

**CANADIAN INSTITUTE OF MARINE ENGINEERING**  
**MariTech 2010 Conference. June 9<sup>th</sup>.-11<sup>th</sup>. 2010**  
**Montreal, Quebec - Canada**

Presentation Title:

**“SAFETY RISK MANAGEMENT  
IN  
TODAY’S SHIPPING INDUSTRY”**

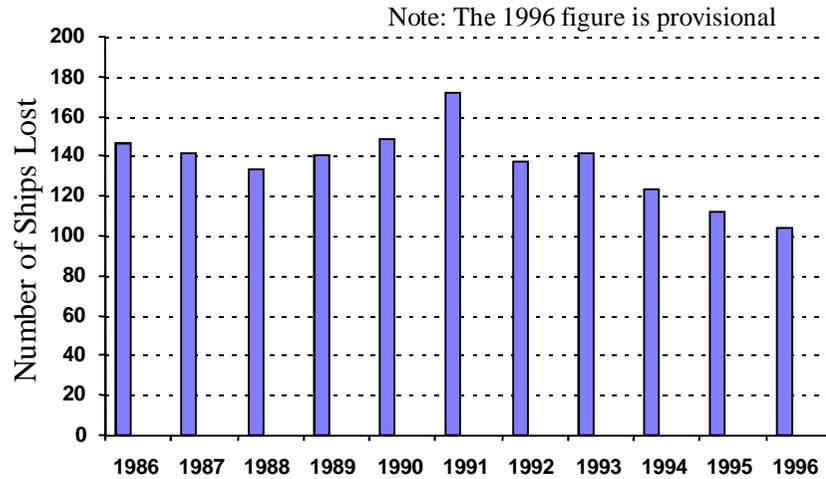


by  
Khanh H. Tran, *MSc.*  
**Canadian Coast Guard-Pacific**  
**CANADA**

Trank@pac.dfo-mpo.gc.ca

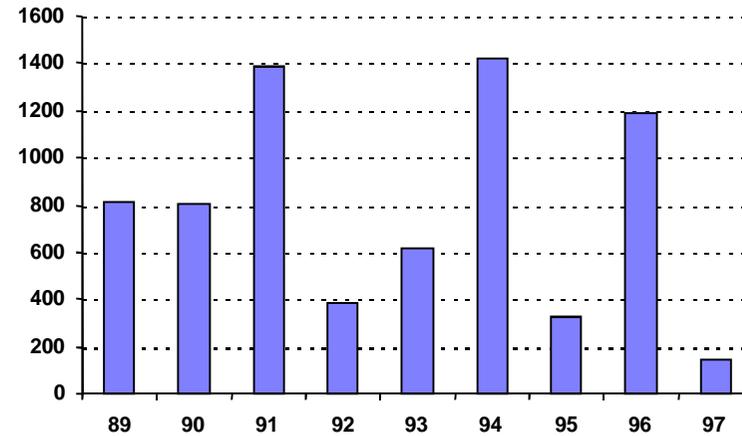
## MARINE CASUALTY

### In The 80' & 90'



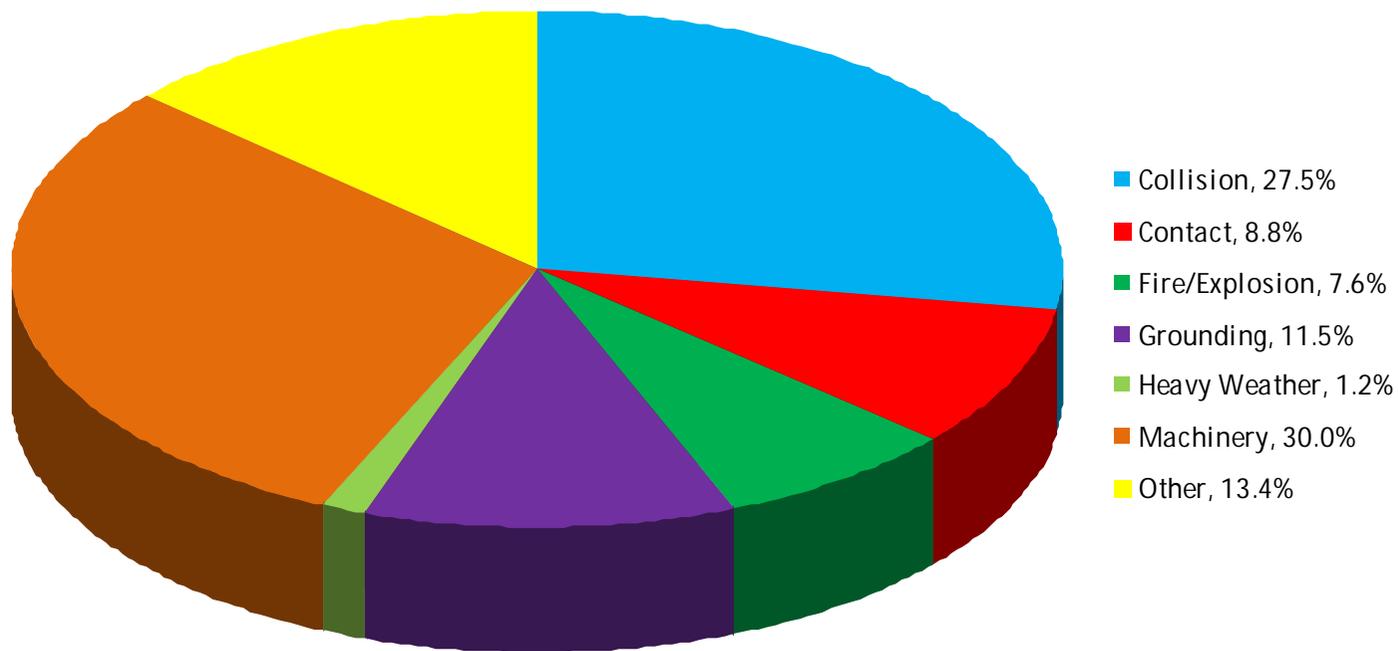
MERCHANT SHIPPING LOSSES 1986-1996  
(Source: *The Institute of Underwriters, 1997*)

LIVES LOST @Sea 1989-1996 in Accidents to Ships Over 500gt  
(Source: *The Institute of London Underwriters, 1997*)



# Hull & Machinery

Claims 1999-2004. Costs in per cent



(Source: "The Swedish Club Annual Report 2004". The Swedish Club 2005)

## **COMPANIES / ORGANISATIONS VISITED:**

- ▶ **THENAMARIS, Ships Management Ltd. (Piraeus)**
- ▶ **ANANGEL AMERICAN Shipholding Ltd. (Piraeus)**
- ▶ **TSAKOS GROUP, Shipping Company (Athens)**
- ▶ **COSTAMARE Shipping Inc. (Piraeus)**

# **“SAFETY RISK MANAGEMENT IN TODAY’S SHIPPING INDUSTRY”**

## **CONTENT**

- INTRODUCTION
- RISK MANAGEMENT POLICY ON HARDWARE
- RECRUITMENT POLICY
- PERSONNEL DEVELOPMENT POLICY
- MANAGEMENT PHILOSOPHY
- CONCLUSION
- COMMENTS

## INTRODUCTION

- If a company is going to achieve profit, there is a risk to manage and it is up to the company to really consider how best to approach it.
- There are different types of risk, ie. Commercial, financial, operational, technical, natural, etc., but the most important one, if it is not considered and controlled in the first place, it may affect negatively to others, is *safety risk*.
- To deal with safety risk, shipping companies and organizations should devise comprehensive risk management policy relating to the developments of *people, ships and ship's systems, and safety management system*.

## RISK MANAGEMENT POLICY ON HARDWARE

Now-a-day, ships' managers are very careful in screening and selecting the ships that they undertake to manage. They do not manage any ship or the fleet that they think it is not worth the effort to bring it to the good standard. Their policy is constituted as follows:

- Immediately after a vessel comes under their management, Risk Management Policy is implemented through the company's safety systems. Maintenance programs, operational procedures, safety practices, guidelines and instructions are put into action.
- All Safety Procedures on board are maintained but frequently modified and improved to reinforce safety, pollution avoidance, operational efficiency and the welfare of the crew in compliance with ISM Code.

## RISK MANAGEMENT POLICY ON HARDWARE

They believe in

- a smooth hull,
- a well-maintained and reliable propulsion plant,
- super-polished propellers ensuring the right speed and consumption, and
- modern navigational aids in order to mitigate the inherent risks of shipping.

The instruments and equipment on board have to be reliable and work effectively

- Strong pumps and cranes in order to turn the cargo over quickly
- Well preserved tank, hold and hatch covers to protect cargo.

## **SAFETY PRIORITIES:**

1. Sound, modern and effective maintenance program
2. Safety equipment items, ie. LifeBoat, FireFighting are upkept timely and in quality
3. Class requirement certified
4. Pollution Prevention/Mitigation equipment is Available & in Quality, even COSTLY
5. Cargo Gear must be in excellent condition
6. Port State Control complied Nationally & Internationally. ISM compliance. Non-conformity reported to DP, Charterers and Insurance Broker
7. Ships are inspected by company' s Inspectors 4 times per year & audited by DP yearly

## RISK MANAGEMENT POLICY ON HARDWARE

- The **Canadian Coast Guard Fleet** (CCGF) through its Fleet Safety and Security Manual ensures that *“the ships and all machinery and equipment within the ships are maintained in accordance with all relevant standards and regulations”*.
- *“Where a manufacturer’s data is considered deficient, the CG Fleet has developed procedures to ensure that machinery or equipment is maintained to higher standards”*
- CCGF, through its **CCG Vessels Refit Management** Manual, *“ensures that its ships are managed through a system of configuration management that generates sufficient, accurate and valid documentation reflecting the current configuration of as-fitted assets”*

f1

f1 This document replaces the life cycle procedure manual. Thus, you may have to replace the quote:

<http://ccg-gcc.nrc.dfo-mpo.gc.ca/its-sti/Pubs/Technical/Procs/CCG-VRM-2009.pdf>

frenettej; 31.5.2010

## **RISK MANAGEMENT POLICY ON HARDWARE**

- Adding to the ship's safety risk management policies, many Shipping Companies are committed to a continuous inspection and vessel maintenance schedule with the company's own dedicated team of fleet inspectors traveling around the world to ensure its effective implementation of ISO 9002, IEMS 14001 and ISM Code.
- Some companies are committed to acquiring new and well-kept vessels and maintaining them at high standards. They believe that well-maintained ships ultimately help enhance revenue and reduce operating costs. High standard vessels could also generate the best-managed quality tonnage and the best-recognized reputation.

## RECRUITMENT POLICY

### **SCOPE:**

- The scope of hiring policy is to define, select and recruit qualified people.
- Crews members recruited are carefully selected and undergone an extensive testing period of probation before they are permanently hired.

### **RECRUITMENT STRATEGY**

(Ship Management Agency “Thenamaris” in Piraeus, Greece):

- Officers and Crews are only Greeks, Bulgarians and Philipppines
- There are not enough Greek seafarers for the fleet, especially the ratings.

## RECRUITMENT POLICY

- Bulgarian officers have experiences on oil tankers. Philippines seafarers are always available and speak English well.
- Close relationships with these people: Reps visit recruiting offices 2-3 times/year to maintain continuity and loyalty
- Deployment of same people on same vessels. Not more than 2 nationalities in one crew, afraid of cultural conflicts.
- A pooling system established for relieving crews taking time off
- Strict Drug policy, random breathing test to eliminate possibility of drug and alcohol abuse.

## RECRUITMENT POLICY

- Employment is based on the personnel collecting data to screen out the black list references.
- Only competent and qualified people are recruited.
- Personal evaluations in ABILITY, CHARACTER and LANGUAGES are retained for future employment reference.
- Norwegian fleets have employed multicultural crews for many years and devised an excellent training program for all crews members getting all the necessary skills and qualifications for Norwegian ships.
- Norway has set up a training center in the Philippines to help Filipinos seafarers gain skills, update qualifications and become ready to go to sea. Such a policy has helped the Norwegian fleet solve the problem of seafarer shortage in the future.

## RECRUITMENT POLICY

*The CCGF requires all employees to comply with the laws of Canada at all times, to faithfully apply the procedures developed under its Fleet Safety and Security Policy, and to take any necessary precaution to protect themselves, their colleagues, their ships, cargoes and the environment. It also commits to the quality of services it provides to its clients (CCGF, FSSM, Sect. 2.4, pg. 2).*



***RIGHT CREW and HARMONIOUS WORKING CONDITION  
CREATES SAFE WORKING ENVIRONMENT ONBOARD***

## PERSONNEL DEVELOPMENT POLICY

According to the president of Hellenic Chamber of Shipping, 50% losses of ships are due to unsafe loading. Therefore,

- Professional training and skill development are greatest efforts of all shipping companies
- Ships Manager develops safety guidelines and training for cargo handling efficiency from their accumulated experience, ie. Knowledge of each particular ship, various port characteristics and terminal conditions to make loading and discharging a smooth process.

## PERSONNEL DEVELOPMENT POLICY

- Training team organizes seminars at the head office, in the home countries of the mariners
- On-the-job training on board the ships, emphasizing on familiarization of new equipment, safety, protection of environment, ship-board management, human communications and contingency management, etc.
- The development of a common language and a general culture of professionalism are also the ultimate objective.
- Drug-free environment is a good example of human resource development.

## PERSONNEL DEVELOPMENT POLICY

- People on land are the crucial link tying the ships to the land-based management effort.
- They include former master mariners and seagoing engineers who learned the business on board, have build up the team spirit necessary to lead problem solving, secure safety and improve operational efficiency.
- Improvement of IT applied to all communication networks internally and externally.
- Direct lines, public data network and satellite links enable constant communication with the ships and the associates around the world

## PERSONNEL DEVELOPMENT POLICY

- A **creative environment** of designing the office building and setting up the office spaces is a *psychological innovation* that could maximize communication and provide the grounds for creative teamwork.
- People in each of the departments can look out over the atrium and have visual contact. Such an environment encourages people to gather easily around a problem and work cohesively for a complete and quick solution.
- In general, **TRUST** is the key word among shipping companies or ships management agencies between management and employees on board and on land which makes problem solving quickly and reduces risks effectively.

## MANAGEMENT PHILOSOPHIES

### Commitment of Today Shipping Industry:

- To protect health and human lives at sea and ashore
- To prevent harm to the environment
- To ensure the safe, intact and prompt delivery of the cargo
- To offer the shipping services at reasonable rates

## MANAGEMENT PHILOSOPHIES

- CCGF, through its Safety and Security Management Policy, will *“provide and maintain a safe and healthy work environment that complies with and at times exceeds regulatory requirements, and will strive to eliminate any foreseeable hazards which could cause personal injuries or illnesses, losses or damage to property or loss to the environment.*
- *All management and employees will perform their job properly and in accordance with procedures and operating philosophy”*  
(CCGF, FSM, Sect.1, pg. 1)

## MANAGEMENT PHILOSOPHIES

### **A Complete Risk Control Cycle,**

A TOOL TO SOLVE THE PROBLEMS:

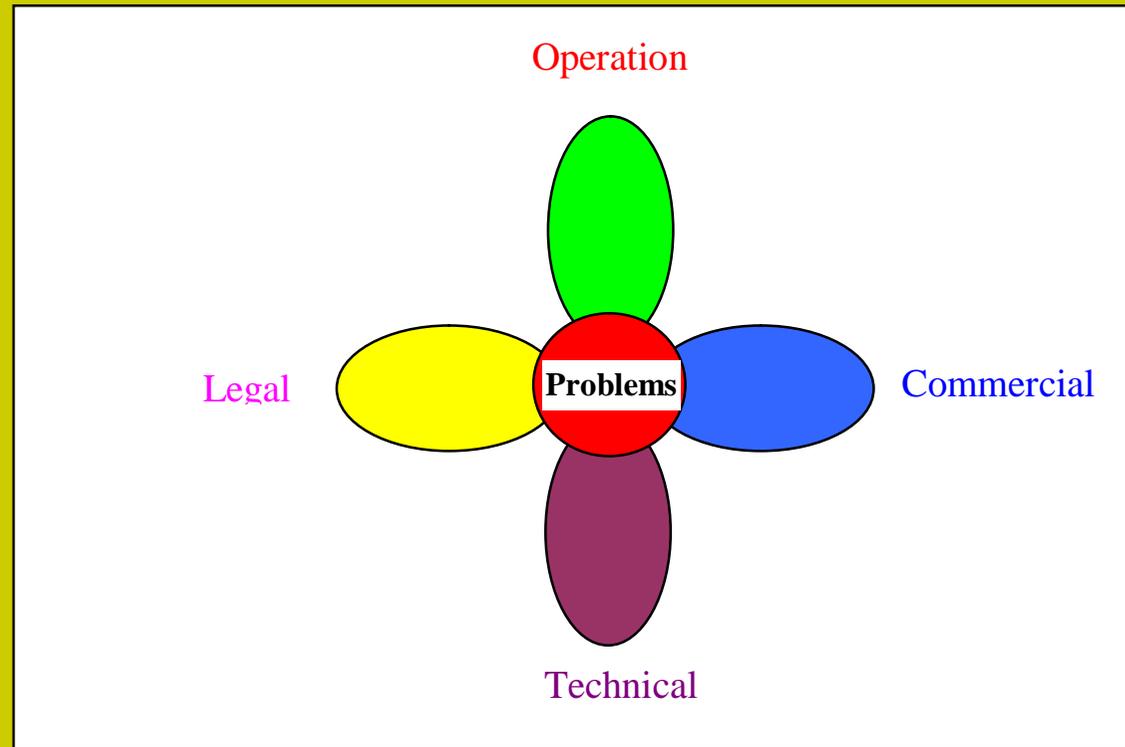
- GOOD TEAM WORK
- CORRECTION OF THE MISTAKE
- COMMUNICATION EFFICIENCY, and
- SYSTEM TO HANDLE CRISIS

**EVERY ONE KNOWS THEIR ROLE AND COOPERATION, AND  
SHOULD LOVE WHAT HE/SHE IS DOING**

## MANAGEMENT PHILOSOPHIES

### “Master is NO GOD”

An EQUAL ENVIRONMENT. Every one contributes their Knowledge, Skill and Constant Alertness to remove the RISK and solve PROBLEMS



PROPELLER'S FUNCTION = ENVIRONMENT OF A & R

*“earning money but in Good Way” and “cost effective but Not Danger to Safety”*

## CONCLUSION

*“IF THE COMPANY TAKES CARE OF ITS PEOPLE, PEOPLE WILL TAKE OF ITS BUSINESS”*

- Good Living Condition onboard
- Attractive Salaries
- Recognition of Top Performers
- Continuity of Employment
- Supporting Mariners and Mariners' s Family in Time of Need

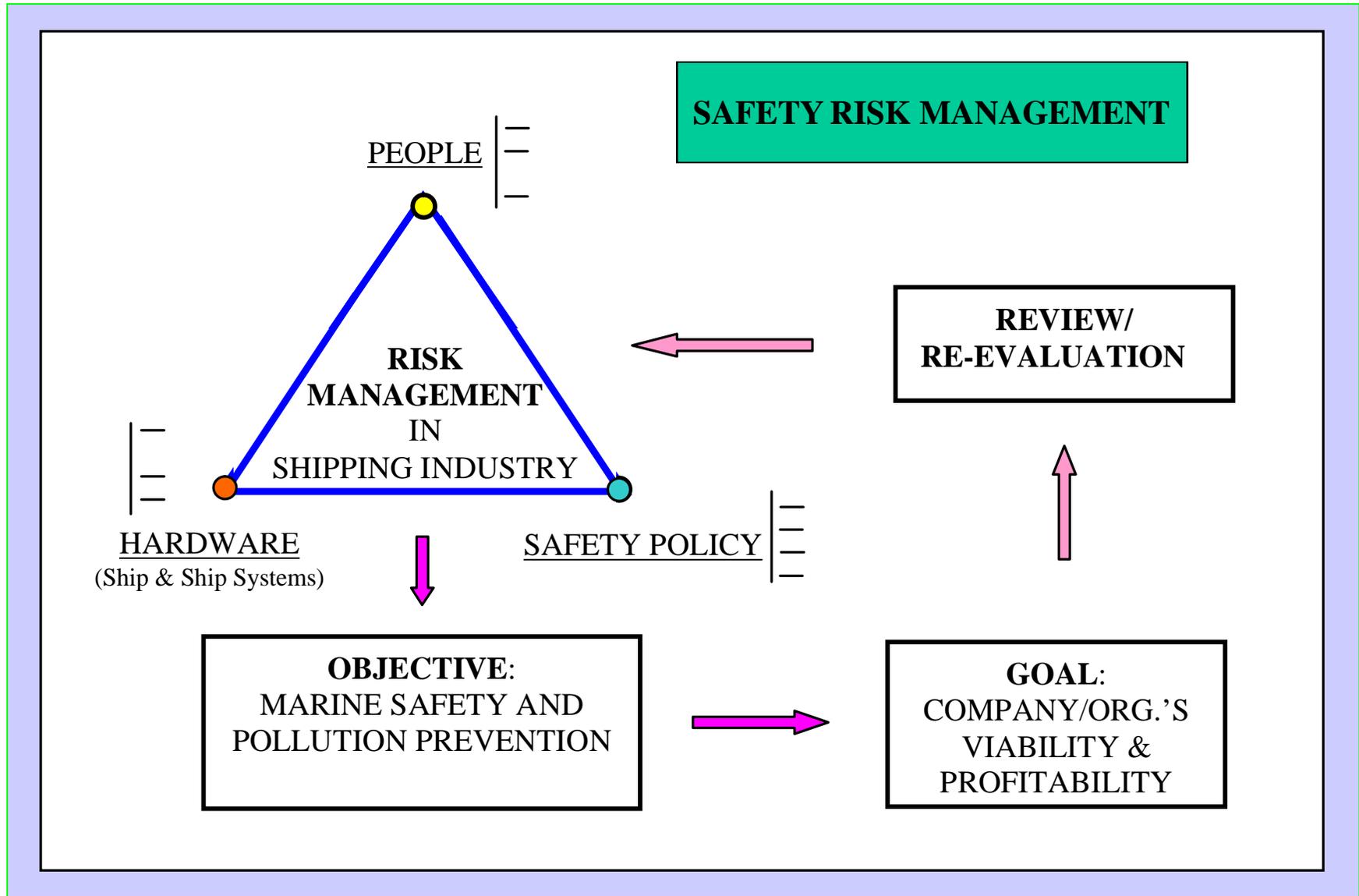
NEW PRINCIPLE OF TODAY SHIPS MANAGEMENT:

- Close Relationship between Owners, Management Staff and Seafarers as Being an Integral Part of the Greater Family of an Organization

## CONCLUSION

To achieve profit, there is a risk to manage, especially **SAFETY RISK**, and it's up to the company to really consider how to

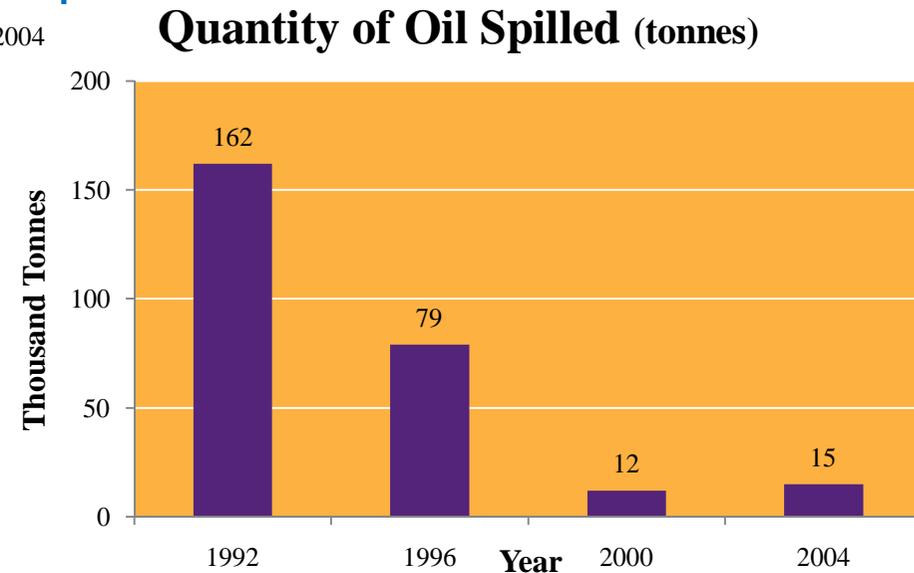
- maintain the Ships & Ships Systems **reliable**,
- have a safety management system **effective**, and
- motivate a workforce **loyal & productive**



# Shipping Performance



A 'loss' refers to ships damage beyond economic repair  
Source: Lloyd's Register Fairplay



Source: International Tanker Owners' Pollution Federation Limited

***WE ALL HAVE EXPERIENCED WITH.....***



***IMO'S MISSION: "SAFER SHIPS, CLEANER OCEANS"***

*....AND/OR WITH*



**CCG'S MISSION: "SAFETY FIRST, SERVICE ALWAYS"**

*THANK YOU / MERÇİ*

References:

- *Greek Shipping Policies, upon a recent field trip visited to various shipping companies/organizations in Greece.*
- *DFO, Canadian Coast Guard Fleet Safety Manual, Chapters 1.0 and 10.0 Glossary & Maintenance of the Ship & Equipment respectively.*

-----  
**Please note: Content expressed in this paper is from the author's own opinion and research effort, and does not necessarily reflect the Canadian Coast Guard's policy or mandate on the subject. (kht)**