SEAFARERS TRAINING CENTER INC

PASSENGER SHIP CRISIS MANAGEMENT AND HUMAN BEHAVIOR TRAINNING

IN ACCORDANCE TO INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW), 1978, AS AMENDED

SCOPE

This course is mandatory minimum requirements for the training of personnel in crisis management during emergency situations on board passenger ships, as specified in section A-V/2-2 of the STCW code

OBJECTIVE

The general objective of this course is that the apprentices know the procedures when crisis management during emergency situations on board passenger ships

Specific objectives:

The trainees will acquire the following knowledge:

➢ Organized shipboard emergency procedures

➢ Optimize the use of resources

➢ Control response to emergency

➢ Control passengers and other personnel during emergency situations

➢ Establish and maintain effective communications

METHODOLOGY

Interactive-demonstrative classes, with support of bibliographic material and teaching Aids

ENTRY STANDARDS

This course does not have any specific requirement.

COURSE CERTIFICATE

On successful completion of the course, documentary evidence shall be issued certifying a holder´s acquisition of the mandatory minimum requirements and competence as prescribed in regulation V/2 paragraph 8 of the STCW convention, as amended

COURSE INTAKE LIMITATIONS

The maximum trainee-instructor ratio may be up to 25 to 1 for classroom #1 and 8 to 1 for classroom # 2

STAFF REQUIREMENTS

Normally, the course should be conducted by experienced instructors with knowledge of the shipping industry and experience in maritime education and training. It is recommended that at least one staff member must have received training in andragogy.

The instructor should:

- ➢ Adequate capacity of instruction and comply with the requirements of rule I / 6 of STCW 78 as amended (course IMO 6.09)
- ➢ Demonstrate competences in section A-V / 2 and in table A-V / 2-1 of the STCW 78 code (IMO course 1.42)

EVALUATION

It is carried out through practical and theoretical examinations.

Must attend 90% of the classes.

TEACHING FACILITIES AND EQUIPMENT

Ordinary classroom facilities and an overhead projector.

IMO REFERENCES:

STCW 78 AS AMENDED

SOLAS

BIBLIOGRAPHY

https://www.colorline.com/practical-information/safety-on-board

Course outline

Subject area	Time allotment (hours)	
Course introduction	Theoretical	Demonstration/ Practical work
1 Organize shipboard emergency procedures		
1.1 Elements of shipboard emergency procedures		
1.1.1 General design and layout of the ship		
1.1.2 Safety regulations		
1.1.3 Emergency plans and procedures		
1.2 Importance of principles for the development of ship-specific emergency procedures, including:		
1.2.1 The need for pre-planning and drills of shipboard emergency procedures		
1.2.2 The need for all personnel to be aware of and adhere to pre-		

planned emergency procedures as carefully as possible in the event of an emergency situation		
2 Optimize the use of resources		
2.1 Ability to optimize the use of resources, taking into account:		
2.1.1 Possibility that resources available in an emergency may be limited		
2.1.2 The need to make full use of personnel and equipment immediately available and, if necessary, to improvise		
2.2 Ability to organize realistic drills to maintain a state of readiness, taking into account lessons learned from previous accidents involving passenger ships; debriefing after drills		
3 Control response to emergencies		
3.1 Ability to make an initial assessment and provide an effective response to emergency Situations m accordance with established emergency procedures		
Leadership skills		
3.2 Ability to lead and direct others in emergency situation, including the need to:		
3.2.1 Set an example during emergency situations		
3.2.2 Focus decision-making, given the need to act quickly in an emergency		

3.2.3 Motivate, encourage and reassure passengers and other personnel *Stress handling* 3.3 Ability to identify the development of symptom of excessive personnel stress and those of other members of the ship's emergency team 3.4 Understanding that stress generated by emergency situations can affect the performance of individuals and their ability to act on instructions and follow procedures		
4 Control passengers and other personnel during emergency situations *Human behavior and responses* 4.1 Ability. to control passengers and other personnel in emergency situation, including: 4.1.1 Awareness of general reaction pattern s of passengers and other personnel in emergency s1tuattons, including the possibility that: .1 Generally it takes some time before people accept the fact that there is an emergency situation .2 Some people may panic and not behave with a normal level of rationality, that their		

ability to comprehend may not be as responsive to instructions as 1n non-emergency situations		
4.1.2 Awareness that passengers and other personnel may, inter alia:		
.1 Start looking for relatives, friends and/or their belongings as a first reaction when something goes wrong		
.2 Seek safety in their cabins or in other places on board where they think that they can escape		
.3 danger		
.4 Tend to move to the upper side when the ship is listing		
4.1.3 Appreciation of the possible problem of panic resulting from separating families		
5 *Establish and maintain effective communications*		
5.1 Ability to establish and maintain effective communications, including:		
5.1.1 Clear and concise instructions and reports		
5.1.2 Exchange of information with, and feedback from, passengers and other personnel		
5.2 Ability to provide relevant information to passengers and other personnel during		

an emergency situation, taking into account: 5.2.1 Language or languages appropriate to the principal nationalities of passengers and other personnel carried on the particular route 5.2.2 Possible need to communicate during an emergency by some other means, such as by demonstration, or by hand signals or calling attention to the location of instructions, muster stations, lifesaving devices or evacuation routes, when oral communication is impractical 5.2.3 Language in which emergency announcements may be broadcast during an emergency or drill to convey critical guidance to passengers and to facilitate crew members in assisting passengers		
Sub-total hours		
Total training hours	**16**	

Course Timetable

Period	Day 1		Day 2	
1st	Course introduction		3	Control response to emergencies
	1	Organize shipboard emergency		
2nd	2	Optimize the use of resources	3	Control response to emergencies
LUNCH BREAK				
3rd	2	Optimize the use of resources	4	Control passengers and other personnel during emergency situations
	3	Control response to emergencies		
4th	3	Control response to emergencies	4	Control passengers and other personnel during emergency situations
			5	

COMPETENCE #1

1. **Organize shipboard emergency procedures.**
   1.1 Element of Shipboard emergency procedures.

The elements of shipboard emergency procedures cover what to do in the event of an emergency situation. They can be broken down into the following components:
1. Discovery – first aid;
2. Containment – implementation of the Crew Emergency Plan (CEP);
3. Clean up – making the vessel safe; and
4. Incident investigation and reporting.

Each vessel/company should clear procedures and guidelines on how to deal with each of the four parts of an emergency in the Safety Management System (SMS). It is how well and quickly a crew can deal with an emergency in its initial stages that will determine if a major crisis will develop.

Discovery

Discovery is the initial identification and reaction to a potentially hazardous situation that left untreated would turn into an emergency or crisis situation. For example a smouldering cigarette thrown into a waste basket has the potential to become a full blown fire. If the person discovering the smouldering quickly douses the waste basket with water the risk of fire is eliminated. Using the same example, if the waste basket caught fire and the fire began to spread before being discovered, then fire detection systems would alert the bridge and shipboard emergency procedures would be employed to contain and put out the fire.

Containment

Next to early discovery, containment is the most important phase of emergency response. Early and efficient containment will normally stop an incident from becoming an emergency/crisis situation. Shipboard systems and design allow for containment of flooding and fire/smoke, which are the two worst hazards to be encountered. Containment is the overall responsibility of the incident/crisis management team. Containment is the systematic process of isolating an incident. Things that need to be taken into account are:
1. personnel containment – ensuring crew and passengers are in safe areas (muster points), deploying emergency response team to safe working areas;
2. area containment – shutting watertight/fire/smoke doors;
3. environmental containment – shutting down ventilation, setting up smoke boundaries, deploying SOPEP equipment, etc.; and
4. mechanical/electrical containment – shutting down and isolating equipment that has the potential to escalate the incident if left running.

If the incident cannot be contained, it is the responsibility of the Central Command Team (CCT) in the Bridge to plan, evaluate, decide and conduct evacuation of the vessel before the crisis becomes unmanageable and the ship sinks.

Regular practice and drills will develop teams to respond to and manage various incidents before they escalate into crisis situations.

Damage control

Damage control is the process of making an incident site safe. It can be conducted during the containment phase or after if there are multiple incidents. The amount of damage control is limited by the number of crew and or equipment available. Damage control may involve:

1. ballasting to maintain stability;
2. extinguishing a fire sufficiently to mitigate chances of reignition;
3. pumping out flooded spaces and shoring hull breaches;
4. ventilating and testing atmosphere – in smoke or toxic gas environments;
5. isolating broken pipe lines, checking cargo stowage; and
6. containing and clean-up of spills.

Again, regular practice and drills will train teams to respond to and manage various incidents before they escalate into crisis situations.

Incident investigation and reporting

Incident investigation and reporting is a major part of the emergency response plan as it will identify root causes of incidents and provide controls to ensure the incident will not be repeated. This information should be disseminated across the industry to alert and advise others of the potential risk. In the event of a crisis situation, independent bodies should conduct investigations. For example, the Marine Accident Investigation Branch (MAIB) was established in 1989 following the MS Herald of Free Enterprise disaster, wherein a passenger ferry capsized off Zeebrugge, leading to the loss of 193 lives, many of them British citizens.

1.1.1 General design and layout of the Ship.

.1 Describe the general design and layout of the Ship.

The International Convention for the Safety of Life at Sea (SOLAS), 1974, is subject to a continuous amendment process. This is mentioned because SOLAS is continually evolving and Incident Management Teams should be aware of the latest changes.

SOLAS provides clear requirements on ship design, construction, Emergency Response Equipment and Life-Saving Appliance (LSA).

In essence, ships are constructed with "containment" in mind. As described earlier containing and incident means survivability for the ship. How is this achieved? By constructing water tight compartments, double bottoms and different class of fire/smoke doors.

Watertight compartments have doors leading in and out; these doors can be operated remotely from the bridge, locally at the door itself (hydraulic) and from the emergency hand pump control station. The idea is to stop water from passing through the compartment and creating stability issues. It is a command decision to operate watertight doors. Personnel need to evacuate quickly

from a compartment or run the risk of being locked in. Another consideration to make when operating water tight doors is that it restricts access for damage control purposes. So in a flooding crisis management scenario, key things for the incident manager to think about are:

1. number of personnel in the affected compartment and evacuation;
2. stability and trim;
3. when and how to shut doors – access issues; and
4. bilge pumps and suctions.

Double bottoms were mandated for new build tankers to reduce the risk of environmental contamination in the event of a collision or grounding. The idea being any damage to the hull structure would contain flooding and oil spillage via the double bottom arrangement. So in a crisis management collision / grounding scenario key things for the incident manager to think about are:

1. stability and trim;
2. containment of cargo, ballast and bilge water;
3. SOPEP equipment and dispersants; and
4. notification to local authorities.

Fire continues to be the greatest risk to a vessel. Ships are mandated to have detection systems and fixed fire suppression systems normally located in machinery/ electrical spaces. Vessels are divided into fire zones. This enables the CCT to locate and monitor spread of a fire. Zoning is effective when deploying Emergency Response Teams (ERTs) and mechanical and electrical isolations, as equipment and safe working areas can be identified quickly. One of the biggest killers in a fire is smoke or gas inhalation. The zoning concept works well to identify access points and more importantly smoke boundaries that, if maintained well, will contain smoke/gas to the affected area. If not managed well, smoke will spread and endanger personnel. Lastly, zoning provides good information on where to set up boundary cooling hoses to limit the radiated heat from a fire. So in a crisis management scenario involving fire, the key things for the CCT to think about and employ as quickly as possible are be the following:

1. identification of the source and size of fire;
2. identification of the zone/location;
3. identification and shutdown of ventilation (to the affected area at least) mechanical and electrical isolation where needed;
4. identification of a safe working area and deployment of the ERT to it;
5. setting up smoke boundaries and isolation of the zone; and
6. setting up boundary cooling, where needed.

Major crisis types

Major crisis onboard vessels arise from individual incidents that have a flow on effect that ultimately affects the stability and trim of the vessel or the habitability. No one crisis will be the same as the next. How the initial incident is responded to and managed generally averts an

escalation to a major crisis. So, a major crisis can be one or multiple events that happen due to an incident. These are but not limited to;
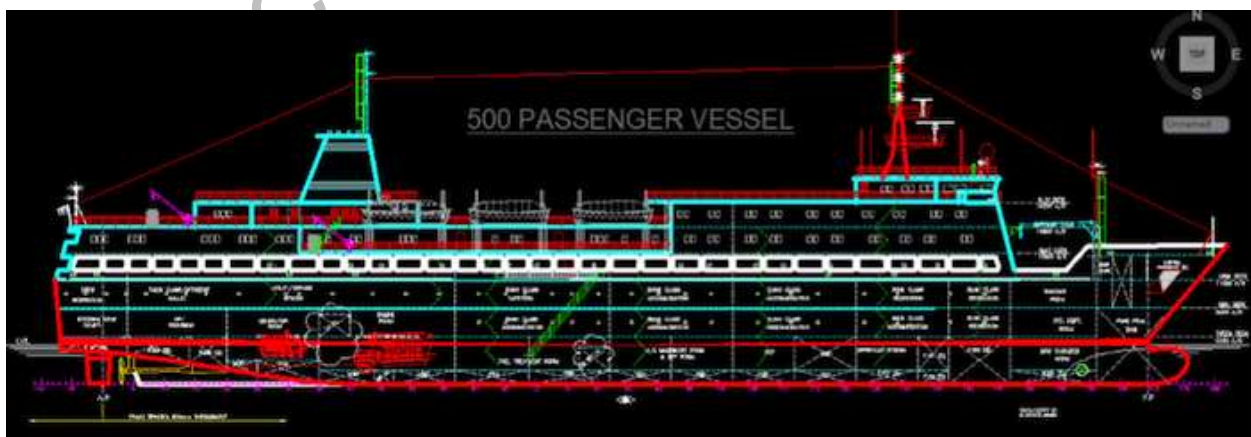
     a. Fire/Explosion
     b. Flooding
     c. Collision
     d. Grounding
     e. Foundering
     f. Blackout/mechanical failure
     g. Toxic gas
     h. Mass casualties

When a new ship is designed, one of the primary steps involved in the development of the concept, is designing its General Arrangement and allocating proper spaces according to the requirements of the owner and functionality of the ship. It is up to the naval architect to decide on the ship's general arrangement, depending on many design constraints that are mentioned in the technical specifications of the contract.

So how exactly do you decide on a ship's general arrangement, and design the most optimum one for that particular project?

Since almost all ships have something unique in their general arrangement, there is no specific procedure with rules stated for the same. But in spite of that, a naval architect needs to know the basic procedure to follow in order to come down to an optimum design. In this article, we shall discuss a general procedure that is followed in the ship designing industry.

Initially, in order to have a visual approximation of the ship dimensions, draw an outline of the profile view, main deck or uppermost deck that contributes to longitudinal strength, and the forecastle deck. In some ships, the upper deck is stepped, i.e. it has a poop deck at the aft. Make sure you show that in the profile view and the deck outline view.

The reasons behind deciding the particulars (Especially height) of the forecastle deck at this stage are as follows:

- Minimum bow height has to be attained (according to ILLC Regulations) in order to reduce the deck wetness

- To provide forecastle deck area for anchoring and mooring equipment

- Adequate volume underneath for storage and chain locker, etc.

- To provide additional cargo space (in lower decks) in case of certain ships

After having drawn the profile plan, the first thing a designer should do is decide on the framing and frame spacing of the ship. The framing, whether longitudinal or transverse is decided on the basis of the length of the vessel. Generally, all ships longer than 120 m are longitudinally strengthened.

The frame spacing is then calculated by the formula specified in the rule book of the authorised classification society. The value obtained from the formula is generally rounded off to the nearest hundreds or fifties, so as to attain ease of production and design.

Next is to mark the decided frame spacing of the drawing. This frame spacing will now act as scale on the drawing, helping you to locate every point on the ship.

You must now divide the ship into certain number of watertight compartments, which is decided by the subdivision rules prescribed by the classification society. The rules specify the total number of <u>watertight transverse bulkheads</u> that are necessary to maintain watertight integrity of the ship. A ship generally has four types of transverse bulkheads:

- A fore peak collision bulkhead

- An aft-peak bulkhead

- A bulkhead at each end of machinery space

- Transverse bulkheads in cargo hold regions

Once the number of bulkheads have been decided, the length and number of holds should be planned accordingly. The ordinary transverse watertight bulkheads in the holds should be spaced at reasonably uniform intervals. Where non-uniform spacing is unavoidable and the length of a hold is unusually large, the transverse strength of the ship is to be maintained by providing additional web frames, increased framing etc.

In some cases, the decided number of bulkheads may interfere with the functionality of the ship or the specific requirements of that particular type of trade. Proposals to dispense with one or more transverse bulkheads in such cases can be considered by the classification society, provided it does affect the watertight integrity of the ship.

How to decide the position of the fore peak collision bulkhead?
- The distance of the forepeak collision bulkhead from the forward perpendicular is decided based on formulae prescribed by the authorized classification society. Generally, the class society would provide you with two formulae. One, to specify the minimum distance of the forepeak bulkhead aft of the forward perpendicular. Other, to specify the maximum distance of the forepeak bulkhead aft of the forward perpendicular

- It is up to you, as a designer, to provide the forepeak collision bulkheads within the above limits, depending on the dimensions of the forepeak ballast tank, anchor equipment, and chain locker dimensions

How to decide the position of the fore peak collision bulkhead?
The following considerations are taken during deciding the position of the aft peak bulkhead or the engine room aft bulkhead. First, the position of the engine room forward bulkhead is fixed according the position and length of the holds. Once that is done, about four frame spaces need to be left out before placing the main engine aft of the engine room forward bulkhead. That is to leave space for maintenance and crew operations.

Aft of the empty space, the length of the engine room is to be decided depending upon the length of the main engine, and the length of the intermediate shaft. Now, the intermediate shaft is coupled with the propeller shaft by a flanged connection. The coupling flange between the intermediate shaft and the propeller shaft is to be housed within the engine room itself. It is just aft of the coupling flange that the engine room aft bulkhead is positioned.

The propeller shaft runs from aft of the engine room bulkhead connecting to the propeller through the stern tube.

In many cases, the position of the engine rom aft bulkhead is also governed by the decided capacity of the aft peak ballast tank, which is always aft of the aft peak bulkhead. The capacity of the tank is estimated by trim and stability calculations, which is a very preliminary stage of design. But the engine and shaft lengths are decided at a comparatively later stage. This should give you an idea of how iterative the ship design process is.
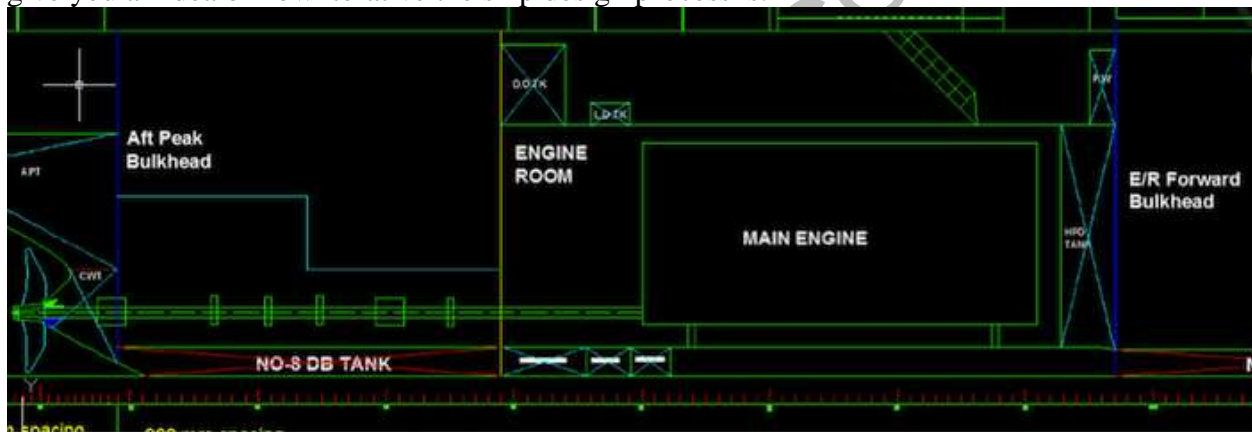
How to arrange the cargo spaces?
The entire cargo space needs to be divided into cargo holds by placing the specified number of transverse watertight bulkheads. The longitudinal position of the bulkheads may be decided according to a few principles of cargo requirement:

- Holds should be kept of equal lengths wherever possible

- In some cases where necessary, alternate large and small holds are designed to meet the cargo requirements for different voyage and cargo conditions. This is normally done for bulk carriers, product tankers, and container ships

- Sometimes, a single large cargo hold (for large multipurpose carriers)

In cases of oil tankers and container ships, decisions on longitudinal bulkheads are to be taken, with respect to prevention of free surface effect, ensure proper cargo distribution and handling characteristics.

In case of bulk carriers, the slope of the tank top sloping bulkhead is to be taken care of. The tank slope must be more than the angle of repose of the cargo, which is generally around 30 degrees. The slope of the bottom tank is generally maintained at 45 degrees.

In a general arrangement, the double bottom height needs to be shown clearly, so as to ensure proper estimation and representation of the tank plan. Therefore the designer is required to estimate the height of the double bottom using the corresponding formula specified in the rules of the authorized class society.

Decide on the height of the tween decks. Ships that carry packed cargo and cars, require more deck space to attain maximum stowage capacity. In order to increase the overall deck area, these ships are provided with a number of tween decks. The height of each tween deck should be sufficient to accommodate the cargo that is to be stowed on it.

This consideration of tween deck is however not required for volume based cargo carrier, like oil tankers, chemical carriers and bulk carriers. And in case of container ships, the top of each container serves as the floor for the next container to be stowed above it, hence container ships do not require tween decks for cargo stowage.

After having decided on the capacities and sizes of the cargo holds, the size of hatch openings and hatch covers.

Ballast Tank Capacities and Tank Plan Design

Ballast water is required for empty voyage to have proper sinkage, trim and stability.

Excessive ballast capacity is bad since it is expensive and takes up useful space. Ballast capacity should be such that full propeller immersion is obtained at the aft end and forward draught is not too low to avoid the harmful effects of slamming.

Approximately in a ballast voyage, displacement is 0.5 of fully loaded displacement which is about 0.55 of full draught. Ballast distribution should be such that excessive hogging moment is avoided in this condition. So a designer should always ensure to segregate the ballast water tank from any other liquid tank.

There are a few other points that a designer must consider while making <u>tank arrangements for ships</u>:

- No access is required except for <u>cleaning and maintenance</u>. Minimum two manholes are to be provided on top, and preferably at the diagonal corners of the tanks so that they are maximum distance from each other

- Tanks and pipes carrying a particular type of liquid must be segregated from those carrying another type of liquid. They should also be colour coded differently

- Fresh water tank should not have any tank adjacent to itself. So a fresh water tank and any other tank must be separated by a cofferdam. For the same reason, FW tanks cannot be placed below the load waterline

- Since total liquid carried is relatively low, the tanks may conveniently be situated in the lower portions to increase transverse stability of the ship

- To simplify <u>piping arrangements</u>, and the total length of piping, fresh water tanks should be near the engine room, as well as accommodation. Dirty oil and heavy fuel oil tanks should be near the engine room. Dirty oil and sludge tanks can be conveniently located in the double bottom of the engine room

- W. tanks should be well distributed all over the length and breadth of ship to help the ship attain its stability and trim requirements. Pipes should not run inside tanks carrying another liquid, i.e. fuel oil pipe should not run through any <u>ballast water</u> tank

- Consumable tanks (Heavy Fuel Oil, Dirty Oil, and Fresh Water) should be so located that their consumption does not cause unnecessary adverse trim. They should not cause unduly adverse free surface effects. So these tanks should be divided into smaller tanks with reduced breath. <u>Too many small tanks</u>, however, will make complicated piping system

- W. tanks are either fully pressed or empty ballast water tanks should be distributed all over the length of ship with sufficient capacity in the peak tanks to adjust for the required trim and stability

- Tanks should be distributed symmetrically about centreline of the ship, so that adverse heel effects are not felt. If there is any such effect (damage stability) cross-connection between port and starboard tanks may be provided

- The boundaries of double bottom tanks, deep tanks etc. should be designed to withstand the applied hydrostatic pressure

- The tank distribution should not adversely affect the longitudinal strength of hull girder

Lastly, it is important to understand and know, that a general arrangement of any ship will consist of the drawings of the following views:

- Profile View (generally looking from starboard side)

- Midship sections (looking from aft, and looking from forward)

- Main deck plan (also shows the accommodation layout)

- Navigation deck plan.

- Forecastle deck plan

- Tank top plan

- Tank plan

It should also be noted that a the process of developing the general arrangement drawing is slightly different for various design firms, depending on their procedures and practices, however the underlying principle always remains the same. It is an iterative process, and the final GA is a arrived at, after repeated approvals by the classification society and the owners party.

1.1.2 Safety Regulations.

There are two main publications that discuss maritime safety and emergency response, however there a many references and codes for specific types of vessels you should make yourself acquainted with these as required.

ISM

The International Safety Management (ISM) Code provides in part A (Implementation):

"8 Emergency preparedness

8.1 The company should identify potential emergency shipboard situations, and establish procedures to respond to them.

8.2 The company should establish programme for drills and exercises to prepare for emergency actions.

8.3 The SMS should provide for measures ensuring that the company's organization can respond at any time to hazards, accidents and emergency situations involving its ships."

Safety of Life at Sea (SOLAS)

As mentioned previously, SOLAS provides all safety regulations in Chapters for:

1. Construction – structure, subdivision, and stability, machinery and electrical installations

2. Construction – fire protection, fire detection and fire extinction

3. Life-saving appliances and arrangements

4. Radiocommunications

5. Safety of navigation

6. Carriage of cargos and oil fuels

7. Carriage of dangerous goods

8. Nuclear ships

9. Management for the safe operation of ships

10. Safety measures for high-speed craft

11. Special measures to enhance maritime safety

12. Special measures to enhance maritime security

13. Additional safety measures for bulk carriers

14. Verification of compliance

15. Safety measures for ships operating in polar waters

.1 Review safety regulations related to shipboard emergency situation

When was the first convention for the safety at sea created?
The first convention originated in the wake of the sinking of the RMS Titanic in 1912. An international conference was called in November 1913, aimed at creating international minimum standards for the safety at sea. A first version of the "International Treaty for the Safety of Life at Sea" (SOLAS) was compiled, and has since been repeatedly updated. The London-based International Maritime Organization (IMO) has held responsibility for the treaty since 1960; currently a 1974 version is in place. The IMO depends on mutual decisions by its members, so change often takes quite some time. The most recent amendment entered into force on January 1, 2013.

The safety of life at sea is IMO's primary objective. Passenger ship safety has always, therefore, been a high priority. The **Titanic** disaster of 1912 led to the first SOLAS treaty being adopted and there have been many revisions to regulations since then, both in response to major incidents and as a result of a pro-active approach to keeping the regulations up-to-date.

Passenger ships are monitored regularly following international standards for the safety of passengers and crew. Minimum standards were put in place more than a century ago, after the sinking of the Titanic.

How are safety regulations monitored?

In 1993, the IMO adopted the International Management Code for the Safe Operations of Ships and for Pollution Prevention (ISM Code). The code defines what needs to be done to guarantee safe operation of a ship. Every ship owner and operator commits to compiling a set of documents known as the Safety Management System (SMS). They are bound to enforce the regulations, and check compliance. As a rule, the state under whose flag the vessel sails authorizes a recognized Classification Society to survey compliance. The Adria Norman Atlantic, which caught fire on Sunday morning, was last inspected five months ago.

When does inspection begin, and what doe monitors check?
Inspection begins with the construction of the ship. The Classification Society checks building materials and components, and watches over the construction the on the wharf. Once the vessel is finished, the rescue and safety technology is tested. After the ship has been cleared, the Classification Society checks it on an annual basis. The state of the ship is thus constantly documented.

The burning Ferry was finally evacuated

What happens after the inspection?

Port State Control gives a ship that meets all the requirements a class "A" document. If there are defects, they are noted in the inspection report along with the measures needed to correct the problems. Finally, the ship's data and the inspection report findings are transmitted to a central electronic data bank in Lisbon. If a ship does not meet the safety requirements, local authorities have the right to prevent it from leaving port. After the cruise liner Costa Concordia ran aground on rocks, numerous major shipping companies committed to stricter self inspection and higher safety standards.

How are safety standards ranked among various states that have ships sailing under their flag?

The Costa Concordia, shipwrecked off the Italian coast

The Paris Memorandum of Understanding (MOU) on Port State Control takes care of that. It was created at France's initiative after the oil tanker Amoco Cadiz sank off the coast of Brittany in 1978. The memorandum has 27 signatories. Every year, the Paris MOU specifies the states' safety levels in "white", "grey" and "black" lists. According to the most recent list, published in July, France has the safest ships, followed by Norway, Sweden and Denmark. Germany ranks ninth. The poorest performing flags are the island nation of Dominica, Honduras and the United Republic of Tanzania.

How many passenger ships sank over the past years?
Insurers "Allianz Global Corporate & Specialty" document the loss of 90 passenger ships from 2001to 2012. They didn't all necessarily sink, however: the figure documents their final failure.

Losses have dropped significantly in the past eight years. While more than ten ships were lost annually until 2006, that figure decreased to six ships that were written off every year over the past six years.

When a ship threatens to sink - on average, how long does it take to evacuate?

According to the SOLAS accord, lifeboats must be ready to be boarded and launched at the latest 30 minutes after the captain has given the appropriate signal. Within this time frame, they must also reach an acceptable safety distance from the ship in distress. Since 2002, cruise ships must be fully evacuated within 80 minutes. The Adria Norman Atlantic's disaster off the Greek coast shows, however, that this time frame is exceeded many times over if conditions are unfavorable.

Response to Costa Concordia incident

IMO's Maritime Safety Committee (MSC) responded quickly to the Costa Concordia incident of January 2012, agreeing interim recommended operational measures for passenger ships at its meeting in May 2012.

In November 2012, the MSC agreed that rules to require passenger safety drills to take place prior to, or immediately upon, departure should be made mandatory. It also updated the interim recommended measures and a long-term action plan.

In June 2013, the MSC adopted amendments SOLAS regulation III/19 to require musters of newly embarked passengers prior to or immediately upon departure, instead of "within 24 hours", as stated in the current regulations. The amendments entered into force on 1 January 2015. The MSC also updated the long-term action plan and the interim measures (MSC.1/Circ.1446/Rev.2), to include new recommendations relating to harmonization of bridge navigational procedures across a fleet or fleets; securing of heavy objects (procedures to ensure securing of heavy objects to be incorporated into the safety management system); stowage of life-jackets (including stowage of additional life jackets near muster stations); extending the use of video for passenger emergency instruction notices; and following voyage planning guidance in the case of any deviation.

Review of passenger ship safety - amendments adopted in 2006

In 2010, a package of SOLAS amendments adopted in 2006 entered into force, affecting passenger ships built after 1 July 2010. The amendments were the result of a comprehensive review of passenger ship safety initiated in 2000 with the aim of assessing whether the current regulations were adequate, in particular for the large passenger ships being built. Increased emphasis is placed on reducing the chances of accidents occurring and on improved survivability, embracing the concept of the ship "as its own best lifeboat".

To assist with the management of emergency situations, new regulations have been adopted to require safety centres on or adjacent to the navigation bridge. These new provisions were based on best cruise industry practices. The operation, control and monitoring of the following safety systems will be available from the safety centre:

- All powered ventilation systems
- Fire doors
- General emergency alarm system
- Public address system
- Electrically powered evacuation guidance systems
- Watertight and semi-watertight doors
- Indicators for shell doors, loading doors and other closing appliances
- Water leakage of inner/outer bow doors, stern doors and any other shell door
- Television surveillance system
- Fire detection and alarm system
- Fixed fire-fighting local application systems
- Sprinkler and equivalent systems
- Water-based systems for machinery spaces
- Alarm to summon the crew
- Atrium smoke extraction system
- Flooding detection systems
- Fire pumps and emergency fire pumps

REGULATORY FLEXIBILITY

From the very outset of this passenger ship safety initiative, the MSC was of the view that any future requirements should incorporate mechanisms to allow for the approval of new technologies and concepts in ship design, which was deemed essential for addressing future safety challenges. Examples of similar regulatory regimes include the philosophies used in the development of the revised SOLAS chapter II-2 (fire safety) and the revision of High-Speed Craft Code (2000). New "alternative design and arrangements" regulations and guidelines were developed to provide a methodology for approving designs that do not strictly meet the

prescriptive requirements in SOLAS chapters II-1, II-2 and III, but still provide an equivalent to or greater level of safety than that required in the prescriptive requirements.

This new approach will require significantly more time in calculation, testing and documentation than a typical "prescriptive" design because of the increased engineering rigor required by the new regulations. The potential benefits include more design flexibility to address safety issues, cost effective designs for unique applications, promotion of the latest safety technologies and an improved knowledge of loss potential.

1.1.3. Emergengy plan and procedures.

.1 Contents of the shipboard emergency plans and procedures.
Emergency or contingency plans are documents that aid the crisis management team in decision making during an emergency situation. They are required to be located at accessible points on the vessel and for shore emergency response teams. Normally, these are on the bridge, engine control room, conspicuous areas accessible by crew and passengers and some are at the gang way access points. They should consist of the following:

1. Crew muster list plan;
2. Crew emergency plan;
3. Fire control plan;
4. Life-saving appliances and escape route/evacuation plan;
5. Damage control plan;
6. General arrangement plan; and
7. Log book – used to record all management decisions and orders (may use digital recorders).

.2 Instructions and procedures contained in emergency plans
CEP procedures are developed by the shipping company in accordance with the regulations stipulated by SOLAS and ISM for the particular vessel. There are three types of procedures, the first called initial actions or first response or first aid is what each crew member must do when discovering an incident.

For example when discovering a fire:
1. raise the alarm;
2. if safe to do so, fight the fire with a portable appliance;
3. if not safe to do so, check for casualties and seal the compartment by closing fire doors or water tight doors; and
4. wait for emergency response team to arrive and brief the Fire Team Leader.

These are taught and practiced during Basic safety training and during drills onboard.

The next sets of procedures are for the Central Command Team and provide details on how to manage an incident or multiple incidents. These are normally found in Company SMS documentations. Using the fire example again:

1. receive muster station reports (head count);
2. determine if anybody is missing;
3. stop ventilation, shut dampers and doors, set up smoke boundary;
4. identify safe work area for emergency response team;
5. deploy emergency response team to safe work area;
6. .6 deploy emergency response team to fight fire and search for casualties – record on air time;
7. determine emergency response team extraction time and backup plan if fire could not be extinguished;
8. deploy First Aid Team to safe work area to manage casualties; and
9. communicate with other parties and company.

As you can see these procedures require thinking, communication and response. It is important that they are practiced regularly. Now couple these with an escalating incident, e.g. a blackout and you can see where prioritization and delegation come into crisis management. In this case it would be good to delegate the black out to the chief engineer and let him/her look after 2nd priority that while the CCT deals with the fire 1st priority, whilst maintaining an overall situational picture, including safe navigation. This is where crisis management get difficult because no two crises will develop the same way, nor will peoples actions and reactions be the same.

> Whenever some incident of a serious or harmful nature happens suddenly, we classify it as an emergency. One of the most important factors in dealing with an emergency situation, apart from a sharp mind and the control of respectful fear, is the presence of a solid action plan. This is a general rule that is applicable to all situations whether on board a ship in the middle of the ocean or in a crowded city port amidst a sea of people and machinery.

Emergency situations on a ship tend to be more critical because ships are isolated, solitary floating objects moving in the vast and deep oceans. Since there are so many possible types of emergencies, it is necessary to know about both common and emergency essentials.

Here we will take a look at the general procedures and plans to be followed in case of an emergency situation on board a ship.

Emergency Essentials - Types of Emergencies

For effective usage of the limited emergency equipment available on board, all personnel must be aware of the location of firefighting gear and lifesaving appliances and be trained in their use. They must also be aware of the alarm signals, recognize them, and muster at the muster point in case of any type of emergency.

The general alarm will be sounded in the event of:

- Fire

- Collision

- Grounding

- Cargo hose burst

- Major leakage or spillage of oil cargo

- Any other event which calls for emergency action

Other alarms could include:

- Engineer alarm for unmanned machinery spaces

- Carbon dioxide alarm

- Fire detector alarms

- Cargo tank level alarms

- Refrigerated store alarm

If your ship's alarms are ringing, it does not necessarily mean that the situation is out of control. Alarms are warnings, which are sounded so that people onboard take the emergency measures like wearing their life jackets, or gathering at a common point, depending upon the type of emergency and instructions given to them.

Structure and Function of Emergency Response Teams

The basic structure of any emergency team will usually comprise four sub-groups.

- The Command Center

- The Emergency Team

- The Back Up Squad

- The Technical Team

Different sub-groups will do different tasks and coordinate with the other sub-groups.

Functions of Emergency Team groups:

The Command Center

The command center will be located on bridge. The master is to take responsibility for the overall safety and navigation of the ship. All communications will be performed from here to the different teams as well as shore. A log must be maintained of all events.

The Emergency Team

The Emergency Team will have the front line job of tackling the emergency. In general the chief officer will lead the team for the emergency on deck while the 2nd engineer will take charge for engine room emergencies. The duties of each person will have to be laid down and practiced for every emergency so as to avoid duplication, confusion, and chaos.

The Support Team

The Support Team is to provide first aid and prepare the lifeboats for lowering. Should the above two function not be required, they should assist as directed.

The Technical Team

The Technical, or Engineer's, Team will maintain the propulsion and maneuvering capability of the ship and auxiliary services as far as is possible in the circumstances.

General Guidelines for Emergency Response

All members of the technical staff must know all the ship emergency codes in detail. All members of the crew should receive appropriate training in accordance with their role at the time of emergency. Mr. Skylight, Mr. Mob, Code Blue, and Oscar are some of the ship emergency codes followed by mariners.

On board passengers must be told about the possible dangers because otherwise the general public starts panicking.

An understanding of the effects on the behavior of the ship of wind, current, shallow water, banks, and narrow channels is equally important so that the technical staff does the wise thing at the time of emergency. Closing of the watertight doors, fire doors, valves, scuppers, side-scuttles, skylights, portholes, and other similar openings in the ship is very important so that ocean water does not enter inside the ship.

In case of abandoning the ship, all the passengers must be rescued first using life jackets and life boats, or shifting them to another ship. The staff members should be the last ones to leave the ship and that even only after ensuring that no one is left on the abandoned ship. Modern ships are equipped with hi-tech and advanced life saving tools and with the help of mobile communication devices, or can easily contact off-shore rescue teams.

Emergency Preparedness - Different Types of Emergency Situation On Board

Emergency response plan is important onboard the ship as this gives the duties and responsibility to be performed by crew members during the emergency situations on board. This series will give you the idea of different types of emergency situation on board the ship.

1.2 The Importance of principles for the development of Ship-specific emergency procedures

1.2.1 The need for pre planning drills of shipboard emergency procedures:

Potential emergency situations identified in the plans for drills and instruction include, but are not limited to, the following:

- Fire
  - Cargo fires in holds or other spaces;
  - Fires involving oil, gas or chemical cargoes as appropriate;
  - Fires in engine, pump or boiler rooms;
  - Fires in crew or passenger accommodation; and
  - Fires in galleys due to burning oil or cooking fats.
- Damage to the ship
  - Collision
  - Grounding/stranding
  - Flooding

- ▪ Heavy weather damage
- ▪ Hull / structural failure, etc.
- ▪ Steering gear failure
- ▪ Loss of power
- Pollution
  - ▪ spillage of hydrocarbons (SOPEP)
  - ▪ chemical spillage (Cargo)
- Personnel accidents
  - ▪ Man Overboard
  - ▪ Enclosed Space rescue
  - ▪ Injury to personnel
- Cargo-related accidents
  - ▪ Collapse of stow/Loss of containers
  - ▪ Container fire
  - ▪ Dangerous Goods incident
- Emergency assistance to other ships.
  - ▪ Search and Rescue
  - ▪ Helicopter operations
  - ▪ Rescue boat
- Abandon Ship
  - ▪ Launching lifeboat
  - ▪ Launching liferaft
- Unlawful acts threatening the safety of the ship and the security of its passengers and crew
  - ▪ Piracy
  - ▪ Stowaways
  - ▪ Security scenarios as per ISPS Code

Each fire drill shall include:
- ▪ reporting to stations and preparing for the duties described in the muster list
- ▪ starting of a fire pump, using at least the two required jets of water to show that the system is
  in proper working order;
- ▪ checking of fireman's outfit and other personal rescue equipment;
- ▪ checking of relevant communication equipment;
- ▪ checking the operation of watertight doors, fire doors, fire dampers and main inlets and outlets of ventilation systems in the drill area; and
- ▪ checking the necessary arrangements for subsequent abandoning of the ship.

Each abandon ship drill shall include:
- ▪ ▪ summoning of passengers and crew to muster stations with the alarm required by Em'cy-005 followed by drill announcement on the public address or other communication system and

- ensuring that they are made aware of the order to abandon ship;
- reporting to stations and preparing for the duties described in the muster list;
- checking that passengers and crew are suitably dressed;
- checking that lifejackets are correctly donned;
- if conditions allow, lowering of at least one lifeboat after any necessary preparation for launching;
- starting and operating the lifeboat engine;
- operation of davits used for launching liferafts;
- a mock search and rescue of passengers trapped in their cabins; and
- instruction in the use of radio life-saving appliances.

In addition to the exercises required by regulations described here-above, other **Exercises for preparation of Emergency situations** might be organised on board in accordance with ISM and ISPS codes.

2. Responsibilities

The Master shall ensure that drills are performed in accordance with international regulations (SOLAS, MARPOL and Flag Administration) and with the requirements of the ISM and ISPS codes. He will participate in and conduct these exercises.

The Chief Mate, in charge of the safety on board, shall organize the drills, in agreement with the Master. He will make sure the drills go smoothly and will ensure - with the Master - that corrections or improvements made following these exercises are followed up.

Each officer may be brought to supervise a drill.

3. Organization

The purpose of the exercises is to check the onboard response and the management system for safety in situations which are potentially dangerous for personnel, the ship or the environment. This is the opportunity for the crew:

☐ to improve their knowledge of the ship and safety/security equipment

☐ to assess their ability to react to different situations

☐ to test the procedures, equipment, safety/security devices, external and internal communications means

☐ to evaluate the safety or security organization on board.

To be effective, these exercises should be as close as possible to real conditions. Various situations or scenarios can be used (lack of personnel, non-availability of equipment…) to improve reactions on board and to identify any inadequacies in the system.

Any malfunctions or deficiencies which are found must be the subject to immediate correction and/or non-conformity. A debriefing can be held following the completion of the exercise to discuss its progress and lessons to draw.

Any suggestion for improvement must be mentioned in the exercise report and are the subject, where necessary, to a non-conformity report communicated to the Company.

4. Periodicity

The drill periodicity and their execution at a given time shall be organized in accordance with the flag state and international regulation regulations.

A schedule of the preparatory exercises for emergency situations is the subject of card <u>Em'cy-010.</u>

It is made out by the Master at least for the 2 years to come, in agreement with the DPA. This programme determines the schedule and type of exercise to be carried out. If the scheduled exercise could not be carried out in conformity with the schedule, the Master will enter this in the log book and will re-schedule it as quickly as possible.

In practice, some drills of this program could be combined, for example:

☐ Fire + Fire due to hazard cargo + Treatment of information by the media
☐ Propulsion failure + Emergency towage
☐ Man overboard + SAR operations
☐ ISPS drill + Enhancement of security Level to level 2 or 3

5. Recording

The various <u>Safety</u> and <u>Security</u> drills shall be recorded in the Log Book and the Safety Training / exercise Book. Reports for Security Drills are to be kept Confidential, and should be filed/recorded in the Security Log Book, as per the Ship Security Plan.

For each Safety / Security drill or exercise, a report is to be completed by the drill supervisor. This report shall, as a minimum, include the following:

☐ Date of the drill
☐ Ship's position
☐ Type of the drill
☐ Name and rank of the drill supervisor
☐ Equipment used during the drill.
☐ Crew members present at the meeting
☐ Drill development summary
☐ Means of communication or emergency numbers which were tested (if any)
☐ Any deficiencies identified, and proposed/implemented corrective action
☐ Safety/Security improvement suggestions if need be
☐ Chief Mate's observations and signature
☐ Master's observations and signature

1.2.2 The need for personnel to be aware of and adhere to pre-planned emergency procedures as carefully as posible in the event of an emeegency situation.

The potencial of slow and rapid escalation of an emergency including their consecuences Escalation

To demonstrate how a crisis develops, let's follow a hypothetical scenario:

.1 Two ships collide.

.2 Ship A has minimal structural damage and continue the voyage.

.3 Ship B suffers structural damage and begins taking on water.

.4 The water level rises and floods and HV electrical junction box causing arcing.

.5 The arcing causes a fire and blacks out the vessel.

.6 The fire causes a crewmember to be overcome by smoke; he trips and sustains a broken leg.

.7 Because of the electrical blackout bilge pumps cannot be run and stability is greatly affected.

.8 Should we abandon or stay and fight the situation?

The initial incident (collision) escalated into a full crisis situation, the crisis management team needs to be able to deal with all emergencies and keep the vessel, passengers and crew safe.

All personnel to be aware of and adhere to pre-planned emergency procedures as carefully as possible in the event of an emergency situation

COMPETENCE #2

2-Optimize the use of resources.

2.1 Ability to optimize the use of resources, taking into account

2.1.1 The posibility that resources available in an emergency be limited.

All Officer have to consider the possibility that resources available in an emergency may be limited and the need to make full use of personnel and equipment immediately available and, if necessary, to improvise in order to perform a good emergengy contingency plans of the accidente or incident .

Following are the keys to effective Use of Resource Management. By establishing these and practicing these, you can better meet the goal of crisis management during emegencies. The "Keys" include:

• Good situational awareness

• Obtain relevant information early

• Building a detailed and shared mental model of the situation

• Detailed, thorough planning

• Cautious, safe strategies and keeping options open as long as possible (knowing all options through planning)

• Realistic decisions sensitive to constraints

• Sharing the workload

• Monitoring progress by cross checking each other (reducing one person errors)

2.1.2 The need to make full use of personel and equipment inmediatly available and, if necessary, to improve.

The principles of delegation

A passenger ship organizational structure is well set up for task delegation during an incident contained in the Crew Emergency Plan. The Master is in overall command and is the Incident/Crisis Manager. The Chief Officer is usually delegated to manage marine type incidents and the Chief Engineer delegated to manage technical incidents. A Navigational Officer would be delegated for navigational safety and another Officer delegated for communications during an incident. One other crew member should be delegated as the incident recorder used in conjunction with a digital/analogue voice recording system, if available.

How well task delegation works depends on training and competency. Therefore the more the Command Control Team is exercised the better and more confident they will become.

How to delegate

      a. Define the task
      b. Communicate the task requirements clearly
      c. Ensure the person understands the task requirement (closed loop again)
      d. Follow up in a timely manner on progress/completion

Emergency response equipment and personnel

Life-saving appliances (LSA) and emergency response equipment are mandated by SOLAS. Nowadays, maintenance and checking equipment are conducted through planned maintenance systems. A Permit to work/isolation certificate is produced any time an emergency response equipment is taken out for maintenance. The use and training of equipment is mandated by the 1978 STCW Convention, as amended. This is to ensure that equipment and personnel are always in a state of readiness. How it is employed during a crisis situation is up to the Central Command, this because no two incidents are the same and there will always be shifting priorities. Below are nine tips for effective utilization of equipment and resources:

1. Regular drills and onboard training – makes the team familiar with specific equipment and checks that all is operating as it should.
2. Ventilation and watertight integrity – shutting down ventilation / Air-conditioning systems and smoke dampers quickly will stop the spread of smoke and toxic gas. In cases of flooding evacuation and shutting water tight doors adjacent to the affected area must be made quickly to contain the ingress of water.
3. Speed – the fast response to a situation by the ERT usually limits escalation.
4. Communication – Muster Station / Head count reports must be made quickly and clearly as this will determine the next phases of the crisis management for example if they don't tally up search and rescue will take equal priority with containment. Situation reports provided regularly to crew and passengers reduces fear of the unknown and instills a feeling that the command is in control of the situation
5. Use of Fixed Fire Fighting Systems – use of fixed fire suppression systems early in an incident will generally knock the fire over, if it doesn't it makes the Fire Team's job easier as it will slow down advancement. Always check that

compartments have been evacuated before deploying a fixed fire suppression system.

6. Safe working areas – Setting up and deploying the ERT to a safe working area as close to an incident saves on self-contained breathing apparatus (SCBA) air, allows hoses and life lines to be shorter, and provides a first aid post near the scene for faster treatment.

7. Electrical / mechanical isolation – Early shutdown and isolation of equipment will reduce load and ensure the safety of personnel working in the area and safety of the equipment itself.

8. Record-keeping – a dedicated log keeper (Scribe) to record the following;

a. Time;
b. Decisions/orders/instructions;
c. Situation reports; and
d. Reports to the Central Command.

Marking up/drawing on the general arrangement diagram and/or fire control plan including:

a. Incident location, affected systems;
b. Location of ERT team/SCBA air pressures and time on air/time out;
c. Available/non-available emergency response equipment; and
d. Atmosphere monitoring results.

Please remember these records will be vital later on during the accident / incident investigation process.

9. Lifeboats and liferafts – One of the hardest decisions to be made is vessel abandonment. This is an executive order that is based on the habitability of the vessel. Things to take into account when making the decision to abandon the ship are;

a. Trim – up to 10o either way;
b. List – up to 20o;
c. Speed at which lifeboats and liferafts can be loaded with persons; and
d. Speed at which life boats and rafts can be launched.

2.2 Ability to organize realistic drills to maintain a state of readiness, taking into account lessons learnt from previous accidents involving passenger's ships, debriefing after drills.

Master and officers have to get the ability to organize realistic drills to maintain a state of readiness, taking into account lessons learnt from previous accidents involving passenger ships; debriefing after drills.

This lesson will be explained with more details during the lectures and presentation of the instructor during the class and will give examples of how to do relaistic drill on board.

Also it's important to consider get assitance from shore or any external response team for exmaploe fire brigada, Coast guard, Shore medical team, or any port authorty that can help the Ship to solve the emegency situation

After finish each drill master with crewmemebers have to perfomr a debriefing in order to discuss points for improvements and congrants the team for a good and discipline performance

COMPETENCE# 3

3-Control response to emergencies.

3.1Ability to make an initial assessment and provide an effective response to emergency situations in accordance with established emergency procedures.

Emergencies require good leaders who are not restricted to the master on the bridge, but to support group leaders, e.g. on-scene commander, engine room control, back-up parties, first aid, zone commanders, etc. all are essential. Information can be very sparse in the early stages however the mobilization of all personnel and resources must be started under a calm, decisive leader. When the picture begins to form, as more information is received, tasks can be allocated and forward planning can begin. Leadership style must be firm, decisive and perhaps autocratic and some degree of consultation may be appropriate, but this is not the time to form committees. Persons will respond to well-motivated leaders as they will to motivated instructors. Energy and enthusiasm generally tends to spread throughout the group; however any emergency will heighten stress levels. The heart beats faster, the breathing rate is rapid and sweating increases. This must be identified as soon as possible so that workloads can be lessened, tasks re allocated and extra support requested. Unless the leadership can be firm and directional the teamwork and general response will start to disintegrate.

 Assess and Respond to the emergency situation.

Seafarers are taught how to deal with an emergency situation if they come across one.

The first thing is to raise the alarm.

        a. report the location;

        b. report the nature of the emergency; and

        c. report if any casualties have been found.

These three things are vital to know and understand for the crisis manager to make an initial assessment of the situation. Other forms of alerting to a potential emergency situation are smoke/flame and gas detectors, flooding detectors and alarms. These should be monitored and investigated upon any activation. Standard operating procedures state that when the alarm is raised the OOW will sound the general/fire alarm and the crew will go to assigned muster stations. It takes a few minutes for this to happen so by using this time get to the crisis center and take stock of what is happening is crucial to making an initial assessment and developing your action plan.

Questions to ask yourself to make the initial assessment are:

        1. What's the problem?

        2. What has been done so far?

        3. How do we contain it?

        4. Which resources do I need to deploy?

        5. Anybody hurt?

6. Who needs to be informed?

Once these questions have been answered you may then develop your plan of action as there are so many variables to containment and damage control all of which could not be listed.

Leadership skills.

3.2 Ability to lead and direct others in emergency situation

Leadership: Leadership is the ability of a Leader to direct the actions of a group towards the Leader's intended direction.

Leadership is an important function of management which helps to maximize efficiency and to achieve organizational goals. The following points justify the importance of leadership in a concern.

1. **Initiates action-** Leader is a person who starts the work by communicating the policies and plans to the subordinates from where the work actually starts.

2. **Motivation-** A leader proves to be playing an incentive role in the concern's working. He motivates the employees with economic and non-economic rewards and thereby gets the work from the subordinates.

3. **Providing guidance-** A leader has to not only supervise but also play a guiding role for the subordinates. Guidance here means instructing the subordinates the way they have to perform their work effectively and efficiently.

4. **Creating confidence-** Confidence is an important factor which can be achieved through expressing the work efforts to the subordinates, explaining them clearly their role and giving them guidelines to achieve the goals effectively. It is also important to hear the employees with regards to their complaints and problems.

5. **Building morale-** Morale denotes willing co-operation of the employees towards their work and getting them into confidence and winning their trust. A leader can be a morale booster by achieving full co-operation so that they perform with best of their abilities as they work to achieve goals.

6. **Builds work environment-** Management is getting things done from people. An efficient work environment helps in sound and stable growth. Therefore, human relations should be kept into mind by a leader. He should have personal contacts with employees and should listen to their problems and solve them. He should treat employees on humanitarian terms.

7. **Co-ordination-** Co-ordination can be achieved through reconciling personal interests with organizational goals. This synchronization can be achieved through proper and effective co-ordination which should be primary motive of a leader

Leadership does not come naturally. To become an effective leader, it is not enough to have just technical skills. People skills are very necessary in order to mitigate the human factor effect. In most cases, leadership is a discipline that must be practiced with the same eye for detail that is applied to gaining mechanical skills. At the end of this module there are some optional discussion points, time permitting.

Situational Awareness.
Description

The definition of situational awareness is an accurate perception of:

- What is going on?
- What can happen next?

Situation Awareness is a perception of the elements of the environment, within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future.

Good situational awareness depends on three levels of mental activity – all of which take place simultaneously, and all of which are subject to the active mental filters described in the section on "making sense of things". These three levels are perception, comprehension and projection:

Perception: In making decisions we must be able to pick out all the pieces of information in our environment that are relevant to our goals. Some of these may be very subtle, such as small changes over time in what an instrument says or the sea state. Some may rely on memory, such as what someone told us on watch handover. And some will be very obvious, such as a bridge alarm. In complex situations, many disparate information sources may be relevant and they all may be simultaneously competing for our attention. They may also be hidden away, requiring a deliberate search to find them.

Comprehension: However disparate or numerous the relevant individual information elements are, in making decisions we must be able to integrate them in a way which allows us to form a coherent picture of what is going on around us. It is here that we establish the meaning, significance and priority of the information relevant to our goals. For example, if a chief engineer sees warning lights and hears unusual engine noises while under assisted tow in a restricted channel, the extent of the problem must be quickly evaluated to work out the implications for the ship and the accompanying tugs.

Projection: Understanding the current picture is not enough for full situational awareness. Expert decision makers must also be able to project their understanding into the future. This enables them to make the decision they must take now to create the best options in the future.

Projection requires us to have good mental models of the dynamic relationships between the relevant parts of our environment over time. Experts focus a lot on creating their own futures via present decisions. In turn, these decisions are formed out of their comprehension of the likely interactions of all the elements they deem both relevant and important. Good situation awareness takes a lot of mental immersion in the task, exposure to many task variations over time, and much practice and feedback in trying to deal with those variations.

Decision Making and Problem Solving
Leaders identify and analyze problems.
They use facts, input from others, and sound reasoning to reach conclusions. They often explore various alternative solutions and can distinguish between relevant and irrelevant information.
Effective leadership includes the ability to perceive the impact and implications of decisions. Successful leaders are able to single out and address issues of prime importance. Good leaders generally involve others in decisions that affect them to generate more promising solutions.

Teamworking Decision Making Methods
When it comes to leading and managing teams the three decision making methods commonly used; see which one applies to you:

1. Leader-made -One person makes the decisions

2. Leader-made with input -Input is provided by the team, but considered at the discretion of the leader

3. Team-made -All team members have a chance to provide input and to have a say in the final decision.

The advantages and disadvantages of each approach can be found in the table below:

	Advantages	Disadvantages
Leader-made	• Quick decisions are made • The decision is direct and to the point • The person making the decision knows what he/she wants	• Lack of buy-in from the team may shut down some members • The single leader may not have all the answers, but often times think they do • No diversity of ideas or opinions
Leader-made with Input	• Group members have greater buy-in • Decisions are made quicker than team decisions • Decisions are made using more information	• Decision making can become time consuming • Leader may not use input
Team-made	• Team members have a sense of empowerment in the decision making process • Team members have a sense of ownership into the process and the final decision • More ideas are generated by the team • Better end product is achieved by considering all possible solutions • Diversity of ideas	• Process is time consuming • Increase likelihood of conflict • Some team members may have limited knowledge or experience • Lack of ownership or responsibility may result when team members input is not considered in the final decision

Effective Communications

Good leaders communicate effectively in both formal and informal settings. As good listeners, they reinforce the message they convey with supportive mannerisms. Leaders express facts and ideas concisely and logically. They facilitate an open exchange of ideas, ask for feedback routinely, and communicate face-to-face whenever possible.
They write clearly, concisely, and well organized correspondence and reports.

Influencing Others

Effective leaders possess the ability to persuade and motivate others to achieve desired goals and to change if necessary. As the situation allows, they influence and persuade by:

- communicating

- directing

- coaching

- and delegating

They help others advance by sharing power and responsibility. They establish and maintain a good rapport with key players.

The 4 Leadership Categories

Leadership skills are the knowledge, skills, and expertise an organization expects of its leaders. Leadership competencies are also keys to career success. Developing them as far as practical in all personnel will result in the continuous improvement necessary for success of both the organization and of the individual. These skills can be broken down into four general categories or competencies:

Leading Self

Fundamental to successful development as a leader is an understanding of self and one's own abilities.

Leading Others

Leadership involves working with and influencing others to achieve common goals. A ship's officers and crew interact with each other in many ways, whether as supervisor, mentor, manager, team member, team leader, peer, or worker. Positive professional relationships provide a foundation for the success of an organization.

Leading Performance and Change

A ship's crew constantly faces challenges to operations. To meet these challenges, leaders must apply performance competencies into their daily duties and responsibilities. Having these competencies enables each leader to perform well in any situation.

Leading the Organization

As leaders gain experience, they must understand how this experience fits into the broader structure of their department, the ship, and the organization as a whole.

Onboard ship leaders often develop positive relationships with public and private sector organizations in order to enhance this process. Leaders must develop coalitions and partnerships both inside and outside of the organization.

Stress Handling.

3.3 Ability to identify the development of symptoms of excesive personnel stress and others members of the ship emergency team.

Traumatic incidents can produce unusually strong emotional reactions that may interfere with your ability to function at the scene or later. You may experience any of the physical, cognitive, emotional, or behavioural symptoms listed below in table 1. Some people experience emotional aftershocks weeks or months after they have passed through a traumatic event. Others may experience these reactions while still at the scene, where they must stay clearly focused on constantly changing hazards to maintain their own safety and to rescue injured victims. Remember that strong emotions are normal reactions to an abnormal situation!

Physical	Cognitive	Emotional	Behavioural
Chest pain Difficult breathing Shock symptoms· Fatigue Nausea/vomiting Dizziness Profuse sweating Rapid heart rate Thirst Headaches Visual difficulties Clenching of jaw Non-specific aches and pains	Confusion Nightmares Disorientation Heightened or lowered alertness Poor concentration Memory problems Poor problem solving Difficulty identifying familiar objects or people	Anxiety Guilt Grief Denial Severe panic (rare) Fear/irritability Loss of emotional control Depression Sense of failure Feeling overwhelmed Blaming others or self	Intense anger Withdrawal Emotional outburst Temporary loss or increase of appetite Excessive alcohol consumption Inability to rest, pacing Change in sexual functioning

Table 1: Physical, cognitive, emotional and behavioural symptoms of the members of the emergency team

There are symptoms of stress that may be experienced during or after a traumatic Incident. Seek medical attention immediately if you experience chest pain, difficulty breathing, severe pain, or symptoms of shock (shallow breathing, rapid or weak pulse, nausea, shivering, pale and moist skin, mental confusion, and dilated pupils).

3.4 Understand that stress generated by emergency situations can affect the performance of individuals and their ability to act n instructions and follow procedures.

Manage excessive personal stress and those of other members of the ship's emergency situations
It is normal to experience stress during a disaster operation, but remember that stress can be identified and managed. You are the most important player in controlling your own stress. There are many steps you can take to help minimize stress during a crisis.
 Adhere to established safety policies and procedures;
 Encourage and support co-workers;
 Recognize that "not having enough to do" or "waiting" are expected parts of disaster mental health response;

☐ Take time outs in the crisis centre 5 minutes off to "decompress." Will alleviate stress factors; and

☐ Practice relaxation techniques such as deep breathing, meditation, and gentle stretching.

In general stress manifests as a physical, psychological or social dysfunction resulting in individuals feeling unable to bridge the gap with the requirements or expectations placed upon them. Stress can be good and bad.

Its good to learn the light and dark sides of stress. By learning we can become aware of the effects stress has on your mind, body and health. This knowledge allows us to be strategic and to count stress as a human factor that could be used as a benefit, or to mitigate when stress is negatively affecting performance.

- **Distress:** "Bad" stress is perceived as negative and associated with a sense of loss of control.

- **Eustress:** "Good" stress is perceived as positive and associated with a sense of control.

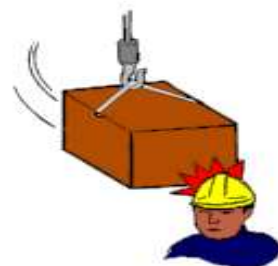Explaining Good and Bad Stress

Acute Stress:
Fight or flight. The body prepares to defend itself. It takes about 90 minutes for the metabolism to return to normal when the response is over.

Chronic Stress
The word "chronic" means something that happens over a long period of time. Chronic stress could mean the cost of daily living: bills, children, jobs…This is the stress we tend to ignore or push down. Left uncontrolled this stress affects your health- your body and your immune system. (AIS1)

Eustress: Stress in daily life that has positive connotations
- Marriage
- Promotion
- Baby
- Winning Money
- New Friends
- Graduation

Distress: Stress in daily life that has negative connotations

- Divorce

- Punishment

- Injury

- Negative feelings

- Financial Problems

- Work Difficulties

Stress and the Effect on Job   Performance
                                                              Balancing Stress

Balancing stress is an odd   thing; we need a certain amount
of stress in order to feel good,   but not so much that we are
incapacitated.
Too little stress will leave us   under-stimulated,   bored   and
even depressed.

Too much stress (distress) will do the opposite over-stimulating us to the point of madness. We must learn to achieve the middle point (Eustress) so we have a purpose and excitement to life which allow us to function optimally, creating a good hormonal environment which is conductive to a job performance that is Optimal (Zen to Fitness1)
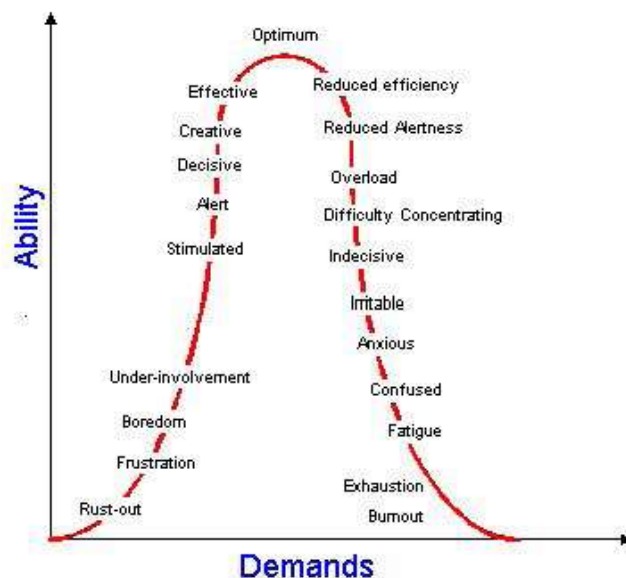
Our Job performance under optimal eustress is such that:
- Team members are engaged in activities over which they have control

- The pace of the work is challenging enough to keep it interesting

- The workload provides time to plan

- Individuals are monitoring the situation.

- Potential problems are anticipated

of **69**

- Contingency plans have been developed

- The team is vigilant

Stress Response

General Stress Response

It is essential to differentiate between the harmful variety of stress termed distress and caused by unpleasant stimuli, implying disease, and eustress caused by pleasant stimuli, implying euphoria or happiness.

During both eustress and distress, the body undergoes virtually the same non-specific responses to the various positive or negative stimuli acting upon it. However, eustress causes much less damage than distress. This demonstrates conclusively that how an individual accepts stress will determine ultimately whether the person can adapt successfully to change. (Selye3)

Hans Selye described three components to the General Stress Syndrome:

1. **Alarm stage** — represents a mobilization of the body's defensive forces. In other words, the body is preparing for the "fight or flight" syndrome. This involves a number of hormones and chemical excreted at high levels, as well as an increase in heart rate, blood pressure, perspiration, respiration rate, etc.(AIS2)You may notice that you are in a state of shock temporarily. Initially you may not be able to act and your coping skills are knocked down, this passes.

2. **Resistance** — in this the body becomes adaptive to the challenge and even begins to resist it. The length of this stage of resistance is dependent upon the body's innate and stored adaptation energy reserves and upon the intensity of the stressor. (AIS^2) This could also be known as the adaptation phase. In this stage, the body remains alert (at a lower level) but continues the normal functions. In the resistance stage your body is like a car idling along with its RPM too high - burning too much energy and becoming inefficient. You may think that you are adapting quite well to the higher stress level. However, you may simply be
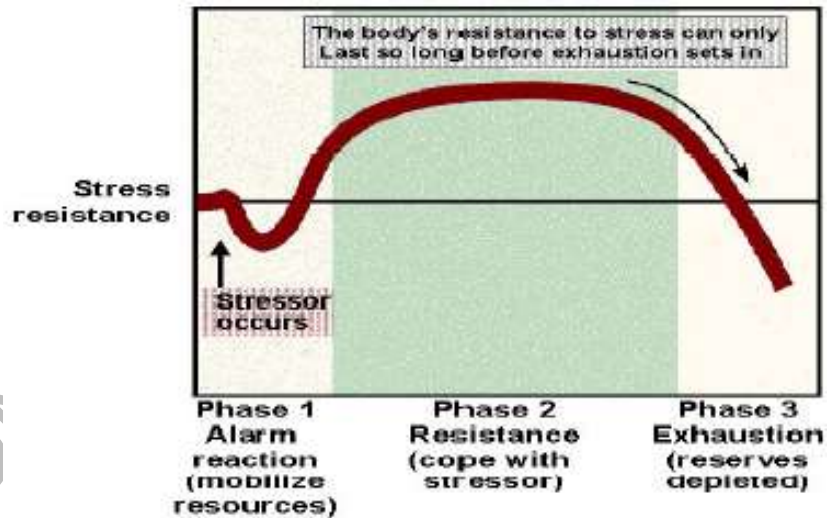
learning to live with an unhealthy stress level. Your ability to cope with further stress is impaired (Selye[3])

3. **Exhaustion stage** — Burnout, Death, stroke, incapacitation the body has used up its resources of adaptation energy. No more ability to cope with further stress

Stress Response

General Stress Response (cont)

Adaption energy
This is a hypothetical
measure of an individual's capacity to resist stress. Each person is believed to have a finite amount of adaptation energy, which is used to cope with different types of stress. (Selye3)
Energy expended to cope with one type of stress, such as lack of sleep, results in less energy being available for other stresses, such as emergencies. When adaptation energy is low, a person is more likely to suffer from stress-related diseases and conditions known as burnout and rundown.
Adaption energy may be affected by an individual's:

- Experience

- Level of Proficiency

- Training

- Previous stressors

Sources of Stress

Uncontrollable Stress

Uncontrollable stressors often induce feelings of helplessness and sap your adaptive energy: Examples might include:

- Crime

- Politics

- Money Problems

- Family Problems

- Isolation from Friends and family

- Past Trauma (physical or mental)

Controllable stress

A controllable stressor allows room for adjustment. In this area you can mitigate some of the negative stress in your life. Examples of this may include:

- Distractions (cell phones, games)

- Caffeine intake

- Over-the counter drug intake

- Environment (hot/cold, clutter)

- Poor sleep management

- Noise and interference

- Worrying about the future

- Poor understanding of your job

- A bad understanding of your job

The Signs of Stress

How to Identify Stress in Ourselves and Others
Stress is an adverse reaction(s) experienced to too much (or too little) pressure.

What to look for
These are some of the symptoms that are indicators of too much pressure that can come from you, work, home, any combination of, or maybe even all of them:

1. Psychological Signs

2. Emotional Signs

3. Physical Signs

4. Behavioral Signs

PSYCHOLOGICAL SIGNS
- Inability to concentrate or make simple decisions

- Memory lapses

- Becoming rather vague

- Easily distracted

- Less intuitive & creative

- Worrying

- Negative thinking

- Depression & anxiety

- Tunnel vision

- Hyper vigilance

EMOTIONAL SIGNS
- Tearful

- Irritable

- Mood swings

- Extra sensitive to criticism

- Defensive

- Feeling out of control

- Lack of motivation

- Angry

- Frustrated

- Lack of confidence

- Lack of self-esteem

The Signs of Stress

What to look for (cont)
PHYSICAL SIGNS
- Aches/pains & muscle tension/grinding teeth

- Frequent colds/infections Allergies/rashes/skin irritations

- Constipation/diarrhea/ IBS

- Weight loss or gain

- Indigestion/heartburn/ulcers

- Hyperventilating/lump in the throat/pins & needles

- Dizziness/palpitations

- Panic attacks/nausea

- Physical tiredness

- Menstrual changes/loss of libido/sexual problems

BEHAVIOURAL SIGNS
- No time for relaxation or pleasurable activities

- Prone to accidents, forgetfulness

- Increased reliance on alcohol, smoking, caffeine, recreational or illegal drugs

- Becoming a workaholic

- Poor time management and/or poor standards of work

- Absenteeism

- Self-neglect/change in appearance

- Social withdrawal

- Relationship problems

- Insomnia or waking tired

- Reckless

- Aggressive/anger outbursts

- Nervous

- Uncharacteristically lying

The symptoms that affect you will often accumulate until you or your shipmates are forced to take notice of them.
Don't rationalize the symptoms away, if you are not sure – ask your Doctor

It is often the behavioral symptoms that are noticed, as they are more obvious, but by this time stress has been going on for many months, maybe even a year or more.

Stress   Handle

What are Distractions?

Distractions may allow a situation to become unmanageable through inattention from the task at hand. Caused by paperwork, routine low-priority tasks, people, gossiping, and other tasks that can be postponed and which are of little primary value.

Prevent Distractions

Possible ways of preventing distractions include:

- Non-essential activity should be avoided, suppressed or removed

- Remove non-essential items from the Bridge

- Keep general conversation short if you are on watch

- Paperwork to be completed during a time where your vigilance is not required.

Good Stress handle on emergency situations

1. **Consolidate tasks**-group similar jobs and do them synchronously. This eliminates a lot of frenetic behavior.

2. **Take on most difficult jobs first (if possible).** -You will find you will be able to finish the less complex jobs with less stress.

3. **Delegate responsibilities**. You don't have to do everything; let others learn to share responsibility. Now you will have more time for major tasks.

4. **Make most of your idle time**- do some reading, tackle paper work.

5. **Get rid of the clutter that's been accumulating on your desk**-an organized desk lowers stress.

6. **Don't procrastinate** just do it. Repetition is critical to imbed new habits and jettison the old ones. Reward yourself; this will motivate you to be more disciplined.

7. **Cut down on meetings**- attend meetings that are absolutely necessary. If you cannot avoid a meeting, try a stand –up meeting, this way you address the most pressing issues.

Set goals and plan your days, weeks, month and year. This is how you can measure progress.

8. **Just say no**. This refers to ill-timed, frivolous, or not within your direct power demands. With practice it will become easier and the more you say it the more aware you will be of what is more important.

9. **Prioritize Projects.** This depends on time constraints, parts, people available, importance of task, etc.

10. **Use Check lists-** aids memory and provides standardization

11. **Schedule time to handle email**. Don't check your email throughout the day. Try to automate some of the email processes.

12. **When are you most productive?** Identify when you are most productive; if you are not a morning person then don't schedule tasks in the morning.

Stress Handle

Team Stress Handle
1. **Drills for emergencies –** This shortens the time spent in the alarm stage of stress

2. **Use of Checklists** The importance of checklists in emergency situations cannot be overstressed

3. **Cut down on leader induced stress** – Dominant leadership can be taken to the extreme point to where teamwork could disintegrate. Touchy, yelling, unstable and dictatorial are signs of inefficient stress inducing leadership

4. **Prioritize and summarize the team's projects.**

5. **Delegate –** Remember to do this during times of calm and emergency. Do not risk the team by running a one man show. Delegation implies trust in team members and can raise morale.

6. **Work areas should be pleasant and easy to use.**

7. **Positive Reinforcement** Positive reinforcement is a powerful stress management tool. Nothing deflates a team member more than non-constructive criticism or Non-constructive Praise. Praise in public, constructive criticism in private.

COMPETENCE # 4

4-Control passengers and other personnel during emergency situations.
Human behaviour and responses

4.1 Ability to control passengers and other personnel in emergency situations, including:
4.1.1 The general reaction patterns of passengers and other personnel in emergency situations.
Generally it takes some time before people accept the fact that there is an emergency situation.
Some people may panic and not behave with a normal level of rationality, that their ability to comprehend may be impaired and they may not be as responsive to instructions as in non-emergency situations
One of the biggest problems with abandoning a ship is that many of the passengers are elderly. A younger fitter person may be confident they can get themselves into a lifeboat, but the elderly often aren't. This causes a lot of apprehension and even panic. Do your best to assure those people, and help them when you can. Less panic means a better chance everyone will survive, so it's in your best interests to keep them calm.'
Psychological theories propose that panic is caused by a catastrophic misinterpretation of perception. A common agreement for the meaning of panic is missing. Thus, the conception considers panic an antithesis of organised group activities .Such behaviour arises from individuals' feelings of isolation in a crisis, as well as sensation of collective powerlessness. Almost any kind of collective disorderly activity or an individual's acute fear reaction marked by loss is defined as panic. Regardless of the absence of distinctive criteria for panic, a little assistance to characterise panic is given by such general terms as irrational, antisocial, non-functional, impulsive or inappropriate instances of behaviour. Similarly, as with the meaning of panic, there is also disagreement on the conditions which produce or facilitate panic. The presence of panic includes a various set of events, usually a situation which has a reference to a threat such as crowd and crisis, a lack or loss of leadership or a shattering of group bonds.

Phase one – Warning
Note: Following are all excerpts from the book "Understanding Human Behaviour in Emergencies" (B2)
In some emergencies there is little or no warning. Others develop over time, and alarms and warnings exist to signal the existence of the incident and to provide information about the emergency and any action to be taken.
Whilst peoples" behaviour cannot be predicted with any degree of accuracy, researchers have developed an `acceptance model" which seems to indicate reluctance on the part of many people to accept that an emergency situation exists, certainly in the very early stages.
Even when people detect signs of an incident and are faced with the fact that a threatening situation might exist they are, especially if in groups, reluctant to accept those signs as

threatening. Social inhibitions are strong at this stage, and can result in a slow initial response. If, in spite of this, a group does decide to check things out, their first act is likely to be to discuss it amongst themselves - and it is here that valuable time can be lost.

If the warning phase is prolonged, and for some reason guidance and instruction are absent, people will begin to experience a great deal of uncertainty and anxiety. Some will wait to see what happens next – perhaps they can do little else - with inaction being the end result. At the other end of the scale, uncertainty, tension and fear may rise and might become intense enough for people and groups to begin to panic.

Given this, the need for early and clear information and instructions from officers and crew is self-evident. If provided in an effective manner, it should help everyone through the next phase of the emergency.

Influencing factors

When an alarm or warning has been given, whether a passenger will hear it, appreciate it for what it is, understand the message, take it seriously and act appropriately will depend on a number of factors, including:

Factor 1 - Credibility of the sender

Any obvious signs of authority, expertise and experience give credibility to the warning; people are more likely to believe someone who would be expected to have the most exact information about the situation.

Factor 2 - Conveyance and content of the warning message

How the message is delivered and by whom; obvious signs of authority give a message credibility; ambiguity must be avoided, or confusion and / or denial can be the result.

Factor 3 - Age differences

Younger people may be more likely to respond to warnings than the elderly, who may be less willing to move or to evacuate particular areas.

Factor 4 - Immediate social situation

People on their own or with their peers or work groups, rather than in family groups, may be slower to respond to warnings and more likely to deny danger exists.

Factor 5 - Presence of family or friends

Families and groups of friends tend to take warnings more seriously than other groups; they try to stay together, relying on each other for advice.

Factor 6 - Observations

People look around them and try to interpret other people's behaviour in an attempt to obtain information about the nature and seriousness of the situation.

Factor 7 - Place

In public places, such as restaurants, people tend to have more difficulty in interpreting the situation as potentially dangerous, and it may be more difficult to get them to accept the warning and prepare to act.

Factor 8 - Point of time the warning is given

At night it is more difficult to rouse people; moderate levels of heat and smoke levels alone are not reliable in waking people; to be effective, alarms need to be 20 decibels louder than the background noise.

Factor 9 - Experience

The possibility of an adaptive response - of people heeding warnings straight away - is increased if they have either had a recent or similar emergency experience, or have heard of one.

Aids to decision making

Cue 1 - How other people behave.

People will look around at how other people are responding; if other people, especially crew, are not taking it seriously, nor will they.

Cue 2 - What other people say.

People need to process information given by officers and crew; they often do this in small groups, especially family, peer groups or those of equal social status.

Cue 3 - The presence of specialized staff

The unexpected presence of senior officers or fire parties will shape passengers" views of the current situation.

Cue 4 - Changes in the environment

Even if not directly caused by the emergency, changes, such as engines slowing down influence passengers.

Cue 5 - Physical products and evidence of a problem

People look for heat, noise or smoke; smoke alone has proved to be an ambiguous cue, and people might fail to respond if it is the only one.

Cue 6 - Instructions by staff

The actual physical presence of staff issuing guidance and directions prompts most people to take warnings seriously.

Maximizing effectiveness

It should *never* be assumed that everyone has heard and understood any previous announcements nor that they will know how to react. To make warnings and instructions effective they should:

- be given by appropriate people when information about an;
- emergency becomes specific enough to be of value be made by those;
- perceived as trustworthy, and in a way as to inspire confidence;
- be specific in content, giving out only information known to be, or likely to be correct;
- define clearly what is expected and when;
- neither under-estimate nor over-estimate the danger;
- suggest appropriate courses of action;
- be made as personal as possible;
- be in a language understandable to the recipients;
- be repeated frequently with short periods in between;
- never refer to catastrophes of the same type; and

- do not include music or other unrelated information in the pauses between transmission

A panicking situation involving no unity of action and no co-operation with others, highlights individual behaviour and thus breaks down concerted behaviour.

Sometimes, in a controlled withdrawal people may run around confused with partially disorganised activities included in their pattern of behaviour, but the whole structure does not collapse as it does in total panicking situation. In such cases panic causes even the strongest of primary group ties to shatter, discarding the most expected behavioural patterns

However, not all panic is collective. People in panic know they are afraid for what usually is their own physical safety, but they are also aware what they are afraid of. This experience is never an obscure reaction, rather, an individual's fear is something very specific and personal which is never unknown. In this respect, defining the panic situation people need to see the threat and associate it in a definite place From a cognitive perspective, people in panic become highly self-centred.

Subjectively it means processing the information how to get oneself away from danger.

When focus is highly concentrated on saving oneself, it also means orientation of activities. Through information processing a person tries to create a sufficient awareness of the circumstances. A person in panic neither acts completely instincally nor is totally unaware of anything else. People are at least partly aware of the presence of other people. However, the decisions and activities in the situation seem rational to the person, one's actions appear to be appropriate to the situation as one perceives it at that time. Thus, a fleeing person does not take into account the consequences of their activities that sometimes may lead to an even more dangerous situation than the original threat itself .Panic in an already threatening situation causes further danger. The feeling that accelerates the occurrence and continuance of panic is entrapment without possibility to escape. The experience of entrapment does not necessarily have to do with physical obstacles, but can also be of psychological nature.

To summarise panic behaviour, it can be defined as an acute, individual fear with the loss of self-control. Panic behaviour is not random or totally irrational. On the contrary, it is followed by nonsocial and nonrational rules of flight behaviour. People in panic always have a target for their fear which is present in the situation and causes immediate and strong physical threat. Social consequences become irrelevant even to consider: the process of escaping is self-centred, where no consideration for alternative choices are made and interactional patterns are ancillary, even breaking social norms.

To reduce or avoid collective panic and reduce the number of individuals panicking, it is essential to establish an authorithy and build a perception of order and control. The rumour will must not allowed to run; counter it by supplying information at regular intervals e.g. by repeating orders as set out in 0. Try to maintain an optimistic attitude as far as posible: try to give the impression that the group will be able to overcome the difficulties confronting them. However, note that some Pax will need help to realice the situation. They should be informed as follows:
*Gradual information

*Avoid dramatising

*Be factual.

Its is essential to keep the passensgers minds on something else than their fear. Both activity and continuos information are useful.

Trouble makers (the active persons) must not be allowed to act freely. They should be kept occupied with helping others. Connect actives persons with persons having panicked or wich are need of help in any other way.

Panic consumers resources; you will normally need 2 or 3 persons to control a panic-stricken pax. Accordingly, you may encounter situations where you have to let panic-stricken people go.

Children require special attention, in particular if they have been separated from parents and or others relatives. It is essential to connect capable helpers with such children. Aslong as composed adult persons, e.g...A crewmember or a helper, is present, children will ussually not panic.

When you have made the connection, it is essential to keep the chosen adult together with the child during the whole emergency.

4.1.2   Awareness of passengers and other personnel actions during emergency

Passengers will start looking for relatives, friends and/or their belongings as a first reaction when something goes wrong during emergencies, that is the reason to have a good crisis management and organized musters stations in order to reunite all familiy members in one place son as posible.

This is explained on the training videos and lecture conducted by the instructor on classroom.

Some passenegrr seek safety in their cabins or in other places on board where they think that they can escape danger, this is the reason the passenger Ship must have a search and rescue tea mor crewmembers assigened to check all cabins during afeter the evacuation or during the counting of the passengers on each muster stations.

When the muster station reports one or more passemegrs are missed, this search group will porceed directly to the cabins of the passeneger in order to verify if they are inside.

Its normal when the Ship is in an emergency it will lose stability and will listed to one side…so the passeneger reaction is to tend to move to the upper side when the ship is listing, the crewmember of each muster list have to orientated the passengers to do it in calm to avoid accidents.

Phase two – Impact

Note: Following are all excerpts from the book "Understanding Human Behaviour in Emergencies" (B2).

The second phase of an emergency is called the **impact** phase and by this time, as the name implies, the warning signs and alarms have been seen, heard and accepted and it is understood that the threat is real. The term "impact" can mean:

- the realization that an emergency situation really exists
- the time when disaster literally strikes, perhaps bringing with it injury or death

This phase, along with the warning phase, requires people to detect changes in their environment, collect relevant information, interpret and evaluate it and then make decisions as to what needs to be done. Even if people are given the same information and warnings, their understanding of the situation will differ, as will their responses once they have accepted the warnings.

Their responses, therefore, will be strongly influenced by how they have interpreted the situation they are in - whether, for example, they believe a disaster is about to overwhelm them - and if they feel they have the ability to cope with the demands that might be placed upon them, and those close to them.

During these phases, families and close friends want to be together. They rely heavily on each other for advice, especially if warning sources are uncertain and the impact, when it comes, is sudden. They should, whenever possible, be brought and kept together.

Having reached some estimation of threat, there may be a decision to act and/or to warn others. As a rough guide only, if left to their own devices about 25% can be relied on to act rationally. Such adaptive responses are more likely if the individuals have had recent similar experiences, knowledge of similar disasters, or are with their family or a group of close friends. This group can be a valuable asset to officers and crew.

Others, the bulk of passengers, may accept that there is a problem, but either take no action for some reason or other, or be slow to do so. If it is fear *or* uncertainty which is underlying the inactivity, they may be experiencing thoughts such as:

- o this is not going to work;
- o it is too late now;
- o no one can help; and
- o there is no point even trying.

If, however, their lack of activity is because they are quite *confident* that the officers and crew will deal with the situation and at the same time give them the instruction and guidance they need, then they are more likely to be thinking such things as:

- o it will be all right;
- o we will stay here;
- o the crew will handle it; and
- o they will tell us what to do.

A small number, perhaps 15%, might engage in a wide range of inappropriate behaviours, ranging from attempting to collect their belongings in the face of considerable adversity, to

sitting and weeping. Some might panic, although few are likely to breakdown in such a dramatic fashion.

In attempting to shape how people behave, it will be obvious to officers and crew that the role of communication throughout is vital, and that it must be clear and informative.

Likewise, their own behaviour must be, whenever and wherever possible, exemplary and professional if the next phase of the emergency is to be dealt with adequately, for even if matters have been handled well up to now, getting large numbers of people from one location to another is not always easy -and it almost certainly will take far, far longer than most officers and crew will have anticipated.

4.1.3 Appreciation of the possible problem of panic as a result of separated from families Phase three – Evacuation

Note: Following notes are all excerpts from the book "Understanding Human Behaviour in Emergencies" (B2)

In very basic terms, this third phase of an emergency, **evacuation**, is about getting passengers to stop whatever they are doing and move. We know that they must first become aware that a threat exists, the so-called warning phase.

Next, they must accept it - the impact phase. We also know that it is well established that people differ in their ability to take in information during these first two phases, and to decide on a course of action and carry it through.

To start with, anything which is unfamiliar and unexpected can in itself is alarming. In order to reduce any rising anxiety, people may attempt to convince themselves that what they are seeing and hearing is normal, and not in any way a sign that things are going wrong. This apparently harmless and plausible explanation is often accepted for some considerable time, in spite of all the evidence to the contrary. People tend to see and hear what they want to - they do not want to have to accept that things are going wrong.

Common assumptions

Some assumptions about human behaviour held by those responsible for the safe evacuation of people in times of emergency, and which might hinder the evacuation process itself are that:

     a. Individuals start to move as soon as they hear an alarm;

     b. The motivation to escape underpins any movements people make or actions they carry out;

     c. Time taken to evacuate is dependent only on the time it takes to physically move to, and through, an exit;

     d. People are most likely to move towards the exit to which they are nearest;

     e. People move as individuals, without considering others ("every man for himself");

f. Fire exit signs help to ensure people find a route to safety;

g. People are unlikely to use a smoke filled escape route;

h. All the people present are equally capable of physically moving to an exit; and

i. Peoples" safety cannot be guaranteed since they are very likely to panic.

Categories of human behavioural response during evacuation phase:
So far we have considered a number of assumptions and research evidence about human behaviour during the evacuation phase, but broadly speaking, behaviour can be described as adaptive or non-adaptive.
Adaptive behaviour is usually rational and can assist survival, whilst non-adaptive behaviour is usually irrational and can hinder survival.

Category 1 - Inaction
Sometimes referred to as freezing or negative panic, this is a stunned and bewildered response to an unusual event or series of events such as would be found in emergencies, particularly those of a serious nature.

Category 2 - Fear – flight
This is escape behaviour which is non-rational in that the normal decision-making processes have been suspended, but nevertheless stops just short of panic.
These behaviours are the automatic responses to danger when levels of arousal are high and the drive to survive is strong. They are not classed as panic, in that they remain social and retain some degree of thought, however inappropriate the behaviour might seem to the onlooker.
As part of flight behaviour passengers will, for example, automatically move to the high side of a listing vessel, even if this may not be the most appropriate response as judged by an experienced crew member, leading the evacuation.
They might try to go to their cabins to pack or get something even if, to the casual observer, this is a dangerous activity given the potentially serious nature of the incident.
Others may try to flee in any direction, often the one which first occurs to them. There are times however, as at the Bradford Stadium fire, when people's desire to flee from danger will be held in check by normal everyday "rules". At the Bradford Stadium some people were unwilling to climb onto the pitch until police officers not only gave them permission but also gave a direct *order* to do so.

Category 3 - Panic
It is a highly emotional, intense and non-adaptive behaviour which can further endanger the lives or well-being of both the individual who is in a state of panic and those around them.

As noted before, the concept of panic is a powerful and inaccurate one. Part of the problem is that the chaos which can be witnessed during some emergencies can lead people, the media for example, to misinterpret or to call any sort of flight behaviour "panic".

Panic is behaviour that is characterized by self-preservation at all costs, including a breakdown of group ties. It is highly emotional and intense, and is brought about by the presence of an immediate and severe threat. It can result in increasing the danger for self and for others, rather than reducing it. For officers and crew, panic may become a problem if:

- people think there is a threat, whether physical, psychological or both, which is about to endanger them at any minute, so that escape is the *only* possible action;

There is partial entrapment, with only one or a limited number of escape routes available for use;

- there is a breakdown of the escape routes - they are blocked, jammed or over-looked;
- time is getting short, and the opportunity to escape is passing; and
- there is a front-to-rear communication failure, with people at the back of a crowd pressing forward and causing those at the front to be smothered, crushed or trampled.

In addition to this, panic becomes even more complicated when individuals and groups are looked at in more detail:

Individuals might panic if:

- people are, quite literally, isolated from each other or.
- the threat is so attention-getting that people do not notice or. and

- interact with others.

Ensuring people are not isolated from others should, if possible, be an important objective for officers and crew.

Group panic can occur in a sudden crisis when:

- people may interpret events as dangerous, although what they see and hear does not cause them to panic; and
- the actions of other people confirms their belief that the situation is dangerous, and this can cause them to panic.

People may expect to see others panicking before taking situations seriously. If they do witness sudden panic, it can be infectious and needs to be stopped by officers and crew at source.

Panic can emerge in a slowly evolving crisis if:

- as well as the actions of other people, what is said and heard underlines the seriousness of the situation; and
- little or no information is given by those in a position to know what is really going on.

Information from appropriate authorities, especially in a slowly evolving situation, is vital if this form of panic is to be prevented from occurring in the first place.

Category 4 - Non–panic responses

These are the behaviours vital to survival and include information gathering, decision-making and preparation for escape.

Non-panic behaviours are responses which are adaptive - in other words they are both rational and vital to survival.
They include:

- an acceptance of the situation;
- use of the available information;
- control of stress reaction;
- taking action to minimize the danger and warn others;
- acting constructively for self and others; and
- evacuation of self and others.
-

Category 5 - Altruism and affiliation

These are the protective behaviours which are helpful to individuals and groups, and which can assist survival.

These are behaviours intended to assist others to survive and to escape. Even in a stressful environment people often respond to the emergency in a rational and altruistic manner. The more instinctive, or panic reactions, are not the norm.

So, despite feelings of fear and helplessness, people often act appropriately to protect themselves and others. This is especially the case for the so-called primary groups - family and close friends - with whom people have emotional or social ties. Most, although not all, of the altruistic behaviour tends to be directed towards these groups.

In fact the threat makes these bonds stronger, and the aim of a family unit will be to stay, and survive, together. Given this, they will make every effort to respond as one unit, and if they are separated they will try to get back together, delaying escape until all group members are present.

Phase four – Recoil

The **recoil, or stop phase**, is the last to be discussed in any detail. This phase can signal a number of things, including:

- a growing realization that a possible crisis situation has not materialized, that crew members can stand down from muster stations and return to normal duties, and passengers can safely resume their former activities - the emergency is over; and

- a full blown crisis has occurred, but the factors which gave rise to it cannot cause any more damage, and people have, for example, been evacuated from areas of immediate danger, possibly going so far as to abandon ship.

If the emergency was not serious, everything should return to normal, without too many difficulties. Officers, crew and passengers should resume their shipboard activities or, if they have left the vessel, the majority will get on with their lives, none the worse for their experience.

If it was a serious event, then matters will probably be very different. Most people will have realized the full extent of what happened to them. Perhaps they lost possessions. Possibly they lost loved ones. Some, perhaps many, maybe affected to the point of experiencing flashbacks - remembering the events with such clarity that it is like re-living them. Others may be affected to

the point of showing signs of psychiatric illness including depression, anxiety, nightmares and a wide range of disorders.

All of these signs and symptoms are representative of what has become known as post-traumatic stress disorder.

Anger and despair is not uncommon and one of the difficulties experienced by survivors is how to deal with these feelings. Venting anger on a particular person is one way of dealing with these feelings, and this can be quite an effective release.

If, however, the only option is to direct anger at a large organization, such as a shipping company, the result can be quite different. In this case, any feelings of hostility will have no clear target and there will be little chance of relief, so that a survivor's frustration may remain with them for a very long time indeed.

Behavioural responses – Passengers

As time goes by, the stress of the situation may continue to take its toll with arousal levels remaining high, especially if there is continued uncertainty.

Whilst some people will take stock of any destruction and loss, realize they have faced death and injury, and begin to work towards getting through the next period, for others anxiety levels may carry on rising. Emotional release begins as people realize what has happened, although some may continue to be stunned by events.

Sooner or later, however, most people seek to regain control and put their energies into surviving and comforting others.

What seems to be most helpful during this period is:

- decisive, firm yet compassionate leadership which keeps morale up, lessens anger and mobilizes hope;
- the maintenance of control, including the search for information and a need to make sense of the situation;
- the will to survive, whether based on wanting to see loved ones again, or even for some sort of revenge;
- a focusing on survival by actively assisting others as well as protecting oneself, giving mutual aid and sharing advice;
- mental rehearsal of activities seen as beneficial and desirable;
- thinking about people who are important figures - such as husbands, wives and children;
- prayer, which is a release, a source of reassurance and a means of appeal in an otherwise hopeless situation, even for those not normally religious; and mental and physical rest, which allows those involved to emerge refreshed and ready to re-direct their energies at survival.

Children are particularly vulnerable at this time. Younger people have limited life experiences and these affect how they see the disaster, and its aftermath. For them, disasters can brutally undermine the idealism and trust in adults that is often found in this age group. In general:

- Up to 8-9 years they tend to mirror the responses of their parents, whether fearful or calm; interestingly, if parents are absent they often seem to show little or no fear.
- Between 9-14 years they often show excitement about what is happening around them, but no fear or anxiety; they may even want to go back into the disaster area to have a look at what is happening and obviously must be prevented from doing so.
- Over 14 years they will be more likely to show fear, and / or behave much like the adult population.

On balance, then, it seems that young children will *reflect* any calmness exhibited by adults, whilst the older children will be restrained and *supported* by it.

What is self-evident is that here, just as much as at any other point during the emergency, decisive and strong leadership is required. In summary it should:

- be firm but compassionate
- keep up morale, lessen anger and counteract hopelessness
- emphasize any good aspects of the situation rather than concentrating on the bad aspects

Behavioural responses - Officers and Crew

Officers and crew may experience considerable tension and a feeling of urgency when coping with passengers at muster stations or in survival craft. There may be a temptation to do something or anything, however pointless, just for the sake of it.

This feeling can be controlled by:

- trying not to become overwhelmed by events and what are, perhaps, new and unexpected responsibilities;
- seeking to grasp the overall picture, not just small parts of it;
- developing a plan and keeping it simple;
- breaking down what needs to be done into small manageable tasks;
- setting clear and achievable objectives and priorities;
- avoiding the urge to do too much; and
- accepting that one cannot be all things to all people at all times.

Evidence from interviews with survivors, and those who have successfully managed an emergency, indicates that they had a natural tendency to do these things both for themselves and for others.

In addition to this, one simple, but powerful "tool" is to establish a roll call, which is:

- a way of establishing lines of authority, ensuring people know who is in charge and that they are trained, and as such, are people in whom the passengers can have some degree of confidence;
- a means of identifying those capable of action, enabling them to be assigned to help those in need and perhaps on the point of collapse;
- a method of identifying skills and knowledge, which people might not otherwise volunteer, and putting them to good use, enabling individuals to benefit from being involved in some form of activity;

- a means of identifying and recording injuries, both obvious and suspected, identifying treatment and deciding who will administer care;
- a simple method of establishing the mental state of each person – if they can only remember their name they may be in more need of help than someone who can remember more, and they will begin to recover more quickly if given something to do - even talking about themselves;
- a form of reassurance to the person, for once they begin to be recognized as an individual, with a name and family history they tend to stop thinking of themselves simply as a "victim";
- a means of giving relief, for talking to someone is often the first vital step to some sort of recovery, however, sensitive issues should not be explored too deeply; survivors are not mentally ill but may simply be stunned by events; and
- a chance to let people perform what might be their first independent action since the emergency began - even if it is simply giving their names to a crew member.

If this period of waiting continues, roll-calls should be repeated from time to time to monitor events and to act as a form of reassurance until rescue takes place, ensuring that psychological as well as physiological problems are addressed.

If some people volunteer help it should be accepted whenever possible, as rejection can be damaging on a personal level and affect the general atmosphere. Further, periods of enforced inactivity make people feel that their skills are of no use, leading them to focus on their own plight, possibly undermining their will to get through this phase of the emergency.

COMPETENCE # 5

5.1-Establish and maintain effective communications.
5.1.1 Clear and consise instructions and reports
The ability to impart clear and concise directions and pass pertinent information is the very essence of good crisis management. Good communications is a must to ensure effective utilization of all available resources in response to emergencies.

Elementary or basic English should be used in communicating basic instructions to passenger in giving clear and consise instructions and reports in communication basic instructions. The idea is to convey the instructions to passengers in simplest form for them to easily follow. According to guidelines for accessible maritime passenger transport published by Ireland's Department of Transport and the National Disability Authority, information should be complete but concise and to the point. Too much information is difficult for people to retain.

Using elementary English is important for the following reasons:
- o Higher chance that it could be easily understood;
- o 375 million people speak English around the world;
- o more than 50 countries where English is either the official or primary language; and
- o 3rd most common primary language in the world.

Its important the language or languages appropriate to the principal nationalities of passengers and other personnel carried on the particular route, Onboard should have interpreters or traslator that will comunnicate to all passenegers the differents informations in the common languages.
The language in which emergency announcements may be broadcast during an emergency or drill to convey critical guidance to passengers and to facilitate crew members in assisting passengers.

5.1.2 Exchange information with, and feedback from, passengers and other personnel
Closed loop communication is a communication technique used to avoid misunderstandings. When the sender gives a message, the receiver repeats this back. The sender then confirms the message; thereby common is using the word "yes".

Importance of using the closed-loop communication style to safety:
      1. the sender would know that the message is fully understood by the receiver before executing the instructions; and
      2. helps to avoid misunderstanding and misinterpretation of the messages.

Closed-Loop Communication Style
Barriers to good communications are factors which impede or breakdown the communications loop. Barriers block, distort or alter the information. Some such barriers include:
- Non-assertive behavior
- Task preoccupation -Anger or frustration
- Personal bias
- Learn diversity
- Lack of confidence -Inappropriate priorities
- Organizational structure -Distractions

Tunnel vision -Interruptions -Position differences

Communications with Passengers

All information passed to passengers during an emergency situation should be factual. Using alarming words, such as "crisis", "emergency" or "disaster" should be avoided.

5.2 Ability to provide relevant information to passenger's and other personnel during an emergency situation.

5.2.1 Language or languages appropriate to the principal nationalities of passengers and other personnel carried on the particular route

Identifying language or languages appropriate to principal nationalities of the passengers is very important in communicating with passengers either during normal or emergency situations. Referring to the MV **Estonia** tragedy, it was reported that the working language onboard was Estonian but English was compulsory for all persons in positions involving work contact with passengers. However, during the emergency, the announcement was made in Estonian language which could not be understood by the Swedes. It is imperative for crew to be able to communicate using methods that the can be understood by passengers.

Orders and information should be passed in as simple form as possible. Passengers and crewmembers in a crisis situation may have reduced capability to receive and understand complex messages. MSC/Circ. 794, IMO STANDARD MARINE COMMUNICATION PHRASES (SMCPs), provides a detailed collection of phraseology for application in shipboard operations, including emergency situations. SMCPs should be used to the greatest degree possible to reduce risk of misunderstanding of directions or information.

5.2.2 Possible need to communicate during and emeegency by some other means, such as by demonstrations, or by hand signal or calling attention to the location of instructions, muster stations, life saving devices or evacuation routes, when oral communication is impractical.

Communications during emergency response actions should be in the ship's "working language", English in the case of ships embarking passengers in U.S. ports.

One common example of using an elementary English is to illustrated instructions of how to use personal-life saving appliances. The crew can communicate by demonstration, or hand signals, or calling attention to the location of instructions, muster stations, life-saving devices or evacuation routes when verbal communication is impractical.The use of standard symbols can help passengers to quickly find key facilities such as bathrooms and emergency exits. Consistent use of terminology or pictograms will help to communicate effectively with all passengers.

Instructions and reports should be based on need for the information due to the fact that ability to communicate probably be reduced to some degree in crisis situations. The following 5 point order may be applied to analyze what information is needed and by whom:

- o Situation: Explain present situation to relevant personnel, avoiding unnecessary details. A system of simple codes might be used in order to avoid alarming passengers and to reduce the need for sending and receiving lengthy messages.
- o Assignment: Explain what response actions are required by specific crewmembers. If standard procedures apply, minimal instruction will be necessary. Again, avoid getting too detailed, allow response personnel to focus on tasks at hand without undue interruption.
- o Execution: If necessary, explain how to perform the assigned tasking. Standard procedures might apply here also.
- o Administration: What procedures apply to the situation? Is support available?

5.2.3 Language in which emergency announcements may be broadcast during an emergency or drill to convey critical guidance to passengers and to facilitate crew members in assisting passengers.

There will be an instance that the complete safety instructions where provided to passengers in their native language. The format in which information is provided is as critical as the information itself. Information should be available in formats that are accessible to all passengers. In many cases this will involve providing the information in an alternative format, such as large print, audio/video (on tape, disk or in electronic format), Braille or "easy-to-read". It is good practice to ensure that the information provided is in clear print and plain language. If the operator wish to provide information in more than one language, separate information leaflets in each language are better than a single multi-language leaflet.

Passengers may come from different cultures with different languages and some may come from non-English speaking countries. What would you do if you have hearing-impaired or non-English speaking passengers in a group?

Alternative means:

- • Assign interpreters
- - crew
- - fellow passengers
  - • Use hand signals
  - • Point to posters, safety signs & symbols.

The ability of the crew to broadcast emergency announcement during emergency or drill using elementary English should be demonstrated. Practical activity in broadcasting emergency announcement should be done by each trainee. Announcement should be done in simple and concise manner. Accurate and clear information should be applied during the activity.

Here are the following exercises in broadcasting emergency announcements:

1. Announcement to passengers:

Ladies and gentlemen and children, this your muster station leader. May I have your attention please? We will now demonstrate how to put on the lifejacket properly. Please listen and watch carefully.

2. Announcement to passengers:

Ladies and gentlemen and children, may I have your attention please. The crew at the assembly station will guide you to your lifeboat stations in a crocodile queue, using the most direct route. Remain calm and follow the instructions of the assembly station crew at all times.

3. Announcement to passengers:

Ladies and gentlemen and children, please listen carefully. We have to keep one single line as we move from the Assembly Station en route to the lifeboat station. Keep one hand on the person in front of you and the other hand free to hold onto available handrails.

Remain calm and follow the instructions of the assembly station crew at all times.

Activity No. 1
Announce by Voice
EXAMPLE OF EMERGENCY INSTRUCTION BROADCAST

1. Special Signal
2. "Ladies and gentlemen, would you please listen very carefully to the following safety announcement.
3. Your attention is drawn to "the passenger emergency instruction notices" which are displayed in the [cabins,]* Muster Stations, and in other spaces.
4. These notices include the location of Muster Stations, that is, the areas where passengers should assemble in the event of an emergency, the method of donning a lifejacket and a description of the General Emergency Alarm Signal.
5. This Signal consists of seven or more short blasts followed by one prolonged blast on the ship's whistle, then by a similar signal on the alarm bells.
6. If this Signal is sounded and you are not already in a Muster Station you should proceed to the nearest Muster Station*,/to your cabin*, dress warmly, collect your lifejacket and then proceed to your Muster Station.
7. The Muster Stations on this ship are located in [_____]*. The Muster Stations can be identified by a square green and white sign and an arrow in each corner pointing inwards to a symbol depicting a family group.
8. At a Muster Station a crew member will issue you with a lifejacket and instruct you how it is to be worn. You should remain calm and follow the instructions of the crew members in your Muster Station".

*As appropriate.

- Be confident then other will have confidence in you
This is a list of examples of using conditioning to increase your self-confidence:

- **Dressing:** Dressing smartly, Looking presentable, Having a clean and kempt look

- **Body language:** Walking confidently, Speaking confidently, Being calm and composed, Holding your head up, Having a good posture, Smiling

- **Mental techniques:** Positive thinking, Visualization of positive outcomes/scenarios, focusing on your strengths rather than weaknesses.

- **Others:** Listening to upbeat music, Exposing yourself to inspirational materials, NLP techniques, etc

Information is conveyed as words, tone of voice and body language. Studies indicate that words account for only about 7% of the information communicated while vocal tone accounts for 38% and body language 55%.