Maersk Training Capt. Tonny M. Moeller

7th Tanker Operator Hamburg conference - October 16, 2018 Integrating people, process and technology

Performance Enhancement of safety and operation. Agenda

- Who is Maersk Training
- Combining human factors and technical factors in training

 Using simulation to create a realistic environment for people to
 optimize performance through human factors.
 - Helping people understand the need for behaviour change
- "The Forever Learning" concept. Getting the shipping companies committed to better training by adaptive learning and virtual reality.





Maersk Training History









Investigation showed lack of competences





MAERSK TRAINING About

Established in	10 Global Training	7 Major Product	200+ Course Titles
1978	Facilities	Lines	
Training Management Services	Onboard Training and Consultancy Programme	70,000 Course Days Delivered in 2017	40+ Years of Technical and Operational Training Experience



Training Facilities Overview





Our Philosophy





MAERSK TRAINING



Knowledge

Do the person have the technical knowledge of using ie. Instruments / tools / procedures which are used during a specific operation?

Skills / Abilities

Do the person have the cognitive skills to oversee the information the instruments provide and ability to use this in an operational context?

Behaviour/Attitude

Do the person have the behaviour to follow the correct procedures or can the person be influenced by stress, fatigue or other issues?



Non-Technical Skills used in our Training







Performance enhancement

The human factors impact in a technical world.



Bridge Team Enhancement Program

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So... how can we improve?



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Interview by psychologist





Various tests (Technical and HF) In a safe operational environment



Technical operational tests and observations in an operational context, depending on area being assessed. Observations in an operational environment



Bridge Team Enhancement Program





Bridge Team Enhancement Programme (BTEP)

Use of psychometric tools, interviews and self-assessments to assess the candidate up against a predefined profile.

- -Communication -Leadership
 - -Situation Awareness
 - -Decision Making
 - -Teamwork
 - -Performance Shaping Factors



(Non-technical (CRM) Skills)



Bridge Team Enhancement Programme (BTEP)

Use of simulators and theoretical tests for technical assessment. i.e.: -Knowledge and application of COLREGs -Knowledge and use of Radar

-Knowledge and use of ECDIS

Development of Personal Development Plan (PDP) based on extensive feedback



Example of PDP

PERSONAL DEVELOPMENT PLAN

Rank:

Name:

This is your Personal Development Plan (PDP). The PDP should follow you in the coming months to assist you in further development of your technical and Human Factor Skills.

You will work on the plan during the course at Maersk Training. The plan is dynamic and it will be updated according to findings and discussions with the instructors during the course. The plan should also be updated during your assignment(s) onboard your vessel(s) in order to secure continuous development.

The strengths identified below will assist you in your daily work onboard. You should continue to have focus on your strong sides and use the knowledge of these actively in your daily work.

STRENGHTS	
1.	
2.	
3.	

In the coming pages you will find the development areas which have been identified during the course. You are welcome to use this PDP actively and add on more development areas in order to secure continuous development.

- 1. Development Area (Headline): Input Main area from Technical or Basic 6
 - (COLREGs, ECDIS, Radar, Com, Leadersh., Situation Awareness, Decision making, Teamwork, Perf. Sh. Factors)
- Description of Development Area: Detailed description of specific 'facet' within the area
- 3. SMART goal: Goal for the development, based on SMART principle
- 4. Action Plan sections: Action plan sections are the detailed description of how to reach the goal described above.



Example report



Bridge Team Enhancement Program

PERSONAL ASSESSMENT

Name: Mr. Peter Peter X Rank: 3rd Officer Instructors: Karsten L. Haegg (tech) / Frank Lamberg Nielsen (psykologist) Periode: 60/2017

	1	2	3	4	5
Communication	1				
Situation Awareness		2			
Decision making	2				
Teamwork			3		
Performance Shaping Factors					
COLREGS Focus	3				
COLREGs Other	3				
Radar		3			
ECDIS					5

Technical Assessments

(COLREGs, Use of Radar, Use of ECDIS) - Objective tests, Simulator tests and assessments

Non-Technical Assessments

[Communication, Situation Awareness, Decision Making, Leadership, Teamwork, Performance Shaping Factors) - Objective tests, Interview, Self-Evaluation, Peer Evaluation, Simulator assessments

Overall assessment conclusion

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a better learning experience | page 19

Examples of norm (score 3):

Communication

Norm: Seeks influence, is willing to speak up and

Situation Awareness

Norm: Registers problems, collects, interprets, and anticipates what

Decision Making

Norm: Creates an overview and identifies given problems, evaluates and prioritizes

Leadership

Norm: Is in possession of relevant knowledge of work and procedures, and is capable,

COLREGs

Norm: Knowledge of COLREGs and understanding of how to apply these in an operational context



Classif

Learning retention





Adaptive learning through E-learning and/or Virtual Reality

200 questions + repetition/recharge ie. 1 years

Week 1-10 Week 11-20 Week 21-30 Week 31-40 Week 41-50 Every month





Case for adaptive learning

- Medical doctors in USA, New England Journal of Medicine.
- Official knowledge test every 5 years in 2% of the syllabus.
- Now adaptive learning is approved with 100% of the syllabus over 5 years when convenient for the doctor and unlimited access to information when needed.





THANK YOU Let's stay in contact



Let's stay in contact







EMAGAZINE FROM MAERSK TRAINING



