar, radio or nautical versions, and should be able to record all messages and changes to the ship's charts. In conclusion, the training concerns the safe management of the ship during navigation, regardless of the conditions, the proper distribution and use of the resources and equipment of the bridge and the utilization of the equipment.



4. 3. Electronic Chart Display and Information System (ECDIS)

This is a modern computer-based navigation system that complies with IMO regulations and modernizes and facilitates traditional chart navigation. The exact definition provided by the IMO is: "Electronic chart display and information system means an information system which, with adequate auxiliary settings, can be considered to comply with the updated maps required by Regulations V / 19 and V / 27 of the Convention for the Safety of Life at Sea (SOLAS 1974), displaying selected information from navigation sensors to assist the officer in planning and monitoring the course, as well as displaying additional information related to navigation, if required. " In other words, it is an automated system, which helps in making decisions for the determination and determination of the position of the ship, as well as for the routing, since it has the ability to be constantly updated and to give information about the land, the mapped objects, the invisible dangers. This system includes electronic maps and draws location information from the Global Positioning System and other navigation sensors such as radar, echo sounder and automatic identification system.

According to the STCW Convention, the training for this must be divided into two parts, on the one hand, the theoretical part and on the other, the practical one. At the end of the training, the officer will be able to operate the system in complete safety and to make the most of all navigation functions, to be able to collect information and considered it, to be able to deal with any malfunction that may occur. In addition, it will be able to correctly interpret the data output from the system and identify possible errors in them and in the interpretations of the displayed data and be able to explain the reasons why the ECDIS system can't rely on the only reliable navigation aid. In terms of theory, the learner will begin to become familiar with the safe use of the system having all the prerequisite knowledge to understand its basic principles and data. Also, be aware of all the definitions used, the commands and the possible errors that may occur in the displayed information, the limitations of the system as well as the possible risks. At the same time, you should be familiar with the navigation functions, their collection and evaluation information that will emerge, while still having to become familiar with how to connect man and machine



4. 4. Cargo management

This is a comprehensive, advanced training aimed at officers with direct responsibilities and responsibilities for loading, discharging and storing and transporting cargo on ships carrying their oil, chemicals and liquefied petroleum products. The seminar also includes interactive training in simulators and the material taught is in accordance with the requirements and guidelines of international conventions. The simulators create a working environment, which includes a load control station and loading and discharging models to train future officers in all related tasks. At the same time, they are invited to participate in such loading and discharging operations of cargo and ballast, calculating all parameters such as stability, longitudinal force, and ship trim.



5. Company responsibilities

The direct responsibilities of companies arise mainly from regulations I / 14, VI / 1 and VIII / 1: Training, certification, record keeping, information and renewal, special familiarity with the ship, crew coordination, communication, basic training in safety issues, basic safety familiarity for all sailors and identification of who is responsible. Regulation I / 14 contains the explicit new responsibilities of companies: As these provisions were recently added to the STCW Convention, they entered into force on 1 February 1997.

The functions of companies are generally set out in Annex 1, Chapter I, Reg. I / 14 and AI / 14 and BI / 14 in the STCW code. Corresponding reference to the ISM Code is made in paragraphs 6, 7 and 8 of the ISM Code. The provisions of section A-I / 14.1 clearly require the company to implement control procedures that will ensure the full implementation of the company's obligations arising from the STCW. In addition, it indicates the company's responsibility to organize training programs and information processes to provide a framework in which each crew member can know and be aware of the safe operation of the ship.

The obligation to take other necessary measures requires the company to identify vocational training needs and / or information gaps in order to know what measures may be needed. This requirement is closely linked to the existence of a security management system as required by the ISM Code and it is therefore likely that the implementation and existence of such internal control procedures will be closely monitored under the ISM Code certification process. Regulation VI / 1 of the STCW Convention stipulates that every crew member who has safety or pollution prevention duties must have evidence of completing basic safety training. This should actually include proficiency in rescue boats, fire fighting and first aid.

Regulation VIII of the STCW Convention contains specific requirements regarding the minimum rest periods for prison staff, as well as provisions for 101 | Page replacement of schedules and general prison standards to be followed. According to Regulation I / 14-1, the company is clearly responsible for ensuring that all seafarers on board have the appropriate certificates.

Therefore, it will be extremely important to verify that the certificates, visas, evidence, and in short, all professional competence documents, are valid and authentic.

This includes both certification and evidence of safety familiarity and additional approved training courses. According to Reg. I / 14-3, it is the responsibility of the company to keep at its disposal the documents and certificates of all sailors. This includes all documents that are summarized as evidence. In addition, medical records as well as any other training documentation and proof of previous experience. It is required by Reg .I / 2 paragraph .9 that all documents are available in their original form on the boat on which the legal holder serves. This includes the original of any training, certification or competency visa, documentation or proof, such as a training record book, etc. required by the Contract. Photocopies of certificates, visas or proof of education, etc. are not acceptable.

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