

## 可靠性

### 舰空导弹武器系统使用可靠性评估

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#### 摘要:

针对舰空导弹武器系统在单次射击时的使用可靠性评估, 采用可靠性框图建模技术, 建立涉及舰空导弹武器系统操作人员行为的使用可靠性框图, 进而构建武器系统使用可靠性数学模型。通过专家评定法, 评定武器系统操作人员操作可靠度; 通过模糊综合评价方法, 评定武器系统单个设备的使用可靠度。从而可充分考虑武器系统操作人员操作使用、武器系统固有可靠性和作战使用环境因素对武器系统使用可靠性的影响, 为其他武器系统使用可靠性评估提供新的研究思路。

关键词: 舰空导弹 武器系统 使用可靠性 可靠性框图

### Operational reliability evaluation of ship to air missile weapon system

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#### Abstract:

In order to evaluate the operational reliability of ship to air missile weapon system in the process of single fire, the reliability block diagram (RBD) considering the system operator's behavior is established through RBD modeling technology, which is the basis of operational reliability mathematical model of the weapon system. Thereinto, the operational reliability degree of the system operator is obtained via expert estimation, and also the operational reliability degree of single system device is obtained via a fuzzy comprehensive evaluation method, thus sufficiently taking the factors of the system operator's operation, system inherent reliability and campaign environment into account, and also providing a new research methodology for the operational reliability evaluation of other weapon system.

Keywords: ship to air missile weapon system operational reliability reliability block diagram

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