

INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS



41ST ANNUAL GENERAL ASSEMBLY

VIÑA DEL MAR, CHILE, 16-17 APRIL 2015

ANNUAL REVIEW

PAPERS PRESENTED

**41st AGA Proceedings
PART C**

With the Compliments of
The Secretary General

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The AGA Delegates assembled for the group photograph



The AGA in progress



The Chilean Navy sailing training vessel 'Esmeralda', a steel-hulled four-masted barquentine tall ship, alongside in Valparaíso.



Boarding the 'Bote Salvavidas' Rescue Vessel for our tour around the harbour



Delegates and partners at the Annual Dinner



The AGA in progress

Deputy President's Address

By Captain Willi Wittig, Deputy President

Captain Juan Gamper, President of Nautilus,
Captain Carlos Beth, past President of Nautilus,
Directors and Members of Nautilus,
Distinguished Guests,
Members of IFSMA,



Good morning and a very warm welcome to the 41st Annual General Assembly (AGA) of IFSMA, the International Federation of Shipmasters' Associations.

Dear Captain Gamper, Dear Juan,

I thank you very much, indeed, for your kind words and your warm welcome to all attendees at this Annual General Assembly. On behalf of our president, Captain Hans Sande, I wholeheartedly thank you as well as the directors and members of Nautilus for inviting us to hold this AGA in Viña del Mar. Unfortunately Captain Sande is unable to be with us this year, as he had to attend the funeral of Captain Tore Gjestrum, his predecessor as Director of our Norwegian member association. Captain Gjestrum played a key role when, in 1995, the Norwegian Mates Union and the Norwegian Masters Union were merged into the Norwegian Maritime Officers Union. Unfortunately Captain Gjestrum's funeral coincided with Captain Sande's flight to Santiago de Chile, so he asked me to chair this Annual General Assembly on his behalf.

Please stand up for a minute of silence in remembrance of Captain Gjestrum and all our fellow colleagues who have passed away during the last year.

(Delegates stood for a minute's silence in remembrance)

Thank you.

When the 40th AGA accepted Chile to be this year's AGA host country my memory immediately went back more than 30 years, to when I was a young cadet, who had only just started his maritime career. I sailed onboard a general cargo ship to the west coast of South America. Having called at ports in Columbia, Ecuador and Peru, where we were challenged with cargo theft, armed robbery and piracy, it made a real difference, when we finally called at the ports of Antofagasta, Valparaiso and San Antonio, where we had the pleasure to enjoy the same warm Chilean hospitality that we, the delegates to the 41st IFSMA Annual General Assembly, have the pleasure to savour right now.

A few facts about Chile - our host country - which has such a rich maritime history. Chile has a coastline of 6,435km, which, when compared to the land mass, is vast. It stretches from North of the Tropic of Capricorn to Cape Horn. It is no surprise that Chile has a rich and deeply ingrained maritime history to support its industries. Set against the stunning and dramatic Andes, Chile's coastline is dotted with over 30 ports, allowing Chile to engage in trade throughout the world, exporting Chile's great mineral and agricultural wealth, whilst also boasting a thriving fishing industry. With a population of approximately 17.5 million persons it can claim a rich diversity from the various indigenous peoples who make up its peoples.

Here, in Viña del Mar, on the shores of the Pacific Ocean, we are suitably located close to two

of Chile's major ports, Valparaíso and San Antonio, which both flourish with maritime activity. These ports are fuelling and driving Chile's economy, and are excellent examples of the vitality of merchant shipping, and respectively, our organisation.

Historically, Valparaíso was a major port of call for ships rounding Cape Horn, before the Panama Canal was constructed - earning the port the suitable nickname, the 'Jewel of the Pacific'. Today Valparaíso is the main container and passenger port in Chile, transferring 10 million tons annually, as well as serving about 50 cruises and 150,000 passengers.

The port of San Antonio is approximately 80km to the south of Valparaíso, and handles the majority of Chile's freight. San Antonio has grown considerably over the last few decades in terms of space, loading areas, cargo transfer and ship size. San Antonio is also a vast Chilean fishing hub, an industry which is celebrated each year on the 29th June in honour of the fishermen Saint Peter and Saint Paul in the Fiesta de San Pedro.

Apart from commercial shipping activities I must also mention the work done by the Chilean Navy and Coast Guard for – amongst tasks – saving seafarers from the mortal dangers that the sea can throw at them. This goes way back to the rescue of the Shackleton expedition to the South Pole over one hundred years ago and can be traced through to the rescue of the passengers and crew of the cruise ship "Explorer" from Antarctica; and beyond. This highlights the Chilean relationship with the sea and its dangers and its willingness to assist those in peril. In 2012 the IMO Bravery Award was presented to Able Seaman César Flores of the Chilean Navy who as a rescue swimmer saved the lives of seven persons from the motor launch Rosita V in bad weather with total disregard of his own life.

The passing months have once again seen a number of changes to our association and its operation as we adapt to supply our membership with the tools needed to remain current and relevant in the modern world. Our membership in 35 national associations and numerous individual members scattered around the world require us to supply them with reasons why it is important to be part of the IFSMA family. In order to keep in touch with its membership IFSMA has re-launched its webpage (www.ifsma.org) and bi-monthly Newsletter but also started its own home at Facebook (www.facebook.com/ifsma). It is hoped that by making use of the capabilities of social media IFSMA will be able to get in touch with the young generation of shipmasters and keep the IFSMA membership more involved in the daily work of the organisation.

The year since our last AGA in Sandefjord has once again been challenged by several maritime accidents, the loss of life at sea and the criminalization of shipmasters involved in these incidents.

To pick just one: The fire on board the Italian flagged Ro-Pax ferry "Norman Atlantic". 25 passengers and at least three out of a minimum of six stowaways lost their lives. This case leaves open at least the following questions for further consideration by the maritime community:

- 1) the effectiveness of port security measures;
- 2) the challenges of mass evacuation under severe conditions; and
- 3) the ongoing criminalization of the shipmaster immediately after the incident.

Very recently a non-maritime disaster, the loss of Germanwings flight 9525 in the French Alps, caused severe concern within the airline industry. Presently one can hear voices asking whether

or not in industries where a single human misconduct – whether on purpose or not – can cause tremendous damage to human life, the environment and/or property, a strict regime of mental health screening should be introduced. I strongly believe that IFSMA should make up its mind on this issue, sooner rather than later, and be one of the forerunners for this in the maritime industry.

These and more challenges lie ahead of us. In order to meet them we should bear in mind that we can only do so when we stand together, united, which takes us back to the IFSMA motto “Unity for Safety at Sea”. IFSMA is one of the few NGOs at the IMO who is a truly independent organization that owes nothing to anyone apart from its members and that is where its strength lies.

This gives us the right to speak out and be the international voice of the serving shipmasters when others remain silent. When we get involved we do so as equals because of who we are and what we do. While we are dedicated to supporting and assisting the shipmaster we understand that no shipmaster can operate a ship only by himself. Therefore, by assisting in matters that affect the crew we are also supporting the shipmaster.

Finally, I want to thank everyone – also on behalf of our president, Captain Hans Sande – who over the past 41 years has contributed to IFSMA and made it what it is today. Without you there would be no IFSMA. This must include our valued hosts of this AGA – Nautilus, our Chilean member association. Thank you, once again for hosting this event.



Warning sign on the quay at Valparaiso

Report From Secretary General

By John Dickie, Secretary General



INTRODUCTION

This paper includes information and data available up to and including the date of the 1st April 2015. Should any further information come to light which will affect this report, it will be included and this document will be superseded by a new version for inclusion in the Annual Review.

At this time IFSMA is in a secure financial position. This is being challenged over the uncertainty of the location of the Head Office in London due to changes in the landlords profile for ownership of the building at 202 Lambeth Road. The Marine Society is changing building and selling the original building.

The following report cannot cover everything that is conducted by IFSMA in the intervening time, but be assured that every effort is made to keep costs down and raise the profile of IFSMA in the marine sector.

FINANCES

The following 3 budgets are being presented:

2014 Final Budget

2015 Approved Budget

2016 Proposed Budget for Approval

In addition, there is a copy of the Honorary Auditor's Report approving the 2104 Final Budget

In 2014 every association paid their fees and this is greatly appreciated. The individual membership was reviewed and a number of members removed from the list as they had not paid their outstanding fees for more than 3 years.

To assist in controlling and identifying the financial position of IFSMA a new database was constructed so that all payments could be traced and tracked. This covers all associations and individual members and is operated by the office manager and reported back to both myself and Captain Paul Owen.

For this year and 2016, we can predict with a high probability what the balance of payments will be and the position of IFSMA secured. The unknown factor is with the Marine Society & Sea Cadets and what they do and what will have to be done to find alternative office space and the costs involved. A further nuance on this problem could be the continued office sharing with CIRM. If they decide to not continue with IFSMA then the costs will spiral upwards.

This can only be addressed when confirmation of what will take place is known. The earliest opportunity for this will be August 2015. So we will have time to prepare for and budget for any change.

OFFICE REFURBISHMENT

The core issues with this work are complete. The next phase that has been progressed has been the

transfer of all IFSMA archives to a digital format. This has been a long process and has resulted in a lot of space saving. This would allow for a smaller floor space if IFSMA has to change offices in the future.

MEMBERSHIP ASSOCIATIONS

The associations are in good standing. There are only 15 associations outstanding in the fees to be paid for 2015. At the end of 2014 all associations had paid their dues for that year and were in good order.

The work of many associations is appreciated and their practical support on top of paying the annual fees enhances the work that IFSMA can achieve.

The only problem that still exists is the declaration of the number of members for some of the associations. This has been an ongoing problem from long before I took up this post. I understand that times are hard and that many will question what does the subscription made do for them. That takes a lot of explaining but there is an ongoing engagement with the membership and a lot of work being initiated. The problem lies in the stagnation of possible further expansion, but lack of finances will stop this. If everyone pays then there is no need to raise membership fees.

But to look at this in its proper perspective, if all associations declared only 30 members then IFSMA would be no more. It could not exist. The finances would not allow it to operate in any shape or form.

In addition, I have been looking at the associations with lower numbers and these will be noted with the membership declared at 30 then only those members of that particular association that have been recorded and saved at HQ will be covered and entitled for support from IFSMA in the event of them being involved in an incident.

I do not want to take this stance but IFSMA must be protected and continue in its work.

INDIVIDUAL

These members have been completely over-hauled by an in depth analysis of who is a member of good standing, and who is not. A number of individual members who have not paid for more than 2 years and have not been able to be contacted by any means have been removed from the list of active members. This was a loss but this has been offset this there have been a number of new individual members who have joined.

MEMBERSHIP FEES

It has been agreed at Executive Council that the membership fees for association and individual members will remain at the same level of £12 per year per member of an association and £60 per year per individual.

This will remain in place for 2015 and 2016, but it is likely that in 2017 membership fees will rise due to rising costs that are beyond my control. This may be averted if there is a substantial increase in the number of members both from associations and individuals.

IMO

The IMO has been in transition in the way that it operates and the new set-up of sub-committees is bedding in to the cycle of meetings and the remit awarded to each of them.

The 2 yearly report to the IMO for the contribution that IFSMA has made was completed and

accepted for the 31 March 2015. This shows IFSMA's contribution to the IMO and its ongoing work to promote the IMO throughout the maritime industry.

Over the last year has IFSMA attended all committee, sub-committee, council and assembly meetings and where necessary raised interventions on related topics. There have also been a number of papers presented where IFSMA has been co-sponsor and these have been with NGOs and Flag States.

IFSMA continues to be a member of the panel for the IMO Exceptional Bravery Awards, with Assistant Secretary General Captain Paul Owen on the panel of judges.

In addition, a lot of work is done in mentoring IMO Interns through the External relations department. This is a rewarding task which sees young people who are moving to advanced degrees being given opportunities to discuss where they are and where they want to go with their careers.

Over the last year there have been a number of persons and associations who have visited the IMO through IFMSA and enjoyed the experience of the tour and sitting in the gallery and listening in to the plenary in session.

At the beginning of this year the IFSMA website has been updated with a new section of IFSMA at the IMO which details the General Observations and Interventions for each meeting that IFSMA attends

CONFERENCES

There is at least one conference per week arriving at head office. The Secretariat review each of these conferences and where possible alert the national association to find out if they are attending or would be interested in attending the conference. In addition, where it has been decided that a conference will be of value or of relevance to the work that IFSMA conducts then this is passed on to the Executive Council for consideration.

It is important for IFSMA to have a presence at such events but only if there is a positive return on investment made.

NGO GROUP

This has been successful and is growing with it now having 14 member organizations and meeting twice per year with a no formal agenda but a lot of lively discussion. The two meetings per year is under discussion for increasing to three meetings per year.

IFSMA maintains its role as coordinator and host for the meetings, which are held at the Marine Society building at 202 Lambeth Road. The future direction of this group will be decided by the members and while it concentrates on Human Element issues in the maritime industry there is a sharing of information and resources to avoid duplication of work.

CRIMINALIZATION OF THE SEAFARER

This is a major concern for all ship masters, but it is increasing to other ranks and the position of the industry is taking to prosecute seafarers through the courts of law where in many cases there have been miscarriages of justice. This is prevailing and increasing in number and severity of the sentences. Where appropriate IFSMA has spoken out on matters and been recorded in the maritime press. This will continue and the President will be the spokesperson for the association.

Recent cases which have been in the limelight are the Costa Concordia; Sewol; Norman Atlantic.

The Costa Concordia has held the press attention since it occurred and the on-going work with the hulk is still to be completed and running way over budget.

While other crew members were able to plea bargain and receive light sentences; Captain Schettino felt the full force of the law. A sentence of 16 years and 1 month was handed down. He is appealing the sentence. Whether you like him; hate him or just believe that he was stupid is natural. What has moved into the background is that 32 people lost their life. This must never be forgotten.

The Sewol case went a stage further with the prosecutor demanding the death sentence for the master and chief engineer. This was deferred and a sentence of 36 years was imposed. Some of the crew members have lodged appeals against their sentences. This is due to the fact that all crew members were charged. The appeal has opened the door for the prosecutor to open the door to revisit the death sentence. Once again the loss of 302 people, the majority of them school children is a terrible price to pay to open up the corruption on the domestic shipping sector. But do we demand the death sentence for people who were part of a terrible accident?

The Norman Atlantic is only just beginning but once again a passenger RoRo has been involved in a fire and loss of life. The master will await his fate along with several others. As this will be held in Italian courts the comparison to the Costa Concordia will be viewed and assessed.

One thing that is dominant through these and other cases is that the seafarers involved were not a member of IFSMA or of a national association and suddenly found themselves alone facing the wrath of a legal system demanding justice. It is then that they find themselves alone and without the financial resource to mount a defence. In many cases the seafarer pleads guilty to receive a lesser sentence.

SAFETY AT SEA

2015 started badly with a number of incidents occurring which reflected badly on the industry and this is continuing. The issue of fatigue or “tiredness” continues and is accepted. The STCW and the MLC have started to work and this should be the starting point for the reduction in hours of work per day and per month.

The IMO works hard at improving the lives of seafarers and placing protection to protect them from accidents and make ships more efficient. There is more work and systems in place to move towards the unmanned ship. It removes the problem of fatigue but at what cost.

IFSMA is part of the group for the MONA LISA II project which is looking at ways to make ships more efficient and therefore effective. It is at the early stages but it is here to stay and IFSMA is making sure the position of the master is protected.

CONCLUSION

The shipping industry is evolving and IFSMA has to evolve with it. How effective IFSMA can be will be dependent on the resources available to it and regrettably this will come down to finances. The limit of what can be achieved on the present financial position will soon be achieved and then it will be time to review the future. That is for the membership and the Executive Council to direct the Secretariat on what action to take.

The future is going to be exciting but also demanding of those who sail on board with the threat of prosecution hanging over them for making mistakes. This may be one of the core issues which will reduce the potential recruitment of young people into our industry or from remaining at sea. Therefore the unmanned ship may be needed sooner rather than later.

Multinational Crews in Merchant Ships

by Captain Jaime Barrientos, Nautilus Chile.

The shipping industry through the centuries of its existence, and taking into account the maritime trade by ancient cultures such as the Phoenicians and others mentioned in the biblical stories, has been exposed to various manifestations of adversity and complexity in all matters that are part of the “Maritime Adventure”. As a whole, these are relevant when performing the analysis on how to deal or cope with them to achieve the main objective, namely, to transport cargo efficiently and effectively.



We know that for work on board a team is required, which is formed from the messboy to the captain of the vessel.

Well, if you consider what has happened in the formation or creation of proper seamen for manning the various commercial ships which sailed the seas of the world in the last 40 years (time representing a number of sailors today) we may observe that they have become heterogeneous and multinational.

Not so far are the years in which the crews of the merchant ships were formed by seamen of the same nationality and even from certain places and regions to which they belonged. As an example, you can say it was usual in the case of Chile to find on board persons from near-to shore towns and cities, but rarely coming from other locations inland.

In recent years, it has been observed that an increasing number of ships that serve the global maritime transport of the world has increased the formation of mixed crews. In these cases, the multiplicity of persons whose ethnicity involves differences - not only language but also culture and religion - is a major challenge to overcome when facing prolonged periods of on board.

The reasons for this fact has been spread out in the shipping world, seeking to meet the needs of qualified seafarers to perform a particular function on board, most have to do with the difficulty of crewing managers of ships to find crew from the same country. The latter has been an issue in at least three causes and is easily verifiable, note the following:

- The first is based on the fact of higher wages for professional and technical officers and crews from developed countries, which has to do with the cost of living in those places and the personal targets of those individuals.
- The second cause is the fact that there is a noticeable lack of interest in working at sea, being able to achieve personal goals having a job on land. This, in turn, means having access to development of everyday life with greater ease and frequency without suffering self insulation work on a merchant ship, which usually means staying on board several months, either continuously or alternately.
- The third reason has to do with the need to reduce operational costs of shipping business, having the opportunity to recruit people with sufficient preparation in developing countries, mostly in the area of Indonesia, Eastern Europe and Asia – for example - where the cost of living is markedly lower than in countries with a maritime tradition located mostly in Central Europe and Scandinavia.

Then, something inherent to the personal needs of the person - such as those related to the emotions

represented by the desire to express occasionally in their native language or share issues of common interest in cultural, national or religious nature, are dramatically hampered if an individual onboard becomes the only person who comes from a particular country. This fact could be considered irrelevant to develop their life normally on a ship but could eventually mean less work performance or origin of the development of psychic pathology emotional disorder, while promoting ascetic behaviour characteristics in the individual and risk for those who share the work unit.

There is evidence that is difficult to ignore, showing that a merchant vessel with mixed crew - especially those whose language and culture are markedly different - life onboard goes on without much interaction among the crewmembers. Every individual completes their particular tasks and after completing the daily work, isolation occurs in their respective private space. There, in the small place where his intimate life unfolds, the meeting with his family through memories, their music, their language and their God.

Fortunately, the technological today means it is easy to facilitate this type of daily contact, that every human being needs to be encouraged so they may face the following working day.

Mental and emotional health is not to be underestimated, so that computer equipment, mobile phones and other electronic elements, may help much in the encounter with what feels like close contact. Thus, home, family, friends and nation are close to where you are physically located, which may well be thousands of miles away.

Some people who regularly work onboard merchant ships show no affects from working in an environment where people come from such different backgrounds, others find this disagreeable and others simply do not care. Anyway - while navigating the seas of the world is interesting to observe how life onboard runs very differently to that which they lived only a couple of decades ago, where team spirit, solidarity and expressions of joy were not absent, despite the natural distancing from loved ones represented by the family, environment and friends, far away in the homeland.

The reality shows and forces the person - not ideally - to be developing the ability to become used to the environment in which they work and live. This allows, by mentioning some matters, to be adapting to new forms of behaviour, smells, tastes, restrictions and paradoxically also to live in their inner solitude.

The seagoing times, usually for 3, 9, 12 or even more months, influence the behaviour, performance and working efficiency of the individual as well as their relationship with all those, also far away from home, who share the work on board.

At the end of the long onboard period, eager to go home with its people, its language and local food. Thus, although not for long, the time on shore will bring new strength and enthusiasm to continue the routine of work at sea, which is expected to be in a human and material environment according to the times in which we live nowadays, that is, with greater facilities for live onboard, in probably a better and relatively comfortable way.

Although entities related to the shipping industry, such as IMO and ILO, may do their best in this matter but take into account that there is still something positive to be done to improve lonely life on board, without counting on higher costs for the employer, our suggestion could be:

Manning ships with mixed crews where at least two members come from the same country or nation in its entire component. Having the opportunity to interact with another person of the same cultural background always is of benefit, both to themselves and their employers. It is not healthy for a person to experience long periods at sea, a lack what is basic to life day to day in a friendlier environment in which social and emotional communication is in their native language.

Places of Refuge - An International Disgrace

Developed and presented by Peter Turner with the approval of the Company of Master Mariners of Canada

Can a Master of a vessel that has become less than 100% seaworthy expect to receive assistance from the coastal state in whose waters the vessel is voyaging? Can the Master expect assistance without the risk of legal (criminal) action being taken against him?



Great concern has been expressed by governments and mariners that vessels requiring assistance are requesting places of refuge, which requests are being held up or prohibited by bureaucratic wrangling and the “Not-in-my back-yard” attitude of industry and State corporations. Major environmental catastrophes and legal action against individuals and organisations have ensued as a direct result of these delays and prohibitions.

A Master of a vessel requesting assistance will have weighed the circumstances and risks, and may reasonably expect that assistance will be given.

Coastal states, most of which rely on the marine transportation of goods to meet the needs of their citizens and their economies, are dragging their feet and failing to provide locations (places of refuge) where such assistance can be provided.

Following the Castor incident, in 2001 the Secretary General of IMO, William O’Neil, suggested that the Organization undertake as a matter of priority a programme to identify places where disabled vessels may obtain assistance. States were requested to review their contingency arrangements; and to provide such facilities as required to meet the circumstances.

December 5th 2003, IMO presented Resolution A949 (23) “Guidelines on Places of Refuge for Ships in Need of Assistance”.

In 2007, the European Union stated that more than half of its coastal states have identified their entire coastline as POTENTIAL places of refuge for ships in distress, while another third have singled out precise places of refuge. Very few, if any, have made the lists public.

Many coastal states have reviewed their contingency plans and developed guidelines for the evaluation of risks associated with a vessel asking for assistance and the provision of a place of refuge. One of these States, Canada, has published a notice identifying its process.

Canada is not alone in its identification of the need for assessment on a case-by-case basis. The extent of the need for assistance will depend upon the incident.

“The UK would consider it unwise pre-emptively to rule anywhere in or out as a potential place of refuge. There can be no pre-conceived list or ranking of places of refuge in waters as complex as ours because each incident has its own unique, transient and varied nature.” (Mark Clark, MCA Public Relations, Manager. May 2007).

The location for the place of refuge will depend upon the risk associated with this incident. There can be little doubt that there will be conflicts between the government agencies involved, state corporations, private industry and governments of bordering nations. Delays brought about by these interdepartmental and international conflicts are detrimental to the vessel requesting assistance and to the environment in which the incident is occurring. Time is of the essence, and coastal states

must have a contingency plan and an assessment methodology that will rapidly provide the vessel with a place of refuge at which the incident can be normalised.

The need to reduce the delays is recognised in the Canadian TP Notice. The UK has provided a unified command under the lead of a single person, the Secretary of State's Representative (SOSREP). This process has been successful, been copied by Australia, and is under consideration by the European Commission (BIMCO July 2014). This, or a similar unified command system, is essential in order to reduce the conflict between departments, and to facilitate a speedy, albeit well assessed, resolution to locating a place of refuge.

No location will meet the "one size fits all" designation for a place of refuge. Incidents may involve, among others, loss of power, hull damage, cargo, fire, pollution and sickness or death aboard. The vessel's dimensions will have a bearing on the location. Weather conditions and shelter need to be assessed. Equipment availability may be essential to the normalisation of the incident. Above all it is essential to recognise that the incident is likely to escalate and that the quicker a decision on the location of the place of refuge is made, the less likely the incident will become a catastrophe.

Two things are essential to the satisfactory resolution of an incident where the master of a vessel has requested assistance – the preparedness of a coastal state to provide a place of refuge, and a timely and efficient management of the incident.

It should be noted that the salvage industries, responding to an incident where a vessel has asked for assistance, also support the need for a quick positive response to a request for a place of refuge. The IMO Salvage Convention (1989) is quite specific about the concerns of the salvors.

The Vessel

In the tradition of the practice of good seamanship, the master of a vessel experiencing a serious incident or emergency is expected to seek shelter. This is supported by Chapter V of SOLAS. Regulation 34.1 is specific about the Master's role and discretionary power. Any Master recognising that the vessel is in need of assistance and requesting a place of refuge is using his discretion in decision-making which under this regulation is not to be compromised.

He is doing all within his power to reduce the risks associated with the incident. Rather than being pilloried he should be praised.

The Coastal State.

Notwithstanding the right of a coastal state to regulate entry into port or national waters, and its right to protect the coastline from marine pollution, (UNCLOS a194-225), it is an internationally accepted practice for a vessel in situations of force majeure or distress to enter ports or waters of another nation, but this is not regulated by UNCLOS. As recognised by IMO, ports are not the only locations where a place of refuge may be offered. It may be practical to provide a sheltered area where the incident can be normalised, and thence allow the vessel to enter a port to complete any necessary repair.

Unified Command

A vessel needing assistance will need support from the State to which it has applied. As identified, there are numerous government departments, agencies, stakeholders, etc., which will have input into the selection or refusal of a location for a place of refuge. It will be essential for a decision to be made even if consensus is not reached.

IMO Resolution A950 (23) Marine Assistance Services recommends that States provide a single point of contact for vessels needing assistance. A unified command is an extension of this and is essential in such circumstances. The unified commander must have an overriding authority to dictate locations and processes, (the process in the United Kingdom provides for the SOSREP (one person) to obtain information from all stakeholders and to make a decision based on these data). The process streamlines the decision making which is to the advantage of the vessel and to the environment. Comité Maritime International (CMI) also recognises these needs and notes, “States shall designate a competent authority...”

Risks Associated with Request for Assistance.

The risks will be evaluated by the State before decisions are made. However, the greatest risk will be the result of refusing assistance and not providing a place of refuge.

Master’s Responsibility

The Master will retain responsibility for the ship, the safety of life and the protection of the environment. The master will seek assistance as necessary and in doing so will expect the support from the state to which the request has been made. In the event of an incident where the coastline of a state is damaged by a pollutant from the vessel, the Master will have taken all possible action to reduce or eliminate the effects of the pollutant. In asking for assistance, the Master has recognised the risks and is undertaking measures to mitigate the risks.

Legal Action

In the past, a State has chosen to take action against the polluter. In certain cases, (eg. m.v. Prestige) the State has chosen to proceed against the master of the vessel.

If the enquiry following an incident finds that the Master has been negligent, then legal proceedings against him may be reasonable. In all other cases the Master should be protected from legal action, particularly as it is his action in asking for assistance which, if granted, will be likely to reduce the effect of the incident.

RECOMMENDATIONS

That the Delegates to the IFSMA AGA in Chile on 16/17th April, 2015 adopt recommendations to be presented to the International Maritime Organization and the marine community to meet the pressing need to ensure that necessary aid is provided to vessels seeking assistance and to protect the Master acting properly in accordance with his duties.

IFSMA seeks to persuade:

1. the IMO to adopt legal instruments that require coastal states to be prepared to meet the needs, in a timely manner, of a vessel requesting assistance. Coastal States shall be required to establish a risk assessment system using modern methods of communication, and involving all stakeholders, to assess risk in such circumstances. Such risk assessment process will identify the best possible location for a place of refuge taking into account all relevant factors including the interests of the vessel, the risks to the environment, any international concerns, prevailing weather and damage to a third party.
2. the IMO develops protocols that serve to protect the Master from legal action following his request for assistance whatever the outcome of the incident in respect of which the request was initiated.

Individual Competence that Supports BRM – Enhancing Competence of Inexperienced Navigation Officers

Capt. Shigeru Kojima, Japan Captains' Association

Basic Concept of BRM

It is said that 70-80% of all marine accidents can be attributed to human error. Bridge Resource Management (BRM) was created based on the premise that “To err is human”. The purpose of BRM is to ensure the safe navigation of the ship not only by

breaking the chain of human error but also by enhancing the competence of every bridge team member.

BRM seeks to ensure the effective use of all resources available to the bridge to achieve a singular goal – ensuring safe and efficient navigation of the vessel.

BRM identifies two types of “Resources”: “Human Resources” such as the navigating officers who make up the bridge team . . . and “Material Resources” such as the variety of instruments, equipment and documents used by the team. When implementing BRM, the navigating officer is responsible for managing both types of resources.

Each and every member of the bridge crew must have the capacity to make full use of all material and human resources.

But an unskilled officer lacking the required level of competency can hinder the smooth flow of navigational watch keeping tasks.

The safe navigation of a vessel should never be left to the commander in ship handling alone. Each member of the bridge team must demonstrate sufficient competence that they can properly advise and support the commander.

That said, the competence levels of individual bridge team members could vary significantly according to their practical experience. As the team leader, the commander in ship handling must bear this fact in mind while demonstrating his/her management ability.

Abstract:

In order to enhance the performance of the bridge team, each member of the bridge team must make sure to execute the tasks requested and ordered by the master, and report the result of his/her achievement to the master. Also, they need to understand the master’s intention on ship handling correctly, provide the effective information actively and make proper inquiries and/or suggestions if needed. That is, each and every navigating officer is required to acquire sufficient competence to take the necessary actions mentioned above.

The phenomenon that the competence of the navigating officers, as team members, affects the performance of the bridge team has been observed frequently not only in the training of BRM/BTM with the ship handling simulator, but also on board. The inexperienced officers are often unable to understand the master’s request and orders in ship handling fully. In that situation, the master and the experienced officers have to redeem the tasks unachieved. This means that the performance of the bridge team will become extremely lower, if an officer whose fundamental competence is insufficient joins the bridge team as a team member. As a result, the more the navigational difficulty increases, the more the safe navigation cannot be maintained.



Almost all of existing DVDs of BRM/BTM focus on the team leader and team member. In contrast, the DVD being introduced will focus on the followership of the navigating officers as team members, especially the inexperienced officers. On the DVD, it is recommended that the specific guidance and the effective method to help navigating officers improve their knowledge and competence as a requirement so that they can take proper actions to enhance the performance of the bridge team.

The DVD is intended to help the inexperienced officers, as bridge team members, acquire the necessary knowledge and competence to exercise effective followership. Moreover, for realizing the above-mentioned, its purpose is to ensure the appropriate support and advice to be given by the master and the experienced officers.

Therefore, in order to preferentially improve the insufficiency in knowledge and competence revealed by the result of the research that has been commonly observed among the inexperienced officers, a “Checklist for Self-Assessment and Improvement” is provided so that they can assess their knowledge and competence. In addition, the commentary on the effective use of a checklist is also included.

Besides, in one instance of an ideal BRM/BTM, it is expressed comprehensively, by showing the activity of the bridge team, what the inexperienced officers, as team members, have to do on their own to improve their insufficient knowledge and competence, and what the master and other officers as team members should do for their support.

For further information on the availability of the DVD please contact the Japan Captains’ Association.



MOL Paramount alongside container terminal at Valparaiso

MLC 2006 - One Year Later

By Dominique Perrot, ACOMM, France

One year on having presented to you the slide show on the MLC, I come back to review this convention, what are the advantages and the inconveniences met within shipping Companies, ships, Masters on board, and one point on the controls made by member States and deficiencies observed on ships during PSC.



One concern is to respect and protect the various flags of ships having had deficiencies or following blocked ships has a control by the state of the port, I will not name in my presentation the Shipping companies, inspected ships or incriminated flags.

Introduction:

Since 1919, the International Labour Organization (ILO) has maintained and developed a system of international labour standards aimed at promoting opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and dignity. In today's globalized economy, international labour standards are an essential component in the international framework for ensuring that the growth of the global economy provides benefits to all.

Today, the ILO has developed a comprehensive Decent Work Agenda which takes up many of the same challenges that the organization faced at its inception. The Decent Work Agenda aims to achieve decent work for all by promoting social dialogue, social protection and employment creation, as well as respect for international labour standards. The standards have grown into a comprehensive system of instruments on work and social policy, backed by a supervisory system designed to address all sorts of problems in their application at the national level.

This general agreement expresses in one document the sea law of nations in decent working conditions as for almost all of the aspects of their conditions of work and life:

- Minimum age
- Contract of maritime commitment, conditions of employment
- Duration of the work or the rest
- The payment of salaries, the paid annual leave, the repatriation at the end of contract of commitment
- Medical care on board
- Departments of recruitment and investment placement deprived under license
- Accommodation, recreational facilities, food and catering
- Protection of the health and the safety, accident prevention, welfare and social security protection, procedures of treatment of the complaints of the seafarers.

On Year after implementation of MLC 2006:

The MLC 2006 was adopted in Geneva in 2006 and entered into force on 20 August 2013.

Commercial vessels of 500 GT and above, which trade internationally are required to carry a certificate as imposed by the convention. These vessels have to carry specific documents such as

the Maritime Labour Certificate (MLC) and a declaration of Maritime Labour Compliance (DMLC) to show that the ships are in compliance with the requirement of the Convention.

The consequences of non-compliance with MLC 2006 are evident from the number of inspections and detentions being recorded which have been performed by Port State Control (PSC) regarding deficiencies related to MLC 2006.

About 160 ships have been detained so far for MLC deficiencies worldwide (113 in Paris MoU area, 26 in Tokyo MoU area). To be noted that a reluctance to cooperate with PSC authority (i.e. not signing the PSC report) may lead to detention.

PSC, Inspections, Analyses of the deficiencies and detentions.

According to the MLC regulation 5.2.1 item 4:

Inspections that may be carried out in accordance with this Regulation shall be based on an effective port State inspection and monitoring system...

The majority of the PSCs worldwide are part of regional PSC MoUs which have established monitoring systems through specific procedures and data bases with the results of inspections per vessel. This measure increases the ability of the PSC to monitor vessels since information on vessels inspections are available to PSCOs and can be used as guidance on what to expect onboard the vessel.

When the PSCO identifies deficiencies related to the MLC he must at first resolve the issue by bringing it to the attention of the vessel, giving specific guidelines and time lines for its rectification. Furthermore the PSCO may notify the vessel's flag state and inform the next port of call regarding the issued deficiency. In this way the efficiency and the effectiveness of the PSC enforcement is increased due to the fact that the status of a non conformity is known to authorities other than the PSC authority issuing the non conformity and therefore more stakeholders are involved in the matter (on the basis that someone involved in the procedure is willing to actually resolve a deficiency and not let it pass by).

Conformity in the MLC:

We speak about continuous conformity in the MLC: I think that the application of the MLC must be learnt to achieve a good application of the ISM, the purpose being to assure this famous continuous conformity which can be obtained only with the tools which the maritime world knows, that is quality procedures that are within the company. The MLC certifies only the ship while in fact a very big part of its application results from the company. Contrary to the ISM, we certify only ships.

The Seafarer's Engagement Agreement:

As per Standard A 2.1 :

Each Member shall adopt laws or regulations requiring that ships that fly its flag comply with the following requirements:

- Seafarers working on ships that fly its flag shall have a seafarers' employment agreement signed by both the seafarer and the shipowner or a representative of the shipowner (or, where they are not employees, evidence of contractual or similar arrangements) providing them with decent working and living conditions on board the ship as required by this Convention;
- Seafarers signing a seafarers' employment agreement shall be given an opportunity to examine and seek advice on the agreement before signing, as well as such other facilities as are necessary to ensure that they have freely entered into an agreement with a sufficient under-

standing of their rights and responsibilities;

- The shipowner and seafarer concerned shall each have received original of the seafarers' employment agreement;
- Measures shall be taken to ensure that clear information as to the conditions of their employment can be easily obtained on board by seafarers, including the ship's master, and that such information, including a copy of the seafarers' employment agreement, is also accessible for review by officers of a competent authority, including those in ports to be visited, and seafarers shall be given a document containing a record of their employment on board the ship.

Where a collective bargaining agreement forms all or part of a seafarers' employment agreement, a copy of that agreement shall be available on board. Where the language of the seafarers' employment agreement and any applicable collective bargaining agreement is not in English, the following shall also be available in English (except for ships engaged only in domestic voyages):

A copy of a standard form of the agreement and the portions of the collective bargaining agreement (This is the document which details all the terms and conditions of the crew employed on the ship.) It specifies entitlements such as pay (in the form of a wage scale), working hours, etc. that are subject to a port State inspection under Regulation 5.2.

In practice:

It is difficult for the Master to make sure of the conformity of the Seafarers Employment Agreement (SEA) with the MLC. It is already complicated enough for an inspector! The work must be carried out by the company. The Master has to make sure, in particular, that the seafarer signed, that a representative of the company signed and that the SEA is available for inspection. On the other hand, the Master has to make sure, in my opinion, that the seafarer possesses their certificates. One way of arguing, besides the obligations of commanding from agreements, is a small analysis of the risks by knowing better the work of the flag inspector and of the PSCO. The dismissal towards both guidelines of the ILO on the work of the inspectors and the PSCO could be interesting, in particular for their chapter 4 which is practice!

The Australian Maritime Safety Authority detains any ship having on board a seafarer with more than 12 months service on board! Annual leave must be taken!

Deficiencies found during PSC :

- Chief Officer SEA expired and no evidence of agreed extension.
- Manning agents, license expired in July 2014; no record for renewal is available
- SEA missing, not in accordance with national requirements, Company Bargaining Agreement (CBA).
- Seafarers Employment Agreement not signed between seafarer and shipowner
- Seafarers Employment Agreement not available in English language
- Certified Agreement stated that the company will pay a fixed amount in US dollars for each seafarer under the agreement to the Provident Fund, but there is no evidence on board of this payment being made.
- 1 x Able seaman onboard vessel since 03 Feb 2013, this exceeds maximum 12 month period allowed by Philippine Overseas Employment Administration (POEA).
- Seaman's employment contracts for Deck cadet, Engine Cadet and Third Engineer expired (more than 2 months back for cadets).

- Seafarers Employment Agreement (SEA): wrong vessel indicated / Duties uncorrected.
- Seafarers were not given opportunity to examine and seek advice on their SEA before signing (as per seafarers' declarations)
- No signed original Seafarer Employment Agreement held by seafarers.

Rest Hours:

Information from Port State Control:

Seafarers repeatedly working beyond maximum hours of work/rest (Standard A2.3, paragraph 5a & 5b). The PSCO can efficiently find such deficiencies if he checks thoroughly the rest/work hours records and shipboard working arrangements documents. It must also be mentioned that the subject of excess hours of work has been brought to the courts in cases where the seafarer claimed that his health has deteriorated due to excessive hours of work onboard.

Perhaps one of the most easily identifiable deficiencies related to MLC requirements that a PSCO can make on an inspection is one regarding hours of work/rest. Onboard a vessel in order to properly record the hours of work/rest two documents are being used:

1. A table of working arrangements or work schedule. This document is being used in order to know onboard the vessel where a seafarer has duty and during what hours of the day.
2. Up to date records of work or rest, for each seafarer serving on the ship. This document records how many hours a seafarer worked each day of the month.

Both records contain information on where a seafarer had duty and how many hours he worked. Both documents (especially document work/rest hours record) may be used in order to calculate payable overtime hours of seafarers.

Of course reliance on a simple checking of records of hours of work and rest is not an adequate method of inspection because, as with seafarers' certificates of competency, such records may be falsified. Thanks to shipping lines, the software for the calculation of hours are locked today and it is practically impossible to falsify them.

But if the PSCO is given time to cross check the documentation, it may be easy to identify a deficiency by simply checking the information contained in the shipboard working arrangements document against the information contained in the hours of work/rest document. Furthermore the PSCO needs to look at the working hours of all the seafarers onboard.

From Ship's:

At the level of the inspections, whom they are vetting, PSC, or the same visit to the company within the framework of the ISM, the MLC often seems to focus on the hours of rest.

The pressure on board is strong so that everybody is in the green and if this is not the case, the department heads quickly become bad managers in the eyes of the company and thus, if it repeats in spite of all their willingness we go straight to professional misconduct for mismanagement. "When a ship is detained there needs to be persons in charge".

The management of these extra hours can bring us sometimes even to absurd situations. The example in a Company where a Master blackmailed the promotion class to the Officers and the crewmembers which, due to their work, found themselves in the red level of these hours. Then, therefore, everybody lied and did not record in a just way the hours, while they were all more or

less in the red. These attitudes are not correct.

Unfortunately, the company seeing that everybody was in the green eventually removed the staff.

For them “rest hours”, it is about a complex problem which could be avoided in the major part of cases if the control of the detached flag or the company was effective as many other items of inspections. The Port State Control inspections does not have to substitute for the administration of the detached flag which has to control, nor the Shipowner which has to make sure of compliance with the MLC, in particular via the ISM. All ships by the programming of exercises and other activities, achieve a management respecting the time of work and rest.

Some Ship owners really took advantage of the implementation of the MLC to adopt a proactive management associating the efforts of the company and the limitations and they succeed in improving their results in this matter. Other margins of improvement remain of course the staff which must not be confused with that defined by the minimum safe manning and the consideration of this problem by the ground personal (harbour company, terminals, agencies, technical department). When a ship is waiting at anchor, the pilot is cancelled on 3 occasions, it's difficult to manage upstream the rest periods for the crew.

What seems to me so absurd is the way flag states determine the minimum safe manning. For example, how can France sign a minimum safe manning certificate for 15 or 17 crew for a product tanker and at the same time detain a product tanker under a foreign flag, crewed by 20 people, for reasons of violating hours of rest. A certain coherence is needed all the same!

We see states signing manning with a minimum of 15 for a VLCC, while everybody agrees that they need at least 23 or 24 persons on board to operate these ships in complete safety.

For the moment we make the best of what we can to give rest periods for the crew before the stopovers, then we arrange the hours when they pass in the red. On a VLCC it is rare, but sometimes the company will send additional staff to help the crew to stay really in accordance with the MLC, during long stopovers or planned successions in function. If the sailor is flexible at the level of these working hours, he becomes also flexible on the way of recording them.

Deficiencies found during PSC:

Records of daily hours of rest - not reflected actual rest hours, as evidenced by so many officers and 30 crew recorded rest during vessel monthly drill in nearly five months.

Records related to hours of rest not completed correctly (on call engineers).

Hours of work for May & June 2014 for non-watch keeping personnel are in excess of that allowed by the MLC 2006.

Officers and watchkeepers recording minor systematic violations of work/rest hours during port operations in Australia, 5 ports visited in 8 days.

Bridge watchkeepers regularly do not have a 6 hours unbroken rest in 24 hour period.

Records of work and rest hours do not reflect detailed hours of work.

The payment of salaries, paid annual leave, and repatriation at the end of contract of commitment:

Deficiencies found during PSC:

- In Canada, one ship was detained, and in Denmark another one was held. Both were stopped over lack of employment contracts. In the case of the first one, crew complaints included

unpaid wages, a 'collective bargaining agreement' that lacked the vessel name, a date or a wage scale.

- 2/O, 2/E, 1A/B and 1 OIL onboard in excess 11 months without annual leave as per MLC standard A2.4.
- Crew members having been forced to sign blank contracts.
- Crew wages not paid monthly in accordance with MLC 2.2 and DMLC II 14(b). (February 2014 pay not paid as at 12/03/2014, January onboard allotment not paid until 12/03/2014)
- Monthly wages, including war risk allowance for several crew not pay in full in accordance with seafarer employment agreement.
- Seafarers claim agency asked payment from seafarers in order to have employment plus keep part of allotments.

Medical care on board:

Requirements to protect the health of seafarers and ensure their prompt access to medical care on board a vessel and ashore:

- Medical and essential dental care onboard and ashore:
 - o the right to visit medical services ashore at no cost.
 - o shipowners' liability/provision of financial security
- Medical treatment on board by appropriately trained personnel
- Carriage of medical equipment and medicines
- Workplace health and safety protection and accident prevention
- Access to shore based welfare facilities
- Social security protection.

Deficiencies found during PSC:

Crew member who had twice been refused access to a doctor.

Deficiencies marked (MLC) are clearly hazardous to seafarer's health in accommodation space including galley and sanitary facilities.

Medical examination certificates on board not as per MLC 2006/STCW requirements-missing information. Each seafarer to be in possession of original medical fitness document M1-105M as per note of document and DMLC part II.

Responsible crew on board not aware of medical oxygen and operating instructions not found.

Hospital washbasin - water coming out brown and only in small quantities, the same whether choosing hot or cold.

Accommodation, recreational facilities, food and catering:

Living conditions on board a vessel:

- Accommodation standards, including room sizes and their fixtures.
- Heating, cooling, lighting, ventilation and noise levels .
- Sanitary and laundry facilities.
- Requirements for mess rooms and recreation rooms
- Requirements for hospital accommodation
- Food and catering.

Accommodation standards on existing ships will continue with ILO 92/133. For new builds single cabins will be the standard to apply.

Deficiencies found during PSC

Insufficient recreational facilities provided on board. Television in crew and officers' recreation room unable to receive local television signal. No DVD movies, magazines, books etc. supplied.

Mess room unclean and infested with insects.

No vegetables or fruit (Neither fresh nor frozen) on board for intended voyage.

Dry store provisions including rice and flour infested with insects

Water, pipes, and tanks: Hot water is not available to the crew common toilets and galley

Pest control poison stored closed to food.

Freezer and cold room temperatures inadequate for intended food storage (meat partially frozen and butter melted)

Cold room, cold room cleanliness, and cold room temperature: Freezer and cold room temperatures inadequate for intended food storage (meat partially frozen and butter melted)

No recreational facilities provided for officer's recreation room. Crew recreation room TV unable to receive local TV signal.

No complaint procedure evident as per MLC A.5.1.5.3; master and crew unaware.

Crew cabins do not have hot running water as evident by random checks.

Crew Shower - unclean.

Sanitary facilities : Toilets in various cabins defective.

Hand basins not supplied with hot and cold water in sanitary cabins.

Insufficient fresh water on board to supply sanitary facilities for the duration of the intended voyage.

Qualification of cook missing.

Health and safety, accident prevention, welfare and social security protection, procedures for treatment of crew complaints.

Deficiencies found during PSC :

No complaint procedure evident as per MLC A.5.1.5.3; master and crew unaware.

Hospital toilet, floor, WC and sink dirty.

Crew with no money, no shampoo, toothpaste or other items.

Complaint procedure: missing, not in accordance with national requirements

Conclusions :

An important question which we could put:

Why are there so many deficiencies on certain subjects of the MLC on 2006, while ships were certified, were the subject of strict control and received the DMLC. Leads us to believe that the inspectors of the flag state did not complete their work very well?

We show the areas where MLC is more focused.

Port state control under the Maritime Labour Convention 2006 pointed out how the detentions prove the new convention's potential.

Following the intervention of PSC and the International Transport Workers' Federation (ITF), some vessels are now MLC compliant.

The Ten Most Frequently MLC 2006 Deficiencies Observed :

1. Name & Address of "Shipowner" included on Maritime Labour Certificate and also on the Declaration of Maritime Labour Compliance-Part II (DMLC-Part II) are not according to the correct definition of "Shipowner" established by Article II 1. of MLC, 2006. Refer to Definition of Shipowner for MLC, 2006 & Definition of Company for ISM-Code.
2. Medical Certificates issued by medical personnel not recognized by the Panama Maritime Authority (Standard A1.2.4 and MMC-261)
3. SRPS (Seafarer recruitment and placement service) without License or Certificate to operate (Standard A1.4.2; A1.4.3)
4. Seafarers Employment Agreement not signed between seafarer and shipowner (Standard A2.1.1)
5. Manning agreement between the shipowner and the representative of the shipowner (where the SEA is signed by a representative of the shipowner) not available on-board (Standard A2 1.1)
6. Seafarers Employment Agreement not available in English language (Standard A2.1.2)
7. Records of daily hours of rest for use on board the ship not properly completed (Standard A2.3.12)
8. Documented evidence of shipowners' financial security to assure compensation in case of seafarer's death or long-term disability due to an occupational injury, illness or hazard not found on-board (Standard A4.2.1)
9. Documented evidence of shipowners' financial security for repatriation of seafarers not found on-board (Regulation 2.5.2)
10. Complaint procedures not found on-board and personnel not familiarized with these procedures (Standard A5.1.5.2 and Guideline B5.1.5.1)

The most important areas where detainable deficiencies are found during port state controls. Detainable deficiencies were most frequently recorded in the areas "payment of wages", "manning levels for the ship", "qualifications of seafarers", "seafarers' employment agreements", "hours of work or rest". Other important areas with high deficiency levels are "health and safety and accident prevention", "food and catering" and "accommodation".

One year later, we thus notice that the MLC 2006 is firmly in place, with the improvement of the living conditions of the seafarers, their safety and security, their health, the possibility of expressing himself, of having finally decent salaries, the hope to see disappearing from seas of the globe, ships where the seafarers are exploited, unworthy of our time.

The Master's Burden

By Marcel van den Broek and Allan Graveson, Nautilus International.

(The failure of the regulatory system and influence of the insurance market on the criminalisation of the Master)

Nautilus International has a long and distinguished history in representing Masters' interests. Originating in the United

Kingdom in 1857 as the Mercantile Marine Service Association (MMSA), the nature of its work has changed over the years - as has the economic, legal, political, and social environment. An international industry has become global, with all the complexity that is involved in a world of instant communication. However, the basic tenant of protecting the interests of marine professionals remains



Masters of merchant ships have always been subject to the rulers of hostile and remote realms where justice was swift and brutal. Today, condemnation is swift and brutal, with justice questionable. It is also closer to home, either in your own country or that of coastal or port state.

In the last year we have witnessed such sentences as: Master, COSTA CONCORDIA – 16 years; Master, SEWOL - 36 years; Master, LAMMA IV 8 years. Foolish individuals, possibly, but criminals that are dangerous to society, definitely NOT. No ship owner representative group or owner has condemned these sentences, other than to utter the feeble words, “we do not comment on sentences.” These sentences satisfy the blood lust of a public, brainwashed by 24-hour media, but they mask the failings of a bankrupt regulatory system neglected by politicians.

While it is possible to cite inquiries and law cases, some going back to the 17th and 18th Century in both the Netherlands and the UK, to demonstrate the actions of the authorities against Masters, it is increasingly evident that actions by the parties involved in an incident potentially influence who is prosecuted.

The authorities have the ultimate decision on who to prosecute. In cases where there is a wilful act or a case of gross or serious negligence (terms depending on jurisdiction), this is understandable and has to be accepted. This is not to say there is justifiable mitigation in such cases. However, where a Master is simply doing his or her best, often with limited or inadequate resources, determined by the owner and compliant with current regulations, why should there be a prosecution? Why so often, is the Master the only person to be prosecuted or the principal person to be prosecuted in an industry where management control from ashore is greater than ever?

One would never seek to defend the lack of professionalism by a Master, officer or any other seafarer. They may shoulder considerable responsibility for the cause, but the consequence and its magnitude lies elsewhere. This may be the government, regulatory authority, ship designer, class, yard, hull and machinery insurer, cargo insurer, P&I and - by no means least - the ‘owner’. Where the stakes are high those with the most to lose may engage in an orchestrated campaign utilising the existing processes so readily available to protect all but the seafarer. Who is there to protect the seafarer, especially the Master? Ideally, their national representative organisations. However, the degree of protection offered and received can vary dramatically, dependent upon their resources and purpose.

Over 10 years ago, against a background of increasing criminalisation, Nautilus advocated at the International Maritime Forum the need for replacement of criminalisation by professional sanction. Arguably, this had been an effective measure over the years of European dominance of world trade, with few flag states issuing certificates. Masters and officers were well aware of the consequences of an error of judgement; you lost your ‘ticket’, you lost your livelihood at sea, but not your freedom. A counter argument has emerged, namely, that this approach is ineffective in a global industry where certificates of questionable quality are issued by flag states of equally questionable quality and where professional sanctions are rarely if ever applied.

Criminal sanction has gained traction in response to political demand, driven by public pressure that has been stimulated by media hysteria; more so in countries where there is an absence of independent accident investigation. Many accidents are never investigated and even in many that are investigated, the findings are not released. The media are ignorant of how this industry fails to address preventable incidents.

Criminal sanction is a convenient tool to divert attention away from regulatory failure or inadequacy. The MMSA spent the best part of the last century in defending the reputation of Captain Stanley Lord of the CALIFORNIAN, who was criticised by an Inquiry for failing to go to the aid of the TITANIC. After all, Captain Smith, Master of the TITANIC went down with his ship; there was little mileage in targeting a dead man in an era that sought selfless examples of sacrifice. The targeting of Captain Lord was a deliberate action by the UK authorities to deflect criticism from the United States levelled at the then British Board of Trade and UK Government.

The fractured nature of the labour market in shipping today, either created intentionally or by necessity, means that the likelihood of Masters receiving an adequately funded defence by a body representing their interests is rare. Similarly, the cause of death of seafarers - even when a body is recovered - is rarely subject to adequate scrutiny. Human rights are denied to seafarers even in death as they are in life. The term, 'Human Rights' is rarely uttered in the shipping industry. Their rights are defended where the seafarer is a member of an association, professional body or union who is not only willing to speak out after an incident, but also constantly alerting managers, the public and politicians to dangers within the industry. The adequacy and effectiveness of such warnings are somewhat limited when so few are willing to speak out.

It may be said that "no man is an island" – therefore, there is a need to go beyond the direct representation of one's own members and speak out where the causal factors influencing an incident affect them and so lay the ground for a defence should other members be subject to the same unjust treatment in the future. To remain silent is no longer an option in a media-driven world. Nautilus is often a lone voice amongst national organisations, which are willing to speak out when invited to comment on incidents where there is no direct involvement.

It is of considerable concern that few are ready to speak out, using the excuse 'we must wait for the accident investigation before comment'. There was merit in this position prior to the increasing use by the authorities of the courts and subsequent criminalisation of Masters in preference to professional sanction. Could there be a more basic reason for not speaking out - the fear of loss of conference revenue, advertising revenue, or loss of employment opportunities for members? There is no evidence to confirm this, but fear is enough. In response, the words of F.D. Roosevelt come to mind, namely: "The only thing you have to fear is fear itself".

Press releases issued after the COSTA CONCORDIA and SEWOL incidents by Nautilus were rapidly seized upon by world media and newspapers. This was because they were issued immediately while the incidents were NEWS. A great deal of harmful press speculation, fuelling calls for prosecution, can be prevented by providing timely informed comment. However, the effect is somewhat limited when it is made a considerable distance from the geographical area of the incident. Furthermore, such comments may not always be repeated locally due to interference by the authorities or commercial interests. Not knowing the causal factors of an accident when information is scarce, it can be difficult to speak out expressing an opinion in the defence of a Master and to be critical of an operator. However, it is possible to criticise the regulator for the consequence and - to a lesser extent - their responsibility for the cause. Such an approach affords the opportunity to influence media discussion and so protect the Master from prosecution without putting oneself in a position of being wrong.

Beside the authorities, the party with the greatest interest to protect is usually the owner - although builders and class are increasingly in the frame given the withdrawal of flag state authorities from effective oversight of newbuildings, coupled with 'light touch' regulation. The owner is by necessity, inextricably linked to the P&I Club. Together with Hull and Machinery (H&M) insurance, and cargo insurance, the scene is set for a tragedy to be played out in private and for high profile cases, in full view of the media. The stakes can be high - not only the immediate financial cost of the incident and the clear-up, but company reputation and future cost from loss of income and possible additional imposed safety measures.

Insurance is a contract of indemnity, i.e. to indemnify the loss of the insured. It can only be paid once; therefore the issue of who amongst the insurers pays is significant. Proximate cause is so often the basis of a claim in English Law, in contrast to Chinese Law on marine insurance. Hence in collision and grounding incidents – who was at fault or where blame can lay is crucial to the financial outcome. In passenger ship incidents General Average is generally not applicable, therefore in collision and grounding incidents the focus is on the owner (charterer) as operator of the vessel. The battle lines are set between H&M and P&I, with negligence of the crew being the issue; so easy to prove yet difficult to deny.

Negligence of the crew could not be demonstrated better than accompanied by a criminal conviction. If it is the Master rather than an officer or other crew member, so much the better. There are occasions when the interests of the owner and Master coincide. Often the way to the company is via the Master, so it is in the interests of the company to shield the Master. Where this is so, it is in the interests of the owner to ensure the Master receives a proper defence. Where this is not the case, the owner is only too ready to abandon the Master to the courts and the mob in order to protect their own financial interests, as instructed by P&I Club lawyers.

This is understandable, but what is not acceptable is the deliberate abandoning of the Master to criminal sanction. This is not limited to the Master: officers and other crew members may be similarly treated. What is worse is the intentional adverse briefing against their own employees, particularly the Master, so as to achieve a more favourable financial outcome.

In company disciplinary cases that Nautilus deals with, where there is no involvement of the authorities involving insurance claims, there is evidence to suggest an increasing willingness to focus on the failings of the individuals rather than the failure of the ship management system, i.e. the proximate cause, involving the Master and/or an officer, so as to facilitate a convenient route to a trouble-free claim.

Company disciplinary action and criminal sanction by the way of a fine or suspended sentence, while uncomfortable and potentially a career stopper, is very different from a period of ‘incarceration’ in some inhospitable jail. This is not only unacceptable but is cruel and vindictive, given there was no wilful intent or gross/serious negligence. Seafarers are human – this was established beyond doubt in the EU-funded Project Horizon research, which confirmed that seafarers suffered tiredness like us all. Consequently, they make mistakes and errors of judgement, especially when affected by fatigue.

Criminal sentences divert attention away from the root causes, including poorly trained crews, inadequate construction, detached ship management and ‘light touch’ regulatory authorities. Consequently, passengers and seafarers pay with their lives, seafarers with their freedom and owners on the balance sheet, possibly? Masters are in the vanguard having not only the daily burden of command, but also the commercial pressures brought about by a failed regulatory system.

Today companies, other than the untraceable ones hidden behind a corporate veil, have a planned response to incidents. This includes the engagement of specialists to deal with the authorities and media - including teams of lawyers in different jurisdictions to protect corporate and financial interests. They are able to respond rapidly and set the desired course to minimise financial loss. In contrast, organisations representing seafarers are generally poorly equipped to respond - often in the misguided belief that justice will prevail following a full and complete investigation. Alternatively, fearing that speaking out may endanger the industry and commercial relationships and employment. The absence of independent accident investigation does not necessarily prevent justice but facilitates injustice.

Masters shoulder the burden not only of daily command but of a failed regulatory system in a highly competitive industry with a fractured workforce. The solution to unwarranted criminalisation is not easy. It is doubtful it will come from well-meaning initiatives such as ‘seafarers’ rights’ and ‘fair treatment’ alone. It requires a robust response to each and every incident, however difficult, from the very start and remorseless action on the failings of regulation. It is the law-makers that determine the actions of owners and set the levels of safety. It should not be Masters that suffer for their failure.

The Role of Remote Sensing to Detect Oil Pollution

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Summary

Remote sensing techniques play an important role for environmental applications. The study area of remote sensing in different fields varies widely such as agriculture, forestry, geology, hydrology, sea ice, land cover, land use, coastal monitoring, and ocean monitoring. Latter have an important factor for the environment, when considering that Oceans cover 70% of Earth surface. The oceans provide valuable food and biophysical resources which are vitally important. The oceans are also the main element of world transportation. Major oil pollution inputs to the Marine Environment are industrial wastes, tankers accidents, explorations and oil from vessels during transportation. Besides ship collisions/accidents, ship operations cause illegal oil pollution. Oil spills floating on the sea surface are detectable by remote sensing. Remote sensing data and techniques play an important role to combat and to detect oil pollution from satellite and aerial observations. In an emergency case of any oil pollution disaster, it is possible to detect the spatial distribution and size of oil pollution using remotely sensed data. Based on information created from satellite images, it is possible to generate an emergency contingency plan rapidly and support recovery actions.

This paper examines the role of remote sensing techniques to detect and combat oil spills, to minimize their impact and to mitigate oil pollution in case of an accident.

1. Introduction

Marine Pollution is a great and very troublesome problem, marine pollution can be directly or indirectly from a manmade source giving energy or substance to the marine environment. Marine pollution is created and results in hazards to the marine environment, human, and marine life (1). Marine Pollution Sources are oil pollution, heavy metals and their production, bioaccumulation, disposal of radioactive materials, discharge of sewage, harmful algal blooms (2). Shipping and maritime activities cause a great amount of marine pollution, generally. Oil is one of the most important pollutants resulting from maritime activities (1).

The Marine Pollution Prevention from Ships (MARPOL) Convention defines oil as; petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products (other than petrochemicals which are subject to the provisions of Annex II of the present Convention) and, without limiting the generality of the foregoing, includes the substances listed in appendix I to MARPOL Annex (3).

Possible sources of ship based oil pollution from both tankers and all other ships are shown in Figure 1 below, for example for all ship machinery spaces waste pure products for tankers both machinery spaces and cargo. Ships generate oily waste products due to the consumption of heavy fuel oil, marine oil and lubricating oil for all types of power driven vessels. On the other hand routine tanker operations cause oily waste. Three categories of oily waste generally accumulate on board large vessels. These are bilge waste, sludge waste and oil cargo residue waste (slop) (1).

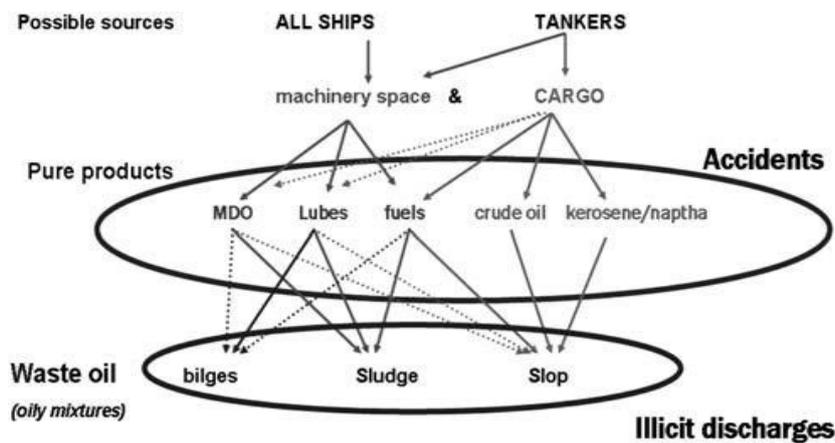


Figure 1: Possible sources of oil spills from different ship categories (4).

2. Oil Spill

Viscosity, volatility, and toxicity are the main differences between oil kinds. Viscosity can be described as oil’s resistance to flow. Volatility refers to how quickly the oil evaporates. Toxicity refers to how poisonous the oil is to humans or other organisms. Spills of the various types of oil may affect the environment differently (5). The oil spill cleaning operations and methods may also differ. Spill responders categorize oil into four basic types. Very light oils (jet fuels, gasoline), Light oils (diesel, no. 2 fuel oil, light crudes), Medium oils (most of the crude oils), Heavy oils (heavy crude oils, no. 6 fuel oil, bunker oil) (5).

2.1 Effect and Behaviour of Oil

Important physical and chemical properties of oils that will affect the behaviour and effects of oil in water and aquatic environments are its surface tension, specific gravity, and viscosity. The composition and characteristics of an oil, together with a number of circumstances relating to the time and place of the spill, the amounts of oil, weather conditions etc. will determine how persistent the oil will be, how it will spread, whether it will evaporate or sink, etc (6).

- **Some Major Oil Spills Around World**

Amoco Cadiz Oil Spill – France, On March 16, 1978, the Amoco Cadiz ran aground on Portsall Rocks, three miles off the coast of Brittany due to steering failure. The vessel had been sailing from the Arabian Gulf to Le Havre, France. The entire cargo of 1,619,048 barrels, spilled into the sea. A slick 18 miles wide and 80 miles long polluted approximately 200 miles of the Brittany coastline (7).

Exxon Valdez, the oil slick eventually extended 470 miles southwest from Bligh Reef. The spill area totalled 11,000 square miles.(8). On March 24 1989, the tanker Exxon Valdez, en route from Valdez, Alaska to Los Angeles, California, ran aground on Bligh Reef in Prince William Sound, Alaska. The vessel was travelling outside normal shipping lanes in an attempt to avoid ice. Within six hours of the grounding, the Exxon Valdez spilled approximately 10.9 million gallons of its 53 million gallon cargo of Prudhoe Bay crude oil. Eight of the eleven tanks on board were damaged. The oil would eventually impact over 1,100 miles of non-continuous coastline in Alaska. Supertanker Exxon Valdez, 24 Mar 1989, 9:12 p.m. ran aground on Bligh Reef in Prince William Sound, Alaska (9).

M/T Prestige, suffered a fracture in the side shell plating on 14 November 2002 during a spell

of very severe weather outside Spain. The M/T Prestige was a 1976 built Pre-Marpol single hull crude oil tanker. She sank releasing over 20 million gallons of oil into the sea.(10)

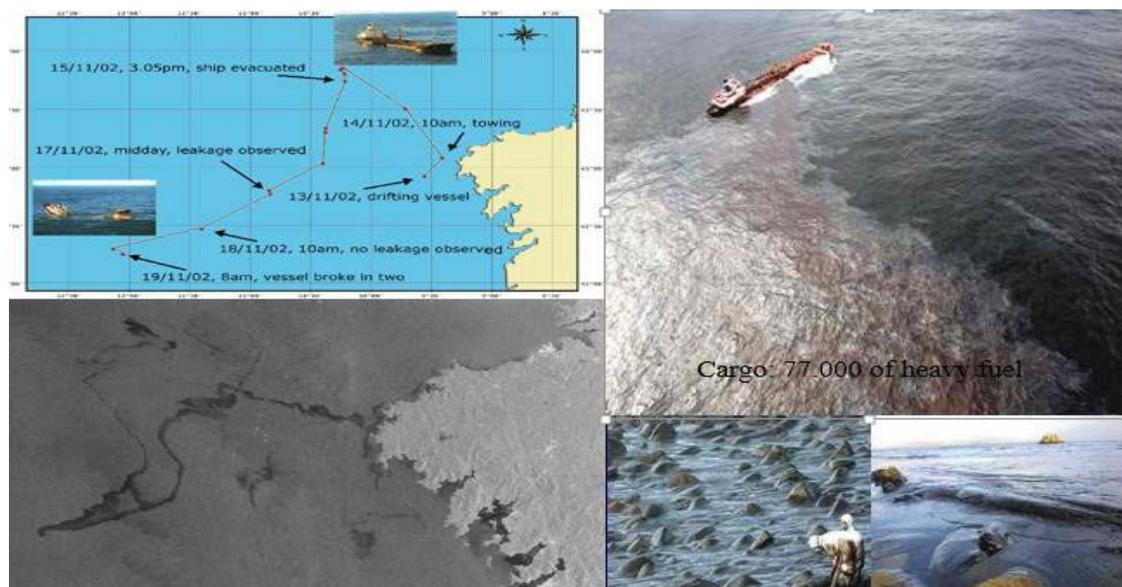


Fig 2: The prestige November 2002 sank off the coast of Galicia, Spain.

Deepwater Horizon, a semi-submersible drilling rig, sank on April 22, after an April 20th explosion on the vessel. Eleven people died in the blast. When the rig sank, the riser—the 5,000 foot long pipe that connects the wellhead to the rig—became detached and began leaking oil. In addition, U.S. Coast Guard investigators discovered a leak in the wellhead itself. As much as 60,000 barrels of oil per day were leaking into the water, 125 miles of coast were affected (11).

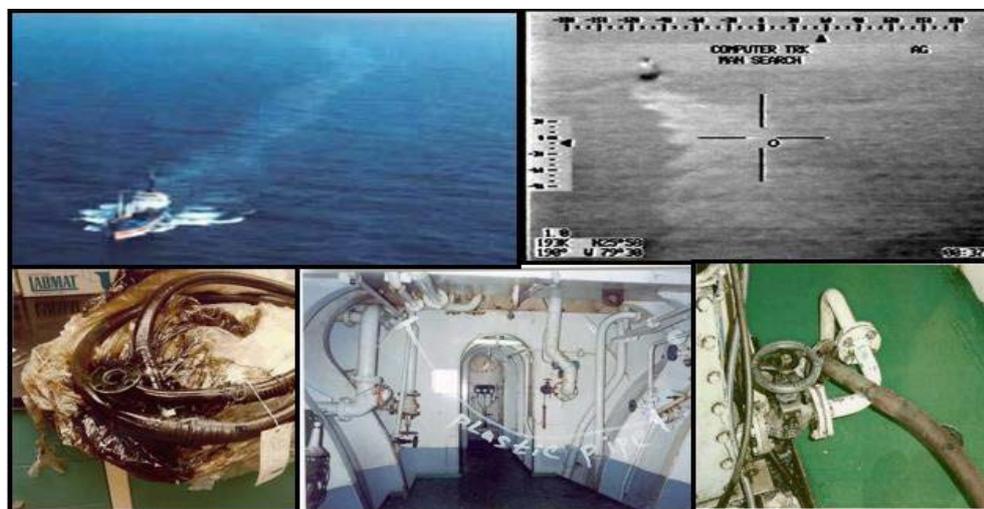
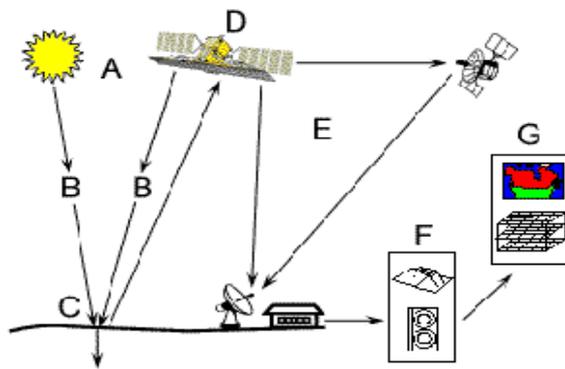


Figure 3: Illegal Oil Discharging from ships, bilge water (1)

On the other hand except ship accidents causing oil pollution, the essential problem is illegal oil discharges. The best method for dealing with bilge water, sludge and slop is storing and delivering ashore as disposal but storing these oily water and oily products on board causes less cargo transportation and too much cost for delivering the oily products a shore as disposal. These are the great reason why ships make illegal discharging (1).

3. REMOTE SENSING



© CCRS / CCT "Remote sensing is the science (and to some extent,

art) of acquiring information about the Earth's surface without actually being in contact with it. This is done by sensing and recording reflected or emitted energy and processing, analyzing, and applying that information" (12).

1. Energy Source or Illumination (A)
2. Radiation and the Atmosphere (B)
3. Interaction with the Target (C)
4. Recording of Energy by the Sensor (D)
5. Transmission, Reception, and Processing (E)
6. Interpretation and Analysis (F)
7. Application (G) (12).

Figure 4: Remote Sensing basic diagram

3.1 Remote Sensing Applications in General for Earth Observation

There can be many applications for remote sensing, in different fields, for agriculture mapping, forestry, environmental monitoring, geological applications, hydrological applications, land use applications, and ocean applications. One of the important ocean applications with remote sensing is oil spill detection. Oil spill monitoring, mapping and predicting oil spill extent and drift, strategic support for oil spill emergency response decisions, identification of natural oil seepage areas for exploration are the study area for remote sensing.(12)

The remote sensing of oil spill monitoring will now be considered. Oil spills no doubt destroy marine life; produce fatal damage to habitat for animals and humans. To isolate the affected areas and organise clean up efforts properly, a number of factors should be identified when an oil spill occurs. Spill location, size and extent of the spill, direction and magnitude of oil movement, wind, current and wave information for predicting future oil movement.

Remote sensing gives the advantage of observing events remotely and often of inaccessible areas. It can be used to both detect and monitor spills. Remote sensing data gives rate and direction of oil movement for ocean spills through multi temporal imaging. By entering these data to drift prediction modelling makes further control and clean up efforts more effective and easier (13).



Figure 6: Monitoring Disaster, Tsunami 2004, Pre and Post Disaster of Thailand

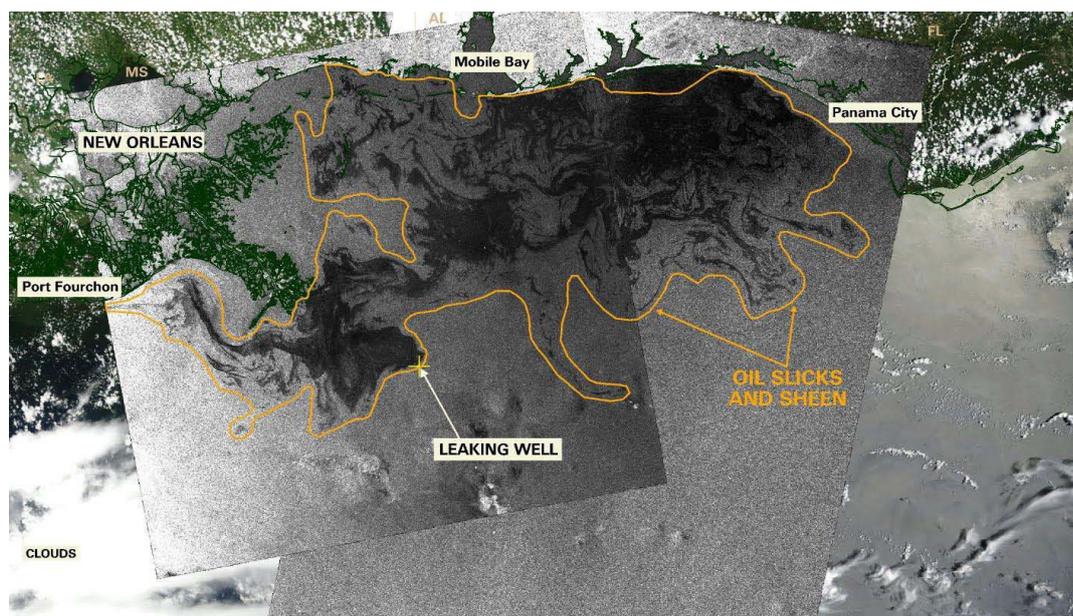


Figure 7: RADARSAT images acquired on June 27, 2010, courtesy of CSTARS.

4. Different Tools to Detect and Monitor Oil Spills

There are different remote sensing applications for detection of oil pollution/spills. These include ultraviolet, visible, infrared and microwave wavelength regions of the electromagnetic spectrum. In the electromagnetic spectrum, oil gives different responses and signatures to radiation from different wavelengths. Ultraviolet (UV) technology can be used to detect oil spills which display high reflectivity of UV radiation even for thin layers. The UV instrument is not usable at night. Also wind slicks, sun glints and biogenic material can cause false alarms in the UV data (14). Oil absorbs solar radiation and re-emits a portion of this energy as thermal energy mostly in the range between 8–14 μm and emissivity difference between oil (0.972 μm) and water (0.993 μm) leads

to different brightness temperatures (15). Therefore, oil layers appear colder than water in thermal images. Infrared (IR) sensors are useful in evaluating the thickness of oil slicks as the thickness increases they appear hotter in the infrared images and they can be distinguished from thin ones. However very thin layers cannot be identified in TIR images (16). Microwave sensors are the most applicable tools for oil pollution monitoring since they are not affected by, weather conditions, clouds, haze, and day/night differences. Microwaves penetrate through the atmosphere with very little absorption (17).

4.1 Air Borne Observation for Oil Spill Monitoring

Airborne observation for oil spill monitoring can be carried out routinely, to look for and suppress operational pollution by ships. In this case the aims are to detect the pollution, accurately locate and describe the pollution where possible, identify the polluter in order to assess the pollution (quantity and quality), anticipate the evolution of the situation and prosecute the polluter via a pollution observation report (18). A secondary aim of airborne observation is in the event of an accident, to assist in recovery and dispersion operations at sea. The aims of the observation missions are to, locate the slicks, accurately describe the slicks, map the pollution in order to monitor the pollution, adjust drift models, guide response operations that day and prepare the response operations for the following days (19).



Image of the sea surface to the right of the aircraft, taken with the Side-looking Airborne Radar (SLAR). Image dimensions on the sea surface are approx. 3000 m along-track, 4000 m across-track (20)

5. Satellite Remote Sensing for Oil Spill Monitoring with RADAR

Infrared, visible and UV sensors will not be able to detect oil in inclement weather such as heavy rain or fog (21). The most common microwave sensor for oil detection on sea surface is the Synthetic Aperture Radar (SAR). SAR image is a measure of surface roughness depending on the backscatter. The main mechanism in detection of oil slicks is the dampening effect of oil on water. Dampening of sea waves results in reduced radar return from the affected area, so that oil slicks appear as relatively dark features on the SAR scenes.

5.1 The Principle of Oil Spill SAR Imaging

The presence of oil on the surface of the sea causes damping effect on the short wind waves (Bragg Waves) and reduces the radar back scattering. In such cases the oil spill areas can be seen as dark patches in SAR images. An oil spill is physically a low backscatter area and appears as a dark area in SAR images. The figure shows how SAR catch spills from sea surface (5)

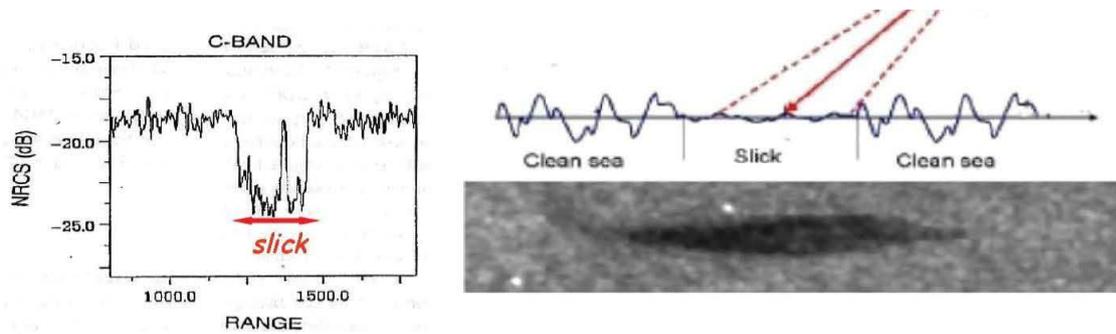


Figure 8: SAR Oil Spill Imaging

Neither very calm sea nor very rough sea surface is favourable conditions for oil slick detection for SAR. The figure shows optimum sea and wind condition (22);

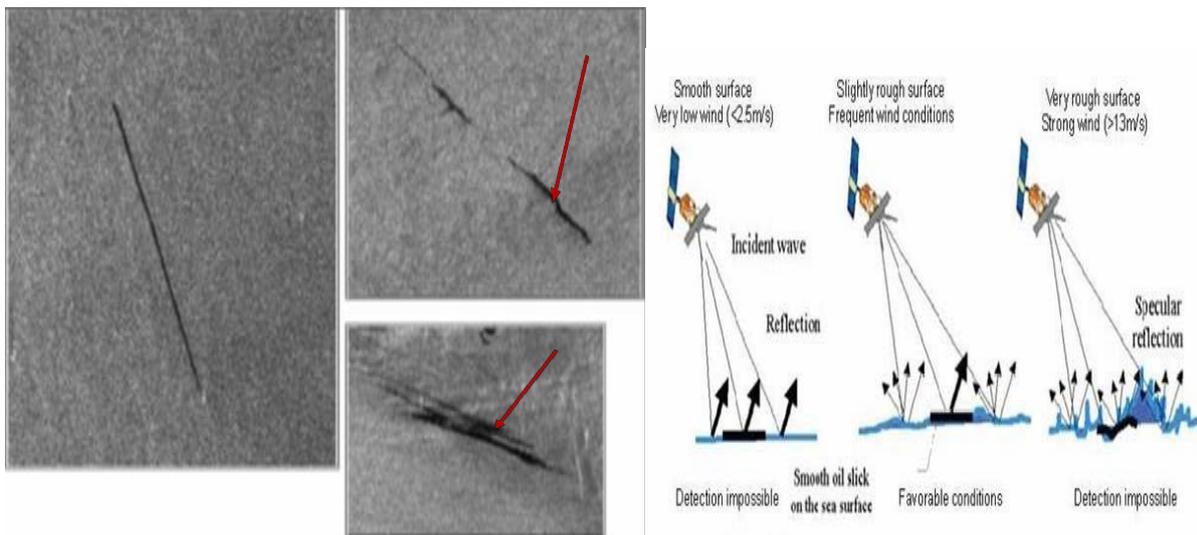


Fig 9: Slick detection condition.

SAR images require a number of processing steps before they can be interpreted properly. In the following picture, RADARSAT 1, 5 August 2012, this satellite picture is for the Northern Turkish Strait System, entry to Black Sea, before pre-processing. Processing starts with loading the SAR image into a software package which allows the pre-processing steps mentioned to be carried out. Geo-referencing, radiometric and geometric corrections and filtering are the steps that are carried out during image processing. Then classification and further analysis are carried out and checked for an oil spill in the SAR satellite image. A trained analyst makes this decision. Because the dark area in the SAR picture can be a false alert like natural surface slick by the turbulent mixing or bio-geo-chemical processes, and displacement eddy currents or simply from the wind. Certain parameters will help a trained analyst to make his decision. These parameters are total area, perimeter, roundness, general shape, degree of connectivity between patches, and more shape parameters.

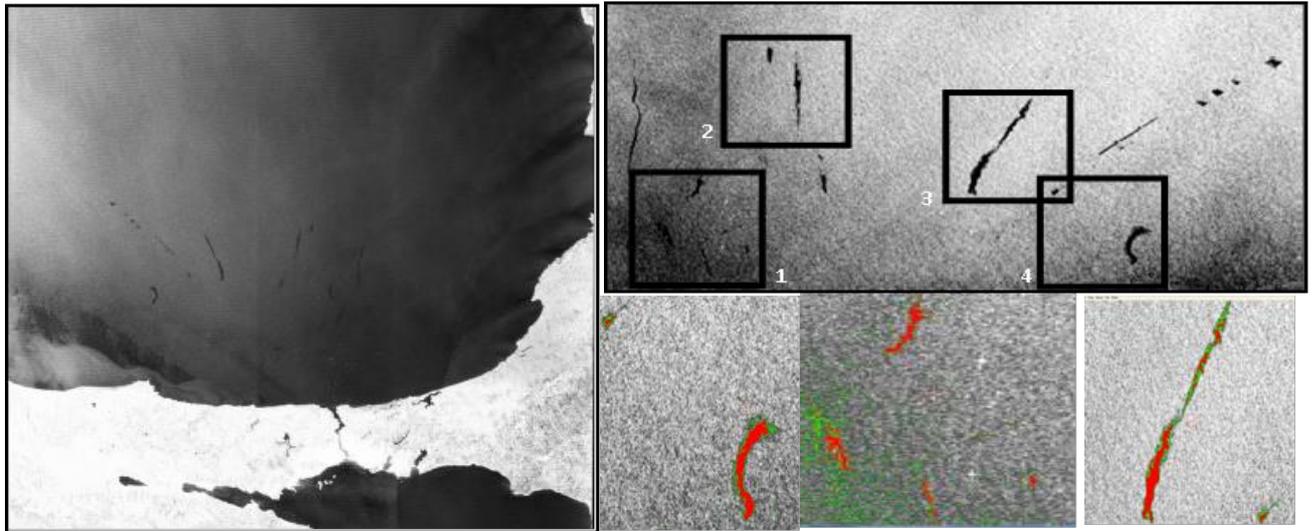


Figure 10: In the SAR image, black boxes are the possible oil spill area, RADARSAT, August 2012

6. Conclusion

With the increasing capacity of sea borne transportation, marine pollution, especially ship based oil pollution, has become one of the most important issues around world. Oil pollution with ship bilge water and sludge, or oil cargo residual and tank washing operations for tankers are considered illegal ship discharges by authorities, if these oily waters are discharged directly to the sea. Another oil spill pollution source is ship accidents that result in oil pollution. One of the most effective instruments to detect and monitor oil pollution by maritime activities is satellite remote sensing because it allows us to detect oil pollution at the sea surface over a region of a few hundred kilometres at once. It is possible to monitor near real-time, continuously or periodically for the region of interest. SAR (Synthetic Aperture Radar) which is a microwave sensor, is ideal for monitoring seas during both day and night. It is also not affected by haze, clouds and dust. However satellite remote sensing equipment is a great achievement for oil spill monitoring, it is not effective in mitigating an oil spill alone. The combined use of satellites, ships and aircraft for surveillance increases the chances of early detection of oil spills and fast clean-up operations, and the prevention further environmental damage (23).

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Risk Management by Ship Masters and Pilots

By Calvin Hunziker in conjunction with George Quick

It is widely recognized that one of the primary duties and tasks of a ship's Master is to recognize, evaluate, and minimize foreseeable risk to his vessel, cargo, and crew. In so doing, he in turn, eases the burdens on himself and insures the safe passage of his ship and its cargo.



A prudent Master will make himself or herself aware of such things as the passage plan, currents, weather, and known routing and dangers on or near said routing. These dangers include but are not limited to rocks and shoals, traffic choke points, fishing areas, and piracy. In the Pacific, since Fukushima, things such as floating trash that is capable of damaging the ships propeller or rudder if struck. In the winter and early spring, ice reports along the planned route.

The Master must also be aware of the capabilities of his officers and crew. Is that new third officer capable of standing the mid watch by themselves, or should they be shifted to a different watch until they have proven themselves capable? I, and I'm sure most of you in this room have been in a situation where you've had to sit up through the night waiting for "that phone call" from the bridge, "Captain can you please come immediately!" Unfortunately for me, the call didn't come. I felt the ship make a major course change in the South China Sea, where a course change wasn't called for, and went to the bridge, to find that the "new" mate had made a safe starboard to starboard passing situation into a dangerous crossing. His excuse was that because it was less than a two mile CPA and that at his school the instructor said that you always turn to starboard in a meeting situation. The collision was avoided but reinforced my decision not to leave him on his own.

Masters, like pilots, can make hundreds of safe passages, but they are quickly forgotten, if he makes one mistake. We have example after example of career ending situations, and we really don't have to go far back in time to bring up a few.

Captain Francesco Schettino and the Costa Concordia for example. The Master ignored the risks of passing so close to the shoreline, with a rocky peninsula at the other end of the bay. Had he stayed further off shore, or turned earlier, we would have never heard of the incident. Instead, poor risk management cost 32 lives, at least one career, the ship, and hundreds of millions of dollars.

Another example, that I was involved in, I was the pilot into the shipyard of the APL China. Caught in the remains of Typhoon Babs, instead of slowing down and riding out the storm, as did the other three vessels that were in close proximity, the Master decided that schedule was more important. Maintaining schedule cost: two days late arrival, the loss of 406 containers overboard, the destruction or damage of 1,000 other containers, and the vessel taken out of service for two weeks. Oh and yes, by the time the lawyers got done, \$100 million in damages. And as to those other three vessels that were in the same area, and slowed down? They arrived one day behind schedule and continued their voyages.

The last example I wish to raise is again one I was involved in as CAMM Vice President. On March 2, 2006 the Zim Mexico III, under the command of Captain Wolfgang Schroeder and a Mobile pilot, was shifting from pier 2 down river to another pier. During the manoeuvre, while turning the ship, using only the bow thruster, rudder and engine, the ship's bow came in contact with the leg of a container crane on the pier, knocking it over and killing a maintenance man working on the crane. The US Coast Guard, in its initial investigation, found no fault with the vessel or its equipment. Unfortunately for Captain Schroeder, an overzealous prosecutor pursued the case, charging that Captain Schroeder failed to notify the pilot that the vessel's bowthruster had failed over a year before. She had Captain Schroeder arrested three months later in Houston Texas and tried in Mobile Alabama, under the United States "Seaman's Manslaughter

Act”, where gross negligence is not necessary to gain conviction. Captain Schroeder was already tried and convicted by the time the Council of American Master Mariners learned of the case. He contacted Captain Chick Gedney on January 7, 2007, via collect phone call from jail. That set our American company, the Council of American Master Mariners, in motion to win his release. CAMM contacted IFSMA, and found that Captain Schroeder was a much decorated captain, having saved many lives in a cross channel ferry sinking off the Belgium coast. CAMM presented this information along with other to the court and with CAMM’s help and assistance, on February 7, 2007 Captain Schroeder walked out of the Mobile Alabama Federal holding facility a free man. I give this example to show the importance of belonging to both your local Masters association and to IFSMA.

Once the vessel reaches a pilot station, the risks associated with the voyage does not change, some of those risks are shifted to the pilot’s shoulders. The Master does not relinquish all responsibility, as he is bound to inform the pilot of all the problems and quirks of his vessel. He must also insure that all equipment and navigation electronics are working and continue to work properly. Failure to do so can earn the Master the same fate as Captain Schroeder mention above.

It is beyond my capability to discuss the role of the pilot under all the variations that exist globally, so this paper will only address pilotage in my region of the world - principally the USA, and to a lesser extent Canada and the United Kingdom. In the United States alone there are 25 separate Pilotage Acts in the various coastal states. Some are more extensive than others, but most follow a common concept that permits discussion of them in principle. Since the shipowner/ Master/ pilot relationship cannot be understood without reference to these national or local laws and their interpretation by the courts, I’ve placed some citations of legal authorities and other material I believe form the basis of our public policy on pilotage in the End Notes and they should be read as part of this paper.

In most areas of the United States all aspects of pilotage and the relationships between the parties are extensively regulated (1).

Although the laws and regulations are in place they are not generally well understood by shipping management and Masters, and not all pilots are as well versed as they should be in their obligations and responsibilities under our laws.

Shipping and risk have been associated since man began venturing upon the water in some ancient craft. Early on in the history of commerce the economic consequences of maritime casualties began to be managed through risk distribution with marine insurance (2). The actual causes of casualties and the physical losses of ships and cargoes, and damage to the marine environment have proven to be more difficult to manage. Construction and equipment standards can be established by a classification society. Regulations can prescribe training and competency standards for crews. But, well found ships with competent crews still come to grief along with the substandard ship and its indifferent crew. It is apparent that human error is not limited to incompetent humans and the focus of attention has shifted to methods of minimizing human error.

Well trained competent individuals can still have faulty situational awareness, imperfect judgment, insufficient experience with new situations, or be burdened with multiple tasks or problems in a crisis that overcome their ability to cope. This is not due to any shortage of laws and regulations. What we have a shortage of is an understanding of existing laws and a clear view of what practices or policies should be adopted to improve safety. This is particularly true in the current public dialogue dealing with pilotage that seeks to utilize or improve upon human relationships to minimize human error rather than relying solely on equipment or competency standards.

It is generally recognized that managing and navigating a ship upon an ocean requires a different set of skills and experience than piloting in confined waterways. In pilotage waters the workload on the bridge increases, the time between error and consequences is reduced to a very short interval, and specialized knowledge in close quarters ship handling and local conditions are required. In the confined or restricted waters of port approaches, where the margins of error are small and the activity intense, most Port States protect their interests by requiring the presence onboard of a local compulsory pilot.

Compulsory pilotage is probably one of the first systems of laws that had as their purpose a public policy to manage or reduce physical exposure to risk in an industrial or commercial endeavour. It has existed as a regulation of shipping to protect commerce, the waterways in harbour approaches, and port facilities since ancient times (3). The regulation of pilotage and the role of the pilot and his relationship with the shipowners, Masters and the regulatory authorities is complex and not easily described accurately in a few sentences. While on a global basis there are many similarities in how pilotage functions, there are also variations in national pilotage laws that have developed in consideration of public policy concerns by the legislatures and courts of separate maritime States (4).

What these local laws contain and how they are interpreted reflect the public policy decisions of the Port State on their views of pilotage as a risk management system. Although from the shipowner / Master viewpoint pilotage is a service that protects the ship from the hazards of the port, from the Ports States perspective pilotage exists to protect the ports from the hazards of the ship. Since the ship is entering the territorial waters of the Port State and accepts their sovereign jurisdiction as a condition of entry, it is the Port State that establishes the relationships between the shipowner / Master and the pilot by their laws and policies.

Depending upon the degree of control the Port State believes is appropriate, pilotage may vary from optional voluntary pilotage that is advisory in nature to compulsory pilotage where the responsibility for the direction and control of navigation is placed upon the pilot.

There has always been a tendency in shipping management to ignore the regulatory aspects of pilotage and view it as just another service for hire that should be purchased and controlled or managed like all other services. The emphasis is on the ship manager's needs or objectives, or more recently, on defining the Master/pilot relationship in terms that fit the company's "Bridge Team Management" plan or guide. They seek to define the role and function of the pilot on their own terms and conditions with their priorities or viewpoint given paramount consideration.

In North America pilotage is viewed as both a service that expedites the smooth flow of shipping and a regulatory control over shipping that reduces risk (5).

We try to emphasize that the pilots primary obligation should not be to the shipowner or Master as a private service provider, but to the public represented by the Pilot Authority that appointed him and the Legislature that created the pilotage system. The State has defined the terms and conditions of the pilots service in statutes and regulations (6). These pilotage laws do not allow the shipowner or Master to select, control or negotiate with a compulsory pilot for reasons that serve the States interests. It is recognized that the pilot's future employment should not depend upon how well he satisfies the shipowner's commercial interests. This freedom from selection and control by the shipowner and the need to negotiate terms and conditions of service insulates the pilot from the commercial pressures that could be brought to bear in a negotiated contractual agreement. As a result the pilot is at liberty and encouraged to apply independent judgment in pilotage decisions that weigh risks against commercial concerns (7).

The Master as the employee of the owner and the manager of a commercial enterprise is by necessity concerned with economic considerations and they can colour his judgment in weighing the acceptability of risks (8). To claim no responsible shipowner would pressure a Master to take undue risks ignores the fact that irresponsible shipowners have been known to exist and that many pressures are brought by agents and charterers that may have little or no shipboard experience or appreciation of the risks involved. It is part of the pilot's role to act as a buffer to those pressures and as long as he is shielded from management retaliation by the pilotage statute he can serve a vital public function (9).

On the bridge of a ship the Master/ pilot relationship might best be understood if we make a distinction between Power and Authority. Power can be defined as the ability to act without regard to the right to act, while Authority can be described as the right to act without regard to the means or ability to complete the act. At sea the Master has both the power and the authority over the ship and its crew, but on entering pilotage waters the authority to direct and control the movement of the ship shifts by operation of our laws to the pilot (10). What binds their relationship together is that the pilots authority can only be exercised in

co-operation with the Masters power to command the crew, and the Master's power to have the ship moved can only be lawfully exercised in co-operation with the pilots authority to direct and control the movement of that ship.

In order for a ship to undertake a transit in compulsory pilotage waters the power of the Master and the authority of the pilot must coincide. There must be a common agreement or concurrence between the Master and pilot on the acceptability of the intended transit, as neither can or should move without the other.

There is also a balancing of the interests involved. The Master is accountable to the flag state for his actions and represents the shipowner's interests. The pilot is accountable to the local pilotage authority and must take into consideration the Port States interest in maritime safety. In a properly regulated pilotage system there exists an understanding of the need for checks and balances in the Master/ pilot relationship and an awareness of the interests represented on the bridge of a ship underway in pilotage waters.

Confusing the issue on checks and balances in the relationship is the mistaken perception that the pilot is aboard in an advisory capacity. This is not true in actual practice in pilotage waters or in the law as applied in North America. The pilot "conducting" the ship gives all the directions concerning the ships movement and it is the Master who may advise the pilot as to the capabilities of the ship or its equipment or crew. If the Master was actually giving the directions with the pilot's advice the ship would not be under pilotage and in compliance with the local laws (11).

The distinction is important because if the pilot were merely an advisor whose assessment could be accepted or rejected at will he could not fulfil his role as an independent judge of acceptable risks. He might be persuaded to go along contrary to his personal judgment under the belief that the Master would have the final or ultimate responsibility for accepting the pilot's advice in the event of an accident.

Although no American legal decision has ever held that compulsory pilotage was advisory in nature, confusion on this issue could undermine the pilot's perception of his role. The "pilot as advisor" myth persists reinforced by the entry in some log books "Proceeding to Master's orders and pilots advice" that could have its basis outside our legal system in some decisions of the courts in Continental Europe (12).

The entry doesn't change our local laws in North America or confuse our courts after a casualty as to the actual relationship, but it may cloud the issue on the bridge as to responsibility and accountability between Master and pilot.

The law being practical and realistic recognizes that situations could arise where the Master would be justified in displacing a compulsory pilot and court decisions dealing with the issue have developed guidance. If the pilot is manifestly incompetent, or is intoxicated or otherwise incapacitated, or if the pilot's actions are placing the ship in dear and imminent danger the Master can intervene and if the safety of the ship is in jeopardy he has a duty to intervene (13).

Although it is understood that the Master can displace a pilot for cause and never relinquishes responsibility for the safety of his ship, that does not mean he has unbridled discretion to substitute his judgment for that of the pilot or relieve the pilot at will (14). If the Master acts to displace the pilot he is not free to proceed on his own, but must request another pilot or resolve the issues with the pilot onboard before proceeding. As a practical matter if a differing judgment on a situation arises the Master will express his concern and the matter resolved before any imminent danger arises.

Since there is confusion over the difference between authority, responsibility and liability any discussion of the shipowner/ Master/ pilot relationship needs to address the issue of liability for damages that occur while a ship is under compulsory pilotage. At one time the courts of the United Kingdom, Canada and the United States applied general principles of Agency Law and absolved the ship from liability for damages caused solely by the actions of a compulsory pilot. Since the shipowner did not have selection or control over a compulsory pilot there was no Master/ servant or agency relationship that could attribute liability to the ship for the acts of the pilot. Considering the extremely high monetary losses that can be sustained in a maritime casualty and the relative financial resources of the shipowner, ship, cargo and pilot it was

clear that the application of pure legal theory limiting the liability of the “deep pockets” in the relationship created a dilemma for damaged parties. In comparison to the potential liability pilots were the proverbial “shallow pockets” and a damaged party was left with no effective recourse after collision if it could be proved the compulsory pilot was solely at fault.

This obvious injustice and the conflicts between the laws of different maritime nations on how they handled the liability of shipowners and ships when a ship was under compulsory pilotage was resolved in the Brussels Convention of 1910 which provided in part (15):

“liability.....shall attach, in cases in which the collision is caused by the fault of a pilot, even when carrying of the pilot is obligatory”

The United Kingdom conformed their pilotage laws to the provisions of the Brussels Convention in the Pilotage Act of 1913. That Act also went one step further and placed a limitation on the liability of a compulsory pilot with the result that the ship became the primary source of compensation for damages. The compulsory pilot remained liable in theory but his financial contribution was limited to a nominal amount. Canada followed the lead of the United Kingdom. The United States through a combination of court decisions and legislation have arrived at the same result, though not all States have limited the liability of the compulsory pilot to the same extent as the United Kingdom and Canada.

The rationale of placing liability on the ship regardless of the status of the pilot is consistent with modern public policy in areas of distributing the cost of risks in industrial activities. The economic consequences of industrial accidents are a cost spread over society through the medium of insurance. The cost of insurance is a factor in the final price of a product or commodity and passed on to the ultimate consumer or society as a whole. Underlying the decision of whether the ship or the pilot shall be financially liable for the consequences of an accident is the policy decision of whether the cost of insurance should be passed through the ship side of the relationship or through the pilot side. The pilot fees that support the pilotage system are paid by the ship and any insurance costs needed to cover pilot liability would by necessity be passed on or accounted for in a substantial increase in pilotage costs. It is unlikely the insurance premiums for the ship would be reduced a like amount if the pilot also carried liability insurance and the net result would be the ship paying twice for the same covered risk. Also entering into the rationale is the issue of proportionality. Spreading the cost of insurance over the relatively large revenue base of the ship has a minimal impact on operating costs, placing the same costs on relatively low pilotage fees would have a dramatic impact and distort the economics of providing an effective service. While pilotage is a good way to minimize physical risks, it would be a poor vehicle for distributing the economic consequences of casualties.

The present relationship between shipowner/ Master and pilot has evolved over centuries as one of the primary means of Port States protecting their interests in maritime safety (16). The law is settled and how it operates should be acknowledged and form the starting point for any discussion of improvements in pilotage procedures (17). Some in the industry do not have a full appreciation of the present role compulsory pilotage plays in managing risk through checks and balances in the Master/ pilot relationship and want to begin restructuring and managing the relationship through new globally applied International regulations (18).

Aside from our reservation that pilotage is primarily a Port State responsibility that regulates shipping on territorial waters under a right of sovereignty; pilotage is an area where we feel it is not appropriate to act hastily in mandating by regulation global solutions. The world contains a great deal of cultural, political, economic and legal diversity. The issues and consequences are not sufficiently well understood by all parties to the dialogue and there is no common agreement as to the extent of any problem or the appropriate solution.

Any change in bridge procedures for pilots have to be based on concepts or principles that recognize the real conditions found aboard ships in the international maritime world. They cannot be based upon an idealized view of operating conditions that supposedly exist on the ships of some tightly managed shipping companies. Without going into a discussion of the many problems that effect international shipping, it is sufficient to say that there is a wide disparity in both personnel and equipment standards found aboard ships

transiting pilotage waters. The overwhelming majority of ships are under flags of convenience offering the least regulation and taxation. Many operate under economic competition that rewards owner with the smallest and lowest cost crews who invest the least physical plant and maintenance. It has been my observation over the years that the tramp or bulk sector of the industry generally gravitates towards the lowest cost areas of the world for crews, and maintains equipment to the minimum that will satisfy the regulatory demands imposed upon them. They are not driven by a search for quality, but rather a need to survive in a ruthlessly competitive economic environment. The liner trades differ in that quality of service may be a factor in competition that could justify the cost of maintaining standards. The oil companies have only recently changed from a tramp mentality that favours the lowest cost operator to a recognition that quality may be worth a premium. The motivation has not been idealism, but rather the public outcry directed towards them after high profile accidents, and in the United States, the strict liability imposed upon them by Congress in The Oil Pollution Act of 1990.

Becoming proactive in improving standards and widening the circle of responsibility to include pilots, port authorities, terminal operators, VTS operations, channel maintenance and navigation aids, and all the various regulatory agencies in the circle of blame after a casualty appears to some of us as a public relations strategy to reduce the focus on the tanker owner after a casualty. We are sympathetic to their plight, but fear the dialogue of change is being driven by the wrong agenda.

We suspect that therein lies the recent impetus for Intertanko's campaign on pilotage and for acknowledging shared responsibility and the involvement of the pilot in a Team effort. What concerns pilots is that a system of checks and balances based on concurrent responsibility of the Master and pilot is already in place under existing pilotage procedures and laws. It only needs to be fully recognized and implemented properly with some minor adjustments to become more effective.

In the dialogue that has taken place up to this point between the ship management side of the industry and pilot representatives it is very apparent that there is not a common understanding of the role and function of the pilot. This is of great concern to us as it is possible that operational procedures could be recommended, or even mandated, based on notions of the pilots role that from our perspective are clearly wrong and potentially damaging to effective pilotage systems. It is absolutely essential that before any discussion of operational procedures takes place, that we reach a common understanding on the role and function of the pilot. Recognizing how pilots are regulated, the purpose of pilot associations, why the pilot is on the Bridge, what he actually does, and how he goes about doing it has to be a priority that comes before discussion of operational routines or procedures to be followed. In an attempt to begin dosing this gap in perceptions so that a dialogue can begin from a common basis the American Pilot Association adopted a policy statement on the respective roles of the Master and pilot that can be found in the Endnotes (18).

A very difficult communications problem arises if we are in fact discussing the role and function of the pilot in the guise of procedures. Once a common understanding is reached and we have a shared concept of the pilots role a productive dialogue may be possible on Bridge Procedures or Resource Management, the Master/ Pilot Information Exchange, Pilot Passage Planning and other issues.

I believe it is possible to make a very substantial improvement in maritime safety if shipping management and pilots can bridge the communications gap and begin discussions from a common viewpoint and I look forward to participating.

ENDNOTES

The legislature of the State of Florida in the Preamble to its Pilotage Act expressed their public policy concerns in the following statutory language:

“310.001 Purpose:

The Legislature recognizes that the waters, harbours, and ports of the state are important resources, and it is deemed necessary in the interest of public health, safety, and welfare to provide laws regulating the piloting of vessels utilizing the navigable waters of the state in order that such resources, the environment, life, and

property may be protected to the fullest extent possible. To that end, it is the legislative intent to regulate pilots, piloting, and pilotage to the full extent of any congressional grant of authority, except as limited in this chapter.

310.0015 Piloting regulation; general provisions-

Piloting is an essential service of such paramount importance that its continued existence must be secured by the state and may not be left open to market forces.

Because safety is the primary objective in the regulation of piloting by the state and because of the significant economies of scale in delivering the service, the requirement of a large capital investment in order to provide required service, and the fact that pilots are supplying services that are considered to be essential to the economy and the public welfare, it is determined that economic regulation, rather than competition in the marketplace, will better serve to protect the public health, safety, and welfare.

The rate-setting process, the issuance of licenses only in numbers deemed necessary or prudent by the board, and other aspects of the economic regulation of piloting established in this chapter are intended to protect the public from the adverse effects of unrestricted competition which would result from an unlimited number of licensed pilots being allowed to market their services on the basis of lower prices rather than safety concerns. This system of regulation benefits and protects the public interest by maximizing safety, avoiding uneconomic duplication of capital expenses and facilities, and enhancing state regulatory oversight. The system seeks to provide pilots with reasonable revenues, taking into consideration the normal uncertainties of vessel traffic and port usage, sufficient to maintain reliable, stable piloting operations. Pilots have certain restrictions and obligations under this system, including, but not limited to, the following...

CHAPTER 310, FLORIDA STATUTES

“Marine insurance is the oldest form of indemnity of which there is any record..... Several nations have claimed the honour of having invented this system of indemnity, but the best evidence indicates that the Jews, at the time of their banishment from France in the latter part of the twelfth century, introduced such a scheme of insurance for the protection of their property during its removal from France. Villani, a fourteenth-century historian, is the authority for this theory, stating that the system was devised in Lombardy in 1182. Whether this is correct or not is of little moment..... the fact remains that early in the development of commercial intercourse the need arose for some system of distributing marine losses, and the present method of insuring came into use.”

MARINE INSURANCE. ITS PRINCIPLES AND PRACTICE. 2nd EDITION WILLIAM D. WINTER. MCGRAW-HILL BOOK CO.

“For as long as men have taken to the sea, pilots have guided their journeys.

Pilots were known to antiquity, and rules for their conduct were provided as early as Roman times and the middle ages. The first instance of mandatory pilotage was probably made in the Ordonances de Wisbuy, a set of rules propounded by Danish authorities in the twelfth century. In the sixteenth and seventeenth centuries, all the major maritime nations of Europe had some law or regulation providing for the mandatory pilotage of vessels in certain areas. In England, the history of organized pilotage began with the chartering of Trinity House by King Henry VIII in 1514. The first case of a collision involving a compulsory pilot in charge of a vessel arose in England twenty-seven years later, in 1541.”

COMPULSORY PILOTAGE. PUBLIC POLICY. AND THE EARLY PRIVATE INTERNATIONAL LAW OF TORTS. DAVID J. BEDERMAN VOL 64. TULANE LAW REVIEW, 1041

“This consideration of what made pilotage compulsory revealed that nineteenth-century authorities self-consciously weighed matters of public policy. They realized that any policy must answer three elemental questions: Who benefits? Who decides? and Who pays? As discussed above, the risks of unaided navigation into busy and crowded ports far outweighed the costs of instituting a system of compulsory pilotage. The

entire maritime community benefited from such a system: port authorities, vessel and cargo owners, and innocent bystanders alike.

Compulsory pilotage was, therefore, a risk distribution mechanism. It was also a tax because the system of compulsory pilotage was imposed by a sovereign through statutory enactment. In short, it was the government that decided whether the benefits outweighed the risks. In its taxation aspects, compulsory pilotage law also manifested some transnational tendencies. The very character of maritime commerce required extraordinary sensitivity to the realities of competition. The tax of compulsory pilotage imposed on foreign and non coastal vessels, if pegged too high, could drive shipping away from a nation's ports. As it turned out, all the principal maritime nations of the world weighed the costs and benefits in much the same way and imposed policies of compulsory pilotage."

COMPULSORY PILOTAGE. PUBLIC POLICY. AND THE EARLY PRIVATE INTERNATIONAL LAW OF TORTS, DAVID J. BEDERMAN VOL. 64. TULANE LAW REVIEW. 1046.

In discussing the justification of compulsory pilotage in Canada the "The Royal Commission on Pilotage" commented:

"From the service point of view, pilotage has been defined as the ultimate means to enhance safe and speedy transit of ships through confined waters. It is a public service in the full sense of the word when it is controlled, maintained or provided primarily to serve the superior interests of the State; it is a private service when its main purpose is to serve private needs, but safety remains the principal aim in both cases: in the former, "safety or navigation" through Canadian waterways; in the latter, "safety of the ship", including safety of privately owned port installations."

CANADA. REPORT OF THE ROYAL COMMISSION ON PILOTAGE. PART 1. Pa. 473

The United States Supreme Court in a landmark case involving the nature of pilotage regulation stated:

"The State pilotage system, as it has evolved since 1805, is typical of that which grew up in most seaboard states and in foreign countries. Since 1805 Louisiana pilots have been State officers whose work has been controlled by the State. That Act forbade all but a limited number of pilots appointed by the governor to serve in that capacity....."

Thus in Louisiana, as elsewhere, it seems to have been accepted at an early date that in pilotage, unlike other occupations, competition for appointment, for the opportunity to serve particular ships and for fees, adversely affects the public interest in pilotage."

KOTCH v. BOARD OF RIVER PORT PILOT COM'RS. (67 S.Ct. 910)

(7.1) After conducting hearings throughout Florida a Report to the Florida Senate contained the following recommendation:

A. Competition Among Pilots

A shipowner incurs economic loss when a vessel is substantially delayed in entering or leaving a port. Movement of a vessel through a port is impacted by weather conditions, winds, currents, tides, nature of cargo, port traffic, and visibility, together with draft limitations due to channel depths. Conservative assessments of the above conditions can be costly. In addition, the heavier the vessel, the greater the draft, and also the greater profit to the shipowner. However, the greater the draft, the lesser the keel bottom clearance, and therefore, the greater the opportunity for grounding or hull damage and accident.

Consequently, the pilot is constantly called upon to weigh the competing considerations of safety versus cost to shipowner. The state interest is best served if the safety factor is given priority over the shipowner's profit and loss statement.

Consumers of pilot services are foreign flag vessels entering ports of the state whose owners are concerned with profits. There is a significant conflict of interest between a vessel owner's economic needs and the public interest in safe passage. It is in the public's best interests for the pilot's judgment to be absolutely free of economic consideration to the shipowner when piloting his vessel. If pilots must compete against one another to win assignments, there is likelihood that a pilot will compromise safety considerations in order to accommodate the financial interest of the shipowner, for in so doing, he will have a competitive edge over another pilot."

SUNSET REVIEW OF CHAPTER 310. FLORIDA STATUTES. PILOTS. PILOTING AND PILOTAGE
- JUDGE JOHN J. UPCHURCH. SPECIAL MASTER

BY APPOINTMENT OF HONORABLE HARRY JOHNSTON, PRESIDENT, FLORIDA SENATE

(7.2) In another decision of the United States Supreme Court dealing with the relationship between shipowners, Masters and pilots it was decided:

"Pilots hold a unique position in the maritime world and have been regulated extensively both by the State and Federal Government. Some state laws make them public officers, chiefly responsible to the State, not to any private employer. Under law and custom they have an independence wholly incompatible with the general obligations of obedience normally owed by an employee to his employer. Their fees are fixed by law and their charges must not be discriminatory. As a rule no employer, no person can tell them how to perform their pilotage duties."

BISSO v. INLAND WATERWAYS CORP. (349 U.S.85)

In discussing human factors and their impact on ship casualties Mr. William O. Gray when managing safety for the Exxon Corporation stated:

"The in-depth survey provided several instances where risk taking contributed to a casualty or near casualty. For instance, when asked to select among 12 criteria used by companies for grading a captain's performance, 40 percent of those responding to the question indicated that making schedules was the prime criterion. When asked how companies feel about meeting schedules in poor conditions, 50 percent of those responding said that there was strong pressure to meet schedules. Almost all of those responding reported sailing on a ship that they personally knew to be unseaworthy.

Perhaps the most revealing disclosure from the interviews was that of a company that in 1969 dropped a safety program that offered a good bonus to tugs and crews with the least accident claims, because the program resulted in decreased productivity and a slowdown in task completion."

OIL COMPANIES INTERNATIONAL MARINE FORUM. SAFE NAVIGATION SYMPOSIUM.

SESSION 2. PAPER NO. 3. HUMAN FACTORS BY W. GRAY. PRESENTED AT WASHINGTON. D.C.
17-18 JANUARY. 1978.

In a position paper submitted to the International Maritime Organization (IMO), INTERTANKO has acknowledged that commercial pressures on pilots have caused accidents and that there is a need for pilotage systems to insulate pilots from such pressures:

"There is a further aspect of responsibility which INTERTANKO would like to see addressed within this sub-committee, and that is that a pilot should never be put under commercial pressure to make any decision which may be counter to the safe judgment of the pilot. In the past, a number of accidents can be attributed to such influence upon a pilot. The pilot must have support from the pilotage system to ensure that the pilot's assessment overrides any commercial requirements and the pilot is not under any pressure to bend to commercial requirements. This would be in addition to the comments made in Resolution A.485, Annex 2, paragraph 5, regarding the right of a pilot to refuse to pilot a ship he considered unseaworthy, which should also be addressed."

IMO PAPER. STW 29/7/5. SUBMITTED BY INTERTANKO, 10 NOVEMBER, 1997

United States Supreme Court Justice Learned Hand discussed the role of the pilot in the following decision:

“It is of course true that a master does not surrender his ship to a pilot and that there remain occasions when he must interfere and even displace him. The first case, so far as we know, came up in England in 1817, soon after the compulsory pilotage act was passed. (*The Gipsy King*, 2 W. Robinson 537). It chanced to concern the proper catting of an anchor on a vessel in charge of a pilot, and Dr. Lushington, in excusing the owner because the catting was the pilots spoke as follows (p. 547):

“It is, I apprehend, an established principle of law that the mode, the time, and place of bringing a vessel to an anchor, is within the peculiar province of the pilot who is in charge.”

Only three years later the Privy Council, speaking through Baron Parke (*The Christiana*, 7 Moore P.C. 160, 172), said of a compulsory pilot:

“It was his sole duty to select the proper anchorage place, the mode of anchoring and preparing to anchor.”

And still earlier on the same page:

“The Pilot has, unquestionably, the sole direction of the vessel in those respects where his local knowledge is presumably required; the direction, the course, the manoeuvres of the vessel, when sailing, belong to him.”

In 1857 Dr. Lushington in *The Argo*. Swabey, 462, announced the limitation upon this which is generally accepted and which the Supreme Court recognized obiter in *The China*: and again in somewhat truncated form in *The Oregon*. It was this:

“a master has no right to interfere with the pilot, except in cases of the pilots intoxication or manifest incapacity, or in cases of danger which the pilot does not foresee, or in cases of great necessity.”

He said further:

“The navigation of the ship is taken out of the hands of the master and transferred to the pilot.”

UNION SHIPPING V. U. S. 127 F. 2D 775 (1942)

(11.1) The “Report of the Royal Commission on Pilotage” contains a detailed analysis of the British and Canadian statutory definition of the term “pilot”:

“pilot” means- any person not belonging to a ship who has the conduct thereof.”

The Royal Commission further considered the meaning of the word “conduct” and decided it means:

“to have charge and control of navigation; in other words, of the movement of the vessel. Similarly, if anyone is merely used as an advisor and not entrusted with the navigation of the ship, he is not the pilot of that ship.”

The Royal Commission, after reviewing the actual practices followed aboard ship concluded:

“The pilot does not act as an advisor to the Master but actually navigates the ship. In point of fact the Master is then, to a certain extent, an advisor to the pilot when he points out the peculiarities of the ship. This factual situation which corresponds to the legal definition of ‘pilot is, in fact, the only realistic solution because, if pilots were used merely as advisors, navigation would be very hazardous and, at times, it would be impossible to proceed safely..... The first course a ship is committed to is frequently the last. If bad judgment has been used, the result is inevitable and swift..... The legislation of most countries recognizes the realistic situation that there is not time for advice, consultation and deliberation between

the pilot and Master and that the pilot must navigate the vessel himself. How this situation is covered in legislation is a question of semantics ...”

CANADA, REPORT OF THE ROYAL COMMISSION ON PILOTAGE. PART 1. PG. 22. ET SEQ.

(11.2) See also a legal reference which defines “conduct’ as follows:

“Conduct (verb): A regulation having statutory force which provides that a ship is to be conducted by a pilot does not mean that she is to be navigated under his advice; it means that she must be conducted by him, and that makes pilotage compulsory”

WORDS AND PHASES LEGALLY DEFINED. SECOND EDITION. SAUNDERS

(12) In comparing the pilotage laws of Continental Europe with those in Britain and North America the following observation was made:

“Under the mercantile practice of most European nations, a pilot, even though required by law, was deemed only advisory and was never considered to supersede the authority of the master. In this sense, compulsory pilotage was unknown in continental Europe.” COMPULSORY PILOTAGE. PUBLIC POLICY. AND THE EARLY PRIVATE INTERNATIONAL

LAW OF TORTS. DAVID J. BEDERMAN. VOL 64. TULANE LAW REVIEW. 1060

(13.1) The United States Supreme Court in discussing the pilots role in maritime commerce stated:

“Now, a pilot, so far as respects the navigation of the vessel in that part of the voyage which is his pilotage ground, is the temporary master charged with the safety of the vessel and cargo, and of the lives of those on board, and entrusted with the command of the crew. He is not only one of the persons engaged in navigation, but he occupies a most important and responsible place among those thus engaged.”

COOLEY V. BOARD OF WARDENS, 12 HOW(US) 288. 13 L ED. 996 (1851)

(13.2) In a later United States Supreme Court decision the role of the pilot was described in the following words:

“To the pilot, therefore, temporarily belongs the whole conduct of the navigation of the ship, including the duty of determining her course and speed, and the time, place and manner of anchoring her.....But the master still has the duty of seeing to the safety of the ship, and to the proper stowage of the cargo. For instance, the duty to keep a good lookout rests upon the master and crew.”

RALLI V. TROOP.1 US 386, 15 S. CT. 657 (1894)

(13.3) In a case involving the role of the pilot the Supreme Court of the State of Washington commented:

“A pilot while in charge of a ship supersedes the master, in so far as the navigation of the vessel is concerned, but the master is at all times in command, and may and should advise with the pilot, and can displace him in case of intoxication or manifest incompetence. Any power of command exercised by the pilot is limited to the navigation of the ship.... While exercising his functions a pilot is in sole control of the navigation of the ship, and his orders

must be obeyed as in effect orders of the master. But the master is still in command of the vessel, as distinguished from its navigation, and may properly displace an obviously incompetent or intoxicated pilot, although he is not bound to do so unless the pilot is making an obvious mistake.”

GRAYS HARBOR V. THE BRIMANGER, 18 P. 2D 29 (1933)

(14.1) G. K. Geen, the author of “The Law of Pilotage,” includes in his excellent work a review of the British case law on the division of control between the master and pilot. He has concluded:

“The attitude of the courts to the master-pilot relationship is based on precedents created more than a century ago, the guiding principle of which has been throughout that the paramount danger to a ship under pilotage is that created by a ‘divided authority.’ Attention was drawn to this danger on innumerable occasions, but was perhaps put most succinctly by Dr Lushington in the case of THE PEERLESS in 1860:

‘There may be occasions on which the master of a ship is justified in interfering with the pilot in charge but they are very rare. If we encourage such interfering, we should have a double authority on board, a ‘DIVISUM IMPERIUM’, the parent of all confusion, from which many accidents and much mischief would probably ensue. If the pilot is intoxicated, or is steering a course to the certain destruction of the vessel, the master no doubt may interfere and ought to interfere, but it is only in urgent cases.’”

G. K. Geen then goes on to analyze and cite British cases pertaining to the general duties of the master and pilot regarding the legal meaning of interference, keeping a lookout, observance of collision regulations, sound signals, private sound signals, whether to proceed, anchoring, speed, and the use of radar.

From his analysis, it is apparent that the British and American law respecting the role and function of a compulsory pilot are consistent. He is to be placed in navigational control of the ship and give all orders effecting the navigation of the ship, i.e., rudder orders, courses, speed, anchoring, weighing anchor, whistle signals, and the like. He is entitled to the cooperation of the master and crew, and they are to see that his orders are carried out and are not to interfere with his control of the navigation unless the pilot is manifestly incapacitated, incompetent, or placing the ship in dear and imminent danger.

THE LAW OF PILOTAGE. GEEN. G.K., LLOYD’S OF LONDON PRESS, 1977

The Brussels Convention of 1910 is officially titled:

“INTERNATIONAL CONVENTION FOR THE UNIFICATION OF CERTAIN RULES OF LAW WITH RESPECT TO COLLISIONS BETWEEN VESSELS”, SEPT. 23, 1910

Reprinted in 6 Bender on Admiralty at 3-11

In still another United States Supreme Court decision dealing with the role of the pilot it was recognized that:

“Studies of the long history of pilotage reveal that it is a unique institution and must be judged as such. In order to avoid invisible hazards, vessels approaching and leaving ports must be conducted from and to open waters by persons intimately familiar with the local waters. The

pilot’s job generally requires that he go outside the harbour’s entrance in a small boat to meet incoming ships, board them and direct their course from open waters to the port. The same service is performed for vessels leaving the port. Pilots are thus indispensable cogs in the transportation system of every maritime economy. Their work prevents traffic congestion and accidents which would impair navigation in and to the ports. It affects the safety of lives and cargo, the cost and time expended in port calls, and in some measure, the competitive attractiveness of particular ports. Thus, for the same reasons that governments of most maritime communities have subsidized, regulated, or have themselves operated docks and other harbour facilities and sought to improve the approaches to their ports, they have closely regulated and often operated their ports’ pilotage system.”

KOTCH V. BOARD OF RIVER PORT PILOT COM'RS. (67 S.CT. 910)

In a case where a shipowner stubbornly refused to acknowledge the effect of pilotage laws, a federal court judge was moved to comment:

“To be sure, state compulsory pilotage is not a body of law familiar to most legal practitioners, much less one at the forefront of public attention. Yet it is not a particularly difficulty body of law. Indeed, unlike the state of flux that characterizes many areas of contemporary law, pilotage law is remarkably straightforward and firmly established.” JACKSON V. MARINE EXPLORATION CO. INC. 583 F. 2D 1350 (1978)

Resolution adopted by the Board of Trustees of the American Pilots' Association on October 8, 1997.

AMERICAN PILOTS' ASSOCIATION

The Respective Roles and Responsibilities of the Pilot and the Master

Navigation of a ship in United States pilotage waters is a shared responsibility between the pilot and the master/bridge crew. The compulsory state pilot directs the navigation of the ship, subject to the master's overall command of the ship and the ultimate responsibility for its safety. The master has the right, and in fact the duty, to intervene or displace the pilot in circumstances where the pilot is manifestly incompetent or incapacitated or the ship is in immediate danger (“in .extremis”) due to the pilots actions. With that limited exception, international law requires the master and/or the officer in charge of the navigational watch to “cooperate closely with the pilot and maintain an accurate check on the ship's position and movement.”

State-licensed pilots are expected to act in the public interest and to maintain a professional judgment that is independent of any desires that do not comport with the needs of maritime safety. In addition, licensing and regulatory authorities, state and federal, require compulsory pilots to take all reasonable actions to prevent ships under their navigational direction from engaging in unsafe operations. Because of these duties, a compulsory pilot is not a member of the bridge “team.” Nevertheless, a pilot is expected to develop and maintain a cooperative, mutually-supportive working relationship with the master and bridge crew in recognition of the respective responsibility of each for safe navigation.



Valparaiso City

Optimization of the Operation of Modern Sea Container Terminal

Dimitar G. Dimitrov, Bulgarian Shipmasters Association.

Summary

The handling of containers in the ports of the world, the rate of loading and discharging became a key factor of the success of the carriage of containers at sea. In order to attract more customers the container lines and port terminals have to cut the transit times and the time the ship is operated in the port. At the same time the rapid expansion of the carriage of containers requires better planning of the operations and use of advanced technologies either to handle the containers in the port or to plan the operations. The dissertation is an attempt for all the above said problems to be analyzed based on the experience of the operations in the port of Varna. The research consists of three main parts and conclusion.



The first part is a detailed study of the essence and basic characteristics of modern container terminals with the principal elements of the hardware – container yard, quay, auxiliary buildings, ship-to-shore cranes, terminal machines; lift trucks, reach stackers, straddle carriers, rubber machine gantry cranes, rail mounted gentry cranes, etc. and software of the terminal – organization of the operations, computer based systems and automation. An integral part of that study is the electronic processing of the information and the development of the existing means of exchange of information and standards for electronic data interchange (EDI).

The second part of the dissertation includes the theoretical methods and approaches to the problem either in Bulgaria or worldwide.

The essential part of the research is the third part which is subdivided into several subtitles with analysis of the disposition of containers at the container yard when using different machines, traditional ways of location of containers and author's original ideas with comparison of the possibility of the yard to accommodate maximum number of TEUs and a method to calculate that number with criteria and indicators how to evaluate the usage of the territory of the yard. Various statistics had been made in the port of Varna East. During 2005 the number of containers in the yard of Varna East had been registered daily and the data strings had been analyzed in order for the principal conclusions to be extracted.

The fourth part is the conclusion combining the theoretical and practical deductions into one scientific contribution which is the definition of coefficients for comparative analysis of utilization of the container yard area K11, K12 и K13 and determination of their values for different existing container terminals altogether with their influence for effective operation of the container terminal. Several practical conclusions had been made about operation of a container terminal in principal and proposals for the effective planning and operation of the handling of containers in the port of Varna. Indexes of the terminal area for one teu, container disposition area, maneuvering area and their correlation are defined as well as average distance for taking out containers from the yard, average number of moves to take out containers from container yard. Their meaning is determined when using different terminal machines and different patterns of disposition of the containers in the yard. The structural elements of a modern container terminal are defined and systemized in a scheme together with subdivision of the container yard in stacks and blocks. Based on the dynamics of the number of the containers situated daily at the container yard in Varna East a suggestion had been made for the area of the container yard which should accomodate 20 percent more than the average number of containers simultaneously in the yard.

SAR Round Table in Bulgaria

By Dimitar G. Dimitrov, Bulgarian Shipmasters Association.

The international round table on “Balance of responsibilities of the national and local authorities in solving the problems of search and rescue (SAR) in the SAR responsible area of the Republic of Bulgaria”



The participants of the round table note with respect and gratitude the support of the Regional Administration in Varna, Community of Varna, Bulgarian Port Infrastructure Company, Executive Agency Maritime Administration, Industrial Group Mc Murdo – SAR equipment manufacturer and the hospitality of the Naval Academy “N. Y. Vaptzarov” and consider their invaluable contribution the round table to take place as well as BULSAR involvement to attract the interest of the International Maritime Rescue Federation (IMRF) granting information and guidelines in SAR thanks to the Chairman of IMRF captain Michael Vlasto and the Executive Director of IMRF captain Bruce Reid representing best practices in SAR worldwide.

The participants note the following:

Reconfirm the importance of the Memorandum of the round table dated 22/23rd March 2012 “Best Practices for Maritime Search and Rescue” and “Doc. GA41/EC40/REC131/13; RECOMMENDATION-131/2013” of the Parliamentary Assembly of the Organization of the Black Sea Economic Cooperation where there is a statement noting “The Parliamentary Assembly of the Black Sea Economic Cooperation (PABSEC) recognizes that the need to improve the response time and coordination capabilities for search and rescue (SAR) operations within the Black Sea region not only derives from national and international requirements, but also from the increasing volume of shipping activity in the region. Statistical projections indicate that any potential increase in the number of maritime emergencies and the number of people at risk, and correspondingly in the number of SAR operations, will require preventive management strategies by the Black Sea SAR Authorities.” Based on the above, the participants of the Round Table urge governmental, local authorities and other institutions in the Republic of Bulgaria responsible for the maritime search and rescue, to speed up the application of the outcome of the 2012 Memorandum and PABSEC guidelines;

Urge the Prime Minister as the person responsible as per article 62 (1) and (2) of the Law on the Accident Protection, to order the Ministry of Transport, Communications and Information Technologies, Ministry of Internal Affairs (General Directorate Fire Fighting and Average Protection, Border Police and others in the Ministry of Internal Affairs), Ministry of Foreign Affairs, Ministry of Jurisdiction, Ministry of Defence, specialized maritime non-governmental organizations and maritime trade unions and other administrations concerned with the transport, social and other safety issues in any degree and in particular with the safety of life at sea, protection of the marine environment and critical maritime and coastal infrastructure bearing direct responsibilities to the maritime search and rescue, to undertake quick and adequate measures for prompt application of the practices and outlines of the above quoted 2012 Memorandum;

Actions in that direction should ensure, in short time, effective implementation of the international responsibilities of the Republic of Bulgaria in maritime search and rescue and harmonization of the national legislation with the International Convention of the United Nations on the Law of Sea 1982, International Convention on the High Seas 1958, IMO Convention on Safety of Life at Sea (SOLAS), Maritime Search and Rescue (SAR-79), ICAO convention on commercial aviation and its annex 12, as well as International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) of IMO and ICAO;

In order for better coordination between different authorities and administrations to be achieved and in favour of an amendment of the “Universal Emergency Assistance System” of Bulgaria with the maritime section, including Maritime Search and Rescue (SAR), protection of marine environment, critical

infrastructure, rendering assistance at sea and salvage of ships in distress recommend parties in the Parliament and Ministry of Transport, Communications and Information technology of the Republic of Bulgaria as authority personally engaged with operational organization and actions in search and rescue at sea, to initiate amendments to the national maritime legislation to be harmonized with the international obligations of the Republic of Bulgaria and follow up of the international maritime and aeronautical search and rescue instruments in which Bulgaria is a party to as stated in the Law of the International Agreements of the Republic of Bulgaria (art. 26) – “The obligations which come from an international agreement in which Bulgaria is a party to should be implemented conscientiously without prejudice to which national competent authority has signed the agreement”

Confirm the readiness of the non-governmental sector (Bulgarian Chamber of Shipping, Bulgarian Shipmasters’ Association, BULSAR, Seafarers’ Trade Union, Ecology Organization and Naval Academy “N. Y. Vaptzarov” to participate in the settling down of the above mentioned problems and together with the Community of Varna and Executive Agency Maritime Administration to prepare a feasibility study for accumulation of resources for the recovery of the required means and structure as per the Law on the Maritime Spaces and Inland Waterways and Ports of the Republic of Bulgaria, art. 65 (1) and the Law on the Emergency Protection (art. 2 in the Appendix and § 1. (7) - “Special forces and resources”) and especially the search and rescue forces in the Bulgarian search and rescue responsible area including putting back into operation of the salvage ship “Perun” and fire fighting ship “Mizar” as well as training, coordination between different participants in the process and other essential functional obligations and responsibilities.

The participants consider:

Executive Agency Maritime Administration of the Ministry of Transport, Communications and Information Technology to update the existing “National Search and Rescue Plan 04” and coordinating different authorities and organizations to propose Ordinance of the Council of Ministers for its implementation in the National Emergency Plan

Propose on the grounds of art. 24 of the Act of Establishment of the Council of Ministers and its Administration, implemented with the Ordinance 229 of the Council of Ministers in 2009, representatives of the non-governmental sector such as Bulgarian Shipmasters’ Association, BULSAR and Seafarers’ Trade Union to be included in the Order CM № P-142 / July, 08th 2014 in the interdepartmental group for harmonization of the national legislation concerning a universal emergency system of the Republic of Bulgaria.



The organising team from Nautilus (Chile)

Shackleton Crew rescued by Pardo, 100 years later

Capt Juan Gamper, President, NAUTILUS – CHILE

One of the most amazing survival and rescue features that keeps the Antarctic waters, is the one which happened to the failed Imperial Transantarctic Expedition which, after many failed attempts, was successfully rescued by a small Chilean vessel.

Main Characters

Luis A. Pardo Villalón was born in Chile on September 20th 1882. Since his childhood he always expressed interest on ocean related topics and in July 1900 he joined the Escuela de Pilotines, a merchant marine school, which in that time was on board of the old steam corvette “Abtao”.

In June 1906, he joined the Chilean Navy as 3. officer. On September 13th, 1910 he was promoted to 2nd officer, and was transferred to Magallanes’s Navy base.

Sir Ernest Henry Shackleton was born in Kilkee, Ireland 1874, and he took part in four polar Antarctic expeditions. The first one was between 1901 and 1904, on board of the “Discovery”, with Captain Robert Falcon Scott, RN, got 178 kilometers from the South Pole, but with the bad luck of being affected by scurvy. The second expedition took place between 1907 and 1909, as a Royal Navy Reserve Lieutenant, in charge of his own expedition, on the “Nimrod”, he reached 160 kilometers from the South pole, as close as anybody had ever been before.

The Transantarctic imperial Expedition

After December 1911, when Norwegian Ronald Amundsen arrived to the South Pole, there was only one feat to accomplish: it was to cross the Antarctic continent on foot.

Shackleton would try this on his 3rd expedition, the Transantarctic Imperial Expedition, sponsored by Sir James Caird and some other private gentlemen, the British government and the Royal Geographic Society. The expedition sailed from Plymouth, England, on August 8th 1914, on board the Brigantine “Endurance”, a wooden three mast sailing ship, with a steam engine, of 300 tons, built in Norway. And because in that moment the First World War was starting, Sir Ernest Shackleton gathered together the entire crew in the Endurance’s chamber and unanimously it was resolved to send a telegram to the British Admiralty offering the ship, its provisions and particularly, the men of the expedition, for the war effort.

The expedition sailed on December 5th, 1914 from the Norwegian whaling station Grytviken, South Georgia, towards the Weddell Sea. On the 7th day she entered the ice. After 6 weeks of sailing among the ice, the ship had advanced more than 800 miles South and it was only one journey away from its destination, the Vahsel bay.

But 1915 was an extremely cold year in the Antarctic, with its higher glacier intensity following, so by January 18th the ice had already surrounded the ship. A drastic temperature fall had frozen the water and the ship was trapped by the ice. From that instant and carried by the ice, the ship started to move initially towards the West and later towards the North. On October 7th, the frozen ice crushed the “Endurance”, so the crew had to leave the ship, with 28 people on the ice, 60 dogs, 25 pigs and 1 cat.

Shackleton told his people that they would try to advance with the boats in the direction to Paulet Island, 350 miles North, in front of the extreme of the Antarctic Peninsula, where a shack with supplies was left by a previous Swedish expedition. However, despite their reluctance, they would have to drop the idea, because pulling the loaded boats, each of them weighing at least 1 ton, was not possible. They didn’t have much choice other than camping on ice and see where the drift caused by currents and winds, took them, until the weather would allow them use the boats. Finally the “Endurance” sank on November 21st. Finally on April 9th, 1916, they were able to launch the 3 boats into the water: the “James Caird”, the “Dudeley



Dockery”, and the “Stancombs Wills”, which were named after the sponsors of the expedition. The 28 men and supplies were shipped on them and faced the Elephant Island. On April 15th, the boats arrived to the oriental extreme of the South Shetland Island, and there they landed, after 497 days where they hadn’t walked on land, and established their camp on the North coast of the island.

The “James Caird” Journey

But they weren’t safe yet, Sir Ernest Shackleton commanded the carpenter, Henry “Chippy” McNish, to prepare one of the 3 boats, the “James Caird”, a 7 meters length lifeboat, for a voyage to South Georgia Island.

On April 24th, in the afternoon, the “James Caird” sailed from the Elephant Island to South Georgia, located about 800 miles North; it was manned by Shackleton and some 5 other men: the ex “Endurance” Commander, Frigate Captain Frank Worsley, New Zealander as seafarer; the ex second officer, the Irishman Tom Crean; the Scottish carpenter Henry Mc Nish, the sailor John Vincent and the Irish sailor Tim Mc Carthy. The rest of the crew stayed on Elephant Island under the supervision of the deputy of the expedition, the Australian Frank Wild.

The first try, with the “Southern Sky” whaler

On South Georgia Island, Sir Ernest managed to hire a little steam whaler, the “Southern Sky”, and equipped her to travel to Elephant island. This was the first vessel with which he tried the rescue his people; even though he failed when he tried to cross the Pack ice.

The second try, with the “Fish Institute N°1”

Regardless, the request was heard in Montevideo, the Uruguayan government, in a Honorious gesture, placed at the disposal of Sir Ernest a little vessel, small trawler, of only 80 tons, the “Fish Institute N°1”, commanded by the tenant Ruperto Elichim Behety. This was the second ship he obtained to try the rescue.

Under these drastic circumstances, Sir Ernest, restless and irreducible under misfortune, understood he had to find an operational base that would have more resources than Port Stanley, so he resolved to move on for a Cutter at Punta Arenas, with his entire hope turned to Chile.

The third try, with the schooner “Emma”

Once in Pta. Arenas, with the help of the British resident colony, Shackleton hired the Chilean sea lion hunter schooner “Emma”, of 170 tons, the third ship trying a new rescue, but also without good results, on the rescue journey.

The “Emma” didn’t succeed either. As it got closer to the Elephant Island, it started to find a great quantity of shifting ice among which it became harder and harder to sail.

The fourth try, with the Yelcho Tender

Sir Ernest remembered that on his way through Port Stanley he had met the Chilean Vice Admiral Mr. Joaquin Muñoz Hurtado, who was coming back from a mission in London and that at this time he was the Chilean Navy General Director. He turned to him. The Admiral Muñoz Hurtado promptly ordered that commander in chief of the Magallanes’s navy base, Real admiral Mr. Luis Victor Lopez Salamanca, to provide Sir Ernest with a vessel.

At that time, only 2 of the 4 tenders that they had were there: the “Yáñez” and the “Yelcho”.

Even though both ships were absolutely inappropriate to do a journey like this, under winter conditions, one of them had to be chosen, and the “Yelcho” was preferred. This was a relatively old ship, built in Glasgow in 1906, that had been bought from the private “Yelcho and Palena Company” in 1908. It had a size of 480 tons, with a 64 Hp strong machine and 300 hp effective, which took it to 11 knots, with a cylindrical coal boiler, of 120 pounds, that hadn’t been checked since December 1913. The vessel didn’t have heating, electric lights, radio, double bottom and it also had low gunwale.

Sending it to the Antarctic was simply bold. The only attribute that could present to achieve its mission,

was the quality, expertise and courage of its crew, all participating as volunteers on this expedition, under command of Luis Pardo.

The ship was prepared at Punta Arenas with urgency and with what was on available.

On Friday 25th of August, at 00:15 hrs, the “Yelcho” sailed from Pta. Arenas towards Picton Island and the certainty of the triumph could be guessed in the faces of its crew. At dawn, they took the Magdalena Channel, and then the rest of the channels and passages, until anchored at Port Burne, at 17:00 hrs. On Saturday 26th, at 06:30 hrs, they continued the journey, under good weather conditions until reaching Ushuaia, Argentina, at 17:00 hours.

There, Sir Ernest landed with two of his companions, Worsley and Crean, who received much attention on land, and then returned very satisfied onboard.

Sunday 27th, at 06:30 hours, she sailed, towards Picton island, where it was anchored without further remarks, at 11:15 hrs.

The temperature was continuously descending, at midnight it was about -9°C to -10°C; meanwhile, the current kept going in the same direction.

The shipwrecked rescue

Even though The Yelcho was located in a very dangerous area, because of the breakers and shoals, and also because of the ice blocks and fog, Pardo decided to take the risk to keep sailing under those difficult conditions, before the possibility of not reaching the shipwrecked camp that day.

In the meanwhile, on Elephant Island, almost five months after the departure of the boat “James Caird”, at dawn on August 30th, the weather was clear and cold. The food supply had started to decrease in a disturbing way. The two surgeons of the expedition had operated the foot, frozen by the cold, of Perce Blackborrow, and the bone was infected, so that his condition was deplorable. Since the arrival to the island, Blackborrow had kept, without complaining, inside of his wet and soggy sleeping bag. With discretion, Frank Wild had started the arrangements to plan his own rescue.

The “Yelcho” continued rounding the island, sailing between many icebergs, with low fog and solar refraction, with a visible horizon of 1 to 1.5 miles, the entire crew watching the bow, looking down for the shipwrecked camp.

At 13:30 hrs, with great happiness, the shipwrecked were sighted; they were located in a hollow, having on one side a huge snow drift and, on the other side, remarkable snowed peaks, very characteristic of that island.

At less than 150 meters from the shore, the ship lowered the small boat, the one that Pardo sent to land with Shackleton, Crean and 4 Chilean crewmen.

The shipwrecked recognized, first, the strong figure of Shackleton and then, Crean. They were welcomed by them with indescribable enthusiasm and exclamations of joy, in the middle of “hurray shouts” and the waving of clothes of an undefined color.

As they were going back to the vessel the small boat brought half of the people and some packages. The shipwrecked exclaimed some cheers to Chile and its government.

The second trip, that went back to pick up the rest of the people returned at 01:25 hours. The photographer Frank Hurley carried on the little boat the plates and films that he had hidden in the snow. One hour after the “Yelcho” arrival, the entire crew of the “Endurance” that were on Elephant Island, and their little belongings, had been rescued.

Commander Pardo and his men had rescued the 22 British shipwrecked from Elephant Island, in the middle of the austral winter. With his courage and skills, he wrote a brilliant page on Chile and its marine history.

On Friday September 1st, the fog prevented the ship from entering the Beagle Canal, so Pardo resolved to continue the journey towards the North towards the Magellan Strait and on Saturday 2nd, at 18:00 hrs, they saw the Dungeness and Virgin lighthouses; they headed for the first one in order to announce their arrival by telegraph, however, once near the lighthouse they saw it was impossible to send the boat ashore, because of the strong Westerly winds and the heavy seas, so the “Yelcho” continued with her voyage. On Sunday 3rd at 16.00 hrs, the “Yelcho” anchored at Rio Seco, from where it could announce to the commander in chief of the Chilean Naval station its arrival without any problems, carrying the 22 shipwrecked safe and sound to land.

Shackleton, excited by the abnegation and bravery without comparison of its saviors that exact same day sent to the Admiral Muñoz Hurtado based in Punta Arenas the following radiogram: “it is impossible for me to express to you my deepest feeling of gratitude, for everything you have done for us. I’ll write you. Shackleton.” The admiral answered: “serve you to receive sincere congratulations for the happy result of the enterprise due entirely to your persistence and decided vigor. The Chilean navy has received the news of the British sailor’s rescue as if it was about our own people. Muñoz Hurtado.”

Sir Ernest Shackleton, meanwhile, was awarded by the Royal Geographic Society with the special gold medal, and granted similar tin models to several other members of his expedition. He was Knighted, on the occasion of the King’s birthday and he was given an award in cash of 20.000 pounds that he gladly received.

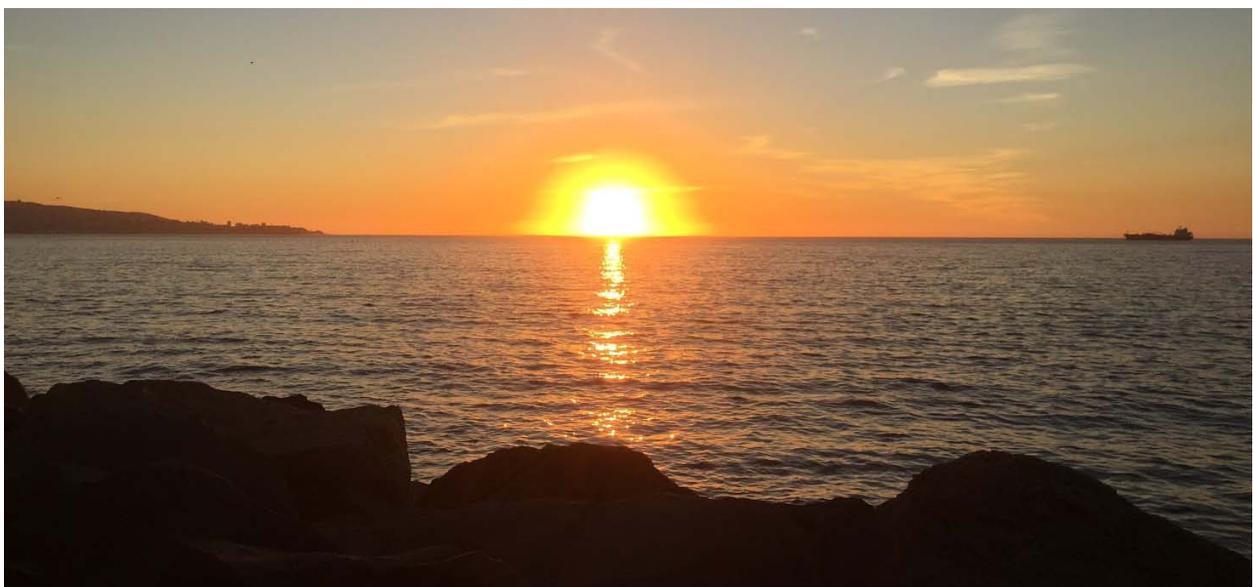
In 1909 he published a work titled “the heart of the Antarctic” and in 1920 another one titled “South, the story of Shackleton’s last expedition”.

Deprived of money, with no job and with his dreams frustrated, Shackleton departed South again. In 1921, John Q. Rowett, an old and friendly college classmate in Dulwich, sponsored this new expedition, on the “Quest”, a ship a little bit weedy. It wasn’t clear what the intention of this expedition was, because the plans were going from circumnavigating the Antarctic to searching for captain Kidd’s treasure. It didn’t matter. What did matter to Sir Ernest was to come back to the South of the earth.

On January 4th, 1922, the “Quest” arrived at Grytviken, South Georgia Island; there, the Norwegian whalers warmly welcomed Shackleton. After a calm day on dry land, he came back to his ship to dine, gave the crew the “good nights”, went to his cabin... and died;

The cause was a massive heart attack. He was 47 years old. He was followed by his inseparable Frank Wild.

When Emily Shackleton found out about her husband’s death, she requested that he be buried in the South Georgia Island. His body still rests in the island’s cemetery, among the whalers, that perhaps, were the only ones who appreciated the most of his achievements.



Sunset over Valparaiso Harbour