

Application of Systems Engineering: An Acquisition Agent Perspective

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Abstract. This article covers a descriptive case study on the application of systems engineering and systems engineering management at Armscor. The report also covers the investigation into development methods used and the how the requirements changes are managed during the concept phase. The systems engineering process model used by Armscor is compared with best practice. The Systems Engineering Management Base Theory (SEMBASE) model is used to compare the Armscor systems engineering management practice with. The study encompassed development methods, requirements management change, design for changeability and use of tools. Research questions are addressed by narrative analysis. Data is collected from multiple sources: interviews, archival records documentation and observations of enterprise governance documentation. The data produced during the inquiry revealed that a correlation exists between systems engineering best practices, international standards, the systems engineering process and systems engineering management process followed by Armscor. Requirements changes are managed during the concept Phase and different developmental models are used to execute projects.

Keywords: Systems engineering process, systems engineering management development methods, defence industry, case study.