

IALA COUNCIL
62nd session



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Lisbon
Portugal

11 – IALA TECHNICAL ACTIVITIES

11.3 – VTS

IALA Workshop on Human Factors and Ergonomics in VTS

Note by the Secretariat

1. INTRODUCTION

IALA conducted a workshop on Human Factors and Ergonomics in VTS at Chalmers University of Technology in Gothenburg, Sweden (12 - 16 October 2015), in conjunction with Chalmers University of Technology, the Dutch VTS Operator Training Foundation and the Port of London Authority.

Sponsored by Transas, Kongsberg, Frequentis and SMA the workshop was attended by 47 delegates representing 18 countries.

2. AIMS OF THE WORKSHOP

The aims of the workshop were:

- To explore strategies to enhance decision making processes, situational awareness and error management in the VTS environment whilst minimising the risk of stress and fatigue;
- To identify factors that should be considered when addressing staffing levels, working patterns and the health and wellbeing of VTS professionals;
- To describe the overarching principles of effective VTS Centre design and configuration to optimise human performance and operational efficiency;
- To identify and explore socio-technical factors in VTS that may enhance organisational and safety cultures.

Focussing on key themes associated with human factors and ergonomics the workshop embraced the expertise and experience of delegates to provide and develop strategies, concepts and examples of best practice to assist in the formulation of new IALA Guidance on Human Factors and Ergonomics in the VTS environment. In particular, the output from the workshop provides a key input document for consideration by the VTS Committee at its 40th meeting the following week.

3. KEY OUTCOMES FROM THE WORKSHOP INCLUDE:

1. Human Factors should be referenced, where appropriate, throughout IALA documents relating to VTS.
2. There is a need for IALA guidance on:
 - Accident investigation regarding VTS.
 - Raising awareness about safety culture and identifying the benefits and expected outcomes thereof.
 - Operational effectiveness and staffing levels in VTS. This may best be progressed through an IALA workshop / seminar.
 - Positive performance and outcome indicators should be included in the development of guidance on. Measures to Evaluate the Effectiveness of a VTS (task 1.1.6 of the VTS Committees Work Programme 2014-2018)



3. When appropriate, the revision of V-119 should give reference to:
 - The use of a human centred design approach in the development, update and evaluation of VTS.
 - Measures to Evaluate the Effectiveness of a VTS (see above)
4. The application of the concept of human reliability needs to be carefully considered with regards to VTS and reflected in appropriate IALA documentation. Human Factors should be referenced, where appropriate.
5. Competent / VTS Authority should develop policy on Human Factors, Performance and Capability.

4. CONCLUSIONS OF THE WORKSHOP

1. The application of the concept of human reliability needs to be carefully considered with regards to VTS.
2. Competent / VTS Authority should develop policy on Human Factors, Performance and Capability.
3. Human Factors should be referenced, where appropriate, within IALA documents related to VTS.
4. There is a need for guidance on accident investigation regarding VTS. This guidance may be incorporated in the ongoing work associated with Task 1.1.3 of the Work Programme 2014-2018 of the VTS Committee or in a stand-alone document.
5. There is a need for guidance on raising awareness about safety culture and identifying the benefits and expected outcomes thereof. This may be achieved by means of incorporating this work into existing IALA documentation, IALA Recommendation V-103 (on Standards for Training and Certification of VTS Personnel), or development of new Recommendations / Guidelines. Expert assistance may need required.
6. That IALA consider organizing a workshop / seminar on operational effectiveness and staffing levels in VTSSs to cover the points not covered during this workshop.
7. That IALA consider revising V-119 (on the Implementation of Vessel Traffic Services) in conjunction with the development of guidance on Measures to Evaluate the Effectiveness of a VTS to include positive performance indicators and outcome indicators.
8. That a human centred design approach be reflected in the development, update and evaluation of VTS.
9. Voice communication is a critical component of VTSO work.
10. There is a need for standardisation with respect to portrayal, symbology and terminology.
11. There is a need for generic and common information to support joint activity with allied services.

5. THE COUNCIL IS REQUESTED TO

Note the outcome of the workshop and consider the conclusions in relation to the Work Programme of the VTS Committee.