

# **Arctic Maritime Safety and Security – the Human Element seen from the Captain's Table**

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# Focus of the paper

- Safety issues related to human element from the leadership and management point of view
- The objective is to find deeper understanding on what kind of performance leads to success and how these successful situations could be created and lead in Arctic shipping

Looking for answers to the question:

**How safety should be lead and managed in high-risk areas like the Arctic ?**

# The Arctic shipping and risks in a nutshell

- Harsh weather conditions (freezing cold temperatures, sudden violent storms, fog, darkness, ice conditions etc.)
- Sea spray and icing on the deck
- Magnetic phenomena and high geographic latitudes posing challenges to navigation
  - Less reliable navigational aids like the magnetic compass
  - Reduced coverage and reliability of GPS and GALILEO, radio, satellite and communication signals
- Navigational charts and information can be limited in number and sometimes inaccurate
- SAR, repair and salvage services can be far away same with medical help

# T/S Maksim Gorkiy accident

Collided with ice floe in heavy fog. Her hull was damaged as the ice ripped holes and she started to sink. Around 1 000 passengers and crew had to abandon ship. Help arrived in approx. 5 hours.



# What ever the situation...

... the crew is required to handle it.



Photo: <http://www.shippingencyclopedia.com/term/icing>

# Uncertainty and risk

## **“Uncertainty is in the heart of risk”**

(Grote, 2014)

- In the traditional risk management the objective is to minimize uncertainty and risk
  - Predictability enables stability, work routines and formalization of processes
- In complex environments and systems, reducing uncertainty is not always completely possible
  - It is getting more difficult to predict all possible scenarios of what could go wrong and which courses of action to take to get the job done
  - Due to uncertainty in the Arctic the crew needs to be able to work beyond described work processes
  - Complements traditional risk management

# Uncertainty, unpredictability and getting the job done

- When all conditions cannot be anticipated and work processes cannot be described in detail
  - The processes and work descriptions can be incomplete and approximate
  - Decisions and courses of action are most likely based on limited resources like
    - Time, information, tools at hand, manpower etc.
  - Performance variability and adjustments are needed to get the job done

# What is needed to manage uncertainty?

- Uncertainty brings unpredicted ad hoc situations
- These situations need flexibility and room for the crew to react to occurring needs and manage the situation
- Rapid response and speed is of essence in the Arctic
- High level of team work, trust and appropriate communication is required
- Flexibility needs
  - Well trained, educated and professional crew team to know how to operate within flexible rules and to respond to ad hoc situations
  - An excellent team leader, the Captain. To lead well educated crew puts pressure on the leadership and human resource skills of the ship's master. Leading only with authority might not be enough.
  - Organizational culture to support it with a right balance of flexibility, accountability and control



# Safety Leadership – Features of shipping

- Global labor market and multiculturalism onboard
  - It both gives the access to global, high quality recruits but at the same time can create social and intercultural confrontations
  - Seafarers are not always trained for multiculturalism
- Seafarers live and work in a restricted space far away from home
- Face continuously sea originated risks, fatigue and stress
- High crew turnover can be a hindrance in achieving good team unity and result in loss of important knowledge and know-how

**The ship's master as a team leader is in a key role to ensure high performance teamwork and successful operations of the ship**

# The Team

- To hire high performing seafarers from the global labor market to create a high performing team
- Ensure that the people who live and work together have both necessary official certificates and personal ability to work as a team member
- Ensure that the skills and knowledge of the crew develops and that the accumulated knowledge is kept within the ship and the company

**The ship will learn through its crew;  
constantly improve its performance and  
safety of shipping**

# Speaking Up

- Needs an environment of trust and psychological safety
- Is a two way street
- Inappropriate communication interrupts the information flow, which will increase the likelihood of errors
- Accidents can be linked to breakdowns in communication on bridge, between vessels or in the teamwork on the bridge
- Appropriate communication and cooperation can be linked to saving the day
- Strong link can also be made between inappropriate communication and personal factors showing that personalities of the crew affect safety through inappropriate communication

# Conclusion

- To lead and manage the safety of a ship is to lead and manage the crew, the people living and working in the ship.

**High performance of the ship is high performance of the crew as a team, not separate individuals**

- The ship's master is in a key role to
  - motivate, inspire and empower the crew towards safety.
  - to create an culture that allows open, constructive communication
  - create a high performing team

**Hard and soft leadership skills of the master, abilities to lead, motivate, inspire and empower the crew are vital for safe, sustainable and profitable operation of the ship.**

# Conclusion

**The execution of safety measures lie within the seafarers and the captains of their ships**

- They are the ones who:
  - Use their skills and knowledge to compensate for the shortcomings in processes, work descriptions, equipment and tools at hand.
  - Face the sea originated risks on a regular basis
  - Fight for their survival in case of accidents

# This paper argues

From the point of view of a ship's Captain

**The excellent seafarers,  
their competence, skills and collective attitudes  
is a key to safe and successful Arctic shipping.**

*Thank you!*