





SAN-konferens 2011
Maritime Resource Management -
för en säker, effektiv och trygg arbetsmiljö

Martin Hernqvist
 Managing Director, The Swedish Club Academy AB

Maritime Resource Management

1

SAN-konferens 2011, tema



”Effektiv riskhantering – nyckeln till en säker sjöfart”

Gör vi då – myndigheter, rederier, skolor, försäkringsbolag och övriga aktörer – vad vi kan för att hantera riskerna i syfte att förebygga lidande och skada på människa, miljö och egendom?

Maritime Resource Management

© The Swedish Club Academy AB 2011

2

Vad är "risk"? (Svenska Wikipedia om "Risk")



"Risk är ett mått på de skadliga konsekvenserna av en framtida händelse."

"Risken kan således definieras som en funktion av:

- sannolikheten för att en viss händelse inträffar och
- konsekvensen av att denna händelse inträffar."

Maritime Resource Management

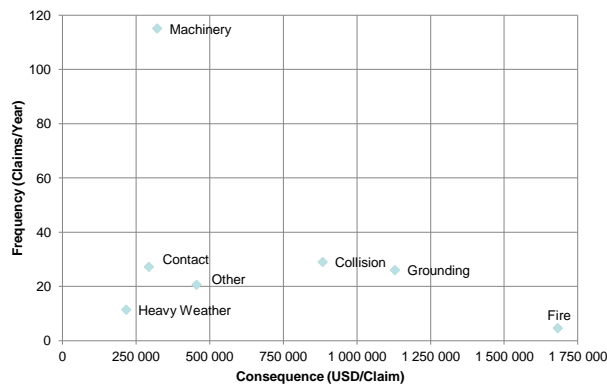
© The Swedish Club Academy AB 2011

3

Risk diagram, The Swedish Club



Hull and Machinery claims 2000-2009



Maritime Resource Management

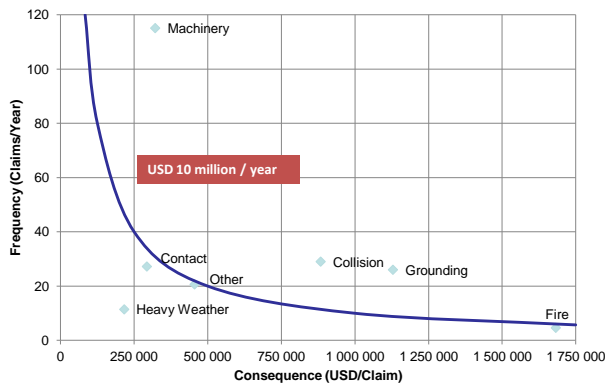
© The Swedish Club Academy AB 2011

4

Risk diagram, The Swedish Club



Hull and Machinery claims 2000-2009

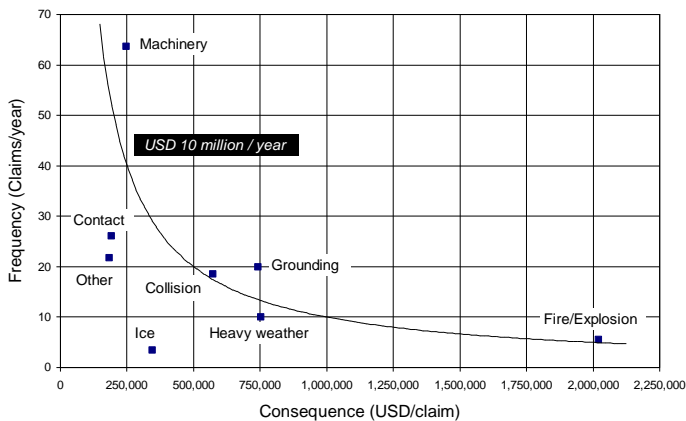


Maritime Resource Management

Risk diagram, The Swedish Club



Hull and Machinery claims 1988-1997



Maritime Resource Management

Effektiv riskhantering



Riskerna är alltså väl definierade....

...men hur är det med hanteringen av dem?

Maritime Resource Management

© The Swedish Club Academy AB 2011

7

Lloyd's List, February 22, 2008



“DNV’s statistics shows that a ship is twice as likely to be involved in a serious accident today compared to only five years ago.”

“In addition, estimates show that also the costs of these accidents have doubled.”

Maritime Resource Management

© The Swedish Club Academy AB 2011

8

Question:
Can accidents be prevented?

Question:
What are the most common
contributing factors in accidents?

Contributing factors in accidents



SAN-konferens, 20 October 2011

- ??

Maritime Resource Management

Contributing factors in accidents



Typical answers

- **Over confidence**
- **Mis-communication**
- **Mis-understandings**
- **Lack of situation awareness**
- **Stress**
- **Relaxed**
- **Fatigue**
- **Alcohol**
- **Technical failures**
- **Negligence**
- **Company pressure**
- **Time pressure**
- **Incompetence**
- **Undermanned**
- **Weather**
- **Cultural differences**
- **Complacency**
- **Personal problems**
- **Traffic density**
- **Lack of "challenge"**
- **.....and more**

Maritime Resource Management

Questions:

Why do we make mistakes?

Do we make mistakes and cause incidents intentionally?

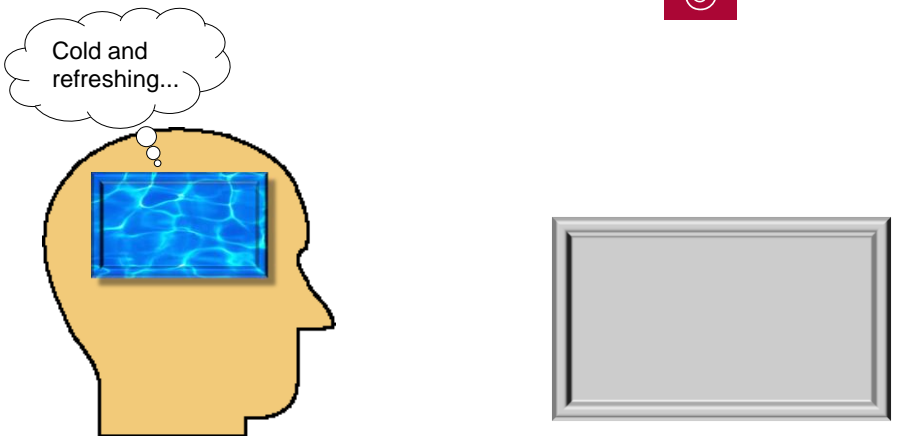
Maritime Resource Management

© The Swedish Club Academy AB 2011

13

“Cold and refreshing”





The diagram illustrates the concept of a mental picture versus reality. On the left, a yellow silhouette of a human head is shown in profile. Inside the head, there is a rectangular frame containing a blue, rippling water surface, representing a swimming pool. Above the head, a thought bubble contains the text "Cold and refreshing...". Below the head, the text "Mental picture" is written. On the right, there is a simple grey rectangular frame, representing a reality that does not match the mental picture. Below this frame, the text "Reality" is written.

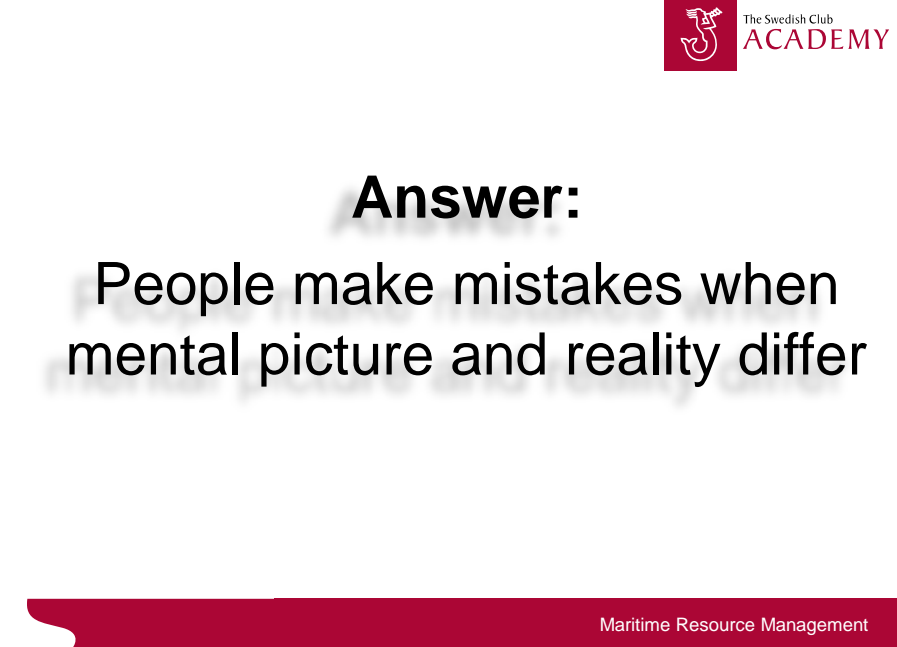
The Swedish Club
ACADEMY

Mental picture

Reality

Maritime Resource Management

© The Swedish Club Academy AB 2011



The slide contains the text "Answer:" followed by "People make mistakes when mental picture and reality differ".

The Swedish Club
ACADEMY

Answer:
People make mistakes when
mental picture and reality differ

Maritime Resource Management

© The Swedish Club Academy AB 2011

16



We also learn:

People don't make mistakes
deliberately.

But what can we do about it?

Maritime Resource Management

© The Swedish Club Academy AB 2011

17

What can we do about it?



- Understanding accidents better
- Learn about our limitations
- Focus on attitudes
- Establish safe organizational cultures

This is what Maritime Resource Management is all about

Maritime Resource Management

© The Swedish Club Academy AB 2011

18

Attitudes and behaviour



We need to change attitudes, not skills.

Why are attitudes important? What is an attitude?

Attitude:

It is a way of thinking about somebody or something.

Your **behaviour** towards somebody or something depends on your attitudes.

Maritime Resource Management



MRM in brief:

Assertiveness training

Maritime Resource Management

This is on one of the most
important issues...

Maritime Resource Management

How can we deal with this problem
through training?

... The position at 10.27 hours (two minutes before the collision)
is on the port side off the course line on the chart.
"I did not report this to the pilot"...

... He did not call the master despite standing orders and his
concern about the situation ...

Maritime Resource Management

Question:

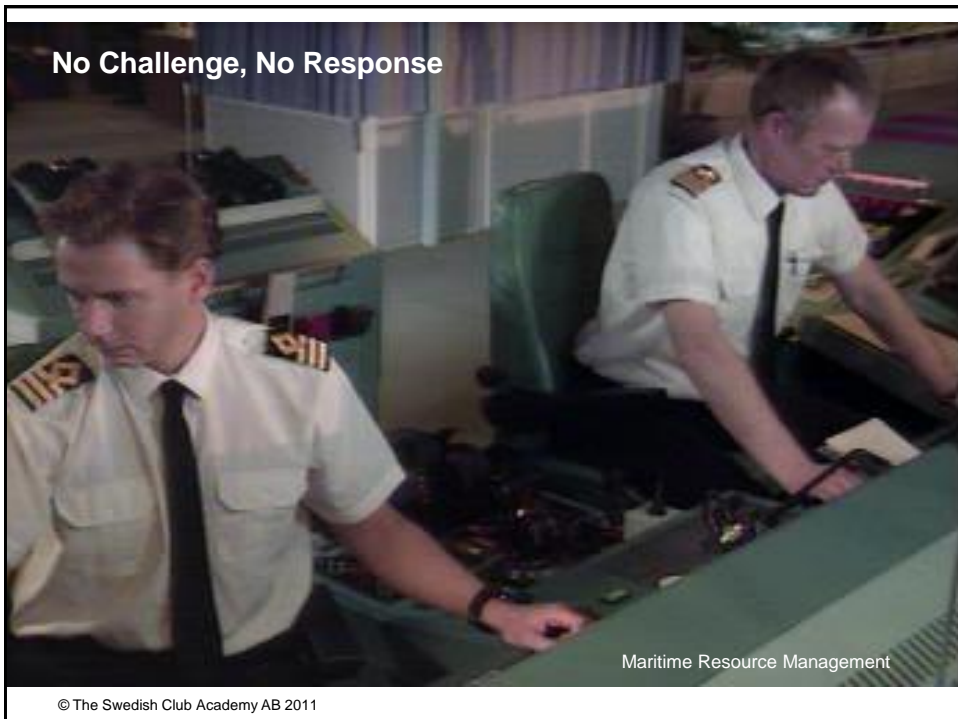
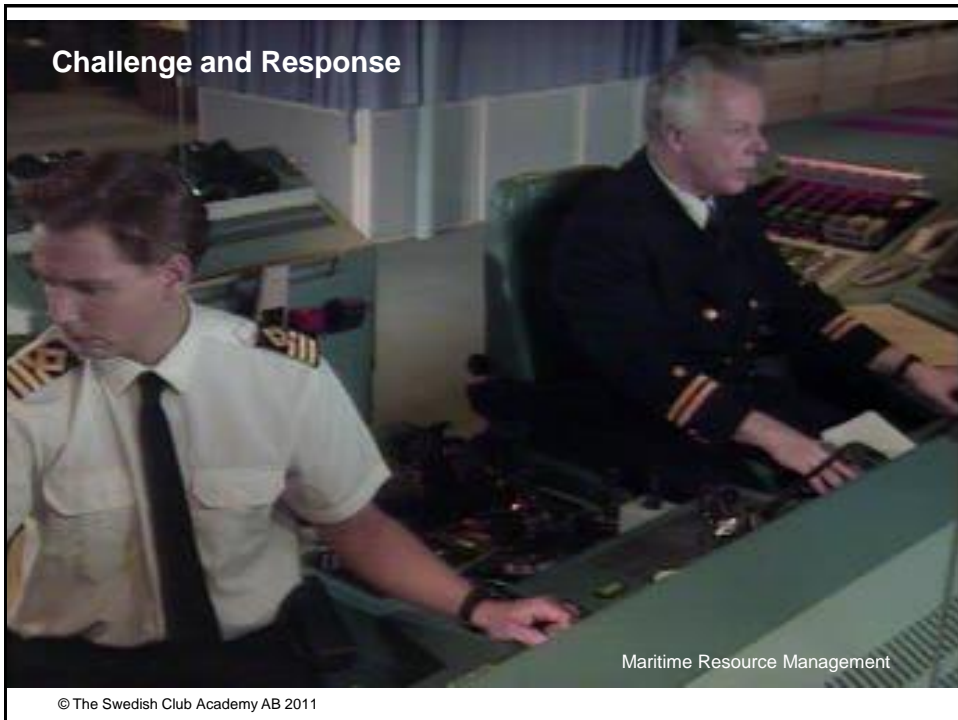
Why do not people “challenge”
mistakes and unsafe acts?

Seafarers attitudes to challenging

**If a superior officer, or pilot, makes a mistake.
Do you challenge?**

- *No, it is not my job.*
- *I might be wrong.*
- *No, I might lose my job.*
- *Never again. He hasn't talked to me since last time.*

(Challenge: To question whether something is true, right or valid.)



Desired attitudes after MRM training



If a superior officer, or pilot, makes a mistake. Do you challenge?

- ▶ *Yes, it is my duty.*
- ▶ *Yes, people expect me to.*
- ▶ *Yes, safety comes first. Those missing words; **“But we still have one more buoy to go”** may have disastrous consequences.*

Maritime Resource Management

© The Swedish Club Academy AB 2011

27



Back to the root of the problem:

Why do not people “challenge”
mistakes and unsafe acts?

Has this to do with “culture”?

Maritime Resource Management

© The Swedish Club Academy AB 2011

28

Question: What is “culture”?

Power distance

Hofstede's Power Distance Index measures the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally.

Power distance reflects how decisions of the power holders should be viewed – challenged or accepted.

Power distance



High power distance ship



Low power distance ship



Maritime Resource Management

Power distance index



Philippines 94

- Malaysia **104**
- Panama **95**
- China **80**
- Indonesia **78**
- India **77**
- Brazil **69**
- France **68**
- Hong Kong **68**
- Turkey **66**
- Belgium **65**

- Thailand **64**
- Portugal **63**
- Greece **60**
- South Korea **60**
- Iran **58**
- Taiwan **58**
- Spain **57**
- Japan **54**
- Hungary **46**
- Jamaica **45**

Sweden 31

- United States **40**
- Netherlands **38**
- Australia **36**
- Germany **35**
- U. K. **35**
- Finland **33**
- Norway **31**
- Ireland **28**
- Denmark **18**
- Austria **11**

Maritime Resource Management

Cultures



National

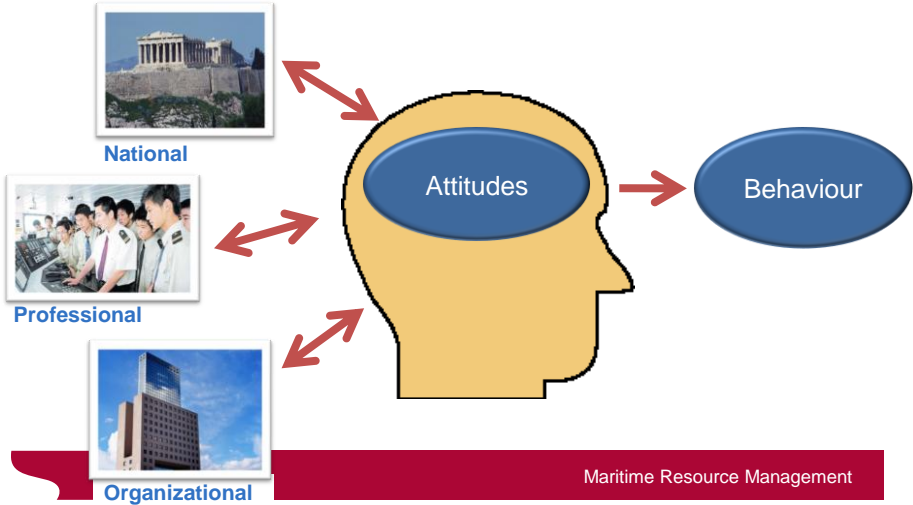

Organizational

Professional

Maritime Resource Management

© The Swedish Club Academy AB 2011 33

Culture, Attitudes and Behaviour



National

Professional

Organizational

Attitudes

Behaviour

Maritime Resource Management

© The Swedish Club Academy AB 2011 34

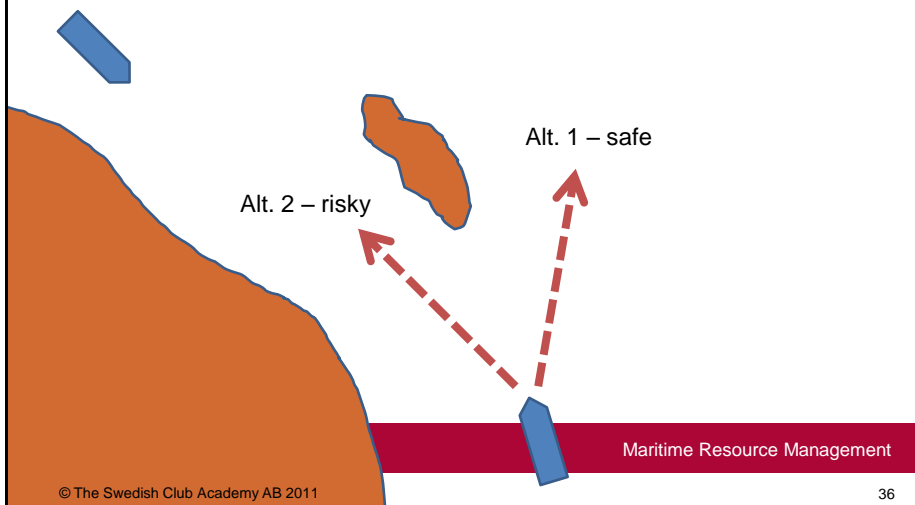
Question:
What is your “culture” in
respect of taking risks?
What do you do?

Maritime Resource Management

© The Swedish Club Academy AB 2011

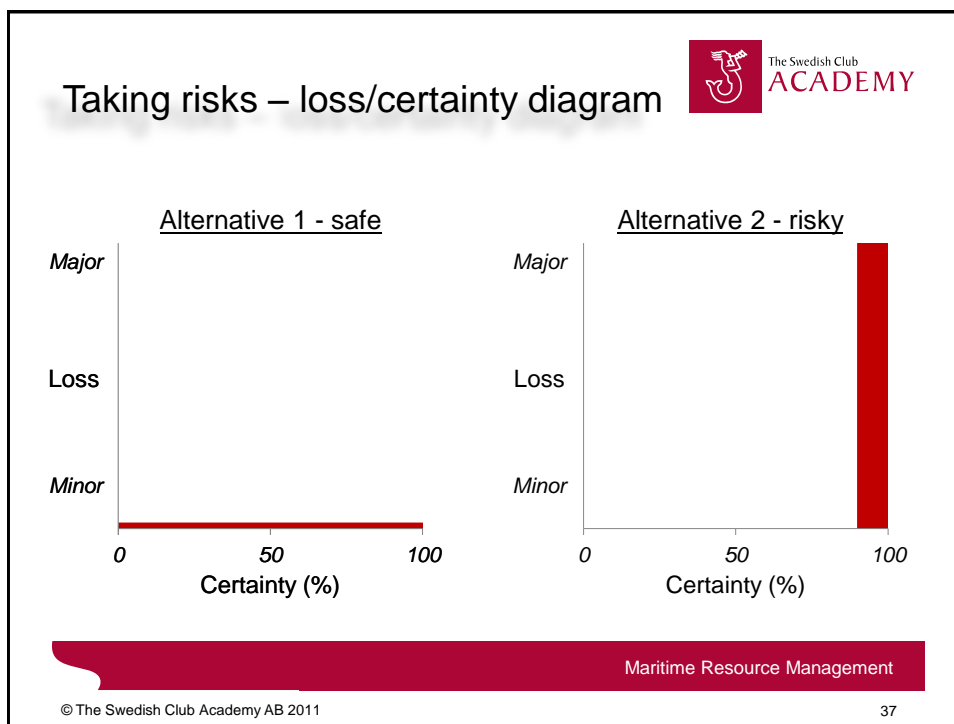
35

The safe or the risky alternative?



© The Swedish Club Academy AB 2011

36



SAN-konferens 2011, tema

”Effektiv riskhantering – nyckeln till en säker sjöfart”

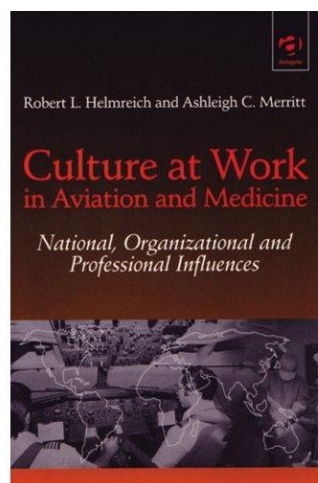
Gör vi då – myndigheter, rederier, skolor, försäkringsbolag och övriga aktörer – vad vi kan för att hantera riskerna i syfte att förebygga lidande och skada på människa, miljö och egendom?

Maritime Resource Management

© The Swedish Club Academy AB 2011 38


So, we want to change attitudes – but what are the attitudes of seafarers?

Professional culture



Culture at Work in Aviation and Medicine


Professional culture, Aviation vs Medicine



- ▶ **A clear difference in attitudes**
- ▶ **Major reason the impact of CRM training on pilots' attitudes**

Maritime Resource Management

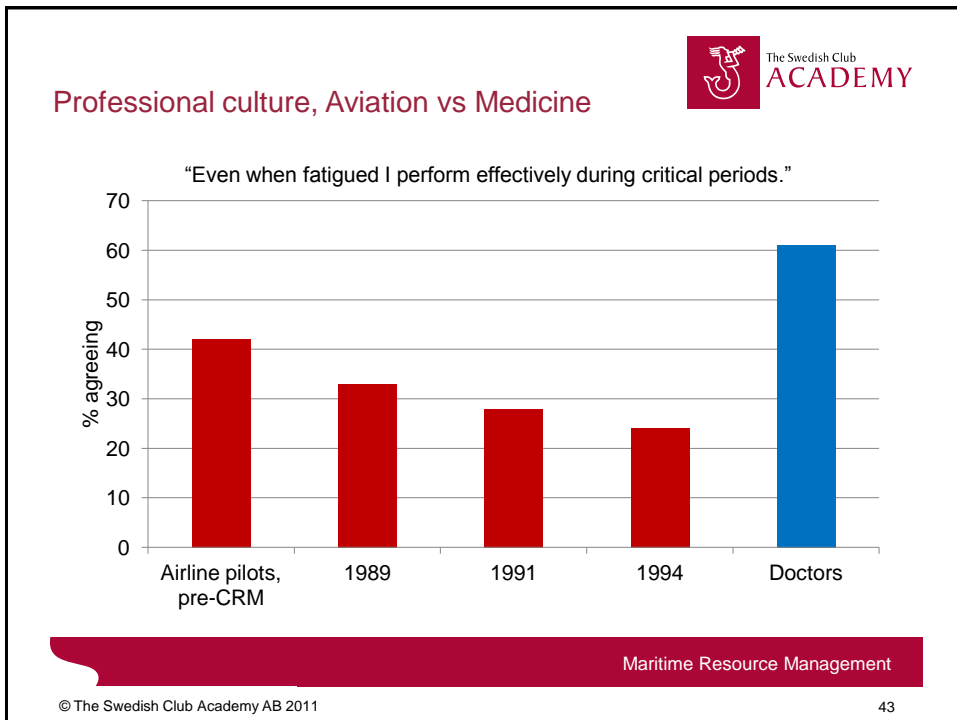
© The Swedish Club Academy AB 2011 41



“Even when fatigued I perform effectively during critical periods.”

Maritime Resource Management

© The Swedish Club Academy AB 2011 42



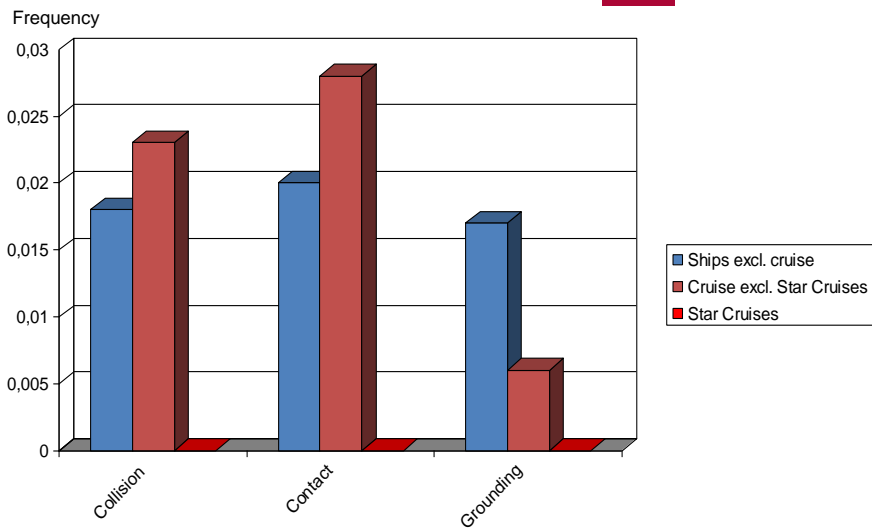
The Swedish Club ACADEMY

What about results of MRM training?

Maritime Resource Management

© The Swedish Club Academy AB 2011 44

Navigational claims, cruise ships vs other ships, Swedish Club 1998-2007



Maritime Resource Management

Result that has generated media exposure, below from April 2009



Maritime Resource Management

Safety at Sea Awards, 10 June 2009



Maritime Resource Management

© The Swedish Club Academy AB 2011

49

Summary (or "important features of a safe culture")



- ▶ Accidents can be prevented.
- ▶ Humans don't make mistakes deliberately.
- ▶ We need to increase focus on attitudes and culture.
- ▶ All humans have limitations – teamwork and proper management and use of all resources are essential. Don't forget Situation Awareness.
- ▶ We should increase our safety margins – don't take risks.
- ▶ "Challenge" doubtful decisions and invite "challenges" yourself.
- ▶ Teamwork and mutual respect between ship and shore.

Maritime Resource Management

© The Swedish Club Academy AB 2011

50