

System Dynamics Modelling of Situation Awareness

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Abstract:

One of the requirements for effective Command and Control is good situation awareness. As situation awareness is a complex phenomenon due to social and cognitive interaction factors, its modelling, prediction and calculation can be difficult. The feedback loops and delays in the Command and Control system also contribute to the complex dynamic behavior. This paper will build on existing situation awareness models to develop a System Dynamics model to support a qualitative investigation through simulation of key situation awareness variables.

Keywords

Command and Control; Situation Awareness, Cognitive Work Analysis, System Dynamics