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## 基于故障树的导弹发控系统故障模式及原因分析 (PDF)

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Title: The Failure Mode and Cause Analysis of Missile's Launch and Control System Based on Fault Tree

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关键词: [故障树](#); [导弹发控系统](#); [自检](#); [故障模式](#)

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摘要: 为了给导弹发控系统原位故障定位仪的软件设计提供快速准确的故障定位策略,深入分析了某导弹发控系统的组成、工作原理和实际使用过程中出现过的故障记录,以系统自检过程为研究对象,利用FTA方法建立了系统故障树模型,对建立的故障树模型进行了定性和定量分析,计算了最小割集重要度,确定了系统的主要故障模式、故障原因和故障定位的优先等级,为快速故障定位策略奠定了理论和实践基础。

Abstract: In order to provide quick and correct fault positioning strategy for the software design of in situ fault position indicator of missile launching and control system, analysis of elements and working principles of the missile launching and control system was made. Taking the missile launching and control system as the research object, a FTA method was used to build fault tree, and qualitative and quantitative analysis was made for it, minimum mow was calculated to gather importance, the main fault mode, the fault reason and the initiative period of fault position were confirmed and this lays theoretical and practice foundation for the quick and accurate fault positioning.

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