Training Courses Design Based on Ship Security Awareness and Responsibilities Resource Management

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Abstract. According to the content requirements of Ship security awareness and responsibilities training program, The teaching method of scenario simulation is put forward. The teacher uses the content of the lesson to set up the real simulated scene, Train the crew emergency training through the Ship security awareness and responsibilities course training platform. In order to improve the seaman's ship security and security capabilities, in the training, through the implementation of different tasks, strictly follow the relevant operation procedures.

Introduction

In accordance with chapter XI-2 of the SOLAS Convention and the provisions of the ISPS rules, The Crew must accept maritime security training as soon as possible in line with their security positions and regularly participate in ship security drills. In order to improve the ship's security capability, they must to Learn the knowledge and skills of maritime security. The SSO requests the crew to organize training for ship safety protection once a month. explanation and simulation exercises organizing the crew. The contents include the following items, Prevention of damage to ships or port installations, including malicious acts: Emergency handling of incidents of hijacking of ships or personnel on board, Personnel who prevent attempts to make use of ships for security incidents And their equipment aboard, How to avoid ships being damaged or destroyed weapons, etc. on-site security inspection, found that the existing defects and weak links, in view of the found defects and weak links to security risk assessment, risk supervision according to the rules, the complete security plan revision, ship operating environment changes, a new security assessment, and revision security plan according to the evaluation result, make the ship security assessment and security plan revision in the dynamic process and continuously adapt to changing operating environment may be the security risk. See figure1,ship security exercise assessment process.

![Figure 1. Ship Security Exercise Assessment Process.](image-url)

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Using Simulation Experiment Teaching Method to Carry Out the Ship Security Awareness and Responsibilities Teaching

The scene simulation experiment teaching method approach simulates the real scene by setting up scenarios based on what is relevant to the classroom, According to the position of the students, compile the test items that you want to adapt to the actual situation, the trainees will be arranged in a simulated environment to further test the trainees to deal with various problems that may arise, In a variety of ways to evaluate students’ abilities. The participants then play different roles according to the plot designed by the teacher and all participants are equal throughout the process whether they are trainees or teacher, In this way, we can express our views, experiences and puzzles as bold as usual Improve students' self-confidence and enthusiasm for participation. Take the suspected pirate boat approached the ship for imitation maneuvers as an example to illustrate the coordination and coordination among all the crew members. See Tab.1 Security training unit for ships.

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<th>second stage</th>
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<td>group 1 item 1</td>
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In table 1, for group is Ship's security exercise team. There are seven groups of 35 in one class. In table 1, the item 1.1 is Damage or damage to a ship or port facility, such as through an explosion, arson, destruction or malice .the item 1.2 is Hijacking or seizing a ship or crew, the item 1.3 is Damaged goods, key equipment or systems or materials of ship, the item 1.4 is Use or enter without permission, including the smuggling personnel hidden in the ship, the item 1.5 is Weapons or equipment including the smuggling of weapons of mass destruction and the use of vessels to carry out terrorist incidents, their equipment, the item 1.6 is Use of the ship itself as a weapon or method of damage or destruction, the item 1.7 is ships that have been docked or anchored at sea or sea attack.

Scenario Design

A ship sails regularly on the sea of Arabia at 15:00 on March 4, 2017. Radar shows a boat approaching the ship quickly, Students use what they have learned to practice. Teachers can make proper changes according to the original material collected in their role play and their own experience, so that they can be close to the real situation and can train the students with purpose.

Allocation and Grouping of Roles

Standard training number of 20 people, Can be divided into 2 groups, each group of 10 people, Anti piracy scheme. Anti piracy duty personnel placement, placement should be carried out according to the crew's physical strength, age, courage, ability and quality (Group), the group responsible for the personnel and the division of responsibilities to Ensure that all pirates are resistant to attack if they are attacked or transferred from all sides at the same time. Let each group discuss and determine the role of student simulation, coordinate with the teacher, and investigate the team work ability of the training team. Because it is possible for trainees to be reluctant to accept a role due to their own characteristics and to be forced to participate, and to exhibit stereotyped imitation and stereotyped behavior, which will directly affect the training effect of the whole team."Suspected pirate boat...
approaching ship simulation exercises” main characters: Captain, ship security officer, chief engineer, chief officer, Second officer and so on, each of them can multitask and role.

Scenario Analysis

When the students are assigned to the role, the teacher assigns the knowledge and skills that may be used in the situation, such as the duties of the security guard, the tasks of the inspector, and the responsibilities of the captain in the case of emergency. When the students are assigned to the role, the teacher assigns the knowledge and skills that may be used in the situation, such as the duties of the security guard, the tasks of the inspector, and the responsibilities of the captain.

Explain the steps of the simulation for different roles, and ask the participants to consider and predict the difficulties that may arise in the situation and how to solve them. To define the responsibilities of each group leader and personnel in order to ensure that all the pirates can withstand the attack if they are attacked or transferred from all sides at the same time. Inform all crew members of various anti piracy schemes, improve crew awareness, security skills, resilience, and a correct understanding of the fight against piracy. Anti pirate class is equipped with walk talkie, bring lash light and other security equipment.

Process Analysis

The captain shall hold meetings to collect and listen to information about pirates, to keep records and to inform the crew of the ship in connection with the ship's anti piracy information and requests. Send security classes, 2 people per shift, 24 hours on duty, something, dining, etc., need to temporarily leave the post, you must have someone to replace. In addition to the duty personnel, the rest of the staff to stop maintenance work, all-weather (24 hours) to participate in anti piracy duty. Each role serves as the captain's anti piracy alert through the whole ship broadcast system. The ship's driver is responsible for the recording. The security guards are in place to direct the ship's security decisions and report to the captain. The crew arrived at the designated location, on-site command security personnel call, check personal equipment and regulations to carry anti piracy equipment, the whole ship clear only two corridors, corridors on both sides of the channel, and the remaining closed. The boat around the main deck and living area two side and stern respectively prepared fire hose, ensure that each range are easily available (the fire hose, the deck department placed in advance).

The engine room starts with two auxiliary generators, and the fire pump is ready to start at any time (if possible, the cabin is controlled by the bridge)The bridge opens the fire pump immediately in case of trouble. The boat should have a fire axe, to cut decoupling equipment used in case of emergencies, And report to the captain. The captain analog power to the Shipping Co, ”suspicious pirate boats approaching ships”, and simulates the report to the competent authority in the area where the ship is located. The captain ordered the SSO to remove the boat from the work, and the patrol team arranged deck protection nets and empty oil drums, The captain simulated the report to the local authorities. At the same time, the ship received instructions from the authorities to send rescue forces to the ship.

The captain orders to look up at any time to see if there are heavy weapons and to close the doors and windows. Send an alarm and start anti piracy, the end of focus on the whole team.

Simulation Exercise

The student is the main character, and the teacher can observe and record each student's performance on each side, The best way is to take the whole scene down. So that the students after the simulation exercise, the teacher comments on the students one by one.

The captain gave the crew a meeting to explain the passage of the pirates, and Informed the crew of the anti piracy information and anti piracy requirements in time.

The crew collects and receives information about pirates and records them, you must have someone to replace. Except to the duty personnel, the rest of the crew stop working, all-weather (24 hours) to participate in anti piracy duty.
Under the unified arrangement of ship leader, all ship personnel should take an active part in anti-piracy work. Two days later, the scene of the situation. The Second officer on duty at 15:00 in the process, the radar found suspected a pirates boat approaching the ship.

The Second officer said to the SSO (chief officer), report to the SSO (chief officer). A boat is like a pirate ship approaching the ship.

Chief officer: received. Pay attention to where the boat going on and looking carefully

The chief officer said to the captain: report captain, received for the Second officer, a suspicious boat approaching the ship.

The captain returned: receive, pay attention to radar tracking it, uninterrupted, and if necessary, searchlights or sirens warning.

The chief officer said: Understand.

The Second officer said: report the captain, 15:05 warning invalid.

The captain said, Sound the whole ship warning, inform the whole ship crew by radio, and call loudly in the living area to assemble all the personnel to the emergency site.

The Second officer, receive, and then start the alarm device.

The captain said to the SSO, Inform the security patrol captain for horses and self-defense equipment etc. Strengthen vigilance The Second officer do a good job of recording.

Chief officer said: receive, all personnel attention.

The anti piracy squad stepped up patrols, found suspicious cases, reported the bridge immediately, and paid attention to the boat movements in the surrounding waters, Keep the radar, the radar range change frequently, pay close attention to the dynamics around the boat, the target is locked in time, Strengthen communication with anti piracy personnel on duty, and report immediately if suspicious targets are found.

The staff said: received!

The Second officer said to SSO: At 15:10, the telescope was carefully observed and found that the boat was armed.

The captain said: the bridge sounded the siren warning, and continued to use rudder to make it difficult for the pirates, so as not to allow the pirate boat to approach the ship:

The chief officer ordered: the driver on duty should strengthen the lookout, and the security patrol immediately put the relevant security equipment in place to prevent the pirates from going on board. The access doors on both sides of the ship's living quarters are unblocked (other closed), ensuring that the crew is able to move in and out in an emergency. Keep in contact, The situation is to be informed to the crew members immediately. The ship should remain the same speed as before. If the space permits, the ship may alter her course largely so as to get rid of it, preventing the unauthorized access. The situation should be reported to the CSO immediately.

Upon receipt of the order, the personnel were requested to carry out the order.

The chief officer said: please transfer the main engine to the control of the bridge

The Chief engineer replies: received, has been transferred to the control of the bridge."

The second officer said: Report the SSO, at 15:15 find that the pirates are approaching and are about to board and issue an alarm.

The captain said to the second officer, call the company and the international counter for piracy immediately, and start the SSAS alarm. Start DSC, VHF16 channels, satellites and other effective means to call for help, indicating the ship's situation. Cast rocket parachute flare into the air, if possible, the pirate ship and personnel on board to take pictures, to facilitate the outward report and later as evidence for arrest.

Chief officer said: attention of all crew! Quickly assembled to the pirates, attempted to board the wheel deck, and blocked the pirates with maximum strength and the shortest time. Once the pirate is thrown on the hook, the hook will be removed immediately. The use of high-pressure fire water and other security equipment impact and prevent the pirate ship near the ship and boarding. Protect yourself with terrain and good object boards, and attack with agility.

The staff said: received.
The patrol said: Several pirate hooks have been cut and protective measures are good, The chief
officer said, we should strengthen our protective measures to ensure our personal safety and prevent
armed pirates from shooting, Try not to hurt each other, to prevent retaliation, the purpose of all
actions is drive away, All actions must obey commands.

The captain of the patrol said, report to the captain, The terrorist or pirate is defeat and leave
Captain, OK, pay attention to observation and report frequently.

At 15:20, the captain and the ship security officer announced that the exercise finish and At 15:25,
Master and SSO comment the exercise.

Captain and ship security officer comment exercise Captain commented: this exercise, we
performed well. Continue to work hard later, control the pirate ship and the pirate beyond the ship's
side .Strengthen the inspection work, the pirates turned overboard, to ensure that all personnel on
board safety.

Assessment

The teacher observes and records the student's behavior and comments on his behavior, From the role
of students grasp, the role of behavior, interpersonal skills and other aspects. Give students marks and
point out deficiencies, the process of evaluation, the unexpected events and interference information
in the whole process of piracy prevention are proposed, For example, the treatment of injured persons,
etc, used to investigate the reaction ability of students, Using multiple events simultaneously to
investigate students' sorting ability, Finally the students are asked to sum up their strengths and
weaknesses.

Conclusions

Compared with the traditional classroom teaching, the simulated situational teaching method is more
specific and intuitive, and closer to the students' real life, Compared with social practice, it is more
flexible and more targeted.
It combines theory and practice completely, It can not only overcome the shortcomings of classroom
teaching, but also overcome the limitations of social practice. Its biggest feature is to make students
immersive, and feel the ship's emergency. Experience the risks and responsibilities of ship work, learn
management skills, and experience the power of teamwork.
The design is designed to train the demonstration courses of the ship security staff, which focuses on
the training of students, practical ability, and the actual situation of the seafaring personnel, and
further increases the understanding of maritime knowledge Broaden the students' horizons. In the
course of teaching, teachers should fully consider the students' level, highlight the key points and
difficulties, and combine their own experience and teaching skills to further improve the teaching
quality.

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