Procedures on arrival and departure from international ports

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Sveučilište u Zadru

Pomorski odjel - Nautički odsjek

Preddiplomski sveučilišni studij Nautike i tehnologije pomorskog prometa (jednopredmetni – izvanredni)

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Izjava o akademskoj čestitosti

Ja, **Filip Meštrović,** ovime izjavljujem da je moj **završni** rad pod naslovom **Procedures on Arrival and Departure from International Ports** rezultat mojega vlastitog rada, da se temelji na mojim istraživanjima te da se oslanja na izvore i radove navedene u bilješkama i popisu literature. Ni jedan dio mojega rada nije napisan na nedopušten način, odnosno nije prepisan iz necitiranih radova i ne krši bilo čija autorska prava.

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Sadržaj mojega rada u potpunosti odgovara sadržaju obranjenoga i nakon obrane uređenoga rada.

Zadar, 28. listopada 2016.

Contents

Introduction

This paper consists of introduction, body and conclusion. Four chapters which divide the content into readable and understandable parts where the reader could easily find what he wants. First chapter is a brief explanation of terms where I will try to explain necessary vocabulary in order to understand the whole body of the paper, but also basic terms which are used in procedures on arrival and departure. Second chapter is called "Procedures on Arrival" where I explain different categories that represent the true meaning and purpose of the whole procedure. Third chapter is called "Procedures on Departure", explaining departure procedures, and the fourth chapter is the conclusion of the paper.

As far as I know I have been amazed by the sea, its sound, amazing color and constant motion have kept my interest for the last fifteen years unchanged, and I know that I am not the only one. Archeological evidence show that people came to Australia 45.000 years B.C., most presumably by boat, although there is no material evidence that could prove this assumption. First archeological evidence that undoubtedly proves correlation between humans and sea were dugout canoes that predate 6.000 BC.[1] These findings tell us that humans have always wondered how to conquer the sea, and what secrets it keeps. Many years later, ships were used to discover new continents such as Australia or America which also adds up fine to their already mentioned sea charm.

Industrial revolution laid the foundation for constructing steamboats. Steamboats were ships that used steam power as primary method of marine propulsion. English Royal Navy played one of the most important roles in largest empire in history. British Empire was comprised of the dominions, colonies, mandates, protectorates and territories which were ruled or administered by the United Kingdom. British Empire had territories on almost every continent, and such huge area had resources which enabled empire to become one of the foremost global power. [2] Imperialism exerted by European countries such as Belgium, Netherlands, France and others in many ways looks like predecessor of today's international trade between different countries. Exploitation of colonies led to rise of steamboats and motor ships while the number of ships constantly increased.

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[1]Roger Bridgman: 1000 Inventions and Discoveries

[2]Niall Ferguson (2004b). Empire: The rise and Demise of the British World Order and the Lessons for Global Power, New York: Basic Books

However, there is one invention that set in motion whole industries, and revolutionized the way of transporting goods. Malcom McLean, who was a truck driver, invented containers in 1956. Container is nothing else than a standardized metal box that contains cargo. Container is closed until reaching its final destination, which means that the entire process of transportation is designed for transporting huge metal boxes. After reaching destination port such metal boxes are then sent away closed by trucks or trains.

20th century was a century of technological breakthroughs, as well as for shipping of various goods. Development of powerful diesel motors combined with scientific discoveries in different disciplines (such as information and communication technology) created ships that are bigger than buildings. For example, container ship MSC Oscar[3] is 4 feet longer than highest building in the United States, Empire State Building. MSC Oscar has a capacity of 19,000 TEU. To accommodate these ships ports have been rebuilt. Globalization empowered with information technology created huge trade network in which ships are the sole foundation.

It is important to say that ships are engines of global economy. To transport 19.000 TEU capacity one would need 1,100 Boeing 747 planes, or 35 8.000 feet long trains or 11,400 Heavy trucks. Around 90% of world trade is made by the international shipping industry, while there are over 50,000 merchant ships trading internationally, transporting every kind of cargo.[4] These would not be possible without a fairly simple invention, container.

Procedures on arrival and departure from port are nothing else than standardized procedures which must be abided by ship's crew and port authorities. Such procedures enable safe and fast arriving and departing from port. It is of vast importance to know standardized procedures in order to keep ship, cargo and crew safe. Whole process is thorough and precise to avoid possible misunderstanding between port authorities and ship's master.

Procedures differ from port to port, but in their core they are pretty similar if not the same.

The main purpose of this paper is to present and explain procedures of departing and arriving in an international port. Such procedures include required documents upon arrival, how to access channels, how to treat port light and signals, health regulations and etc.

Port of London is a very good example for all of that, so the arrival and departure procedures, documents needed, etc. will be compared to this port.

[3]Vessel finder: https://www.vesselfinder.com/vessels/MSC-OSCAR-IMO-9703291-MMSI-355906000

[4]http://www.ics-shipping.org/shipping-facts/shipping-and-world-trade

1. Brief explanation of basic terms

In order to understand the whole procedure of arriving and departing from port, one must understand basic entities, business functions and terms used in such procedures. Firstly, ship is arriving in an international port. Which type of ship will arrive in which port depends on the type of port, type of ship, and the ship's route. Therefore, a ferry will not arrive in a fishing port. There are various types of ships such as: container ships, bulk carriers, tankers, ferries, cruise ships and specialized ships. The container ship is a cargo ship designed to carry containers.

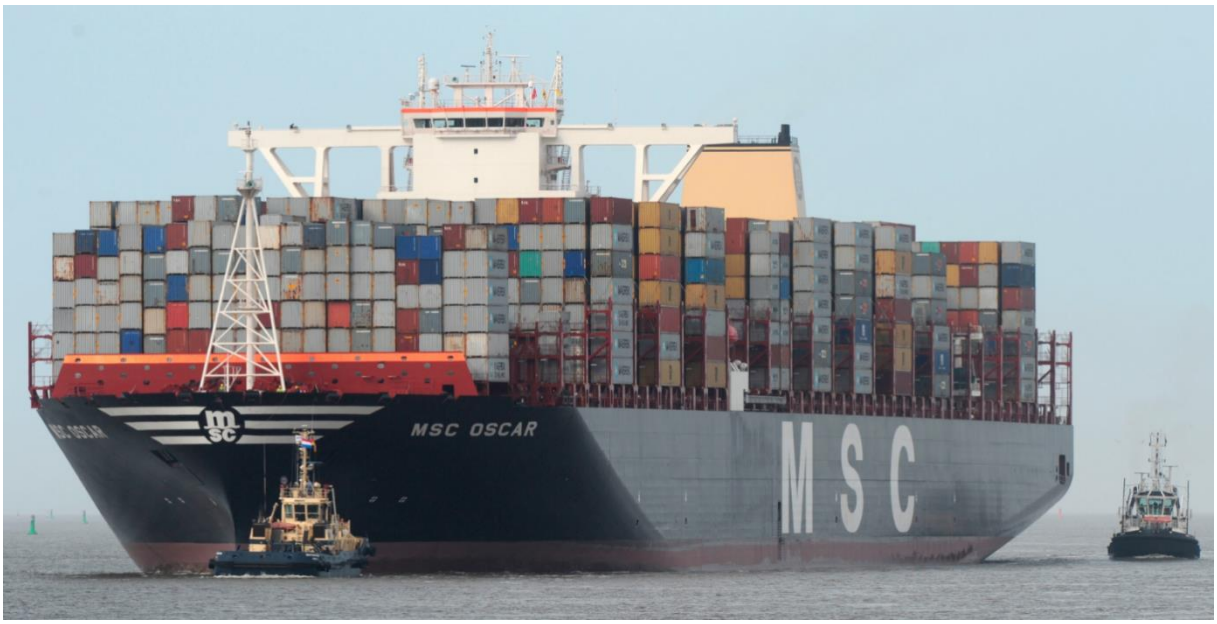

Figure 1. one of the largest container ships in the world MSC Oscar (source: http://news.images.itv.com/image/file/611197/img.jpg)

Bulk carriers are the work horses of the fleet, they transport iron ore and coal. Tankers are ships which transport crude oil, chemicals and petroleum products. Although tankers and bulk carriers' features look alike, their decks differ. A tanker deck is covered by oil pipelines and vents, while deck of a bulk carrier is covered by large cargo holds. Ferries are ships which transport passengers and vehicles on short distances. Ferries usually connect islands with land. Cruise ships are also passenger ships, but they are mostly made for vacation and passenger recreation. Specialized ships are designed for special purpose such as research ships, ice breakers, salvage tugs, etc. Tugboats or tugs are relatively small ships with strong engines which maneuver other vessels by towing or pushing them. Tugboats are mostly used in ports and channels.

While the term port is mostly used when there is a harbour and a town or city nearby that can handle the traffic. More correct definition of the term port is: “A town or a city with a harbour, especially one where ships load and unload different goods”[5]. “Harbour is a place of security and comfort, a small bay or other sheltered part of an area of water, usually well protected against high waves and strong currents, and deep enough to provide anchorage for ships and other craft”.(Pritchard B.,1995) .

There are also various types of ports. Firstly, they differ depending on their position and kind of traffic they handle. River port is a kind of port which is on river and contains buildings and workers that handle river traffic, but mostly shallow draught vessels. Ports that are situated on the shore of the sea, or the ones that are capable of handling ocean-going vessels (London port on Thames) are called sea ports. A sea port can be a cruise port or a cargo port. Cargo ports contain cranes which enable loading and unloading of containers, while a cruise port is a harbour where cruise ships board passengers depending on their cruise plan itinerary. Dry port is a port terminal which is directly connected by rail or road which leads to the center for the transshipment of sea cargo. Inland port is a port on a river or canal which has access to the sea or the ocean. Warm water port is a port where the sea does not freeze in winter and that refers only to ports on high geographical latitudes.

Every port has different terminals, and terminals are mostly set of facilities and needed infrastructure to load or unload vessel. For example, cargo port has container terminals, while cruise port has cruise terminal. Container terminal differs from cruise terminal in its function and looks.

This paper is about ports and procedures of arrival and departure in/from an international port. An international port is a port that handles vessels from all around the world.

Croatia is a country with beautiful sea called the Adriatic Sea. And it is much easier to explain new terms with known places. For example, the port in Rijeka is mostly cargo port but it is easy to differ a cargo port from a passenger port depending on available terminals. Cargo terminal can be noticed from cranes and containers which are shown in Figure 2. The port in Rijeka is also an international port because it handles vessels and their cargo from all around the world. It is very important to notice that most ports today can handle different cargoes, and best example for this is Rijeka. Rijeka has eight different terminals, but it is a relatively small port compared to the global competitors. [6]

[5]Oxford advanced learne's dictionary, 7th edition (godina)

[6] Informations about Port of Rijeka: http://www.lukarijeka.hr/hr/terminali/default.aspx

Figure 2. Port of Rijeka (source: http://www.eurostar.hr/wordpress/wp-content/uploads/2014/12/luka-rijeka-spedicija-carinjenje-otpremnistvo-slider.jpg)

Rijeka port is also a dry port because it has direct rail connection with the center for the transshipment of sea cargo. As approaching coast and port, the ship's pilot has to report her ETA arrival. Port authorities use Vessel traffic service (VTS) which operates as an air traffic control for aircrafts. In order to secure safe sea traffic, VTS is used by trained professionals who perform required tasks. One of the tasks is monitoring vessels that are approaching and telling their crew what to do in favor of faster arriving and departing from the port. Therefore, ship's pilot is communicating with local port authorities with the help of radio communication systems, while defining vessel's position and its course with the help of radar. Entire procedure is explained in the next few chapters.

Anchor is a heavy metal object that is attached to a rope or chain and dropped over the side of a ship or boat to keep it in one place. Terms "berth" and "anchorage" are practically the same thing. "Berth", like "anchorage" is predefined place or location where ship can safely anchor and wait for a more appropriate time to arrive at the port. The more correct definition of berth is: "Any place where a ship can safely lie alongside a quay, pier or dock, at anchor or a buoy, and where she can carry out loading/discharge operations or embark and disembark passengers is called a berth". Grounding is very dangerous for a ship, so it is quite important to know vertical distance between the waterline and the bottom of the ship. That distance is called draught or draft[7]. Draft differs depending on ship's length, type, quantity of cargo it carries etc.

[7]Word draft is used in American English, while the word draught is used in British English.

Ships that are empty use pumps to fill large water tanks called ballast tanks with sea. They contain ballast water which makes the ship heavy enough to keep it stable.

A buoy is something like a floating station that has many different purposes. It can be used as a sea mark which shows specific maritime channel and helps ships navigate safely. Also, it can be left to float by scuba divers that mark their positions. The usage of the buoy is defined by its features. For example, a red buoy that features like a floating tower is navigational buoy while the yellow one is a weather buoy. They also define port districts which enable easier navigation when arriving or departing from the port. The Figure 3. is a representation of draught and the Feature 4. is a simple navigational buoy.

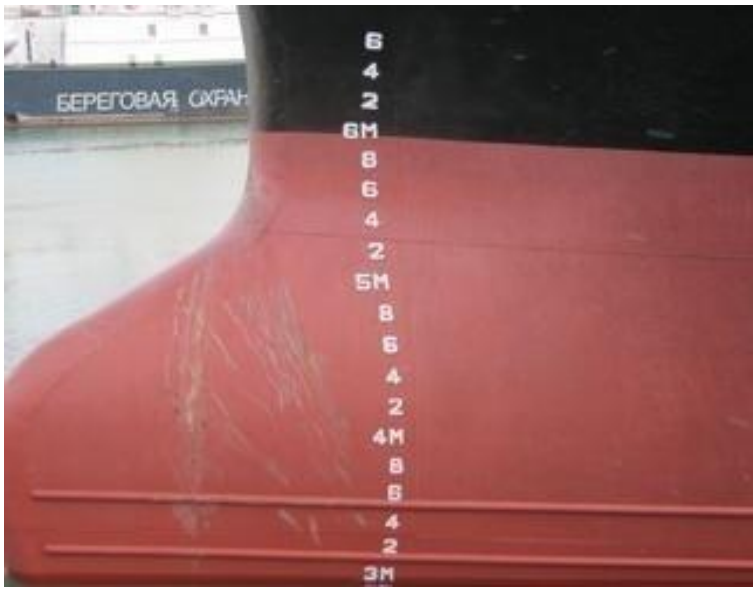

Figure 3. Hull of boat marked with draught depth (source: http://balticcontrol.ru/wp-content/gallery/draft-survey/img_3647.jpg)

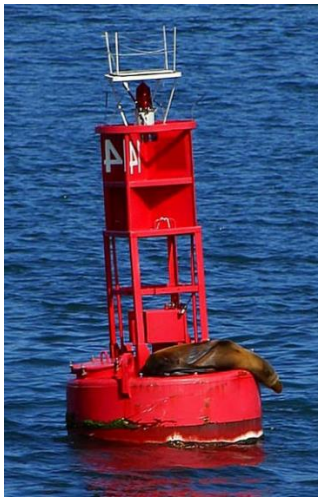

Figure 4. Navigational sea buoy in company of sea lion (Source: http://www.public-domain-image.com/free-images/objects/bouy-in-san-diego-bay-with-a-seal-on-it.jpg)

2. Procedures on Arrival

A few days before arrival in the port, the master of a ship must inform local port authorities about estimated time of arrival and send them various documents[8] and information including:

- Vessel name/ETA (estimated time of arrival)
- Flag/port of registry/year of build
- IMO or LR document depending on cargo
- Crew list
- International tonnage certificate
- Registry certificate
- International ship security certificate
- Ship safety radio certificate
- International Loadline Certificate
- Ship safety equipment certificate

There are various scientific researches that point out problems with documents and information exchange between a port and a ship, but mostly due to different document requirements of different ports. "Therefore, it is possible to identify the following weaknesses in the existing administrative procedures of document processing and exchange of information between stakeholders in seaport clusters:

1. No unique adopted standards for data input and exchange exist within traditional seaport clusters, causing difficulties during data processing
2. There is a high probability of errors or interruptions in the information flow
3. Late delivery of documents causes delays in data processing…"

It is clear enough that standardized procedure would make the job easier and faster, but different ports require different documents depending on their function and type of vessel arriving at the port.

For example, Aqaba container terminal in order to arrange vessel operations requires:[9]
-Vessel Arrival Notification – which includes vessel specification, ETA and discharging/loading details which must be sent 24 hours before arrival, type, kind, weight…)

[8]Which type of documents ship's master must send to the local port authorities depends on a port, but mostly they must send basic data about vessel, time of arrival, crew list, IMO or LR document depending on cargo and else..
[9]Pre-arrival information available on: https://www.act.com.jo/content/pre-arrival-information

-Discharging Documents – which contain Discharging list (list about the containers that are going to be discharged from the vessel upon arrival, description of goods, original port of loading) and EDI (Electronic Data Interchange) file or a profile of the vessel (include stowage positions, category (import, transshipment, restow), status (full, empty), container type and size…)

-Loading Documents – which are Empty recap (estimated number of Empty container), Final loading list (list of containers that will be loaded to the ship) and Loading instruction.

In order to easier explain basic procedures on arrival it is best to analyze existing procedure presented in a Box 1.

Box 1. Extract from Procedures on arrival in Port of London

REPORTING – Vessels over 40m LOA or over 50gt and tugs engaged in towing, must report to the relevant VTS Centre when passing Waypoints as indicated on approved charts. They must also inform London VTS before vessel navigates the Thames and obtain clearance from the relevant VTS Centre so to do.

PILOTAGE – The requirements for compulsory pilotage in the Port of London are contained in the PLA's Pilotage Directions. The services of pilot can be obtained through your Agent, or by calling the following pilot stations on VHF Channel 1, NE Split Pilots (Ramsgate)…

NAVIGATION WITHIN PORT LIMITS – Masters must advise London VTS which approach channel they intend to use. Vessels with a draught of 6.0 meters or less should use the Barrow Deep or Princes Channel, waiting when necessary for sufficient height of tide to transit these channels. Any vessel uncertain of its position should call the relevant VTS Centre immediately. Large scale charts of the river may be obtained through local agents.

"SPECIFIED VESSELS" – Are defined in General Directions and covers vessels carrying quantities of explosives, or flammable or toxic substances in bulk or non gas-free following discharge of such cargoes. These vessels are required to display a red flag by day and an all-round red light by night. All vessels should maintain a half-mile separation from specified vessels. Permission is required from the Harbor Master before reducing that separation or overtaking a specified vessel.

RESTRICTED VISIBILITY (less than 0.5 nautical mile) – All vessels over 40m LOA must have an operational radar to navigate in restricted visibility. Additionally, all unpiloted vessels or vessels without a valid Pilotage Exemption Certificate holder in charge, having a draught in excess of 4.0 meters, are not permitted to navigate in restricted Visibility. Vessels so prohibited, must proceed to nearest safe anchorage and wait until visibility improves to more than 0.5 nautical mile, or the arrival of a PLA pilot, if so requested.

DANGEROUS NAVIGATION – Masters are advised that navigating without due care and attention, or navigating in a manner liable to injure or endanger persons, other vessels or structures such as berths or jetties (this includes damage caused by wash or draw off due to excessive speed), is an offence liable to prosecution. The Harbourmaster will vigorously investigate any such infringements.

INCIDENTS – Vessels must advise the Harbourmaster immediately (through the relevant VTS Centre) if involved in any of the following incidents: Collision, sinking, fire, grounding, pollution, damage to vessel or structure, foul or lost anchor
ANCHORING – Except in an emergency, vessels must only anchor in designated anchorages as shown on approved charts, an effective bridge watch should be maintained whilst at anchor.
Defects – Vessels with structural, mechanical or equipment defects affecting their ability to navigate safely, must inform the Harbourmaster of the defect. Such vessels shall not move without having obtained the consent of the Harbourmaster.
EMERGENCY PROCEDURES – When a Port Emergency or Major Incident is in progress, the Master of every vessel must for the duration of the incident:

- Minimize transmissions on VHF
- Proceed with caution when near the incident and follow directions as given by London VTS or the on-scene coordinating vessel
- Give assistance as required

Source: Pritchard B. (1995):Maritime english 1, Školska knjiga Zagreb

It contains extract on procedures on arrival in the Port of London. It is easy to notice that directions about arrival in port contain different categories. In this specific example, the categories are: reporting, pilotage, navigation within port limits, specified vessels, restricted visibility, dangerous navigations, incidents, anchoring and emergency procedures. Different categories enable easier understanding of given procedures. As mentioned earlier, procedures are standardized instructions how to enter a specific port. These instructions include various categories that are of great importance for a safe arrival. In the next few subchapters these categories will be explained further.

2.1. Reporting

Before arriving to the port, every vessel must report its arrival. Firstly, the ship's master must send the required documents to the port authorities 48-24 hrs. before arrival. This basic procedure is often done by a ship's agent a few days before arrival. Modern ships have few different technological systems for reporting. They have Ship Reporting System (SRS), Automatic Identification System (AIS) and Internet. Ship Reporting System is voluntary or

obligatory, depending on rules set by International Convention of the Safety of Life at Sea (SOLAS). SRS is mostly used to send reports about the movement of the ship such as: sailing plan, position report, deviation report and final report. SRS is also used for reporting cases of real or possible sea pollution. AIS system is set in motion with SOLAS convention, and it represents a communication system which operates on Very High Frequencies (VHF).[10] There are three different types of data which AIS transmits and they are: Statical data, dynamic data and voyage details. The statical data contains of constant information such as IMO[11] number, the name of the ship, the call number, the length and the beam of the ship, type of the ship and Maritime Mobile Self-Identification (MMSI)[12].

Dynamic data is not constant so it would not be easy to change different variables every few minutes. Dynamic data is automatically changed by AIS instrument in cooperation with navigation equipment and it consists of the position of the ship, the area in which the ship is sailing, course over ground, the speed over ground, the course through the water, the ships turning characteristics, rudder angle, navigation position (whether it navigates, sails, whether it is anchored, on the berth- these are entered by hand).

The voyage details contain of: the draught, the name of dangerous goods, port of call and the Estimated Time of Arrival (ETA), as well as the passage plan.

AIS is created primarily for making the Vessel Traffic System (VTS) better. GPRS is core technology that enables usage of AIS through different satellites that orbit around the planet and can determine ship's correct location. It is quite easy to notice correlation between dynamic data and data required by port authorities. This information is of vast importance for safety of cargo, ship and crew, therefore port authorities must know all relevant information before ship's arrival.

LOA is shortened of length overall which is a maximum length of a vessel. In our example, it can be noticed that authorities in London require reporting to the VTS Centre for ships longer than 40m, or every other ship engaged in towing while passing waypoints defined by chart. Waypoint is synonym of a landmark which means that instructions of local port authorities

[10] Baljak K., Vidan P.(2011):Global Ship Reporting System and Automatic Identification System (dostupno na: https://bib.irb.hr/datoteka/326010.326010.pdf)

[11]International maritime Organization number is unique number for ship owners, managment companies and ships that could be compared to the registry plate of a car

[12]Maritime Mobile Service Identity is a number that contains consecutiv nine digits that are sent in digital form over a radio frequency channel to uniqely identify ship stations, coast earth stations, ship earth stations and grop calls.

contain selected waypoints where ships must go before arriving at the port to make the whole process easier.

„Running a smooth VTS operation is a bit like solving a Rubik's cube but with a few added extras.“[13] In this category port authorities also tend to give information about channels of VHF for different sectors of port. Whole procedure of reporting is optimized to be clear and understandable in order to mitigate possible misunderstanding. Table 1. contains simple example of whole necessary conversation between ship master and port authorities, different colors represent different phases of arrival. Yellow is opening part of the VHF exchange, bright green part is messages (Master provides basic information about ETA, vessel characteristics…), the dark green part is closing while the red part is Taking pilot abroad and entering port and berthing/anchoring.

Table 1. VHF exchange between the Master of the container ship "MSC Oscar" and the Shanghai port control)

Master	Shaghai port control. This is “MSC Oscar”. Do you read me? Over.
Shanghai port control	“Oscar”. This is Shanghai port control. Read you loud and clear. Switch to channel 3. Over.
Master	Switching to channel 3. Over
Shanghai port control	“Oscar” what is your ETA?
Master	Shanghai port control. This is Oscar. My ETA is tomorrow, august the eight, 12.30 local time. My maximum draught is 16m and my current draught is 14m.
MSC Oscar now must give information about last port of call, next port of call, how much and which cargo it carries (especially if some kind of dangerous cargo it carries), deadweight tonnage.	
Shanghai port control	Understood, call me again when you are four miles away of the xing hu buoy. Stand

[13] Port authorities London handbook (source: https://www.pla.co.uk/assets/2016handbook.pdf)

	by on channel 3 for further instructions regarding berthing instruction.
MSC Oscar	Understood. I will call you when we are four miles away from Xing Hu buoy. Standing by on channel 3. Over and out.
MSC Oscar	Shangai Port Control. This is “MSC Oscar”. Do you read me? Over.
Shanghai port control	“Oscar” reading you loud and clear. What is your positon? Over
MSC Oscar	I am now in position: bearing 127 degrees, four miles from the Xing Hu buoy.
Shanghai port control	“Oscar”. This is Shanghai Port control. There is one berthing prospect available at the moment. You should reduce your speed and proceed to Zing Du terminal. You should be extra careful while mooring.
MSC Oscar	Very well. Over

2.1.1. Customs and Immigration Office Examination

Before the arrival, the master has to provide necessary documents in order to pass examination of Customs and Immigration Office and of Health Office. It is necessary to examine every commercial vessel arriving at or departing from ports in order to check if there is something prohibited or restricted on board. Also health examination of the crew is targeted at preventing spread of unwanted disease in town or city (necessary to do if crew members are going in town or city while in port). Prohibited things (also depending on the national law of the country where the port is) are:

- Counterfeit currency
- Firearms, realistic imitation firearms, ammunition and explosives including ammonium nitrate and fireworks
- Controlled drugs (every drug that national law at port at arrival considers illegal) such as morphine, cocaine, heroin, LSD, MDMA (same as ecstasy), cannabis and barbiturates

- Offensive weapons such as knives, butterfly knives, swords etc. (everything that could easily harm someone)

There is often a situation where the ship agent handles the documentation upon arrival of the ship with the customs office. But every ship at her arrival has to give necessary documentation and also, if necessary, enable port authorities to examine a vessel from the inside. Some foods are restricted, such as food (meat, dairy products, fish, honey and everything from outside EU in London port for example), pornographic material, animals and birds, plants, bulbs, trees, fruit, radio transmitters and other electronic devices that are not approved for use in that particular country. Restricted goods differ from prohibited goods. When something is restricted that means that it is possible to transport/import/export that good but with consent of legal authorities. If one wants to import an animal in the UK it is necessary to contact the Animal Health organization, solve all possible legal issues with them and acquire needed documentation. Every vessel arriving in port also has to have valid safety certificates. "There is an obligation on Masters to comply with safety conventions that are to an agreed international standard. All safety certificates must be valid and in date."[14]

Customs office requires these particular documents[15]:

- IMO FAL form 1 – General Declaration
- IMO FAL form 3 – Ship's Stores Declaration/ IMO FAL form 2 – Cargo Declaration
- IMO FAL form 4 – Crew Effects Declaration
- IMO FAL form 5 – Crew list
- IMO FAL form 6 – Passenger list
- IMO FAL form 7 – Dangerous goods

Which documents are required depends on the type of the vessel, but these standardized documents simplify the whole process of reporting to customs office. [16]

Immigration office controls passports of arriving passengers and maybe visas if they are required for the country from where the passenger is.

[14]Pritchard B. (1995): Maritime English 1, Školska knjiga, Zagreb

[15] Inernational Maritime Organization: FAL Forms and Certificates (source: http://www.imo.org/en/OurWork/Facilitation/FormsCertificates/Pages/Default.aspx

[16]Every IMO form is attached in appendix in order to easier depict the real looks of document and it information it provides

2.1.2. Health Office Examination

Health Office requires documents that prove medical conditions of ship crew. Duty of a Health office is to prevent introduction and spreading of infection diseases, insects or pests into the country.[17] Today this is mostly done by ship's agent a few days before the ship's arrival. Questions and documents are based on medical status of the ship's crew, which means that the ship master must report if there has been any case of an illness on board during the voyage and the ports where the ship has been. It is very important to know which countries ship has been in, in order to prevent an epidemic outbreak. Ebola, Cholera and such diseases represent serious threat and therefore a report of the health condition of staff that had been in countries where there is a big risk of acquiring such a disease is necessary. Documents that must be presented to the Health Office are:

- Port sanitary statements from previous ports – signed medical document from health office (document that states that crew is healthy or sick or something else)
- Fumigation certificate - also referred to as a **'pest control certificate'** is the proof that wooden packing materials used in international sea freight shipping e.g. wooden pallets and crates, wood, wool etc. have been fumigated or sterilized prior the international shipment[18]
- Crew list – available in appendix, contains information about crew (names, ranks…)
- Passenger list – available in appendix, information about passengers (names…)
- Cargo Manifest – List of all goods that are now on ship
- Vaccination certificate – Certificate about crew members which received vaccination

[17]Pritchard B. (1995); Maritime English 1, Školska knjiga, Zagreb
[18]http://internationalshippingusa.com/Fumigation_Certificate_In_Sea_Freight.aspx

2.2. Pilotage

It is noticed in the extract that pilotage is compulsory for vessels. Compulsory means that some ships are obligated to use local pilot in order to arrive safely in to the port of London.

(1) To the east of Sea Reach No 1. Buoy for:
   a) Vessels or Tugs and Tows of 90 metres or more in Length Overall;
   b) Vessels or Tugs and Tows of 50 metres or more in Length Overall which are Specified Vessels, Passenger Vessels and vessels carrying Marine Pollutants in Bulk;
   c) Vessels or Tugs and tows of 50 metres and up to 90 metres in Length Overall with an Operating Draught of 6 metres or more;
   d) Vessels or Tugs and Tows of 50 metres and up to 90 metres in Length Overall with an Operating Draught of 4 metres or more when Restricted Visibility exist within that part of the London Pilotage District to the east of Sea Reach 1 Buoy where the vessel is planning to navigate.

(2) To the west of Sea Reach No. 1 Buoy for:
   a) Vessels or Tugs and Tows of 80 metres or more in Length Overall…
   b) Vessels or Tugs and Tows of 50 metres or more in Length Overall with an Operating Draught of 5 meters or more

Box 2. Extract from fourth chapter of PLA Pilotage Directions called Vessels subject to compulsory pilotage (source: http://pla.co.uk/assets/PLA_Pilotage_Directions_2013_-_web.pdf)

P
defined rules which ships and where have to call for a local pilot. Depth of sea water is the main reason why some ships are obligated to use pilot from Port of London Authorities. It would be pretty unsafe for inexperienced pilot to navigate shallow waters that could easily damage the ship, causing material damage and possible pollution. It is much simpler to create different procedures that prevent such things from happening.

There is also hydrodynamic phenomenon called squat effect. Such effect happens when ships move quickly in shallow water which creates an area of lowered pressure. That causes the ship to be closer to the seabed than would otherwise be expected which is very important when taking in consideration shallow waters that surround almost every port. Such an effect can be very useful, but also very dangerous when not considered correctly. Therefore, one can conclude that responsibility of navigating unfamiliar shallow waters is best left to specialized pilot given by Port Authorities, especially when there is huge risk involved.

2.3. Navigation within port limits

This category is quite simple and defines which ships could and should pass through determined canals in order to increase permeability of the port. It is very important to maximize port's working capacity to speed up every process beneficial to its efficiency.

There is large number of scientific studies made on mathematical modeling of ships arriving to the port. Statistics and mathematics play a huge role in predicting ship's arrival and calculating optimal port productivity. There could be two standpoints when analyzing port productivity. One standpoint is from ship operators, while other is from national level that mostly contains of policy makers or private investors, depending on who is the owner of the port.[19](M. E. El-Naggar) Ship operators care about time needed at the port to serve ships, while policy makers or investors care about the amount of cargo transported through the port during a certain period of time. Amount of cargo equals to revenue, so it is highly likely that a port with more cargo will profit more. Example of national level point of view is best represented with: „Port in London has 70 independent terminals that handle more than 40 million tons of cargo between them, and the port generates more than 3 billion pounds of value-added very year".[20] It is quite hard to satisfy both standpoints, but in order to do so, port authorities must simplify the whole process of arrival as much as they can. One example of simplifying process of arrival can be seen from extract in this category. One can notice that ships with a draught less than 6m can use recommended channels after contacting London VTS while other ships need to contact London VTS in order to find out which arriving channel is most suitable for them at that time. Although every vessel informs port authorities about the arrival, there are always minor delays which play a huge role in optimizing port productivity. Therefore, it is a must to predict precisely ships arrival distribution in order to secure enough manpower that is capable of handling required procedures. For this reason, category of navigation within port limits is of immense concern for as much as ship operators as port authorities, and they all tend to simplify and make the whole process clear in order to secure a safe and productive port. „Efficiency is vital – delays and difficulties are costly for ship operators – but in every case, safety comes first."[21]

2.4. Specified vessels

[19]El-Naggar M.E. (2010): Application of queuing theory to the container terminal at Alexandria seaport, Civil EngineeringDepartment,AlexandriaUniversity,Alexandria
(source: http://www.academicjournals.org/article/article1380016152_El-Naggar..pdf)
[20]Port of London Authority Handbook 2015(available: https://pla.co.uk/assets/plahandbook2015.pdf)
[21] Port London authorities handbook (2015)(source: https://pla.co.uk/assets/plahandbook2015.pdf)) str 57.

Specified vessels in this case are ships that transport dangerous cargo. There are all sorts of dangerous cargo, but in this case port authorities of London defined them as vessels which carry explosives, flammable or toxic substances. As one can notice they must have a visible red flag during the day and an all-round[22] red light during the night. There is an obvious reason for this practice, and the reason is safety. It would be careless to leave vessels with dangerous cargo unmarked, therefore every other vessel near it could not notice potential danger and act accordingly.

Figure 5. Red code flag that in international code means that vessel is taking in, or discharging, or carrying dangerous goods (source: http://www.otenmaritime.com/flag-signals/flag-table)

Every other vessel is obligated to keep at least a half a mile distance from specified vessels. Also, every vessel that wants to decrease minimal nominal distance has to seek approval from the harbour master.

The harbour master is the chief operator of VTS London at given time who takes full responsibility for every vessel arriving or departing from port. Today, there are a few harbour masters at the same time which implies that the ports are too big for just one man to watch over. Shanghai is the busiest container port in the world that handled 36.5 million TEUs in 2015. which is equivalent to the capacity of 1921 MSC Oscars. When put in perspective, one may realize how big the world is, and how much material stuff mankind produces and transports every day. Ergo, Figure 6. shows Shanghai container port, which is the busiest port in the world. It's amazing how many vessels arrive and depart from this port each day, but it is also clear that organization of a such big port must be brought to perfection in order to satisfy both ship operators, national policy makers and investors. It is clear that a big number of vessels on a small area have to follow the same clear regulations set by the port authorities. Specified vessels or in other word, vessels with dangerous cargo need to inform other vessels clearly that while passing near them, they have to take extra care in order to secure the port and other vessels. It is imperative to keep ship operators, port and vessels safe, hence, they all have to abide standardized rules that vary from port to port but in their core they are all pretty much the same. Clear function of every standardized process, especially in transport of goods is maximizing

[22]On red light which is visible from every possible point of view

safety while optimizing productivity. Every category of procedure has its purpose and tends to simplify the process while informing vessels rule of conduct, especially taking care of serious situations and vessels that should be treated with special care.

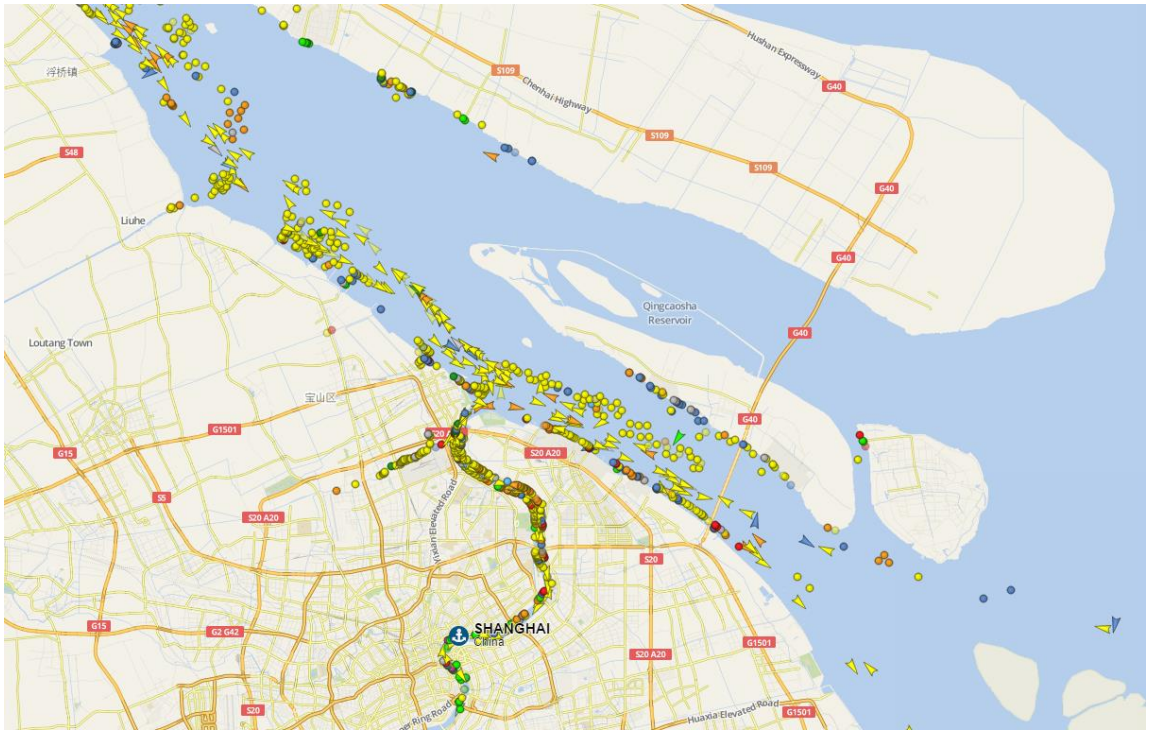

Figure 6. Vessels in near of port of Shanghai (source: https://www.vesselfinder.com/)

2.5. Restricted visibility

Restricted visibility is a situation where weather conditions obscure vessels pilot vision and create risk that can be mitigated with the right usage of technological advices while applying basic rules of navigating a vessel in restricted visibility. Weather conditions that could cause restricted visibility are fog, heavy rain or dust storm. Port Authorities require usage of an operational radar (shortened from Radio detection and ranging) for vessels longer than 40m. A radar is technological instrument that discovers other objects with the help of radio waves, while also determining their distance. It is also used in air traffic systems like in vessel tracking systems. There is clear reason for usage of radar in restricted visibility, as vessel pilots have to know where other vessels are and what is their direction, so they could navigate safely. There is clear obligation that vessels without valid Pilotage Exemption[23] holder in charge, with

[23]Legislation of Europian union defines Pilotage Exemption Certificate as: „In most Member States legislation provides the possibility of some form of exemption from pilotage, either in the form of exemptions in the

draught in excess of 4.0 meters are not permitted to navigate in conditions of restricted visibility. Such obligation is also reasonable as big vessels that are close to each other often do not have the needed time to maneuver in order to prevent shipwreck. Under the circumstances it is much simpler and safer to prohibit navigation for such vessels and send them to nearby anchorage while they wait for the arrival of PLA pilot, or improvement of weather conditions that improve visibility to more than half a nautical mile.

There are different kinds of sound and light signals that vessels use in order to inform nearby vessels of their presence, especially in restricted visibility. For example, power-driven vessel making way through the water shall sound at intervals of not more than two minutes one prolonged blast. International collision regulations have a special rule of conduct for vessels in restricted visibility. Rule 19 defines clearly what ship officers have to do while navigating restricted visibility area. Rule explicitly says that it applies to vessels not in sight of one another due to restricted visibility. It also says that every vessel should proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility, while power-driven vessel should have all engines ready for maneuver. The rule says how ship operators should act while using radar, while they must follow situation and determine if a close-quarters situation is developing and/or risk of collision exists. One can conclude that category for restricted visibility from London port authorities is reasonable and also necessary while still maintaining its optimization function which is prohibiting navigation to vessels which represent danger while redirecting them to nearest safe anchorage. All vessels must use adequate international sound and light signals while navigating in an area of restricted visibility.

2.6. Dangerous navigation

Dangerous navigation category is some form of warning so everyone liable of operating ship at that time must be extra careful. This paragraph makes clear that careless and reckless navigating of a ship that could cause serious damage is punishable by the law. It sets clear hierarchy where port authorities, respectively Harbour master will investigate and do everything in their power

regulations for compulsory pilotage or in the form of issue of Pilotage Exemption Certificaters (PEC). A Pilotage Exemption Certificate may be granted to the vessel's master, or mate, when they fulfill certain criteria showing a capacity to safely manage his vessel in the waters in question. Normally the pilotage exemption is valid only for the specified vessel and route.“
source: http://ec.europa.eu/transport/modes/maritime/short_sea_shipping/pilotage_exemptions_en.htm

to prosecute and reduce damage done by the carless navigating of a vessel. This category has psychological influence as a clear warning of possible outcomes in unwanted cases of damage done to the port or another vessel caused by human error. Therefore, this category tends to increase sense of responsibility in ship operator which is a positive thing. It is clear that every port has some kind of hierarchy and that every vessel approaching it or arriving in it, firstly must respect international maritime organization rules and regulations. While at the same time, they must respect laws and regulations (procedures) set by local port authorities and national government. This category sets them in a favorable position because it gives them legal power to prosecute and report everyone that caused an accident while maintaining the hierarchy where Harbour masters are superiors to ship operators.

2.7. Other categories

Other categories contain incidents, anchoring, defects and emergency procedures. Every category has its purpose, clearly to maintain order and keep port functioning properly.

Category of incidents is made of instructions from the port authorities that need to minimize damage caused by incidents. There are various possible incidents that could happen like: collision of two or more vessels, sinking, fire, grounding, pollution, damage to vessel or structure, lost anchor or foul.

Collision is also known as shipwreck which happens when two or more vessels collide and cause all sorts of problems. The vessels are huge and massive and one could only imagine what would happen if two such entities collided. Such an event is a great harm to ship's crew, sea and local port authorities especially if vessels transport dangerous cargo. Accordingly, local port authorities must and should inform every other vessel how to act in case of incident. It is obvious that every vessel must immediately inform the Harbour master if it had something to do with accident or just saw it. Port authorities have enough manpower and needed special vessels that could rescue the crew, contain pollution or minimize or mitigate danger. Accidents happen constantly so everybody has to be prepared and be able to act accordingly.

"Marine traffic in ports is very different from that in the open seas. In a port traffic system, most ships travel along fairways and are required to keep a reasonable safe clearance from other ships, coastal structures, and shallow waters. Moreover, marine accident distribution in ports is very different from that in open seas. The port traffic system often involves a large number of ships and their movements, and inevitably traffic related accidents i.e. collisions, contacts and groundings. Generally, collisions and contacts are the major cause of accidents in ports, while

groundings are more common in open waters. Other marine accidents e.g. fire, are related more to the ship management."[24]

Figure 7. shows collision of two ships which resulted with spilling as much as 450,000 gallons of crude oil in June 2010.[25]

Figure 7. Collision of two ships in Texas port (source: http://www.thehindu.com/multimedia/dynamic/00027/IN24_OIL_SPILL_27207f.jpg)

Taking in consideration the number of vessels and ports, there is always a certain probability of an accident. Local port authorities have to inform ship operators and everyone else involved how to act. This category is of great importance for safety of the port, but also, a safe port is a needed predisposition for successful business.

Anchorage is a category which defines when and where ships could safely anchor if there is no available terminal for berthing. This category is mostly made of geographical coordinates where there are approved anchorage points. Although it is possible that ports have clearly defined coordinates of possible anchorages, it is mostly about the area where vessels need to wait to anchor, and where vessels can anchor. Port authorities use different charts to inform sea operators where tide can harm their vessels, and also they inform ship operators over the VTS

[24]Yip L. T. (2012); The risks of port traffic accidents, International Centre for Maritime Studies, Hong Kong, Polytechnic University
(source: https://www.porttechnology.org/technical_papers/the_risks_of_port_traffic_accidents/)

[25]Unknown Author (2010): Oil spilled at east Texas port as ships collide, The Hindu (source: http://www.thehindu.com/news/international/oil-spilled-at-east-texas-port-as-ships-collide/article94039.ece)

ANCHORAGES: The suggested anchorages in the Port of Mina Al Ahmadi, Shuaiba Petroleum Products Pier (SPPP) and Mina Abdulla Sea Island (MAB-SI) have been laid out to facilitate shipping in general. These anchorages areas are outside the port limits and clear of the prohibited anchorage and restricted area. Incoming vessels are assigned berths by the Harbour Master in accordance with time of arrival, type of cargo required, size of the vessel and loaded draft.

OPL Waiting Area Anchorage: The Off Port Limit (OPL) waiting area anchorage in position Lat. 28_59' N, Long 048_29' E lies approx. 5 n.m. south of Jazirat Kubbar (Lat. 29_04' N., Long. 048_29') with depths of about 25m.

where they should anchor vessel for maximum safety. An example is an extract in box 3. from

Box 2. Extract from Guide to Port Entry - Mina al Ahmadi, Kuwait (source: Prichard B. (1995): Maritime English 1)

Mina Al Ahmadi port in Kuwait.

Damage on a ship can be mechanical, structural or even caused by an equipment defect. If such damage obstructs safe navigation, ship operator is obligated to report it to Harbour masters. For safety reasons such ships should not move before attaining Harbour master approval.

The last category comprises emergency procedures where port authorities explain procedures and duties in case of incident. This category is really clear and simple so everyone could act accordingly in order to provide framework that could help if necessary and lessen the damage.

The simple emergency procedures are:

1. Minimize all transmissions on VHF so VTS and Harbour masters could easily communicate with vessels that participated in incident or vessels in near that could provide help
2. Every vessel should slow down and monitor situation with extra care and follow instructions given from local port authorities or the on-scene coordinating vessel
3. Every vessel must provide help and assistance if required so

3. Procedures on Departure

The chapter about Procedures on Departure is much shorter than the one on Arrival because everything said about Procedures on Arrival also stands for the Departure, so all of the terms have already been explained.

Every vessel that is leaving an international port has to obtain clearance so it could leave the port freely. In order to obtain clearance, Master of a vessel or agent must contact the Duty Officer at the National Clearance Hub to inform him that they are ready to submit clearance request. Clearance request contains of a few documents. In order to obtain clearance ship master must send the same documents as on arrival :

"You will need to complete an IMO FAL form 1 in duplicate, IMO FAL form 5 and IMO FAL form 6 if you are carrying 12 passengers or fewer. In addition, a copy of the cargo declaration will need to be provided. The IMO FAL form 3 will need to be completed on departure if stores remain on bored. There are heavy penalties for making false declarations".[26]

There are also situations where the ship master can arrange simplified reporting. It is quite unpractical for a ship that has very predictable pattern and pretty much constant duration of movement to print same documents all over again in short periods of time. It is much simpler to get omnibus or advance clearance which covers a fixed time period and specified voyages, respectively where details of the next voyages are already known.

[26]Pritchard B. (1995): Maritime English 1, Školska knjiga, Zagreb

4. Conclusion

The presented paper produces a few different conclusions that all provide clear explanations why the procedures of arrival and departure in an international port are necessary and what is their real purpose. In the introduction I tried to explain how much human race has grown, how our technological breakthroughs had enabled us things that were considered impossible just few years or decades ago. Little more than hundred years ago, RMS Titanic, called "The unsinkable ship"[27] was a miracle of engineering and technology. The comparison of the "Titanic" and "MS Oasis of the sea" (Cruise ship produced in 2009) sets us in the right perspective.

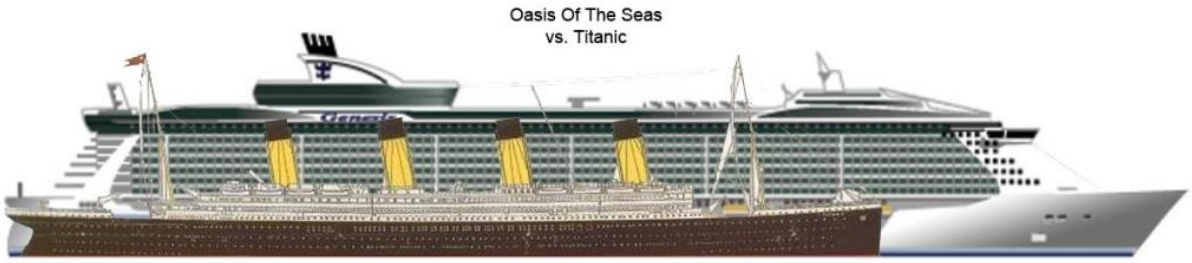

Figure 8. Comparison of Oasis Of the Seas and Titanic (source: https://malcolmoliver.files.wordpress.com/2010/03/oasis_titanic.jpg)

It is obvious that Oasis of the Seas is twice as big as Titanic, but also growth of the world population with other economic and industrial inventions led to exponential raise in demand that created great trade network across the whole world. Keeping in mind that the world today has 7 billion people and counting, one can only imagine how much goods is transported every day to satisfy global market with the help of various vessels. I want to emphasize how important ship transport is today and how many ships there are today.

Figure 6. clearly shows how many vessels were in front Shanghai port. In order to keep them safe and retain optimal performance of the port, port authorities have to set clear rules and standardized procedures, so everything functions correctly. The process is pretty simple, but it seeks attention and cooperation. The ship master has to (with the help of ship's agent) send various documents and take care of everything that could be a possible threat. The whole thing about procedures and arriving or departing from port is pretty serious and highly observed and

[27] http://kids.britannica.com/titanic/browse?browseId=302999

regulated to mitigate every possibility that could cause an incident, obstruct operation of the port or cause huge environmental damage. All in all, it is obvious that unambiguous procedures create order which is fundamental for any kind of traffic but especially for sea and air traffic, especially taken in consideration volume of such traffic. It would be impossible to create a system where ships would come in to the port as they please.

Human casualties and incidents like collision are something that would happen every day if there were no clear rules and procedures. Therefore, I can only conclude that procedures on arriving and departing from international port are nothing else but a set of instructions that keeps things in place, and makes the process of arrival and departure easier and safer. It is necessary to have and follow these standardized procedures which make all the difference and with simple instructions, enable growth and normal functioning of sea traffic and world trade.

Appendix

"IMO GENERAL DECLARATION

(IMO FAL Form 1)

		☐ Arrival ☐ Departure	
1.1 Name and type of ship		1.2 IMO number	
1.3 Call sign		1.4 Voyage number	
2. Port of arrival/departure		3.Date and time of arrival/departure	
4. FlagState of ship	5. Name of master	6. Last port of call/Next port of call	
7. Certificate of registry (Port; date; number)		8. Name and contact details of ship's agent	
9. Gross tonnage	10. Net tonnage		
11. Position of the ship in the port (berth or station)			
12. Brief particulars of voyage (previous and subsequent ports of call; underline where remaining cargo will be discharged)			
13. Brief description of the cargo			
14. Number of crew	15. Number of passengers	16. Remarks	
Attached documents (indicate number of copies)			
17. Cargo Declaration	18. Ship's Stores Declaration		
19. Crew List	20. Passenger List	21. The ship's requirements in terms of waste and residue reception facilities	
22. Crew's Effects Declaration (only on arrival)	23. Maritime Declaration of Health (only on arrival)		
24. Date and signature by master, authorized agent or officer			

For official use

IMO CARGO DECLARATION

(IMO FAL Form 2)

	☐ Arrival	☐ Departure	Page Number	
1.1 Name of ship		1.2 IMO number		
1.3 Call sign		1.4 Voyage number		
2. Port where report is made		3. FlagState of ship		
4. Name of master		5. Port of loading/Port of discharge		

6. Marks and Numbers	7. Number and kind of packages; description of goods, or, if available, the HS Code	8. Gross weight	9. Measurement
10. Date and signature by master, authorized agent or officer			

* Transport document number. Also state original ports of shipment in respect to goods shipped on multimodal transport document or through bills of lading.

IMO SHIP'S STORES DECLARATION

(IMO FAL Form 3)

		☐ Arrival	☐ Departure	Page Number	
1.1 Name of ship		1.2 IMO number			
1.3 Call sign		1.4 Voyage number			
2. Port of arrival/departure		3. Date of arrival/departure			
4. Flag State of ship		5. Last port of call/Next port of call			
6. Number of persons on board		7. Period of stay			
8. Name of article	9. Quantity	10. Location on board		11. Official use	
12. Date and signature by master, authorized agent or officer					

IMO CREW'S EFFECTS DECLARATION

(IMO FAL Form 4)

Page Number

1.1 Name of ship	1.2 IMO number
1.3 Call sign	1.4 Voyage number
2. FlagState of ship	

3.No.	4.Family name, given names	5.Rank or rating	6. Effects ineligible for relief from customs duties and taxes or subject to prohibitions or restrictions*	7. Signature

8. Date and signature by master, authorized agent or officer

* e.g., wines, spirits, cigarettes, tobacco, etc.

IMO CREW LIST

(IMO FAL Form 5)

	Arrival		Departure	Page Number

1.1 Name of ship	1.2 IMO number
1.3 Call sign	1.4 Voyage number
2. Port of arrival/departure	3. Date of arrival/departure
4. FlagState of ship	5. Last port of call

6. No.	7.Family name, given names	8.Rank or rating	9. Nationality	10.Date and place of birth	11.Nature and number of identity document

12. Date and signature by master, authorized agent or officer

IMO PASSENGER LIST
(IMO FAL Form 6)

	Arrival		Departure	Page Number

1.1 Name of ship	1.2 IMO number	1.3 Call sign

1.4 Voyage number	2.Port of arrival/departure	3.Date of arrival/departure	4.FlagState of ship

5. Family name, given names	6. Nationality	7.Date and place of birth	8. Type of identity or travel document	9. Serial number of identity or travel document	10.Port of embarkation	11.Port of disembarkation	12.Transit passengeror not

13. Date and signature by master, authorized agent or officer

Word list

Adriatic sea	Jadransko more
AIS (Automatic Identification System)	automatski identifikacijski sustav
anchor	sidro
anchorage	sidrište
arriving	dolaženje
beam	strana broad, bok, širina broda, sponja
berth	vez, pristan
bulk carrier	brod za prijevoz rasutog tereta
buoy	bova, plutača
cargo	teret
cargo manifest	popis tereta, objava o teretu
cargo port	teretna luka
channel	kanal, prolaz
coast	obala
collision	sudar
commercial vessel	komercijalni brod
compulsory pilotage	obvezna pilotaža
container ship	brod za prijevoz kontenjera
crane	dizalica
crew list	lista posade, popis posade
cruise port	luka za kruzere
cruise ship	brod za krstarenje
customs	carina
deck	paluba

departing	odlaženje
depict	prikazati, predočiti
detection	otkrivanje
Discharging documents	dokumenti iskrcaja
disembark	iskrcati
dock	gat
draught	gaz
dry port	luka povezana s drugim sredstvima transporta
dynamic data	varijabilni podaci
EDI (Electronic Data Interchange)	elektronička razmjena podataka
embark	utovariti, ukrcati
emergency procedure	procedura u slučaju opasnosti
engine	motor
ETA (estimated time of arrival)	procjenjeno vrijeme dolaska
ferry	trajekt
fleet	flota
frequency	frekvencija
fundamental	osnovno
harbour	luka, odnosno zaštićeni dio operativne obale
Health Office	zdravstveni ured
General Directions	opće smjernice
goods	dobra, roba
Immigration Office	ured za imigraciju
IMO (International Maritime Organization)	međunarodna pomorska organizacija
incident	nezgoda

International loadline certificate	svjedodžba o teretnoj liniji
international port	međunarodn luka
International tonnage certificate	međunarodna baždarska svjedodžba
International ship security certificate	međunarodna svjedodžba o sigurnosti na brodu
inland port	luka na rijeci, kanalu ili jezeru
liable	podložan, sklon
jetty	điga, mol
LOA (Length overall)	duljina preko svega
load	ukrcati, natovariti
Loading documents	dokumenti za ukrcaj robe
local port authorities	lokalne lučke vlasti
Master	zapovjednik
minimizing	minimaliziranje
mitigate	ublažiti
MMSI (Maritime Mobile Self-Identification)	identifikacija pomrske mobilne postaje
mooring	vezivanje
navigate	upravljati brodom, ploviti
observe	promatrati, pratiti
optimizing	poboljšavanje
passenger	putnik
permeability	propusnost
pier	dok, điga, mol
pilotage	pilotaža
pipeline	cjevovod
PLA (Port London Authorities)	londonske lučke vlasti

port	luka
port authorities	lučka kapetanija
port limit	granice luke
procedure	procedura
pump	pumpa, crpka
qauy	gat, operativna obala
radar	radar
radio communication system	radiokomunikacijski sustav
rail	željeznička tračnica
reducing	reduciranje
registry certificate	upisni list
reporting	izvještavanje
research ship	istraživački brod
respectively	odnosno
restricted visibility	smanjena vidljivost
retain	zadržati
river port	riječna luka
route	ruta
sea port	morska luka
Ship safety equipment certificate	svjedodžba o sigurnosti opreme na brodu
Ship safety radio certificate	svjedodžba o sigurnosti radio uređaja na brodu
ship's agent	brodski agent
ship's pilot	brodski pilot, peljar
shore	obala
sink	potonuti
SOLAS (Safety of Life at Sea)	sigurnost ljudskog života na moru –međunarodna konvencija
specialist ships	specijalizirani brodovi

SRS (Ship Reporting System)	brodski sustav izvještavanja
stakeholder	sudionici, dioničari
standardized procedure	standardizirana procedura
statical data	nepromjenjivi podaci
stowage	skladištenje
submit	podnijeti
tank	spremnik
tanker	brod za prijevoz tekućeg tereta
terminal	terminal
tide	morska mjena
towing	tegljenje
transshipment	pretovar
tug	tegljač, remorker
valve	ventil
vertical distance	vertikalna udaljenost
vessel	brod, plovilo
Vessel Arrival Notification	informacije o dolasku broda
VHF (Very High Frequencies)	vrlo visoke frekvencije
voyage details	informacije o putovnju
VTS (Vessel Traffic System)	sustav nadzora brodova u plovidbi
VTS Centre	centar za promet plovila
waterline	vodena linija
warm port	luka koja ne zaleđuje tijekom zime
waypoint	točka na putovanju

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Table of added contents

Abstract

Introduction

Procedures on arrival and departure from port are standardized procedures which must be abided by ship's crew and port authorities.Such procedures enable safe and fast arriving and departing from port.It is of vast importance to know standardized procedures in order to keep ship, cargo and crew safe.The process is very precise because there cannot be any misunderstanding between port authorities and Master of a vessel.

Procedures on Arrival

Fourtyeight to twentyfour hours before arrival in the port, the Master of a vessel must inform local port authorities about arrival and send documents:

Vessel name, ETA (estimated time of arrival), Flag, port of registry, year of build, IMO or LR document depending on cargo, Crew list, Registry certificate, International ship security certificate, International tonnage certificate , International Loadline Certificate , Ship safety radio certificate, Ship safety equipment certificate

There are weaknesses in administrative procedures of document procesing and data exchange in seaport clusters:

- no standards within seaport clusters which causes difficulties during data processing
- probability of error is high during data processing
- late delivery of documents causes delays in data processing

Reporting

Vessel reporting systems:

- Ship Reporting System (SRS)
- Automatic Identification System (AIS)
- Internet

Port authorities must know all relevant information before vessel's arrival. London Port Authorities declare which ships have to report to VTS sevice, depending on LOA and draught.

Customs and Imigration Office

Every commercial vessel has to be examined from inside to check if there is something prohibited or restricted. Every Master has to give needed documentation to Customs Officer. Which documents are reqired depends on the type of the vessel. All certificates must be valid and in date. Imigration Officer checks the passports and visas of passengers.

Health Office

Documents that prove medical conditions of vessel's crew are reqired by Health Officer. It is importanat to know which countries a vessel has been in. Purpose of Health Office is preventing introduction and spreading of diseases, insects or pests in the country. All wooden packages have to be sterilized or fumigated before shipment.

Pilotage

PLA's Pilotage directions define rules for compulsory pilotage in Port of London. Complusory pilotage means the Master of a vessel has to take a local Pilot onboard. Pilotage is very usefull for safe and fast arrival. Navigating in confined waters can be dangerous especially for a Master which is not familiar with the area of navigation.

Navigation within port limits

It is defined which vessels are allowed to arrive in port and by which channels. This part of procedures is focused on port's efficiency. Procedures regarding Navigation within port limits are of big concern both for vessel crew and port authorities. It is hard to make proces fast eneough to satisfy port owner and standards for safety of life, vessel and cargo.

Specified vessels

General Directions of PLA define category of Specified vessels. Vessels carrying quantities of explosives, or flammable or toxic substances in bulk. Non gas-free following discharge of such cargoes is very dangerous.

Other categories

Navigating without due care and attention or in a manner liable to injure or endanger persons, other vessels or structures is dangerous navigation. The Harbour master will vigorously investigate any such infringements. Prosecution of Master is possible in this case.

Procedures on departure

Master has to contact Duty Officer at the National Clearance Hub. Submit a Clearance request. False declaration brings heavy penalties. Advance clearance or omnibus is clearance which covers time period and specified voyages.

Conclusion

Port authorities have to set clear rules and standardized procedures, so everything functions correctly. The process is pretty simple, but it seeks attention and cooperation. The purpose of standardized procedures is to mitigate every situation that could cause an incident. Standardized procedures create order in sea traffic.

Key-words: local port authorities; Loading documents; AIS (Automatic Identification System)

Sažetak
Procedure na ulasku i izlasku iz luke

Uvod

Procedure na ulasku i izlasku iz luke su standardizirane procedure koje moraju bit provedene od strane posade broda i lučkih vlasti. Takve procedure omogućuju siguran i brz dolazak i odlazak iz luke. Od velike je važnosti znat standardizirane procedure da bi držao brod teret i posadu sigurnima. Proces je vrlo preciziran zato što ne smije bit nerazumijevanja između lučkih vlasti i kapetana broda.

Procedure na dolasku u luku

Četrdeset osam do dvadeset i četiri sata prije dolaska u luku kapetan broda mora obavijestit lučke vlasti i poslat dokumente:
ime broda, procijenjeno vrijeme dolaska, zastava, luka registra, godina proizvodnje, IMO ili LR dokument ovisno o teretu, lista posade, međunarodna baždarska svjedodžba, upisni list , međunarodna svjedodžba sigurnosne zaštite, svjedodžba sigurnosti radio telegrafskog uređaja,međunarodna svjedodžba o teretnoj liniji, svjedodžba sigurnosti opreme broda.
Postoje slabosti u administrativnim procedurama obrade i razmjene podataka u lučkim službama:

-ne postoje standardi u službama što uzrokuje probleme tijekom obrade podataka
-vjerojatnost pogreške je velika kod procesiranja podataka
- kasna dostava dokumenata uzrokuje kašnjenje obrade podataka

Prijavljivanje

Brodski sustavi prijavljivanja su:

-brodski sustav prijavljivanja
-automatski identifikacijski sustav
-internet

lučke vlasti moraju znati sve relevantne podatke prije dolaska broda. lučke vlasti Londona određuju koji se brodovi moraju javiti VTS službi, ovisno o duljini preko svega i gazu.

Carinski i Imigracijski ured

Svaki trgovački brod mora bit pregledan iznutra da bi vidjeli ima li zabranjenih ili stvari ograničenog unosa. Svaki kapetan mora dat potrebnu dokumentaciju carinskom časniku. Koji dokumenti su potrebni ovisi o vrsti broda. Svi certifikati moraju bit valjani i ažurirani. imigracijski časnik provjerava putovnice i vize putnika.

Zdravstveni ured

Dokumenti koji dokazuju zdravstveno stanje brodske posade su traženi od zdravstvenog časnika. Važno je znat u kojim je lukama brod bio. Svrha migracijskog ureda je sprječavanje unosa i širenja zaraznih bolesti, insekata, štetočina u državu. Sva drvena pakiranja moraju bit sterilizirana prije plovidbe.

Pilotaža

Upute za pilotažu Londonskih lučkih vlasti određuju pravila za obaveznu pilotažu u Londonu. Obavezna pilotaža znači da kapetan mora koristit uslugu lokalnog pilota. Plovidba u tijesnom području može bit opasna, pogotovo za kapetana koji nije upoznat sa područjem plovidbe.

Navigacija unutar granica luke

Definirano je koji brodovi mogu doći u luku i kojim kanalima. Ovaj dio procedura je fokusiran na učinkovitost luke. Procedure u vezi plovidbe u granicama luke su vrlo važne za

brodsku posadu i lučke vlasti. Teško je učiniti proces dovoljno brzim da bi zadovoljili vlasnika luke i standarde sigurnosti života, broda i tereta.

Specijalizirani brodovi

Generalne upute Londonskih lučkih vlasti definiraju kategoriju specijaliziranog broda. brodovi koji prevoze količine eksploziva, zapaljivog ili otrovnog tereta. Iskrcaj takvog tereta koji ispušta plinove.

Ostale kategorije

Plovidba bez dužne pažnje i opreza ili takva da ugrožava ili ozljedi druge ljude, brodove ili strukture je opasna plovidba. Lučki kapetan će snažno istražit svaki takav prekršaj. Sudski postupak protiv kapetana je moguć.

Procedure na odlasku iz luke

Kapetani moraju kontaktirat Časnika na dužnosti u nacionalnom centru za zadržavanje na carini. Podnijeti zahtjev za dokument.. Lažne deklaracije donose teške penale. Omnibus je dokument koji pokriva vremenski period i određene plovidbe.

Zaključak

Lučke vlasti trebaju postavit jasna pravila i standardizirane procedura da sve funkcionira točno. Proces je jednostavan ali zahtjeva pozornost i suradnju. Svrha standardiziranih procedura je spriječit svaku situaciju koja može uzrokovat incident. Standardizirane procedure čine red u pomorskom prometu.

Ključne riječi: lokalne lučke vlasti; dokumenti za ukrcaj robe,automatski identifikacijski sustav