

Measuring Cognitive Task Load on a Naval Ship: Implications of a Real World Environment

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Abstract. Application of more and more automation in process control shifts the operator's task from manual to supervisory control. Increasing system autonomy, complexity and information fluctuations make it extremely difficult to develop static support concepts that cover all critical situations after implementing the system. Therefore, support systems in dynamic domains should be dynamic as the domain itself. This paper elaborates on the state information needed from the operator to generate effective mitigation strategies. We describe implications of a real world experiment onboard three frigates of the Royal Netherlands Navy. Although new techniques allow us to measure, combine and gain insight in physiological, subjective and task information, many practical issues need to be solved.