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MODELING OF VALUES OF CONDITIONAL PROBABILITIES OF DEFEATING DIFFERENT TARGETS IN CONDITIONS OF OPPOSITION OF ENEMY

Based on the numerical simulations, the values of the I and II types of missile firing errors were obtained. There were variable values of missile miss ρ , effective scattering surfaces σ , the level of interference in the channels of the combat vehicle and missiles Δ , maneuvering the target with overloads n_u . Low σ , the effect of active noise interference (ANI) Δ on the control circuit of the missile, as well as the impact of interference on the channel of the radio detonator (RD) k significantly reduces the probability of its operation on the target [1]. The values of the range and probability of operation of the missile radio detonator when working on a standard target (ST) and a small target, such as a lighting projectile C-4. The effect of active noise interference on the control circuit of the missile and its radio detonator is considered [2]. Under the action of active noise interference (20 dB) on the radio channel of the detonator, it works with a probability of ~ 0.44 at a range of 102 m, which does not lead to the defeat of targets. The values of the circular law of the defeat of the typical targets and the values of the conditional probabilities of the defeat of the target are given R_{li} . Restrictions on R_{li} at $\rho > 30$ m are shown. The average values of R_{1cpi} for the affected area of the complex were found [3]. Evaluated the increase in firing efficiency ΔR_{li} relative to the best value in combat work on a typical target. Received a decrease in the efficiency of shooting, depending on σ , Δ , n_u and k . Decreasing σ leads to losses ΔR_{li} from 0,06 to $\sim 6,7 \cdot 10^{-3}$. Influence Δ changes the value of ΔR_{li} from $\sim 1,2 \cdot 10^{-3}$ to 10^{-2} and also with maneuvering the target $\sim 7,3 \cdot 10^{-3}$ to $\sim 7,4 \cdot 10^{-4}$. And in addition to the previous interference k provided ΔR_{li} from $\sim 0,6$ to $\sim 0,19$. The positive effectiveness of shooting in a variety of conditions for the use of weapons for their intended purpose are given.

References

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