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短文与研究通讯

合成孔径雷达干扰机有效保护区范围动态计算模型研究

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摘要：

本文根据合成孔径雷达（SAR）对抗的空间几何关系和SAR的技术特点，构建了SAR干扰保护区动态计算模型。利用构建的计算模型仿真分析了干扰机不同部署条件下，干扰效能和有效保护区范围的变化规律，给出了干扰机实际应用中的部署策略；该模型能够结合雷达空情引导或SAR平台航迹情报，动态计算得到SAR干扰机的有效保护区范围，明确保护区范围大小和位置分布，指导干扰机进行科学的部署。最后本文通过对多干扰任务情况下的有效保护区分布特点研究，给出了多任务条件下的干扰保护区分析方法。

关键词： 合成孔径雷达对抗；有效保护区；干扰效能；动态计算模型

Study of Dynamic Calculating Model of SAR Jammer Protective Zone

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Abstract:

According to the geometric relationship and technical characteristics of Synthetic Aperture Radar (SAR) electronic countermeasures (ECM),in this paper, a dynamic calculating model of jammer effective protective zone was established. The change law of jamming efficiency and effective protective zone under different jammer deployment was analyzed by simulation, and it provided some jammer deployment strategies in application. The dynamic model could calculate the size and location of effective protective zone with Air intelligence or aircraft track hypothesis, the results could guide jammer to choose a more scientific location deploy. At last this paper pass through research the distributing characteristic of effective protective zone under multiple operational tasks, put forward the multiple operational tasks calculation method of jammer effective protective zone.

Keywords: Synthetic Aperture Radar Electronic Countermeasures　Effective Protective Zone　Jamming Efficiency　Dynamic Calculating Model

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