Improving Bridge Resource Management

– Human Factors in Maritime Safety

CONTENTS

5 Stress, accidents and fatigue

5.1 How stress develops

5.2 Typical stress situation in ship operation

5.3 Reducing individual stress levels

5.4 Methods of stress management

5.5 Human factors and fatigue in the shipping industry

5.6 Conclusion

6 Decision-making and action in complex systems

6.1 Complex systems

6.2 Characteristics of complex, dynamic systems

6.3 Indeterminacy, emotion and action tendencies

6.4 Behavioural tendencies in dealing with complexity

6.5 Strategies in dealing with complex systems

6.6 Summary

7 Bridge Organisation

7.1 Maritime organisational systems

7.2 Bridge Management

7.3 Risk Management and manning levels

7.4 Processes and procedures

7.5 Conclusion

8 Applying BRM for the analysis of risk factors associated with high levels of automation

8.1 BRM and automation technology in shipping

8.2 Risk factors for human-automation performance

8.3 Discussion

9 Team spirit and group dynamics

9.1 Emotion – our limbic heritage

9.2 Requirements for the team process

9.3 Cohesion and atmosphere

9.4 Proactive trust work

9.5 Concluding remarks: at eye level and speaking up

10 Aspects of leadership and teamwork

10.1 Leadership

10.2 Understand people

10.3 Form a team

10.4 Lead the team

10.5 Set up a just culture

10.6 Develop the people

10.7 Focus on outcomes

10.8 Conclusion

11 Communication performance and BRM/MRM

11.1 A short generic outline of communication

11.2 BRM performance and safety: the key role of communication

11.3 Improving communication performance for BRM/MRM

12 Briefing and debriefing
– A tool for improving learning, safety and cohesion

12.1 Introduction

12.2 Learning, safety, cohesion

12.3 Debriefing

12.4 Briefing

12.5 Problems of (de)briefings

12.6 Summary

13 Intercultural Competence – a key competence in shipping

13.1 Culture – the product of human interaction

13.2 Extending the concept of culture– from container to network

13.3 From multiculture to interculture

13.4 Intercultural competence development – dealing with uncertainty

13.5 An integrated team-shared mental model – are we all really on the same ship?

13.6 Communication and culture – from an individual to a shared mental model

13.7 Some concluding thoughts

14 Integrating BRM into the organizational culture

14.1 Introduction

14.2 Understanding organizational culture

14.3 Just culture

14.4 Changing organizational culture

15 Training methods for BRM

15.1 Introduction

15.2 Training methods– an overview

15.3 Training methods and learning objectives

15.4 Training design – the combination of methods

15.5 Evaluation of BRM training

15.6 A 3-day BRM training – an example

15.7 BRM – the next generation