



**ΑΚΑΔΗΜΙΑ ΕΜΠΟΡΙΚΟΥ ΝΑΥΤΙΚΟΥ**  
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# ***ΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ***

**ΕΠΙΒΛΕΠΩΝ ΚΑΘΗΓΗΤΗΣ: ΠΑΠΑΛΕΩΝΙΔΑ ΠΑΡΑΣΚΕΥΗ**

**ΘΕΜΑ:**

**SHIP MANAGEMENT: THE ROLE OF DIFFERENT DEPARTMENTS IN A SHIPPING COMPANY**

**ΤΟΥ ΣΠΟΥΔΑΣΤΗ: ΚΑΛΙΝΙΔΗ – ΓΑΪΤΑΝΤΖΗ ΒΙΚΤΩΡΙΑ – ΠΕΛΑΓΙΑ**

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**Ο ΔΙΕΥΘΥΝΤΗΣ ΣΧΟΛΗΣ : ΤΣΟΥΛΗΣ ΝΙΚΟΛΑΟΣ**

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## **Abstract**

Ship Management is an important part of maritime traffic supervision and management, including the registration and management of ships, visa of ships entering and leaving the port, management of foreign vessels, ship maintenance management and technical ship management.

In this Essay, the significance of Ship Management and the functions of the Departments, that a Shipping Company consists of, are going to be presented. Moreover, role, duties and responsibilities of Managers, Directors and Personnel of each Department are going to be considered.

## **Keywords**

Ship Management, Shipping Company, Departments, Organization, Responsibilities, Duties, Manager, Director, Qualifications, Master, Chartering, Operations, Resource Management, Officer, Functional Organization, Matrix Organization, Hierarchy, Administration, Quality, Commercial Transactions, Technical Affairs, Ship Management Structure, Business.

## **Introduction**

Ship management, as the name suggests, deals with the process of managing a ship. Ship management is done by independent companies, which use ships of some other companies or independent owners. The ship management company manages ships for the owner and pays him the yearly amount, which is settled between the owner and the ship management company.

Moreover, the owner of the ship signs a contract and leases the ship to the ship management company for a defined duration of time. The ship owner may continue with the same management company or can approach another company if he is not satisfied with the performance of a particular ship management company. It is to note that the owner can lease the ship completely or he can render some of the services provided by the ship management companies.

Managing ships is not an easy task. Ship management includes several tasks, which are to be carried out before, during and after the operation of the ship. The first and foremost thing, that a ship management company needs to do, is get the ship approved. There are many approvals that are to be taken from different classification societies. However, the company can operate different types of vessels or just concentrate on any one type.

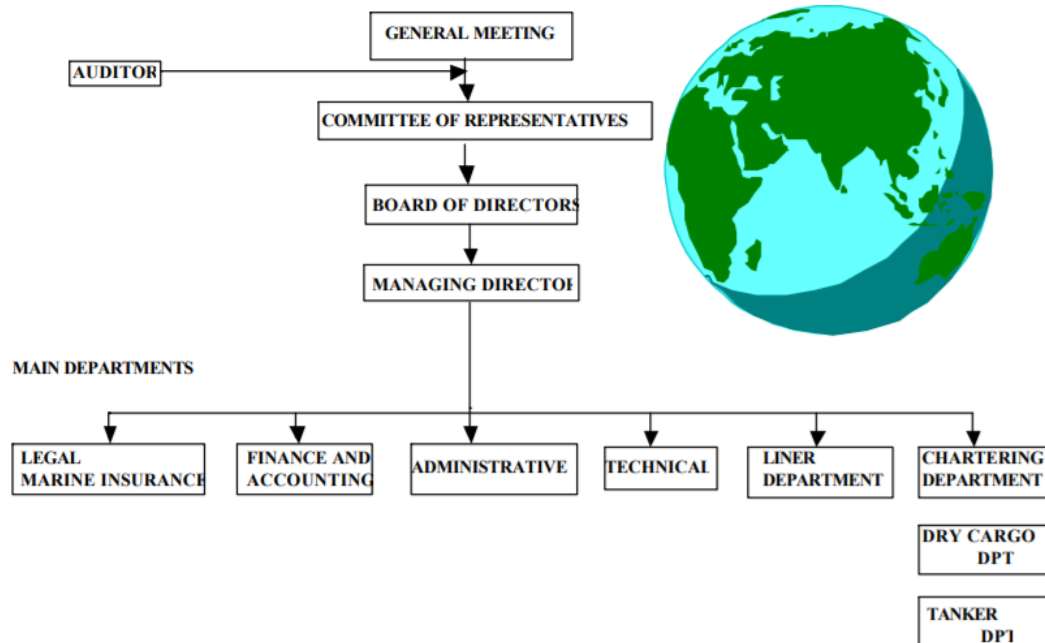
Now, if a management company wants to enter into a new field by indulging itself in operating different types of vessels, but is operating the vessel type for the first time then approval for operation is given for six months and their performance is evaluated, which will decide any further play casino online approval.

Following are the services that a ship management company is entitled to provide:

- 1) The ship management company should do the supervision of the maintenance of machinery on board the ship. The process should also include different surveys and repair work of the ship.
- 2) The ship management company should provide adequate crew for manning the ship.
- 3) The company should arrange for loading and unloading of the cargo.
- 4) The ship management company can hire the ship on behalf of the ship owner.
- 5) The company should negotiate the contracts for bunker and lube oil.
- 6) The ship management company pays the expenses on behalf of the owner.
- 7) The ship management company should make an arrangement for the entry of the ship in the P&I (Protection and Indemnity) association.

- 8)** The company also deals with various claims related to insurance, salvage etc.
- 9)** The ship management company should arrange for the insurance in relation to the ship.
- 10)** The ship management company's services also include arrangement for providing victualling and stores for the crew of the ship.

## Chapter 1 – The organization of a shipping company



A bigger organization will normally consist of the head office, the ships, offices abroad and a network of business connections such as shipbrokers, agents, stevedores, etc. who frequently are independent companies with whom the big company has fixed contracts. Bigger liner companies, for instance, will normally operate with a great number of agents, the same number of stevedore connections as ports called at, and a number of special firms such as shipbrokers, lawyers, tax consultants and auditors who have standing orders according to agreement. Most shipping companies prefer to use independent firms familiar with the local conditions in each country. Partly, because such firms may already be tied up with a competitor, or difficult to find, and partly because the companies have sizeable spheres of interest in the areas concerned, they have established their own offices abroad. This is particularly true of the liner companies. In this way the head office has direct Control of the agents and will, for instance, be able to expand the offices abroad under its own supervision. In towns of particular importance one may find Owners' Representatives who have assignments of different kinds.

Other kinds of representatives abroad are the superintendants at shipyards, which build new ships on contracts. Inspectors who manage repair and maintenance work, etc. Cargo Superintendants for the liner trade are also quite usual. In general, there are not many of these representatives sent out from head office, and consequently they seldom create any organizational problems.

The usual aid to showing the pattern of different functions in a shipping company is the organization chart. Such a chart is an important means of defining the areas of authority and responsibility and thus of evaluating if the organization satisfies the demands placed

on it. The following chart of an imaginary shipping company shows the general assembly, the Board of Directors, the ship-owner and the various main departments.

## **1.1 HISTORICAL RETROSPECTIVE**

The management as a function observed since antiquity. The systematic organization of management started at the beginning of 21 century. Fraderich Taylor (1856 – 1915) was one of the founders of the organization and the administration. With his book named Scientific Management Principles, he has merged as the father of the sciences of organization and administration. He supported that the increase in productivity was the only solution in order to gain greater salaries and simultaneously profit. The increase of productivity was going to happen with the application of scientific methods. Employees and employers should stop considering the distribution of profit as the major concern and focus on creating a harmonized workplace, which will be based on collaboration. The basic principles of his theory is the replace of empirical rules with organized knowledge and methods, the harmonized group action, the cooperation, working for maximum performance and the reward, that will be reflected in personal prosperity and in progress of the company.

Henri Fayol is considered as the father of the Management Theory and as the founder of the scientific organization and management. He emphasizes on the hierarchy levels of organization and management, analyzing the duties of managers. He also supported that all kinds of activities in the organization can be integrated in certain categories, that are called occupational operations. These are the technical, the commercial, the safety of employees, the financial and the logistic operation. In these operations are also included the functions of administration that can be divided into planning, prudence, organization, management of human resources, coordination and inspection. Nowadays, the principles of management are based on these functions of administration. In a few words, the principles according Fayol are the sacrifice of personal interest against team interest, justice and equity, staff permanence, initiative, team spirit, division of labour, discipline, power and responsibility to all levels of hierarchy, common goal, fair reward for all staff and respect for the hierarchy.

Max Weber focused on the social science and especially on administration. According to his views, bureaucracy is one of the basic needs of companies. The basic features of administration are the implementation of stringent regulations and of hierarchy levels.

In the early twenty century and further back during the industrial revolution, managers were oversees so employees could not be trusted to these early managers.

Nowadays, management is known to have different structures such as functional structure, pyramidal structure, line authority and matrix structure.



## **1.2 THE SHIPPING COMPANY**

As we progress through the early years of the twenty-first century, the size and scope of the shipping company will continue to change. It is based on the company business plan formulated by the directors. The following factors are relevant:

(a) The company will have one of its core objectives marketing. This is generating a new breed of management and culture throughout the company. It will remain customer focused, embracing/responding and empathizing to the needs of the customer in a competitive manner. Hitherto, in previous generations it was driven primarily by operating considerations. Moreover, the area of marketing embraces not only promotion strategies, but also market research, product development, including new types of containers, quicker transit and marketing plans including budget driven marketing management.

(b) The IMO codes introduced in the past decade include the ISM, STCW, and ISPS codes which influence the company structure primarily in the marine sectors of the business. In particular, the chain of command between the ship and shore with emphasis on ship management and security.

(c) Logistics is a growth area in liner cargo companies.

(d) A further factor is the impact of information technology which continues to become more sophisticated and quickens the pace of the decision-making process. It extends to all parts of the shipping company organization and in many companies has resulted in layers of management structure – especially in the middle management range – being eliminated. This has shortened the decision management chain and resulted in quicker decisions thereby making the company more competitive.

(e) At the same time the headquarters structure tends to be much smaller with authority devolved to encourage more accountability of personnel at all management levels. The profit centre concept has been developed through strong budgeting management techniques. The devolution of executive authority has involved crossborder structures and in so doing yielded tax benefits and lower wage scales. The development of computerized technology has greatly facilitated this devolution and change.

(f) A further factor is the diversification of the business. Whilst shipping may remain the core of the business many entrepreneurs have other interests which include real estate and construction, including ancillary activities of the core business such as road haulage, seaports, warehouse, shipbroking and so on.

(g) The development of third party ship management outsourcing is a growth section especially in the area of crew, insurance, ship survey and bunker management.

(h) The tendency to have more operating alliances.

(i) An increasing number of shipping companies are focusing on mergers and acquisitions. This is to exploit the economies of scale and to raise capital to fund new tonnage and infrastructure, especially information technology. Today, there are fewer but mega container operators as they continue to merge. The outcome of these developments

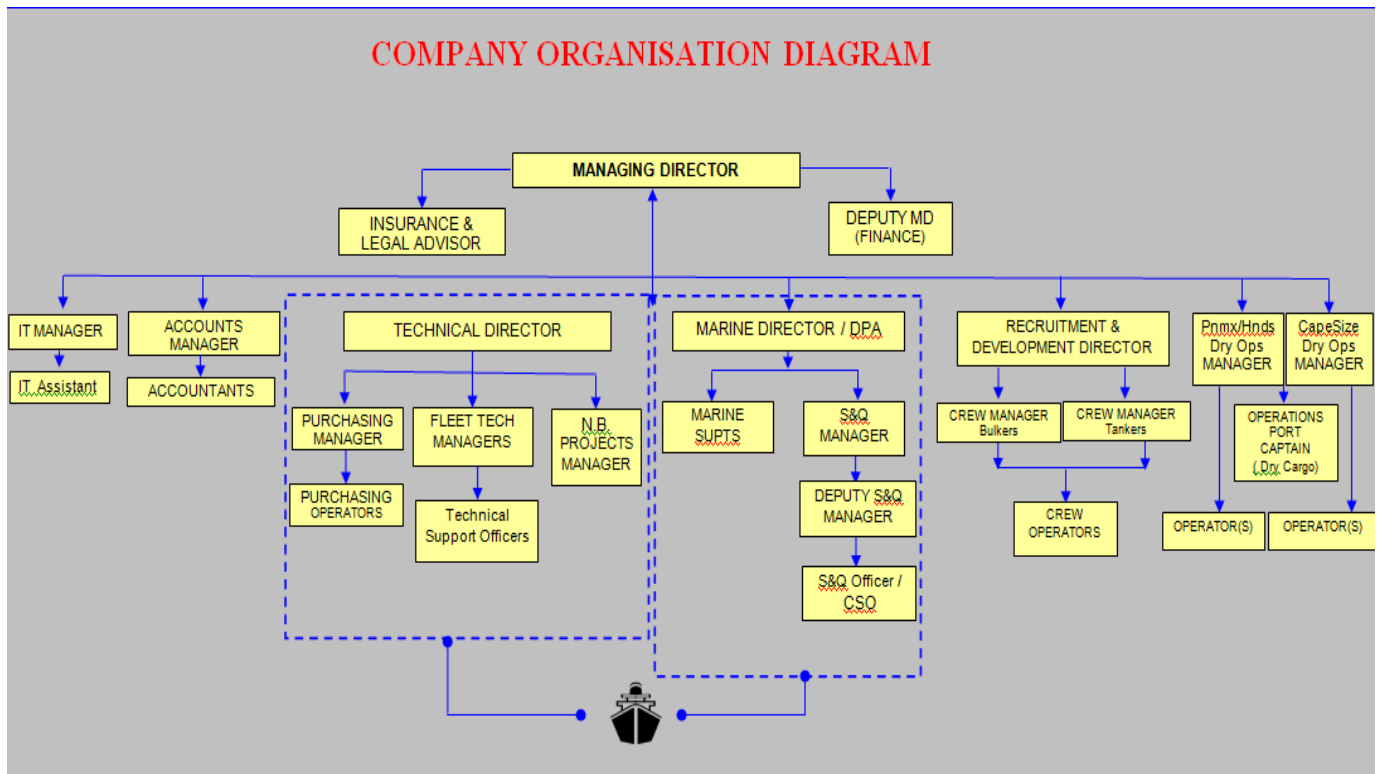
is the emergence of a new breed of shipping executive who must be thoroughly professional in the shipping business to which he or she is assigned, professionally qualified, market driven in attitude, very assiduous, culture orientated, multilingual, profit motivated and computer literate. Moreover, such personnel must be subject to continuous training to keep ahead of technology, market environment/ opportunity, and business techniques/strategy. The size of the shipping undertaking, its organization and cost structure, and the pricing of sea transport services are influenced largely by the type of service which is operated, and particularly by the difference between liner and tramp operation. Hence there is a great variation in size among shipping undertakings, which range from the single ship company, to the giant groups. From an economic standpoint, the entrepreneur will try to maximize his profits and therefore expand his output, so long as the increase in his total costs is less than the increase in his total revenue. He will therefore continue to expand to the point where his marginal additional cost is equal to his marginal additional revenue. The tendency in recent years, both with liner and tramp shipping companies, is to merge. The reasons are numerous and include economies realized on administration cost; improved prospects of raising more capital for new tonnage; rationalization of facilities, for example port agents, departments, overseas offices, berths, ports of call, etc.; the long-term consideration of likely improvement on tonnage utilization and productivity, with possible limited rationalization of a fleet and centralization of marine department activities covering manning, management, survey programme and new building; a larger customer portfolio; a larger trading company with improved competitive ability and the long-term possibility of a more economical service at lower cost with consequently improved tariffs; and finally the larger the company, generally speaking, the better it will be able to combat the challenges of the twenty-first century in particular with regard to new investment, which will be vast, and competition, which will intensify.

The shipping company is organized in various departments, that each undertakes different important tasks. That aims at the achievement of the best coordination of fleet and shipping company. Manning of each department depends generally on fleet.

The main departments of a shipping company are:

- General Management
- Operations Department
- Technical Department
- Marine Department
- Crew Department
- Safety and Quality Department
- Purchasing Department
- Information Technology Department
- Legal Department
- Insurance and Claims Department
- Chartering and Brokering Department
- Financial Department

- Accounting Department
- Secretariat



### **1.3 THE FUNCTIONS OF THE MAIN DEPARTMENTS**

#### **1. General Management**

General management is a diverse field with a wide range of responsibilities. In a shipping company, the general manager should be adept in analytical and critical thinking, complex problem solving, active listening, coordination and social perceptiveness. The primary task of a general manager will be to link action with analysis to provide an optimal outcome. To be able to do this, a general manager must not only have administrative, economic, and clerical knowledge, but customer service, human resource, and sales knowledge as well.

## **Managing Director**

The Managing Director has the overall responsibility of the Company's operations.

- He is responsible for defining the Company's policies and objectives with regard to Safety, Quality, Environmental Protection and Pollution Prevention and ensuring that responsibility, authority and interrelations of all personnel who manage, perform and verify work affecting these aspects of Company operations, are clearly defined and communicated within the organization.
- Providing adequate resources and personnel to fulfill Company's policies and objectives including assignment of properly qualified and trained personnel to meet the requirements of the Safety and Pollution Prevention Management System, together with its surveillance.
- Ensuring that requirements stipulated in the Company's Management System are properly implemented and maintained by all departments.
- Ensuring that appropriate Communication processes are established within the organization and that communication takes place regarding the effectiveness of the Management System.
- Supervision, overall review and evaluation of the Management System.
- Approving realistic annual budgets and monitoring Company performance.
- Reviewing and ensuring correspondence is distributed to appropriate departments
- Overseeing all financial and insurance matters.
- Communicating with Principals.
- Ensuring that the Planning of the quality management system is carried out in order to meet the requirements of ISM, ISO 9001:2000 and ISO 14001:2004 as well as the set objectives
- Appoint and provide assistance to the DPA.
- Ensuring that Quality, Safety & Environmental Objectives are established at relevant functions and levels within the organisation
- Implementing the Safety, Quality & Environment Protection Policy
- Communicating and Promoting throughout the Organization the need for safe and Environmental friendly operations, as well as the importance of Customer satisfaction.
- Ensuring that legal and Customer Requirements are determined and met
- Verifying and approving the issuance or amendments to the controlled documents of the Management System.
- Ensuring that the company's Emergency Response Capability is correctly defined, maintained in a proper state of readiness and regularly exercised to test its adequacy.
- Approving any major repairs, proposed by the Technical Director.
- Ensuring that the company discharges its obligations to ship owners in accordance with the ship management contracts.
- Communicating and taking decisions relating to specific commercial matters of managed vessels.

- Approving any change into ship's voyage schedule suggested by the Operations Manager.
- Approving all Charterers and Charter rates presented by Chartering brokers.
- Negotiate all insurance contracts and approve all submitted claims.
- Defining employment needs, recruiting, motivation and appraisal of shore personnel in cooperation with the Departmental Directors / Managers
- Approving the training for Office employees.
- Authorising placement of Suppliers on Approved Suppliers Lists
- Evaluating the performance of the P&I and H&M providers.

The Managing Director is responsible for the final decisions on behalf of the Company, in case of an emergency ensuring that shore based support to Company vessels, is provided at all times.

The Deputy Managing Director is responsible for all the financial matters concerning the ship Owners and their vessels.

The Deputy Managing Director assists the Managing Director as required.

### **DPA – Designated Person Ashore**

The Designated Person Ashore (DPA) is the keystone to provide the structure and support for an efficient and effective Safety Management System onboard a vessel. Required by ISM Code for all commercial vessels over 500gt, the DPA is especially designated to ensure a reliable connection between the company and the crew and to supervise the safe operation of the vessel.

The DPA is responsible for:

- Monitoring the Safety, Quality and Pollution prevention aspects of the operation of each ship and to ensure that adequate resources and shore based support is applied, as required.
- Ensuring that processes and procedures needed for this Quality Management System are established, implemented and maintained.
- Reporting to top management on the performance of this quality management system and any need for improvement.
- Ensuring the promotion of awareness of Safety, Environmental and Customer requirements throughout the organization.
- Being aware of all system-related problems in the Office and Shipboard operations and monitor corrective action applied.
- Encouraging Managers to adopt an attitude of continual improvement upon safe operating systems.
- Supervising internal audits for every part of the Management System in the Office and on board vessels

- Supervising the distribution of the Company Manuals and other controlled documents.
- Identifying in cooperation with the S&Q Manager, Masters and other Departmental Directors / Managers the need of Management System documentation to be issued, amended or upgraded.
- Issues instructions & manuals pertaining to Safety, work onboard, navigation, pollution prevention, environmental management, drug and alcohol, etc., as authorised by the Managing Director.
- Monitoring the receipt and distribution to the vessels of Rules, Regulations, Codes, Guidelines and Publications relevant to the Management System as well as of their amendments.
- Supervising internal audits.
- Monitoring the recording and analysis of audits' results, including non-conformities and the implementation of corrective / preventive actions taken.
- Ensuring that any actions concerning the vessels, resulting from Management Review meetings, are carried out as soon as is practicable thereafter.
- Verifying all reports of non-conformities, incidents or near accidents, as reported from the vessels.
- Monitoring the effective implementation and verification of corrective action(s) process.
- Identifying possible improvements / modifications of the Management System.
- Accountable for the achievement of the objectives assigned.
- Convening and co-ordinating Management Review meetings.
- May assume the duties of the Fleet Technical Manager or Marine Superintendent when visiting vessels.
- Be aware of all Safety and pollution prevention problems identified in relation to the operation of the Ships.
- Monitor the corrective actions taken from any deficiencies identified during the vetting, PSC, Flag or any other third party inspection.

## **2. Operations Department**

The Operations Department is responsible for the monitoring of the fleet's performance and taking care of vessels' needs while at sea or in port. The Operations people try to foresee and provide solutions to all the problems that may arise and can have an adverse effect on the smooth operation of the ships. The department maintains constant communications with the Ship Masters and agents worldwide and takes all the appropriate steps to keep cater their every need. Moreover, it monitors the daily operating costs of the fleet and in close co-operation with the Supply Department, makes sure that all vessels are provided with the necessary deck stores, provisions, paints, spare parts, etc.

In addition, the operations department has the overall supervision of the Crew Department. Last but not least, this department is charged with the safety of the ships and their crew members, by making sure that all necessary safety items are provided on a regular and scheduled basis and by upholding a quality control system using the International Safety Management (ISM) Code as its backbone.

In total, the Operations Department is responsible for:

- Keeping in close contact with Chartering department advising Brokers with vessel's movements and expected dates of completion of present voyages and bunkers ROB.
- Studying agreed C/P clauses of taking necessary action to protect our principal's interests.
- Planning the refueling of each vessel for her employment needs to ensure the most competitive prices are obtained.
- Taking all necessary information for load port and disport. (Peculiarities, restrictions, requirements).
- Monitoring cargo and ballast plans, passing to Masters proper instructions regarding cargo details, bunkering schedule; C/P main terms, peculiarities, restrictions, requirements for load port and disport, ensuring that charterers voyage instructions are implemented.
- Tendering ETA notices to Charterers, Agents and Parties concerned on behalf of Master, if required, till Master has received the necessary voyage instructions.
- Appointing agents for each port. Arranging for cargo Surveyors to attend cargo operations on owners side.
- Keeping charterers advised on vessels positions.
- Informing Technical/Crew/Purchasing/Marine departments for vessels next voyage.
- Giving to Masters special instructions depending on trading area.
- Interviewing Masters/ Chief Officers
- Updating position list and passing any unexpected change of schedule to the other departments in order to coordinate supplies, crew changes, inspections etc.
- Member of Emergency Response Team.
- Is in continuous regular communication with the Master and Chief Engineer to ensure optimum performance of equipment and machinery.
- Responsible to prepare the survey planning and present the vessel in time for various classification surveys and to have all certificates clean and valid.
- Coordinating the hired teams employed by the Company to carry out cleaning and repairs work or deck/ tanks maintenance, for efficiency/ quality and time spent advising Fleet Manager as required.
- Evaluating weekly updating reports from vessels and updating file with progress/status.
- Handling disputes with Charterers/agents etc

- Checking the port agents account for any wrong and/or inflated charges.
- Dealing with union problems.
- Verifies that all documents of crew are correct and complete before departure.
- Sees to it that all crew members requested by the masters join on time.
- Maintains computer data regarding office staff visits onboard vessel.
- Is in continuous regular communication with the Master and Chief Engineer to ensure optimum performance of equipment and machinery.
- Regarding Paints/Lubricants he co-operates with the Purchasing officer and the Technical Manager in order to propose quantities to be ordered, place orders with the contracted supplier after obtaining Fleet Manager's
- Participates, when required, in the investigation of accidents, security incidents, near misses, NCRs, for preventing re-occurrence.
- Organizes vessels pre-purchase inspection, delivery / undelivery, cargo surveys, bunker surveys.

## **Operations Manager**

The Operations Manager is responsible for:

- Voyage management and the supervision for the implementation of operations department procedures as planned and executed by department's staff.
- Communicate to operation's staff Company as well as departmental policies and objectives.
- Identify the need for amendment or issuance of new departmental policies/procedures.
- Taking the final decisions relating to specific commercial matters of managed subjects.
- Ensure that customer requirements are determined and met, as appropriate.
- Co-ordinate with Chartering broker and Technical Manager during vessels' negotiation process and check Charter Party terms and details in accordance with vessel's performance/ capability.
- Maintain an overall knowledge of condition and operation of the vessels and co-operate with onboard personnel and other company's departments in order to ensure that vessels are operating efficiently.
- Ensure that international Rules/ Regulations/ Codes as well as any amendments are being communicated to department's staff and implemented, if necessary.
- Monitor and resolve any claims connected with the operation of the company's vessels in coordination with the Insurance and Legal Advisor.
- Organizing Operators/ Dry Ops Port Captain's visits onboard.
- Manage business relations with Charterers, Brokers and Agents.
- Briefing/ Debriefing of Masters / Chief Officers and Chief Engineers before and after appointment.



- Interview together with Marine/Technical and Crew Director/Manager of a new Master and approve employment.
- Evaluate agents'/ Master's performance in conjunction with operators' feedback.
- Coordinating departmental meetings carried out on a monthly basis.
- Report to the DPA all incidents, pollution incidents and other major operations cases for initiating necessary corrective action.

## **Operators**

When a fixture is agreed via the Chartering Department, the operator, under the supervision and close co-ordination of the Operations Manager, works closely with the ships and shore departments and manage matters to achieve the safe and efficient performance of the charter party by each vessel.

This process is conducted in line with the Owners' / Managers' interests, also maintaining, as far as practicable, good relations with the Charterers, whilst aiming to ensure a fixture will be as profitable as possible.

The many matters involved in achieving this for any given voyage include ensuring the vessel has all it needs for forthcoming voyages, i.e., bunkers, fresh water and other necessities, which the Operators negotiate and arrange with agents / suppliers.

The department works either directly or via the chartering brokers for each fixture to manage matters with the charterers, closely assisting the Masters also to deal with the charterers orders and requests.

Close liaison with port agents and other third parties is required to anticipate local restrictions whether physical or legal, local customary practice and a host of other issues particular to each port and country of call.

The Operator is responsible for:

- Follow up voyage at all stages and ensure that vessel's performance is in accordance with C/P terms, Company's standards.
- Ensure that all essential cargo documents are received promptly. Provide necessary instructions to the Master/Agents for proper endorsement.
- Issue and send to the Master voyage instructions and/or review and comment when on Time Charter.
- Issue instructions to vessels regarding day to day operation, where appropriate.
- Prepare and forward to charterers freight/ hire statements, demurrage and/or despatch statements, lay time statements, etc

- Follow up of prompt receipt of funds and deals with short remitted hires/freights/demurrage payments.
- Follow up any outstanding payments due to owners from charterers after completion of voyage/time charter.
- Check/approve agents' port disbursements.
- Update Port Information files.
- Record of vessel's movements.
- Appoint and instruct agents to handle vessels' business whilst in port.
- Co-ordinate with the Chartering Brokers under the direct authority of the Operation's Manager by giving instructions and guidelines to fix the vessel and negotiate Charter Party terms and details, in accordance with the company's principles /policies.
- Brief/ Debrief Masters / Chief Officers and Chief Engineers before and after appointment.

### **Operations Port Captain (Dry Cargo)**

The Dry Operations Port Captain is responsible for:

- Keep in close liaison with Vessel's Masters for matters related to cargo nature and cargo fumigation.
- Coordinate with ship's Master and department's staff for holds cleaning and successful approval from authorities.
- Be in close liaison with vessels' Master for safe navigation.
- Assist the Masters with the preparation of the passage (if/when required)
- Approve loading/discharging plans.
- Provide operators with necessary information to fill Charterers' and or other authorities' questionnaires, when appropriate and maintain the database with ship's particulars.
- Review and propose amendments/corrections of voyage abstracts passed to the office by ships masters.
- Check ships bilges/temperatures/PH/etc to be taken and correctly recorded by ships crew.
- Participate in the briefing and de-briefing of Masters, Chief Officers and Chief Engineers before and after appointment
- Make onboard visits under the immediate instructions of Operations Manager.

### **3. Technical Department**

The Technical Department is charged with all matters that involve the proper maintenance of the fleet's vessels. It makes sure that the engine room and deck machinery and

equipment run smoothly and stay problem-free, schedules their maintenance, supplies (in direct co-operation with our Supply Department) the necessary spare parts and supervises dry dockings and other repairs. Also, in concert with the Operations Department it is responsible for the renewal of all ship certificates whenever necessary, for reviewing technical reports, and appraising the overall performance of the engines. All the above are made possible in various ways, such as the dispatch of Superintendent Engineers on board the vessels in regular intervals, the monitoring of inventories of all engine spares and stores, the chemical testing of bunkers and lubricants and the selection and dispatch of specialized teams on board to carry out repairs. Finally, the Technical people provide their expertise to our Sale & Purchase brokers and the Management on the technical condition of prospective new additions to the fleet.

## **Technical Director**

The Technical Director is responsible for:

- Demonstrating commitment to Company HSQE Policy by his behavior.
- The supervision and the coordination of the Technical Department's resources and manpower.
- The evaluation and prioritisation of the technical support requirements of company's vessels on a continuous time basis and the coordination of the Fleet Technical Managers' manpower accordingly.
- The monitoring of the overall maintenance implemented onboard ships, including proper management of spare part & engine/ deck stores. He applies procedures and plans in order to improve effectiveness and reduce maintenance costs.
- The development of company's short and long-term policies on all matters of technical nature, trouble-shooting methodology and procedures inclusive.
- Monitoring and arranging the vessel's Vetting Inspections by oil Companies.
- Commenting on new plans and evaluating S&P projects.
- Controlling and monitoring Bunker Quality
- The managing of Technical Department's resources so as to ensure its effective and flexible operation ashore.
- Participating in the handling of emergency incidents onboard, evaluating the conditions and organizing courses of action under proper risk management.
- The implementation of procedures pertaining to engineers' technical competence by ensuring their continuous knowledge improvement in terms of professional skills development.
- Advising on technical issues and coordinating any actions needed with the Classification Societies and/or Damage Stability Consultants.
- Reviewing and authorising:

- Repairs and dry-docking specification
- Development of safe and effective repairs method
- Evaluation and selection of repairers and sub-contractors
- The issuance of Technical Circular Letters and instructions to company vessels
- Organising Fleet Technical Managers onboard visits and analysing results of these inspections.
- Evaluating Port State Control reports.
- Review evaluation reports of Engineering Officers, in collaboration with the Crew department Manager.
- Participate in briefing de-briefing of Masters and Chief Engineers before and after appointment.
- Monitoring of forthcoming regulations status.
- Initiate further investigation and / or corrective action in cases where the performance of any of the vessels is outside acceptable limits.
- Report to the DPA all accidents, pollution incidents and other major technical issues and cases for initiating necessary corrective action.
- Member of the Emergency Response Team and Management Review Team.
- Liaise with the Operations Manager and Marine Director for the planning of repairs, Dry Dockings etc.
- Co-operate with the Operations Department to achieve optimum vessel performance consistent with the commercial obligations.

## **Fleet Technical Manager**

The Fleet Technical Manager is responsible for the co-ordination of all technical matters, in line with:

- Company policies
- Maritime rules regulations / requirements
- Industry Standards

He organises and implements courses of action for matters of technical nature arising onboard vessels under his technical management, at any period of time.

He inspects assigned vessels, at least once per year in cooperation with the corresponding Marine Superintendent, monitor works /repairs stressing safety and environmental aspects and assist in trouble-shooting.

Apart from monitoring his fleet, the Fleet Technical Manager is responsible for ensuring that vessels are always fit and in good operational condition to meet their commercial engagements in the most cost-effective manner.

In this respect he cooperates with other Fleet Managers to whom vessels have been assigned and he reports to the Technical Director.

He is also responsible for the monitoring of future industry requirements applicable to assigned vessels and for the timely compliance in the most economical way.

The responsibilities of the Fleet Technical Manager are outlined as follows:

- Responsibility for monitoring vessel performance in terms of speed, fuel and lubricating oil consumption and taking corrective action as and when necessary.
- Accountable for maintaining the machinery and equipment (Deck and Engine) in a reliable, efficient and safe condition through a continuous assessment of the status of maintenance backlog in all categories including routine, planned and defect rectification.
- Responsible for the administration and compliance with the Company's planned maintenance system and updating Department's records accordingly.
- Responsibility for maintaining the vessel "In Class" and ensuring surveys are carried out in a timely manner taking into account other operational constraints.
- Communicating with both Classification Societies and vessels to provide a clear understanding. In addition, maintaining files in respect to all Class matters.
- Be in communication with vessels regarding all Technical matters. Provide assistance, support and additional resources, when required, to meet the primary objective of maintaining a safe, efficient, pollution free, reliable operation and an acceptable standard of physical appearance.
- Arranging in co-ordination with the Technical Director all repairs, producing repair/service requisition and following through to final invoice.
- Prepare specifications for major repairs and drydocking in good time to maximize any commercial advantages, obtain quotation from shipyards or contractors and negotiate for best prices, provide Technical Director with all necessary information for final approval.
- Supervising repairs through to completion, including testing and commissioning, controlling costs and minimizing out of service time.
- Co-ordinate with Marine Department actions to ensure that deficiencies identified during vetting inspections and other surveys are deleted.
- Assessing lubricant requirements, ordering and checking invoices.
- Monitor the condition of lubricants and results of laboratory analysis and communicating same to vessels.
- Review all correspondence submitted by Chief Engineer in order to evaluate the propulsion plant performance and efficient operation of auxiliary machinery and equipment.
- Taking time to respond with instruction and advise in order to improve vessel performance and reliability. Also reminding Chief Engineer's for missing or delayed reports.
- Responsibility for maintaining vessel plans, drawings, particulars and instruction manuals both onboard and in the office.
- Keep record of vessel outstanding maintenance and repairs. Follow up through to complete rectification keeping other functional Departments fully informed.

- Keep records of all significant machinery maintenance and repairs performed, controlling frequency of inspections and spares consumption.
- Making arrangements for repairs and used part reconditioning through competent sub-contractors or workshops.
- Maintaining control from the initial inquiry through to completion of repair.
- Implementing and monitoring any non conformance raised by the Technical Director.
- Attend vessel at regular intervals in port and while on passage to fully access vessel condition, performance and appearance. Also, when required, to supervise repairs being undertaken by ships staff, technicians or sub-contract labour. Prior to joining the vessel “Terms of Reference” are to be prepared highlighting the purpose of the visit and agreed with the Technical Director. Other Departmental Directors are also to be involved to ensure fully briefed on all aspects of the vessel operation.
- Check and ensure vessel’s maintenance plan has been carried out by a random physical examination of records and machinery during on board visits.
- The Fleet Technical Manager monitors the overall performance of the ship’s Engine Officers in relation to the efficient operation of ship’s machinery, electrical, safety, navigational and automation equipment.
- Employment interviewing of prospective Chief Engineers in close cooperation with Crew Department.
- Briefs the Chief Engineer and other Engine Officers upon sign on/off from the vessels.
- Familiarizes new office personnel and shipboard personnel which visit the office with the requirements of the Management System related to the technical aspects of the vessel and the maintenance requirements of the management system.

When an inspection is conducted, the Fleet Manager or the Superintendent Engineer will inspect a wide range of sectors.

A list is provided below as a guide in respect to the vessel inspection:

- a) Access the overall condition of the vessel following inspection of all areas. When safety requirements allow photographs are to be taken to illustrate the condition.
- b) Inspect the condition and check the performance of the main propulsion machinery and auxiliary machinery / equipment including cargo pumping, mooring, inert gas, piping system, safety equipment and navigation systems etc.
- c) Inspect and report, as far as possible, the condition of the hull coating system.
- d) Arrange to inspect cargo and ballast tanks to assess their condition.
- e) Survey bunker and lubricating oil tanks including taking soundings.
- f) Inspect spare gear and general store rooms ensuring an adequate system of control and security is in place. Check also on quality of spare parts supplied.

- g) Inspect refrigerated spaces, air conditioning and associated equipment.
- h) Check inventory of chemicals, paint and gas cylinders (empty & full).
- i) Appraise the performance of the ships staff.
- j) Examine the log books, report forms, files and generally check compliance with Company procedures.
- k) Confirm vessel's compliance with International and Statutory Regulations.
- l) Check vessel's Classification status and establish plans for any outstanding requirements and future surveys.
- m) Evaluate vessel's outstanding maintenance and repairs and agree plans for rectification. This is to be done through the production of a "Job Order" list with agreed reporting and completion times.
- n) Issue technical instructions, orders and guidance to the vessel and supervising their implementation.
- o) Formalize plans to deal with any deficiencies identified by Regulatory bodies or during Major Oil Company "Vetting" inspections.
- p) Identify drydock or out-of-service repair items and prepare the required specification.
- q) Issuing attendance reports, including comments for the condition of each vessel and its equipment as well as crew performance.
- r) Keeping records of the functioning and condition of all instruments and equipment onboard relating to safety.
- s) Checking Engine Log book and updating contingency plans.

## **Technical Support Officer**

The Technical Support Officers assist the Fleet Technical Managers in performing their duties, as required.

The responsibilities of a Technical Support Officer are:

- Organize and monitor New Building schedule.
- Liaise with the shipyards regarding all relevant issues.
- Co-ordinate site offices/personnel.
- Attend NB vessels at specific critical phases (launching, trials, etc) and
- Monitor Shipyards' compliance with agreed contracts / specifications throughout all stages of plan approval, construction and guarantee period.

## **4. Marine Department**

The priority of Marine Department is to promote and reinforce crew's strong safety and seamanship cultures, especially for navigation and cargo operations. The Marine Superintendents, monitor shipboard routines through frequent attendances on board and on a daily basis via electronic reporting, reviewing passage plans and assisting Operations department in the preparation of loading plans.

Marine Department is responsible for:

- Checking time sheets and cargo documents.
- Handling disputes with Charterers/agents.
- Keeping close follow up on vessel's safety, condition, and maintenance.
- Keeping close follow up on Charters inspections and cooperating to reply on deficiencies noted during periodical visits of his Vessels.
- Checking Quantity Control of bunkers on board vessels.
- Lists availability of disembarked crew who report to manning offices.
- Takes charge of monitoring new crew requests and sees to it that these are immediately responded to.
- Initial notification of crew claims. In addition, responsibility also includes supply of charts and publications to the vessel. Following are also duties and responsibilities.
- Arranging the initial supply of charts and publications for the new deliveries, new purchased vessels and preparing folios of vessels' trading areas in coordination with the Operations Manager.
- Arranging through recognized suppliers (Kelvin Hughes or other) the new editions updates supply on a monthly basis, depending vessels' trading pattern in coordination with the Operations department.
- Arranging requisitions of charts and publications received from the Master in coordination with the Operator.
- Arranging for the latest Notices to Mariners to be supplied to the vessels every two weeks, depending on vessels' trading area.
- Arranging dispatch details.



- Informing Master and company's local Port Agent about delivery details.
- Ensuring items ordered are delivered on board.
- Checking delivery receipts and invoices received in the office against orders placed.
- Supplying logbooks, upon requisition sent from the Master
- Keeping records for publications and latest Notices to Mariners onboard.
- Updating third party publication from regarding new editions, new insertions and cancellations.
- Updating office library with available new editions and purchasing new publications upon request of the Managers.
- Arranging subscription and supply of electronic charts (ENCS,ARCS) as applicable.
- Attending vessel at least every three months. Also attending during major repairs and Dry-dock.
- Responsible to check whether the vessel is implementing the Company's working system and is in conformity with the provisions of the relevant rules and regulations.
- Attending vessel for carrying out inspections/ maintenance work and/ or repairs accompanied by appropriate riding team.
- Supervising the hired teams employed by the Company to carry out cleaning and repairs work or deck/tanks maintenance, for efficiency/ quality and time spent advising Fleet Manager as required.
- Maintain files/ records of all workshops available in ports where the vessel is usually calling. In ports where availability of workshops is unclear investigation is carried out through the nominated Agents.
- Maintain separate files for each repair/service carried out where cost, quality and time is being clearly stated.
- He is responsible for safe, secure, efficient and clean operation on ships.
- Performs the duties of Internal Auditor.
- Participates, when required, in the investigation of accidents, security incidents, near misses, NCRs, for preventing reoccurrence.
- Trouble shooting onboard for cargo/ballast operation.

- Attending vessels pre-purchase inspection, delivery / undelivery.
- Attending cargo surveys, bunker surveys.
- Attending vessels dry-dock and repairs as required.
- Monitor performance of crew and report accordingly.
- Supervising the hired teams employed by the Company to carry out cleaning and repairs work or deck/ tanks maintenance, for efficiency/ quality and time spent advising Operations Department Manager and Fleet manager as required.

## **Marine Director**

The Marine Director is accountable to the Managing Director and amongst his other duties and responsibilities he shall:

- Follow-up developments related to International Rules and Regulations, Conventions, Industry requirements, issues associated with Marine matters.
- Cooperating with the Managing Director, the Departmental Directors/ Managers and the DPA in order to ensure that all parties involved in the QMS for solving safety and environmental issues take proper and timely actions.
- Supervises in coordination with the Marine Superintendents vessels' pre-loading & pre-discharging plans.
- Supervising, in coordination the S&Q Department the execution of shore & shipboard based training programs.
- Supervise the analysis and evaluation of accidents or near misses and issue relevant instructions, as appropriate, for avoiding recurrence.
- Monitor shipboard training, which is performed by the Marine Superintendents, the S&Q Officer or by consultants and ensure that training instructions, if required, are being forwarded to the vessels.
- Assign Marine Superintendents to Company vessels and make arrangements for back up in case of their absence, monitoring their performance.
- Organising Marine Superintendents onboard visits.
- Brief and de-brief Masters and Chief Engineers before and after appointment.
- Reviews appraisal reports of Masters and Deck Officers
- Is involved in the selection process of Senior Officers

## **Marine Superintendent**

The Marine Superintendent is monitoring the performance of the ships in their group, ensuring that are operated and maintained in accordance with:

- Company policies
- Maritime Rules regulations / requirements
- Industry Standards

He is responsible for:

- The promotion of Safety, Pollution Prevention and Environmental Management culture on board vessels.
- The timely correction / rectification of any outstanding items related to Safety, Pollution Prevention and safe operation of the vessels.
- Such items are discussed /agreed with the Fleet Technical Manager when required.
- Participate in the briefing and de-briefing of Masters, Chief Engineers and Senior Officers before and after appointment, on marine related matters and monitor their performance onboard, reporting accordingly to the Marine Director.
- Inspect a specific number of vessels at least once per year in coordination with the appropriate Fleet Technical Manager, providing specific instructions to the Master and /or Chief Engineer for items related to Safety, Pollution Prevention, Environmental Management and Maintenance.
- Participate in Management Review meetings and ensure that, any subsequent actions, concerning their assigned vessels, are carried out as soon as is practicable thereafter.
- Monitoring of Flag State requirements for Annual Safety Inspections (FSI), Port State Control inspections and the follow-up of third party inspections' results.
- Review regularly the effectiveness of the QMS and suggest to the S&Q Manager possible improvements / modifications of, if required.
- Follow-up and monitoring of vessels timely supply with charts & nautical publications.
- Close monitoring / assessing of pre-loading/ pre-discharging plans, as well as deck related operational aspects of the vessels.
- Develop and keep up-to-date vessels Shipboard Oil Pollution Emergency Plans and PCSOPEPs.
- Monitors the condition and maintenance status of Safety Equipment (fire fighting & lifesaving) & Portable Instruments and take necessary actions in cooperation with the Technical Department.
- Monitors the inventories of Mooring Equipment and Safety items and arrange for timely replacement / supply, as and when required, in cooperation with the Technical Department.
- Acting as the Deputy Designated Person Ashore (DDPA) as required by the provisions of paragraph 4 of the ISM Code.
- Member of the Emergency Response Team & Management Review Team.
- Carry out internal shipboard & company ISM audits as required.

- To be the Deputy Company Security Officer in accordance with the requirements of SOLAS – ISPS Code for the ships assigned to another Marine Superintendent.
- Carry out internal ISPS audits as required.
- Keep abreast and monitor his vessel’s condition.
- Keep abreast with statutory & Class regulations and standards.
- Inspect vessels in accordance with Company’s policy.
- Inspect and report on vessels’ proper maintenance and upkeep.
- Follow-up reports of vessel’s condition and performance.
- Assist shipboard personnel to eliminate problems and/or malfunctions.
- Attend repairs and DD, as necessary.
- Inspect vessels and prepare condition reports and evaluation forms for shipboard engineers.
- Attend delivery of new acquisitions, as necessary.
- Attend Vetting Inspections, as necessary.
- Assist the Marine Director in his duties.
- Attend the vessels during third party inspections.
- Sail with vessels and carry out Navigational Audits and enhance safety culture on board company vessels.
- Follow up on any deficiencies identified during third party inspections.
- Follow-up Noon Reports submitted by vessels.
- Follow-up Rest Hours in close cooperation with the Crew Manager.
- Familiarizing shipboard personnel that visit the office with the requirements of the Management System related to the marine aspects of the vessel.
- Identify the need for crew training through the Appraisal process.
- Conduct on board training.
- Third Party inspection Reports.
- Follow up actions from third party inspections.

## **5. Crew Department**

Crew Department’s responsibilities are mainly to ensure that vessels are manned with adequate qualified, skilled, certificated and medically fit seafarers in accordance with national and international requirements.

Those responsibilities in particular, include the following:

- Monitoring manning level and forecasting manning needs for all vessels.
- The identification of hiring / promotion needs as well as the determination of required qualifications and skills.

- The final selection, engagement, administration and training of all seagoing personnel in cooperation with Operation and Technical Departments.
- Hiring of all shipboard personnel.
- Controlling and evaluated the performance of Crew Operators.
- Maintains updated records for all seafarers employed.
- Follow up of industry wages.
- Setting and controlling the annual crew budget.

## **Crew Manager**

The Crew Manager should ensure that Company's manning and training procedures are followed and that each vessel is manned with qualified, medically fit, experienced seafarers and in accordance with STCW/95 requirements.

The Crew Manager is responsible for:

- Managing the recruitment of all Company seafarers (conducted directly or indirectly), including selection, qualification and verification records as well as certification details.
- Screening seafarers in cooperation with other relevant Company Departments and the Recruitment & Development Director.
- Taking care of all crew related matters and monitoring closely the welfare of the crew.
- Familiarizing candidates through briefing with the Company's procedures and requirements.
- Evaluating Training needs in cooperation with the Recruitment & Development Director and assists in the preparation of the Annual Training Plan
- Maintaining records and certification details of all seafarers including performance, appraisals and family contacts.
- Organizing company Crew familiarization programs.
- Arranging for all seafarers to undergo a Drug and Alcohol Test by authorized laboratories prior to their embarkation, together with the pre-employment medical examinations.
- Participate in crew selection, briefing, interviewing, screening for all crew.
- Check application forms and previous Company's records for each crew prior to engagement and deal with same after engagement.
- Monitor the performance of seafarers employed by the Company.
- To monitor available ex-crew and schedule deployment.
- Monitor crew claims and ensure smooth completion of same.

- Identify training needs of seafarers and initiate further actions.
- Familiarizing new shipboard personnel which visit the office with the requirements of the Management System.
- Attend company vessels.

## **Recruitment and Development Director**

The Recruitment & Development Director supervises the implementation of crew department activities, with particular emphasis to the procedures relevant to recruitment & development.

The Recruitment & Development Director is responsible for:

- The overall organising and directing of the Crew Department with respect to recruitment, screening and employment of seafarers, as well as all Crew Department related matters.
- Ensuring that Company's manning and training procedures are followed and that each vessel is manned with qualified, medically fit, experienced seafarers and in accordance with STCW/95 requirements.
- Screening and engaging seafarers in cooperation with the Crew Manager & other relevant Company Departments.
- Evaluating Training needs in cooperation with the Crew Manager and prepare the Annual Training Plan.
- Anticipating future company needs for recruitment.
- Evaluating the Manning Agents.
- Meeting, liaising and exchanging views with fellow Recruitment Directors, Owners and union committees.
- Promoting the company to Naval Academies and cadets.
- Evaluating Naval Academies and training institutions.
- Control crew selection, hiring, interviewing, screening and co-ordination for all crew.
- Arrange wages with deployed embarking ex-crew as well as potential approved applicants for embarkation.
- Monitor the performance of seafarers employed by the Company.
- Ensure that all crew certificates are properly maintained and keep necessary records of all Seafarers employed.
- Monitor the performance of the Manning Agents.
- Ensure that necessary records of all Seafarers employed are kept.

- Evaluating Manning Agents and recording results in the approved suppliers database.

## **Crew Operator**

The Crew department Operator, amongst his other duties and responsibilities is responsible to the department Manager for:

- Ensuring that procedures regarding vessel's manning and personnel training are properly and fully implemented.
- The administration and handling of recruitment.
- Maintaining the individual personnel records and department files.
- Coordinating the crew travel arrangements and visa requirements with the Manning Agents and/or own Travel Agents.

In addition to the above, the Crew Manager and Operators secure that the qualifications of the selected Officers and Crews comply with criteria set by the Company and conform to provisions and procedures described in the Management System.

## **6. Safety and Quality Department**

Health, Safety, Quality and Environmental Protection are the core values of Management System. The goal of Safety and Quality Department is to strive for excellence by identifying and managing the safety and risks in that seafarers and employees are exposed to, to eliminate accidents at sea and to minimise the environmental impact of daily activities.

The Safety and Quality Department is responsible for:

- Monitoring of all safety and pollution preventing aspects of the operation of each vessel.
- ensuring that adequate resources and shore-based support are applied, as required;
- Co-ordination of SQMS requirements with the Management involved in order to ensure that all safety aspects are observed.
- Reviewing all reports received, of non-conformity, hazardous situations or accidents and for co-ordinating of corrective and preventive actions of these reports and ensuring that they have been effectively implemented.
- Controlling, amending and distributing all documents related to the company's safety and quality management system.
- Supervising the provision and updating of Rules, Regulations, Codes, Guidelines and Publications related to the company's management system.

- Identifying the need for operating procedures, instructions and other documentation related to the company's Management System.
- Responsible for evaluating potential emergency situations, establishing and, where necessary, amending suitable procedures to deal with them, and issuing a schedule of drills to all relevant vessels.
- Ensuring that the certification of all company managed vessels is maintained in accordance with the relevant Classification Society, Flag State and Port State Control requirements.
- Identifying and co-ordinating training needs for shore-based and shipboard personnel which may be required in support of the management system and verify that such training is provided for all personnel concerned.
- ensuring that the training and familiarisation program at sea is followed
- Identification and assessment of all risks to the Company's ships, personnel and the environment and establishing appropriate safeguards.
- Ensuring that customer's requirements are determined and met with aim of enhancing customer satisfaction.

## **Safety and Quality Manager**

The Safety and Quality Manager is responsible for:

- Follow-up developments related to International Rules and Regulations, Conventions, Industry requirements, environmental issues associated with ISM matters, updating relevant instructions and/or manuals as required in cooperation with the DPA, and shall spread the above information to shore-based and shipboard personnel as appropriate, for familiarization and compliance purposes.
- Review instructions and manuals pertaining to Safety, work onboard, navigation, pollution prevention, environmental management, drug and alcohol, etc.
- Cooperating with the DPA and the S&Q Deputy Manager in order to ensure that all parties involved in the QMS for solving safety and environmental issues take proper and timely actions.
- Scheduling internal audits for every part of the Management System in the Office and on board vessels and informing DPA of any deviations.
- Monitoring the Distribution of the Company Manuals and other controlled documents.
- Identifying in cooperation with the DPA, Masters and other Departmental Directors/ Managers the need of Management System documentation to be issued, amended or upgraded.
- Coordinating the distribution to the vessels of Rules, Regulations, Codes, Guidelines and Publications relevant to the Management System as well as of their amendments.



- Planning and performing, if necessary, internal audits.
- Reviewing & processing all reports of non-conformities, incidents or near accidents, as reported from the vessels, collecting evidence and keeping statistics of Incidents, Near Misses and non-conformities.
- Ensuring that the auditors have received Internal Auditors qualification training.
- Maintaining records and results of these audits, including non-conformities and corrective actions taken.
- Planning and arrange for shore based & shipboard training programs for matters related to ISM/ISO/ISPS, Media Response etc.
- Maintaining statistical diagrams of trends, nature of N/Cs, through the software system, monitors Company compliance with Key Performance Indicators (KPIs)
- The Safety & Quality Manager is also responsible to:
  - Review & process drill reports and minutes of Safety Committee Meetings.
  - Submit the results of analyses & reviews to the Marine Director for further processing and verification
  - Arrange an "Unannounced Drug & Alcohol testing" once per year for all Officers, Crew and company representatives being onboard the vessel.
  - Monitor vessels' supply with training material (videotapes, DVDs, CBTs) related to Safety, Environmental Pollution, STCW aspects etc.
  - Participate in the briefing and de-briefing of Masters and Senior Engineering Officers before and after appointment for matters related to Safety & Quality issues.
- Member of the Emergency Response Team and Management Review Team.

### **Safety and Quality Deputy Manager**

The Safety and Quality Deputy Manager is responsible for the proper administration of the Management System, but the responsibilities are not limited only to that.

The Safety & Quality Deputy Manager is also responsible to:

- Review all reports generated by the responsible personnel, reflecting Non-conformities, near-miss and/or accidents and minutes of Safety Committee Meetings.
- Assist the S&Q Manager for further processing of such reports in terms of corrective actions(s) determination needed, in cooperation with the Marine Superintendents and departments involved.
- Maintain statistics of all the above mentioned reports

- Summarize and identify the trends, resulted from the review of such records
- Participate in the review & processing of drill reports and minutes of Safety Committee Meetings.
- Arrange for "Unannounced Drug & Alcohol testing" once per year for all Officers, Crew and company representatives being onboard the vessel.
- Arrange for vessels' supply with training material (videotapes, DVDs, CBTs) related to Safety, Environmental Pollution, STCW aspects etc.
- In coordination with the S&Q Manager arrange for shore based & shipboard training programs for matters related to ISM/ISO/ISPS, Media Response etc, and ensure they are properly delivered.
- Participate in the briefing and de-briefing of Masters and Senior Engineering Officers before and after appointment for matters related to Safety & Quality issues.
- Collects evidence and keeps statistics of Incidents, Near Misses and non-conformities.
- Amend and distributes ashore as well as to the vessels (All Designated manual holders) all documents related to Company's Management System.
- Maintain a list of the designated QMS manuals holders.
- Maintain the original set of the QMS Manuals and disposing all obsolete documents.
- Processes revision requests for QMS amendment purposes.
- Ensures that Office library is updated by purchasing relevant Rules, Regulations, Codes, Guidelines and Publications as required.
- Monitors schedule of Office and Shipboard audits and assist the S&Q Manager in arranging for same
- Ensuring that the auditors have received Internal Auditors qualification training.
- Ensuring that an annual schedule for internal audits for the Office and vessels is set and maintained, as closely as possible.
- Maintaining records and results of these audits, including non-conformities and corrective actions taken.

### **Safety and Quality Support Officer**

The Safety Quality Officer is responsible for:

- The seafarers' level of onboard training, and the monitoring and execution of scheduled drills.
- Carrying out internal audits as required by the ISM Code.

- Reviewing reports of Non-Conformities, Incidents & Near Misses, drills and Minutes of Safety Committee Meeting.
- Participate in the processing and analysis of the above reports and the determination of actions required, focusing on the root causes.
- Reviewing and processing Ballast Water Exchange reports.

## **7. Purchasing Department**

The Supply Department is charged with the task of supplying the fleet's vessels with the necessary spares, stores, paints, lubricants, chemicals and cover any other needs supply-wise which may arise. In addition to this, this Department is responsible for supplying the office with office equipment and consumables, all the above in the most efficient and effective way. Moreover, the Purchasing Department's management negotiates the purchasing prices and terms once every year with the Company's major suppliers. Finally, the Supply people prepare and monitor the annual budget, keep detail statistics and submit the final results.

### **Purchasing Manager**

The Purchasing Manager is responsible for the administration, coordination and monitoring of his department.

According to instructions received by the Managing Director and the Technical Manager, he is responsible for:

- Reviewing and authorizing spare parts enquiries and quotations received from vendors.
- Monitoring fleet lubricants and authorizes the supply process
- Reviewing, assess and approve spares/ stores/ provisions invoices.
- Organizing and co-ordinating the purchasing of spares, equipment, provisions, deck/engine stores, lubricants, gasses, paints, chemicals and other products
- Obtaining quotations from selected sub-contractors
- Placing purchase orders in accordance with the approval obtained.
- Verifying completion of delivery
- Arranging for all forwarding details and instruct suppliers, Master and Agents with regard to the delivery point and method of delivery. Especially for spare parts/equipment, to execute export procedure, customs formalities in/out, fax arrangements, freight rate evaluation/fixing and payment.
- Arranging the forwarding of all charts & publications in co-operation with Marine Superintendent.

- Evaluating the suppliers of Provisions, stores, Gasses, paints & Lubricants
- Updating and maintain list of approved suppliers / sub-contractors.
- Entering in the Purchasing Manager's log all accepted tenders along with details of the order (items, cost, expected date of delivery).

### **Purchasing Operator**

The Purchasing Operator is responsible for:

- Processing spare parts, provisions, deck & engine stores requisitions received from vessels.
- Evaluating quotations received.
- Placing orders in coordination with other departments.
- Giving forwarding instructions for spare parts and follow-up till received onboard.
- Following-up deliveries and cross-checking delivery receipts and invoices.
- Observing any short performances in dealing with suppliers.
- Observing any factors that resulted in failures to supply.
- Observing general comments that may influence the decision as to whether a supplier is initially approved or results in a loss of that approval.
- Maintaining an up to date copy of Approved / Preferred Suppliers.

### **8. Information Technology Department**

The I.T. Department is involved with finding, evaluating and using modern technological developments which can be applied on any aspect of our work, in order to make it more efficient and effective. Moreover, on a day-to-day basis, the department deals with the electronic data processing functions of the company, the maintenance and upgrading/updating of the company's intranet, the support of all users and the monitoring of the proper functioning of the internal and external communications. Finally, the I.T. Department is responsible for suggesting the appropriate specifications for all computer-related equipment, both for the head offices and for each of the vessels.

The Information Technology Department is responsible for:

- Managing of the Company's computer systems, both ashore and onboard, including any electronic systems supporting the operations and implementation of the Safety & Quality Management System (SQMS).
- Updating the Company on issues pertinent to the electronic system in support of the SQMS.
- Providing of IT support on request of shipboard and shore based personnel.

## **9. Legal Department**

The Legal Department covers a large field. Among the main functions can be mentioned Board matters, contracts for new buildings, company law, national/international taxes, purchase / sale of ships. The company lawyer is also often on the Managing Director's staff, and/or secretary to the Board of Directors. Frequently, this department will often also handle marine and other insurance matters that may arise of a legal nature.

The Legal Department is responsible for:

- Claims of H&M, P&I Clubs and in contracts disputes in arbitration, court and mediation
- Corporate matters.
- Vessel's registration.
- Sale and purchase transactions.
- Shipping finance.
- Shipbuilding contracts.

The Insurance / Legal Advisor is responsible for:

- Legal and Insurance matters assigned to him by the Managing Director.
- Ensuring that the insurance requirements of the vessels are always maintained.
- Monitor and resolve all claims connected with the operation of the Company's vessels.

## **10. Insurance and Claims Department**

This department has two functions. First, with regards to the Insurance aspect, it is responsible for the process of insuring the ships, the cargos and the crew members. This process entails the careful examination of all insurance policies and the relevant invoices, as well as the monitoring of the strict adherence to their clauses. Furthermore, it is responsible for advising the top management about the annual insurance costs per vessel and per fleet, keeping the other departments up-to-date about the effects of possible moves that may not be covered by insurance. Secondly, with regards to the Claims part of the department's duties, it is responsible for all the necessary actions that need to be taken in cases of claims. These include finding evidence and closely monitoring the relevant developments. The department also follows up on claims that may arise from stevedoring damages, stowaways, injuries, accidents etc. For this purpose it is in close cooperation with all the other departments and especially the Technical and Operations Department as well as with the legal offices and P&I clubs.

The Insurance and Claims Department is responsible for:

- Negotiations, placing and attendance of current insurance of P&I Club, War risks, loss of hire, freight at risk.
- Claims prevention.
- Issuance and renewal of Certificate of Financial Responsibility (COFR).

## **11. Chartering and Brokering Department**

The Chartering Department arranges employment for the vessels and is also responsible for their operation. The tanker department will usually handle bunker contracts for the company fleet. In the organization chart the interaction between the main department and the sub departments is shown by the lines of authority. This authority goes down from the ship-owners, through the main departments and down into the organization. The lines show how the instructions for the company are transmitted from the ship-owners through the different links. All department heads are fully responsible for their own activities and they must therefore be fully familiar with all matters concerning their departments so as to be capable of managing and making decisions. Information, messages, tasks, proposals, etc. follow the formal lines of communication. This is the main principle, but modifications occur.

### **Chartering Shipbroker**

A chartering broker may be described as an intermediary between the ship-owner and the merchant or the cargo owner. His knowledge must be extensive in order that he may cope with all requirements of his business; he must have a sound knowledge of shipping law, geography, port information, charges throughout the world, facilities at different places, distances between ports, and countless other matters. It also stands to reason that he must be of the highest character.

He acts between a ship-owner who has tonnage idle, and a cargo owner who has a cargo which he wishes to be transported. He engages space for cargo and arranges the whole of the business details between the principals, receiving for his services the commission agreed under such an arrangement.

When he fixes a contract of this nature it is known as a charter-party, of which there are three classes: voyage, time, and bareboat or demise. The charter party is a contract of affreightment, and for voyage charters is an agreement for the carriage of goods from one

specific port to another, the owner of the vessel receiving freight for the cargo carried. In the case of time and demise charters, both of these contain a contract whereby the vessel is actually hired for a specific period of time, during which period the charterer has the freedom, within the stipulations of the charter-party conditions, of using the vessel for what purposes he may wish. In a demise charter the ownership to all intents and purposes changes hands for the period of the contract. The payment in this case is for the hire of the vessel, and an agreed amount is paid per month or per day for the use of the vessel.

While in the case of bill of lading shipments standard rates are charged, the rates for chartered ships fluctuate according to the state of the market, it being the tendency for rates to be high during busy periods, when tonnage is scarce, and low in slack times when idle ships are plentiful.

The arrangement of a charter-party is known as “fixing” a charter and when this is completed the vessel is termed “fixed”.

The basic function of the shipbroker is to bring together the two parties concerned involving the ship and cargo owners. In so doing, following negotiations between them, a charter party is ultimately concluded. The broker’s income is derived from the commission payable by the shipowner on completion and fulfilment of the contract. A further role of the shipbroker – other than fixing vessels – is acting as agent for the shipowner. As such he is responsible for everything which may concern the vessel whilst she is in port. This embraces customs formalities; matters concerning the crew; loading/discharge of vessels; bunkering/ victualling and so on.

Duties of the shipbroker can be summarized as follows:

- Chartering agent whereby he acts for the cargo merchant seeking a suitable vessel in which to carry the merchandise.
- Sale and purchase broker acting on behalf of the buyer or seller of ships and bringing the two parties together.
- Owner’s broker whereby he acts for the actual shipowner in finding cargo for the vessel.
- Tanker broker dealing with oil tanker tonnage.
- Coasting broker involving vessels operating around the British coast and/or in the short sea trade, e.g. UK/Continent. Additionally he can at the same time act for the cargo merchant in this trade should circumstances so dictate. The deep-sea broker, however, will act for the shipowner or

cargo merchant – not both at the same time.

- Cabling agent involving the broker communicating with other international markets.

The Institute of Chartered Shipbrokers is the professional body for the shipbroking industry. It was founded in 1911 and conducts examinations on which membership grade is issued. Membership is open to any citizen of any country in the world, and is regarded as the professional body for those engaged in all aspects of the shipping business. There is no doubt the shipbroker is a man or woman of many roles. In reality he or she is the middle person between the two principals concerned a charter party.

## **12. Financial Department**

The Financial Department's role includes planning, organizing, auditing and controlling the Company's finances. It monitors the fiscal activities of the Company and is responsible for seeking (and carrying through) the necessary funding for these activities, be it traditional bank financing or alternative sources. Furthermore, it evaluates the financial viability of prospective investments of the Company's clients and keeps up with the progress of the existing ones. It manages, allocates and invests the Company's cash reserves and working capital and other assets and suggests / explores the appropriate alternatives. Moreover, its planning role primarily includes formulating the Company's annual budget and budget projections for the coming years. The Financial Department also follows up and informs the Senior Management on the economic developments around the world. Finally, the Department is responsible for maintaining and promoting the Company's relations with banks, investment firms and other financial market participants.

### **Finance Director**

The finance director would have an accountant responsible to him. The accountant's department is responsible for the annual accounts; budgets covering revenue, expenditure, investment and cash flow forecasts; credit control involving the billing of customers/shippers and payment of accounts; preparation of management data which may cover every month's traffic carryings, revenue and expenditure results against budget; and costing data such as voyage costs and economics of individual traffic flows. It is likely that the accountant's department would be so organized to have an individual officer responsible for each function such as audit officer, budgets officer, costing officer, credit controller, etc. All would have supporting staff and be responsible to the accountant and liaise with other departments. Overall, the department would be computer-focused. The planning manager features only in a large shipping company. He is under the finance director's control in this particular company. This department is particularly concerned with developing company policy and strategy over a wide range of activities. It embraces



the development and implementation of capital projects, formulation of a 5- to 10-year business plan, and liaison with government and other national and international organizations relative to general matters appertaining to shipping. The planning department works in very close liaison with other departments and officers within the company.

### **Logistics Director**

The logistics director is a specialist in the field of logistics. This embraces the time-related positioning of resources ensuring that materials, people, operational capacity and information are in the right place at the right time in the right quantity and at the right quality and cost. To conclude the examination of the organization structure, one must stress that each shipping company must devise its organization to suit best its needs and thereby maximize its profitability and long-term future. The size of each department, and in fact its actual existence, does depend on the size of the company and the trades in which it operates. The larger the company the greater is the tendency to have a larger number of departments. Overall there is much merit in reviewing the adequacy of an organization in the light of market considerations every two years. The shipping companies conduct their business abroad by means of branch offices or agents; these act as the owners' local representatives in the clearance and discharge of the owners' vessels, and they secure cargo for shipment.

### **13. Accounting Department**

The Accounting Department is the one that is responsible for the proper and timely keeping of the company's accounts. The department also manages all available financial resources of the company, monitors the inflows and outflows, schedules payments to suppliers, shipyards, agents, etc. It also oversees the prompt re-payment of the Company's loan obligations. Finally, the Department issues the annual financial statements in co-operation with internationally acclaimed accounting firms.

#### **Account Manager**

The Accounts Manager is responsible for:

- The supervision of the Accounting Department.
- The preparation of the Owing Companies Financial Statements.
- The checking of the Voyage Accounts and the Daily Running Expenses.
- The follow up of the Managers Office Budget and the cash flow reports.
- The follow up of the Agents cash flow reports.
- The follow up of the Owing Companies Budget and cash flow reports.
- Acting as a physical link between the Owing Companies, the Managers and the Agents as far as financial matters concern.

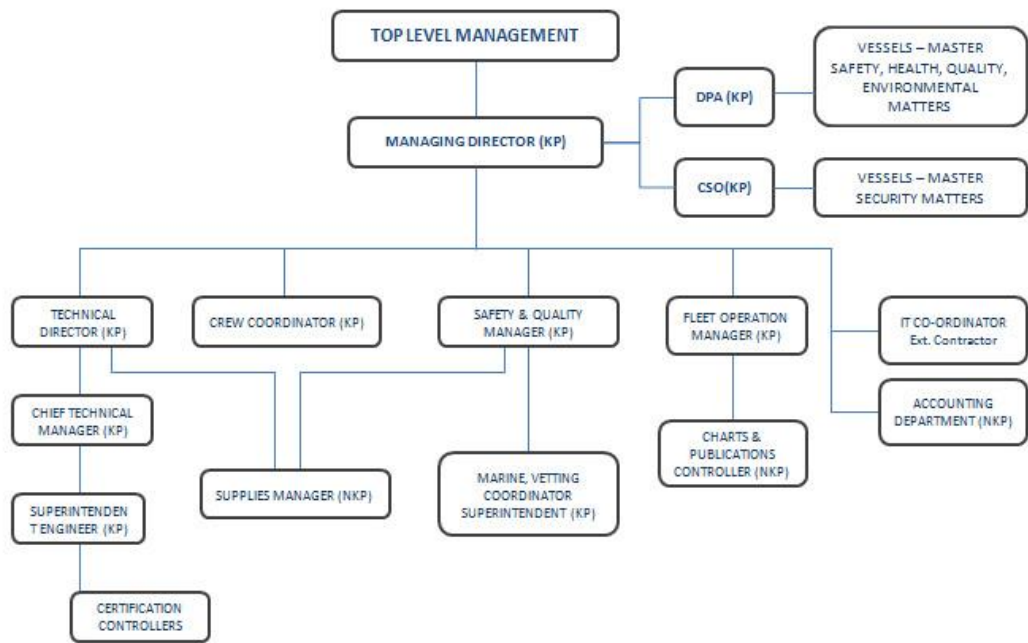
## **Accountant**

Under the supervision of the Accounts Manager, is responsible for:

- The Master's General Account and crew payroll follow-up.
- The checking and posting of the accounts arrived from Managers London Agents.
- The checking and posting of the voyage expenses accounts.
- He trained all the Masters on the MGA and crew Payroll Company's software.
- Suppliers and other creditors accounts follow-up (checking-posting-cooperation with the purchasing and the engineering department).
- Taxes and dues (Flag, and crew income taxes follow-up).
- Office personnel matters.
- MGA data entries and crew payroll follow up.
- Check and reconcile the monthly cash transactions reports.
- Cash related accounts follow –up (checking –posting)
- Preparation of the monthly cash transactions reports per bank account and owning company.
- In collaboration with the crew department and the ships, he is responsible for the execution of the crew allotments inland and abroad.
- He prepares the monthly cash flow reports to the owners.
- Financial Expenses follow-up (checking-posting)
- Data entries

## **14. Secretariat**

The company secretariat is responsible for convening board meetings, preparation and circulation of board minutes, and looking after the shipping company's statutory affairs. In this particular company, the assistant secretary takes charge of the department and reports to the company secretary. The department is likely to be small compared with the marketing manager's organization. It will include maintaining records of stocks and shares; processing estate matters such as land and property sales and purchases; general administration of the company's affairs; and dealing with legal matters. The larger company would employ a solicitor whilst the smaller company would merely engage a solicitor as required. The department is the organization responsible for liaising with liner conferences but this could be equally undertaken by the marketing manager. The assistant secretary's department would be responsible for the retention of any company agreements such as a revenue pooling agreement with four other operators on a particular service. Negotiations for the renewal of any such agreements or the development of other similar agreements would involve this department in consultation with other parts of the organization, particularly the fleet and marketing managers.



KP = Key Personnel  
 NKP = Non Key Personnel  
 SHORE PERSONNEL OFFICER = S&Q MANAGER

## **Chapter 2 – The role of ship management in business activities of shipping companies**

Ship management is a specific kind of management; different from other types of “land” management, because it takes place under special ship conditions, mostly at sea. The key aspect to the ship management process is working with others and helping others, with limited resources and in a changing environment. In this way operational goals set by the annual plans of shipping companies are achieved.

All aspects of the management process from the point of view of a shipping company will be analyzed, followed by the analysis of “ship management” and its role in business activities of a shipping company.

Ship management is a specific issue that can be discussed only through the shipping company management with which it is closely connected. A definition of ship management will be provided; its role and hierarchy level in the process of shipping company management will be clarified, as well as the use of management functions in this sense.

### **2.1 THE ROLE OF MANAGEMENT IN COMPANY BUSINESS**

We live in a world characterized by globalization and information technology, rapid and substantial changes in the environment that require both from individuals, as well as from companies and the whole society to change their business philosophies and orientation towards their core business while at the same time outsource some other activities. As a result, network and virtual organizations are being established, that is, companies without borders. In such a world managers also face new challenges.

Modern companies could hardly survive without management because there are many challenges resulting from the environment that they face today. High quality management is crucial to be able to adapt constantly to such a dynamic environment. The success of companies, today more than ever, is a result of the effectiveness of the management. Just as there is no recipe or general strategy that could guarantee a company’s success, there is no recipe for successful management. Just as the grounds for success of each company are unique, so are the theory and practice of management at each company. How could we otherwise explain so different business results achieved by companies belonging to the same branch of economy that do business under the same market conditions.

The simplest way to define management is as an activity aimed at achieving specific, pre-set objectives, or at activities of other people [8, 10]. Management is the process of guiding the behavior of others towards the execution of certain tasks. One of the most

common definitions of management is that it is a process of coordinating the factors of production or business with the purpose of achieving certain goals.

American Kreitner defines management as – the process of working with and through others to achieve organizational objectives in a changing environment and with the efficient and effective use of limited resources.

Modern management emphasizes the importance of “soft variables”, unlike the earlier stages in the development of management when the focus was on “hard variables”.

The soft variable includes people employed at a company, their knowledge and abilities, as well as management styles, unlike the hard variable that includes strategies, structures, sizes, technologies, planning, control etc.

The management of human resources, intellectual capital and knowledge, that is, of intangible assets that elude the standard accounting and economic analysis and balance sheet are becoming the dominant issue and key task of management.

Just as there is no management without managers, there is also no successful management without creative, capable and talented managers. Only those managers who have expressed individuality and innovation capabilities can rise to the challenges of the environment awaiting, not only today, but even to a larger extent in the future.

One of the most important tasks of a modern manager is to motivate its co-workers, that is, to inspire other people, and this often depends on his/her charisma and personal characteristics.

Modern managers need to primarily know how to motivate, coordinate and interconnect these different individuals, whether they are part of production or services.

This means that a modern manager, after winning a battle in the external environment, has to “return” to his/her company and focus on harmonizing the relations between employees, that is remove weaknesses of internal environment with the goal of survival, growth and development of the company.

Modern manager varies from the classical also by the fact that he/she does not focus on the search for an ideal company organizational structure, but rather on the management in accordance with a changing environment and conditions set by the competition.

## **2.2 MANAGEMENT OF SHIPPING COMPANIES**

Modern shipping companies are founded as corporations, that is, as joint stock companies or limited liability companies, while the ownership function is usually achieved through a general meeting or supervisory board.

It is important to note that in the current management system of shipping companies, functions owner – entrepreneur – manager – worker are completely separated, meaning

that the supervisory board leaves the entire leading process to the management, as well as the coordination of specific functions (to lower management structures). These are the management of commercial transactions, management of technical affairs, management of accounting and financial affairs etc.

Only the functional operations of a shipping company are discussed in this paper because the ship management most often interacts with these functions while performing duties and tasks that are directly related to maritime transport.

### **2.2.1 Management of Commercial Transactions**

Commercial Transactions management – that is, the organizational function of commercial transactions needs to secure revenues to the shipping company usually through revenues generated by a specific ship; organization and management of various costs of ship management and voyage.

Sales function of the shipping company is of extreme importance, given that this particular function enables the shipping company to conduct its core business, the sale of ship capacities, that is, transport.

Commercial transactions include the Chartering Department and Operational Department.

**Chartering Department** mainly deals with the sale of shipping capacity and that by: chartering their own shipping capacity worldwide; taking on additional capacities and chartering for its own account; monitoring chartering competition on the global market; the research of the global chartering market, and consequently creating conditions for the development of new projects working closely with the development function of the shipping company. The managers of chartering departments should have constant insight in all relevant market movements. For a large part of the activities, the manager has to have professional qualifications of a broker in order to successfully perform very complex and expert activities relating to the sales function in the chartering department.

**Operational Department** deals with control of rent collection, billing for damages caused to stevedoring companies aboard, as well as other claims, communication with the ship command, issuing of instruction on charters, communication with agents, as well as their nomination, cost control, bunker orders (i.e. fuel: MDO – marine diesel oil), ship registration and suchlike.

## **2.2.2 Management of Technical Affairs**

**Management of Technical Affairs** – that is, the organizational function of technical affairs in every shipping company is one of its key organizational parts, since it deals with complex technical issues, personnel administration as well as insurance issues.

**The Department of Technical Issues** deals with: equipping of new ships; technical correctness of ships – conducts consultations with operators and officers aboard concerning any technical problems; supervises technical documentation of ship equipment and the engine; controls the validity of ship certificates; supervises ship maintenance; supervises operational data, procurement and control of oil, greases and suchlike; supervises equipment and spare parts; organizes various repair and maintenance works, docking, sale and purchase of spare parts; supervises costs etc.

**The Department of Personnel Administration** deals with: appointment of ship managers – captain and engine officer and ask them to evaluate the quality of crew on quarterly basis; analysis of the quality of the crew, recruiting, crew selection, crew development; employment contracts, and suchlike In maritime countries, today also partially in Croatia, seafarers are employed on fixed term, based on standardized forms of recognized maritime association (primarily ITF), while administrative and other personnel on land is employed on indefinite term, Therefore the main task of the personnel administration is to ensure a sufficient number of professional and qualified workers for all activities of the maritime transport process of the shipping company in a timely manner.

**The Insurance Department** deals with the hull and machinery insurance that covers the damages to the construction of the ship itself; insurance through P & I clubs that covers everything not covered by the hull and machinery insurance (crew, cargo); insurance covering various risk at the seat of the shipping company. Once to twice a year, the captain and chief engineer visit the seat of the shipping company to hold short consultation during which their positions are harmonized with those of the function managers, inspector and specific services for successful achievement of annual and operation goals.

## **2.2.3 Management of financial and accounting affairs**

**Management of financial and accounting affairs** – that is, the organization function of financial and accounting affairs is conducted through financial, accounting and control activities. Their basic task is to collect and provide information on the maritime transport process in monetary terms.

The Finances Department deals with:

- Financing activities in the national currency
- Foreign currency

Financing activities in the national currency include: treasury operations; banking operations; domestic payment operations; crediting operations; financial flow monitoring; following and implementing the domestic regulations concerning financing etc.

Foreign currency operations include: payment transactions abroad (foreign banks, shipping agents abroad etc.) arrangement and repayments of foreign loans, payment of shipping representatives abroad, settlement of travel expenses of seafarers and other bills of employees aboard, control and settlement of agents' bills from foreign ports and suchlike.

**The Accounting Department** deals with: the monitoring of revenues and expenditure at the company level and its functional parts; compiling financial reports (profit and loss account, balance sheet, cash flow, reports on financial results and suchlike); payroll, calculation of costs (transport costs) and sale price (freight) of maritime transport service per transport unit etc.

**Control Department** deals with: the comparison of planned and achieved results and informs the relevant management thereon, the establishment of standards; performance measurement – whether the established standards are achieved or not, comparison of performance with standards, evaluation of performances and implementation of measures to solve the problems etc. The control of the entire maritime transport process in monetary terms is crucial to secure the continuity of the process.

## **2.3 SHIP MANAGEMENT**

Ships are self-propelling waterborne units, intended for the transport of goods, liquids, gases and people by sea, rivers and lakes. A ship, with the exception of the warship, is any waterborne craft intended for seagoing navigation, exceeding 12 m in length and a gross tonnage of 15 tons, or authorized to carry more than 12 passengers. There are passengers' ships, cargo ships, technical waterborne crafts, fishing vessels, public service ships and research vessels.

Ship management is specific in its position and importance in the management system of shipping companies; it falls under the operational level of the shipping company management (so called low management).

Shipping activities can be performed at management, working and auxiliary level of responsibility.

The management responsibility level is linked to the rank of the ship captain, chief mate, chief engineer and second engineer that it, to the management of all or particular, defined activities aboard.

The basic profit-making units of shipping companies are ships. Their management and organizational structure differs from the land structure that is the structure of their home



company. On such a specific unit as a ship, only mechanistic and functional organizational structure can be implemented.

**Personnel administration** is of high importance in the ship activities. Special services on land are in charge of personnel administration, which are either a part of the shipping company or separate companies that deal with this as their core business. Due to specific working and living conditions, the personnel is alternates in accordance to a preset schedule (contract in duration of 3, 6 or 9 month), and middle rank managers are in charge of monitoring personnel onboard – chief officer and chief engineer, each in its own domain and department (deck, catering, engine). Quarterly or upon crew shift, reports on the quality of the personnel onboard are sent to the shipping company, and if necessary, personnel are substituted even before the expiry of the contract.

### **Ship Management Structure consists of:**

#### **Master**

The Master has the **Overriding Authority** and responsibility to make decisions, take any steps and issue any orders, whether or not they are in accordance with the contents of this Management System, which he considers are necessary for the preservation of life, prevention of pollution or for the safety of the ship and to request the Company's assistance as may be necessary.

The Company requires the vessel to be managed in a safe and efficient manner and the Master is charged with the shipboard responsibility of ensuring this. Appropriate orders and instructions shall be issued in a clear and simple manner.

The Master is responsible for, and has full authority for, ensuring that the vessel under his command fully complies with Company's and statutory requirements. He should immediately advise the Headquarters if, for any reason, he is unable to comply with those requirements. In addition, he shall ensure that industry codes and guidelines are properly implemented.

The Master has authority and responsibility for the overall safety of the vessel and crew and for environment protection matters.

Regarding technical matters, the Master's responsibility includes but is not limited to the following:

- To carry out regular inspections on board and prepare condition reports, with the full co-operation of the Chief Officer.
- To supervise the yard activities during dry-docking and ensure vessel's safety during repairs, always assisted by the Chief Officer & Chief Engineer.

- To verify and sign together with the Chief Engineer and the Company's Superintendent the work done list, on completion of dry-docking repairs.

Regarding matters concerned with the Company's Management System's effective implementation, the Master is responsible to:

- Review regularly, as he deems appropriate, the Company's Management System as described in the policies, procedures and instructions.
- Report any deficiencies of the Management System to the Office by issuing Non-Conformities and defect reports as required.
- Upkeep the controlled documents on board.
- Remove the superseded documents from areas of work.
- Ensure that a copy of the Safety Management Certificate is always placed on board, in order to produce it for the Administration or organisations recognised by it.

## **Chief Officer**

The Chief Officer is the departmental head of the deck department, and as such, he is responsible to the Master for the safe and efficient operation of the vessel outside the engine room.

Also he has the authority and responsibility for the overall safety of the vessel and crew and for environment protection matters, under the supervision of the Master.

The Chief Officer is the person authorised to deputise the Master.

Furthermore, he is the ship's Safety Officer who must make regular inspections of all spaces in the ship and monitor personnel working practices to ascertain that no safety hazards exist.

The Chief Officer is responsible to the Master for the safe stowage, loading, carriage and discharge of cargo and compliance with Charterers instructions regarding the cargo. He shall make a positive report to the Master prior to each and every departure, and confirm that the condition of the ship meets all the requirements of the Trim and Stability Booklet and will continue to do so throughout the forthcoming voyage.

He must ensure that a cargo plan is prepared for the proposed loading and that stability calculations are made for the intending voyage including departure and arrival calculations. It is his duty to ensure that all cargo spaces are properly prepared to receive the intended cargo and that all samples required or recommended for a particular cargo are taken to ensure that such cargo complies with all safety criteria for its carriage.

He must ensure that written "In Port" standing orders relating to cargo operations are issued so that no confusion concerning loading/discharging operations occurs.

He is responsible for the organisation of cargo work and for tank or hold cleaning and will direct Junior Officers accordingly. Safety Regulations for cargo must be strictly enforced and at no time are risks to be taken which might endanger the ship or the safety of the ship's company.

He is responsible for liaising with the Chief Engineer with regards to machinery requirements for cargo operations.

Also, the Chief Officer is the ship's Medical Officer.

## **Chief Engineer**

The Chief Engineer is responsible to the Master for the management of the Engine Department and for the safe, efficient and economical operation, maintenance and repair of the propulsive unit, boilers, all cargo handling equipment, deck machinery and in general of all machinery and electrical items onboard the vessel. The Chief Engineer has a special relationship with the Master and he should consult with him regularly on the concerns of the ship, and provide him in full with information connected with his department.

In carrying out his duties the Chief Engineer may delegate responsibilities to the 2<sup>nd</sup> Engineer while retaining overall responsibility. In the event of the Chief Engineer being indisposed, the Second Engineer will temporarily assume his responsibilities.

The Engine Department must be managed in strict conformance with sound engineering practice, existing statutory and classification requirements and Company's policies and procedures.

The Chief Engineer is responsible for the cleanliness and maintenance of engine room and all compartments throughout the ship which are used for the storage of spare gear, engine stores, boiler feed water, fuel and lube oil required for the operation of the machinery.

He is responsible for ensuring that all engineering records are properly and accurately maintained at all times and for reporting to the Office on a regular ad-hoc basis.

What is more, the Chief Engineer will advise the Master on the planning requirements for the Engine Department and machinery maintenance.

The Chief Engineer is responsible to the Master for the final decision that the engines are available for UMS (Unattended Machinery Spaces) Operation.

The Chief Engineer is to ensure that the machinery is operated at maximum efficiency in order to maintain the current Charter Party performance requirements.

## **Second Engineer**

The Second Engineer is directly responsible to the Chief Engineer for the efficient running, overhauling of, and repair work to, the main engine, boilers, auxiliaries,

electrical equipment, deck machinery, cargo pumping plant, lifeboat motors, emergency fire pumps and emergency generator. He is also responsible for all laundry, galley and pantry machinery and steam and oil fuel connections. He is to maintain close liaison with the Chief Officer in day-to-day matters affecting the Deck Department.

When the Chief Engineer is absent or indisposed, the Second Engineer will assume his duties and take charge of the Engine Department.

The Second Engineer shall be responsible to the Chief Engineer and shall undertake duties as allocated by him.

The Second Engineer may be employed in watchkeeping or daywork roles, as required by the Chief Engineer and must consult daily with him concerning the methods and procedures for the maintenance and upkeep of the department.

The Second Engineer is responsible to the Chief Engineer for the management and supervision of the Engine Department and for the delegation (allocation) of responsibility to the other engineers with reference to routine maintenance and operating duties as practised in Company managed vessels.

Any defects in equipment are to be brought to the attention of the Chief Engineer immediately.

The Second Engineer is particularly responsible to the Chief Engineer for the safe and efficient operation, maintenance and repair of boilers, main machinery and all items of auxiliary machinery which are the responsibility of the Engine Department.

The Second Engineer is directly responsible to the Chief Engineer for setting up the main machinery and ensuring all safety and alarm systems are functional prior to engines being placed on standby or conventional or UMS (Unattended Machinery Spaces) operations.

The Second Engineer is, in addition responsible to the Chief Engineer for protecting ship's property against loss or damage and against irregular or wasteful practices on the part of any member of the Engine Department.

The Second Engineer must keep a full record of overhauling and repair work carried out and of all gauging and boiler water tests. These records are to be presented at regular intervals to the Chief Engineer for his signature. He is responsible for the cleanliness and orderliness of the Engine and Boiler Rooms and for the proper and economical use of all stores, tools and spare gear, an inventory of which he will keep.

The Second Engineer must keep the Chief Engineer fully informed about the progress of maintenance and repair work, running of the machinery, conduct and ability of the staff, and is to report immediately to him any unusual occurrence in the Engine Room.

## **2.4 SHIP MANAGER**

Since he operates in specific internal environment – on ships mostly at sea, with limited resources, one of the key tasks of the modern ship manager is to be well acquainted with ship processes and ship management processes. Knowledge of these procedures enables the manager to motivate its co-workers in a high quality manner, which often depend on his/her personal characteristics. The Master is at the top as the supreme authority onboard, at the same time as the representative of the shipping company, focused on external representatives. Authoritative leadership model is the one present onboard. Solely by the fact that each aspect of work is well-known and established, there is no room for any sort of democratic leadership structure, rather it all comes down to command and execution.

## **Chapter 3 – Influence of shipping company organization on ship's teamwork effectiveness**

A general prerequisite for effective acting of a group, for example of a ship's crew, is the existence of a common aim and conviction of its realization. Such a group, besides its being united in the achievement of a common goal, can act appropriately only within the framework of adopted principles and rules, and as such can be defined as organization. The organization meeting the principles of the definition mentioned above will present the features of a system with input, output and functional parameters.

Coordination of the company policy with the international regulations and conventions concerning the safety of navigation determines the relationship Company - Ship. In such a relationship the Ship's Master is *longa manus* or an extended hand of the Company management. He is authorized to protect Company interests and at the same time to manage the operations related to navigation and ship's exploitation.

In such relationships, the Ship's Master only formally communicates with the Company management whereas the privilege of actual control and influence is held by certain Company departments and Deck and Engine supervisors. Consequences of such an organizational structure are the shortcoming of team work as well as limited freedom in decision-making by the Ship's management, a reduced need for mutual consulting and an increased possibility of clashing interests of the Ship's departments and the Officers themselves. This has a direct impact on a further reduction of the productivity level of the Ship's crew, increase of the Ship's expenses, and consequently on the possibilities of realization of the common goal. In that sense decentralized decision-making offers better possibilities of coordination between certain Company departments and the Ship as well as an improvement in coordination of specialists on board through the introduction of team work.

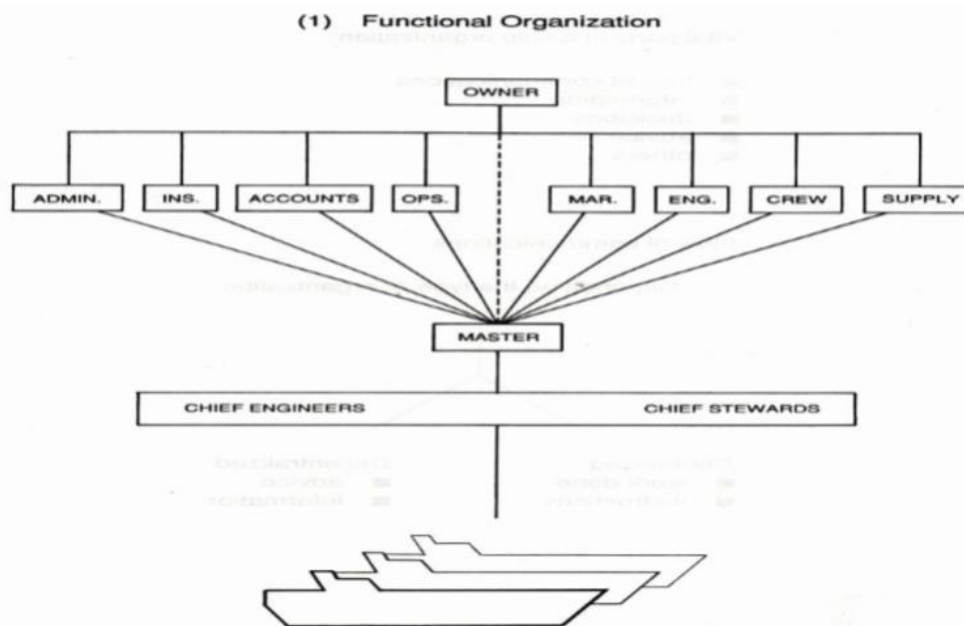
Some shipping companies have developed a dual or matrix organizational structure as a decentralized form of management. Such an organizational framework has led to an improvement in interaction of certain functional departments of the Company as regards mutual consulting, information exchange and interrelated acting. Work integration of certain Company departments in order to achieve a common goal, i.e. allowing a number of independent departments to participate and take up tasks so as to realize a common goal has brought to a revival of the Ship's managing personnel motivation. In the decision-making process requirements and criteria of different parties including Ship itself are taken into consideration. Therefore division of labor is no longer monolithically determined by its function but is made dual according to needs and implies dual responsibility as well as dual source of information. Such an organizational framework initiates team work and better communication between the Ship's Master and Officers due to common consideration of all elements, e.g. Ship's maintenance and passage planning, so as to be able to propose the best solutions to the technical and operational sectors.

### 3.1 RELATIONSHIP BETWEEN FUNCTIONAL AND MATRIX ORGANIZATIONAL STRUCTURES OF A SHIPPING COMPANY

Merchant ships commonly have a simple organizational structure in which the Ship's Master has the highest authority that is due to him lawfully.

Hierarchical ship's organization derives from an early concept that longed for a mechanistic organization. Such an organization implied input and output parameters that were supposed to maintain the function of the organization according to a previously devised scheme that took little consideration of the people involved in the organization. The principles of such Ship's organization survived in the hierarchical organization.

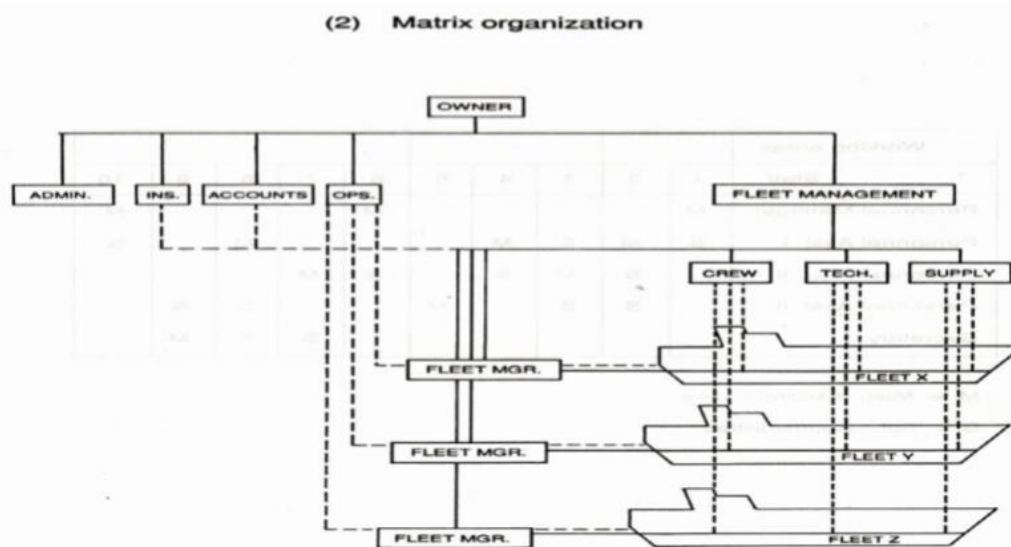
The aim and purpose of a functionally structured ship organization is to achieve efficiency and effectiveness through adaptation of people to the mechanistic model of behaving and carrying out duties. Hierarchical structure and the principle of subordination also determine the concept of authority that represents and maintains such an aspect of organization.



**Figure 1:** Functional scheme of a hierarchical shipping company  
Source: Human Resources Management – IMO 1992., Part D, p.28

The concept of functional organization leads to the phenomenon of «unstable crews» since for each period of navigation the crew is formed all over again from individuals who have previously been engaged aboard different ships. The consequences of such an organizational model are reflected in superficial interaction in mutual contacts of seamen during their term on board that is carried out due to the possibility of meeting again. Minimizing social activities and avoiding interaction aim at avoiding conflicts.

The functional model of a shipping company has universal organizational structure with regulated tasks and behavior at work, centralized control and hierarchically emphasized chain of commanding. Such organizational characteristics besides the mentioned above manifestations of an unstable crew cherish bureaucratic relationships and affect deficient motivation, communication and cooperation among officers, the Master and certain specialist departments on board. However, exceptions to this rule are some shipping companies with a very complex organization since some of them are only a part of a larger group, i.e. company. Consequently, the internal organizational structure can differ from the one shown in Figure 1. For example, «matrix» structure of such an organization requires personnel that takes up a number of different roles and has a broader range of responsibilities (Figure 2).



**Figure 2:** Matrix scheme of a shipping company  
Source: Human Resource Management – IMO 1992. Part D, p.29

Matrix organizational structure has been developed to meet the extent of the fleet and technological variety of ships within certain companies as well as to reduce and have better control of expenses. The basic change with regard to the functional structure is in the decentralization of management that has brought to higher motivation and initiative of the Master, Officers and Chief Engineer on board. Decentralized decision-making has led to the need of forming fleet management and setting up the function of project leader. Within every fleet (x, y, z) the function of project leader has been set up to represent the shipping company interests and coordinate the activities of functional departments of the Company in relation to the Ship. The basic function of the project leader in the relationship Company - Ship is setting up balance between ship's requirements and functional departments of the Company that are prone to neglect the interests of individual ships so as to meet the interests of the whole (profit).

On the basis of matrix organization it is also possible to develop conditions for team work as a modern organizational form of acting and work of the Master, Chief Engineer and other Officers of the Deck and Engine Department. The team is headed only by the Master with his specific management style as a participating and supportive leader while



the other Deck Officers, Chief Engineer and other Engineers accept his leadership contributing to the Master's effective decision-making by participating in seeking for the most appropriate alternatives. However, transition from the hierarchical to team form is only the basis for an effective acting of the crew. Resource management, organizational climate and organizational processes represent the whole of organizational influences building up a perspective in the coalition of interests of the Ship's crew and Company management.

### **3.2 RESOURCE MANAGEMENT**

This category falls into the domain of decision-making at the level of Company management board. Decisions made regard the following resources:

- personnel policy
- expenses
- provision – replacement of necessary equipment.

Personnel policy involves human resources from the aspect of management, selection and training. Expenses are viewed from the aspect of their reduction and adequacy of funds to cover the expenses of maintenance of the equipment (ship) as well as seamen training. Provision or replacement of the equipment includes the analysis of the existing equipment from the aspect of efficiency and provision of new equipment to satisfy the purpose intended as far as quality and application are considered.

Generally, decisions made by the Company about managing the above mentioned resources are determined by two basic aims:

- Maintenance of safety.
- Ship's commercial exploitation.

In an age of prosperity and favorable freightage both goals can be balanced and fully achieved. However, there are periods of crises on the Ship's capacity market due to extensive offer and low freightage. Such bad «budget years» usually put Companies in a position to choose between achieving either one or the other goal. Dilemmas regarding the choice of the priority goal are most often solved by reducing expenses involved in maintaining safety for the commercial exploitation of the Ship to benefit from it. In this matter safety includes training and appropriate competence of seamen as well as appropriate maintenance of the Ship and her equipment.

### **3.3 ORGANISATIONAL CLIMATE**

Organizational climate implies a vast area of organizational variables affecting the work of employees. Formally, it is defined as «a stable situation in organized human acting» (Jones, A. P. 1988). Generally, organizational climate can also be viewed as atmosphere at workplace or company culture. The state of organizational climate or atmosphere at work on board ship is reflected in the management style, delegating, communication channels and readiness for immediate action. In this sense the basic variable of a «a stable situation in organized crew acting» is the morale of the group represented by the Ship's management or team together with the rest of the crewmembers on one side, and the morale of the Company management as an influential group on the other side. There are several different definitions of morale as a term referring to a group. In this light Maier points to Allport's statement according to which «morale is the attitude of an individual with regard to the aims of the group». Interpreting the statement mentioned above Maier says «that a mental state called morale involves both individual and social aspects» (Maier, R.F. 1964:123). According to Allport (1942: 3-18) high morale of a group is based on the following elements:

- 1) An individual must have firm convictions making his life worthwhile to provide him with energy for and confidence in the future;
- 2) He must be aware of the effort made to defend or increase his values;
- 3) His values must essentially conform to the group values and there must be a coordination of efforts regarding the achievement of goals.

If the above mentioned elements are applied to the relationship Company - Ship from the aspect of organization we can conclude that the matrix structure of the Company on one hand and well-established team work of the Master as the leader and the Chief Engineer and the rest of the Officers as team members on the other hand enable fulfilment of the above mentioned conditions of high morale. Therefore high morale also means an affirmative atmosphere at work or a pleasant organizational climate. The above mentioned requirements for the achievement of high morale and an affirmative atmosphere at work include both work satisfaction enabled by the appropriate (participating) leadership of the Master and realization of certain values by the Company and Management team on board.

The values mentioned above are realized by the Management of the Shipping Company in coordination with the Master and Team members. According to Maier (1964:132) «analyses show a close relationship between productivity and the Manager's behavior». In other words, on the basis of good communication and coordination between the Company and management team on board as well as among individual team members prerequisites are satisfied for the realization of the above mentioned values. The result of the realization of values is a higher productivity of team work. It becomes manifest in better navigation safety, greater readiness to act in emergencies and better maintenance of the Ship. In this sense Muchinsky (1997) says:

«If the organizational climate points to bad communication and coordination between the Managerial body and other members of the organization, or if not everyone has understood his tasks and his specific position in making and implementing decisions, the safety of such an organization is threatened and open to the possibility of the occurrence of accident» This definition clearly emphasizes the cause-effect relationship between the organizational climate and recent occurrence of maritime accidents such as those involving Exxon Valdez.

The current Company policy and cultural factors are also very good indicators of the organizational climate. Company policy is the official guideline for decision-making by the Managerial body, and among other things refers to promotions, selection, overtime work, involving investigations of accidents as well as use of safety equipment. Cultural factors on the other hand point to unwritten rules, common values, attitudes, beliefs and habits within the organization. Such cultural components also point to organizational climate as set forth in the following statement - «cultural factors interacting within an organization point to mutual relationships and organizational climate» (Muchinsky, P.M. 1997.).

### **3.4 ORGANIZATIONAL PROCESSES**

Organizational processes fall under the authority of Company management that regulates everyday activities on board on the basis of decisions made and rules. This involves the application of standard operational procedures and checking if the tasks planned have been carried out.. Relevant activities in this domain are, for example, work pace and time pressure to maintain sailing schedule. The influence of Management on work pace from the aspect of maintaining sailing schedule can negatively influence the safety of navigation. Focusing on increased work pressure controlled by supervisors as representatives of Company management leads to oversight of technical components and fatigue of the crew. A clear example of the consequences of such acting is the accident of Herald of Free Enterprise. Fatigue on one hand and simultaneously striving to carry out ship's operations and maintain the sailing schedule influenced the occurrence of accidents involving British Trent, Western Winner and Exxon Valdez. In this sense we support the statement that «occurrence of an accident means one urgency situation in excess» (Reinhart, J. 1990).

The influence of the Shipping Company organization in its negative aspects has maximum effect with the ship's crew organized according to the model of vertical organization. This is due to the fact that functional hierarchical organization emphasizes the component of carrying out responsibilities not taking previously into consideration personal attitudes, i.e. opinions of the crewmembers. Vertical organization puts emphasis on the Master and Chief Engineer as key persons for the realization of Company interests. Regarding their management function the Shipping Company can realize its interests exactly through subordination of the Master as a key person that due to the strength of the

formal authority of vertical organization can relate «his» decisions, i.e. the decisions of «the Company», as unquestioning orders.

However, with the Shipping Companies organized on the matrix principle the component of hierarchy does not strike the eye in a negative, order-issuing

form due to the decentralization of management. Negative features of the functional organization regarding “issuing orders – carrying out orders” are dispersed in the way that «Common decision-making by the Headquarters on shore and the Ship management represents some perspicuous advantages. Firstly, the interested parties mutually exchange pieces of information; secondly, in the process of decision-making needs and measures of all parties are taken into consideration, and thirdly, needs of the Ship become equal to the needs of the Headquarters on shore, and here comes the essence of getting power back on board». In such a context the roles of the Master, Chief Engineer and Officers are no longer only functional and operational but acquire wider perspective on the basis of internal and external coordination and extended responsibility. It is exactly the element of coordination and extended responsibility that leads to greater autonomy of the Ship’s management team. With regard to this fact the Company can no longer «lobby for» its own interests while neglecting the Ship’s interests. In such an organization the Master is no longer *longa manus* of the Company in the sense of unquestioning carrying out orders but there is also the feedback based on critical judgment and opinions of the Master and the Ship’s management team. The feedback enables «the project leader» as the person on shore representing the Ship’s interests and coordinating the activities of individual departments of the Company in relation to the Ship. Although the matrix form of organization is «a more democratic» form of managing a Shipping Company, it is essentially based on the hierarchy of power. As such it emphasizes the responsibility and competence of individuals with an accompanying increase of the decentralization of management. The Company requirements concerning working hours, ship maintenance and sailing schedule are also influenced by the management team that makes compromises in their realization regarding the objective conditions of the Ship and navigation. Nevertheless, the commanding authority of the Master remains clear but above all cohesive bonds among the Master, Chief Officer and Chief Engineer are strengthened. The rest of the Officers become active participants and are given greater responsibilities in a larger number of tasks than within functional organizations. Organizational processes set up in this manner, once they have been well-tuned, also become the basis for the introduction of team work on board following the principle of social unification. Such an organizational form of work of the Master as the Team leader and the Chief Engineer and Officers as Team members allows for optimum conditions regarding both the communication with the Company and the safety of navigation. Namely, the component of «foreseeing» future happenings is based on effective communication, coordination and cooperation, and it reaches its full expression in the model of team work on board. The component of «foreseeing» is an essential element of operational and preventive acting on board both from the viewpoint of everyday activities and from that of recognizing conditions for the occurrence of emergencies. It is exactly from this aspect that team work is considered the optimum organizational form of work

and acting, and it really enables the highest level of preparedness of the Ship's Crew in all kinds of conditions in the navigation and exploitation of the Ship.

### **3.5 CONCLUSION**

The following conclusions can be made:

- Organizational factors as expressed through organization and the Company policy affect the organizational model of ship management, and consequently the quality of the work carried out by the Master, Chief Engineer and the Officers in regular circumstances and emergencies.
- An emphasis on the hierarchical structure of commanding can suppress effective carrying out duties and tasks while free and interactive relations can enhance it.
- Matrix-organized Shipping Companies represent an alternative to the functionally organized Companies from the aspect of the decentralization of management as a prerequisite for the introduction of the effective model of team work on board.
- It is possible to argue that functionally organized Shipping Companies will in a certain phase if their development adopt matrix organizational structure due to a number of advantages regarding both the expenses and safety on board.
- Switching over to team work on board on the basis of social unification is objectively possible and most favorable in the conditions of matrix-organized Companies. The reason for this is the decentralized form of management as the basis of communication enhancing the correct forming of team work on board accompanied by a positive experience of authority, coordination and individual responsibility. This experience exists due to the earlier close relatedness at work, mutuality and coordination of the Master, Chief Engineer and Chief Officer as the nucleus of the future extended team. On the other hand, the experience mentioned above does not exist with strict vertical organization of Shipping Companies that is the result of the functional organization. In such Ship organizations as far as communication is concerned the Master and Chief Engineer are distant due to the effect of «antagonism of specialties», and between the Master and Chief Officer there is a strict subordination relationship based on the principle of rank and the level of responsibility. Thus, vertical, strictly centralized Shipping Companies are not a good basis for the transition to team work. The Masters, Chief Engineers and Officers who used to work in such organizational circumstances require necessarily a transition period of decentralized management to obtain positive experiences of mutual communication, coordination and reciprocity.

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