SUB-COMMITTEE ON STANDARDS OF
TRAINING AND WATCHKEEPING
39th session
Agenda item 7

STW 39/7/3
31 October 2007
Original: ENGLISH

COMPREHENSIVE REVIEW OF THE STCW CONVENTION AND THE STCW CODE

Communication and leadership skills

**Submitted by Australia, New Zealand and the Institute of Marine Engineering,
Science and Technology (IMarEST)**

	SUMMARY
Executive summary:	This document proposes amendments to the STCW Convention and the Code to address requirements for effective communications as identified by STW 38
Action to be taken:	Paragraph 11
Related document:	STW 38/17

1   The Sub-Committee on Standards of Training and Watchkeeping at its thirty-eighth session (20 to 26 January 2007), agreed that the proposed review of the STCW Convention and the STCW Code should address requirements for effective communications (STW 39/17, annex 11, paragraph 3.5).

2   Analysis into the report of the Casualty Investigation relating to the explosion and sinking of 'Bow Mariner' indicated that:

    .1   operators and senior officers failed to follow proper relief and familiarization training for critical crew members; and

    .2   there was evidence of lack of cohesiveness between the three senior officers, who shared the same nationality and the other officers and crew who shared a different nationality.

3   The analysis also identified that:

    .1   the Operators should take measures to improve social culture with a view to improve social cohesiveness; and

    .2   the Operators emphasize the importance of crew cohesiveness and communications to senior officers through proper training programmes e.g. team building.

4   Due to multilingual, multi-ethnic and multicultural crew on board ships, communications and leadership skills are essential for smooth and efficient operations.

5   Recent research projects have indicated that human error directly accounts for between 70% and 85% of all shipping incidents that lead to major insurance claims. Accepting that human error is ubiquitous, there is a need to train seafaring officers to improve their competence in the non-technical resource management skills required to ensure effective error prevention, detection and management in order to ensure safe and efficient maritime operations.

6   Within many safety critical industries, such as offshore, nuclear and civil aviation, the training and assessment of communication and leadership skills is taking on a high level of importance as a way of ensuring that errors are effectively detected and managed. Within these industries there is now a general acceptance of the core competences required for effective communication and leadership. Within the civil aviation industry it has been argued that these skills form a fundamental part of any error management philosophy and are highly applicable to any domain where teamwork and technology are required. It therefore follows that competence in relation to communication and leadership skills is essential for all seafarers.

7   The table below indicates the skills required for effective communication and leadership that these may be seen as being both social and cognitive in nature.

Table

SOCIAL SKILLS	COGNITIVE SKILLS
CO-OPERATION AND COMMUNICATION	**SITUATIONAL AWARENESS**
Team building and maintaining Consideration of others Support of others Conflict resolving	System awareness Environment awareness Anticipation of future events
LEADERSHIP AND MANAGERIAL SKILLS	**DECISION-MAKING**
Use of authority and assertiveness Providing and maintaining standards Planning and co-ordination Workload management	Problem diagnosis Option generation Risk assessment Option selection Outcome Review

8   In support of this, a recent review of marine accident databases undertaken by the American Bureau of Shipping confirmed that human error continues to be the dominant factor in maritime accidents and revealed that failures in situation assessment and situation awareness predominate.

9   Decision-making is a skill. Like all skills, it may be honed through practice. By reducing cognitive load through practice, experts will be less stressed than novices in threatening situations. In addition to specific contextual skills, there is a set of more general cognitive skills involved in situational awareness and decision-making. The direct development of such generalised critical thinking skills, which encourage shipboard team members to question their assumptions about their assessment of situations, will help individuals to counteract the consequences of stress, and make them more effective resource managers.

10   In light of the foregoing, it is proposed that all seafarers on board ships receive appropriate training or instructions relating to communication and leadership skills. Accordingly, proposed amendments to chapter VI of the STCW Convention and the STCW Code are set out in annexes 1 and 2 respectively.

Action requested of the Sub-Committee

11   The Sub-Committee is invited to note the information provided and take action as appropriate.

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ANNEX 1

PROPOSED AMENDMENTS TO THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW), 1978, AS AMENDED

Regulation VI/[6]

Mandatory minimum requirements relating to communications and leadership skills for all seafarers

1   Seafarers shall receive training or instructions in accordance with section A-VI/[6] of the STCW Code and meet the appropriate standard of competence specified therein.

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ANNEX 2

**PROPOSED AMENDMENTS TO THE SEAFARERS' TRAINING,
CERTIFICATION AND WATCHKEEPING (STCW) CODE**

Section A-VI/[6]

Mandatory minimum requirements relating to communications and leadership skills for all seafarers

1   Seafarers employed or engaged in any capacity on board ship shall receive appropriate approved training or instructions in communications and leadership skills as set out in table VI/[6].

Table A-VI/[6]

Specifications of minimum standard of competence in communications and leadership skills

Column 1	Column 2	Column 3	Column 4
Competence	Knowledge, understanding and proficiency	Methods for Demonstrating competence	Criteria for evaluating competence
Co-operation and communication	*Team building and maintaining* Ability to work effectively in a team. Establishes atmosphere for open communication. Encourages inputs and feedback from others. Does not compete with others. *Consideration of others* Takes notice of the suggestions of other crewmembers even if s/he does not agree. Takes condition of other crewmembers into account. Gives personal feedback. *Support of others* Helps other crewmembers in demanding situations. Offers assistance. *Conflict resolving* Keeps calm in interpersonal conflicts. Suggests conflict solutions. Concentrates on what is right rather than who is wrong.	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved simulator training	Behaviours exhibited during the demonstration of competence show an ability to meet the stated proficiencies.

| Leadership and managerial skills | *Use of authority and assertiveness*

Takes initiative to ensure crew involvement and task completion.

Takes command if situation requires, advocates own position.

Reflects on the suggestions of others.

Motivates crew by appreciation and coaches where necessary.

Providing and maintaining standards

Subscribes to Safe Operating Procedures and makes sure of Safe Operating Procedure compliance in crew.

Intervenes if task completion deviates from standards.

With crew being consulted, deviates from standards if necessary.

Demonstrates will to achieve top performance.

Planning and co-ordination

Encourages crew participation in planning and task completion.

Plan is clearly stated and confirmed.

With crew being consulted, changes plan if necessary.

Clearly states goals and boundaries for task completion.

Workload management

Distributes tasks among the crew, checks and corrects appropriately. | Assessment of evidence obtained from one or more of the following:

.1 approved training

.2 approved simulator training | Behaviours exhibited during the demonstration of competence show an ability to meet the stated proficiencies. |

	Secondary operational tasks are prioritized to retain sufficient resources for primary task duties. Allots adequate time to complete tasks. Notifies signs of stress and fatigue.		
Situational awareness	*Systems awareness* Monitors and reports changes in systems' states. Acknowledges entries and changes to systems. *Environment awareness* Collects information about environment (position, weather, traffic). Shares information about the environment with others. Contacts outside resources when needed to maintain situation awareness. *Anticipation of future events* Discusses time constraints with crew. Discusses contingency strategies. Identifies possible future problems.	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved simulator training	Behaviours exhibited during the demonstration of competence show an ability to meet the stated proficiencies.
Decision-making	*Problem diagnosis* Gathers information to identify problem. Reviews causal factors with other crewmembers. *Option generation* States alternative courses of action. Asks other crewmembers for options.	Assessment of evidence obtained from one or more of the following: .1 approved training .2 approved simulator training	Behaviours exhibited during the demonstration of competence show an ability to meet the stated proficiencies.

	Risk assessment Considers and shares estimated risk of alternative courses of action. Talks about possible risks for courses of action in terms of crew limits. *Option selection* Confirms and states selected / agreed course of action. *Outcome Review* Checks outcome against plan.		

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