

## **The Concept of Human Reliability Assessment Tool CREAM and It's Suitability for Shipboard Operations Safety**

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**Abstract:** Shipboard operations as a hazardous processes requisite the human element to be aware of any operation risks. Since the concept of human error exposed to ample arguments, the introduction of human element concerns to practices rather than other means is essential because the provenance of accidents is human error. Human Reliability Assessment HRA is a theoretical framework to assess the human actions for predicting the potential human error probability of a certain given task or operation scenario. Furthermore, surveillance of the human performance through the task steps and sub-steps. The cognitive Reliability and Error Analysis CREAM tool is the second generation of HRA which emphasizes the features of the context and utilized as retrospective and prospective tool. The paper illustrates the basic and extended version of CREAM and its suitability for criticality of shipboard operations safety assessment.

**Keywords:** HRA – CREAM – CPCs – HEP - CFP