PROTECTION OF CRITICAL INFRASTRUCTURE FACILITIES AGAINST THE DESTRUCTIVE INFLUENCE OF AIR ATTACK MEANS

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The creation of means of protection of critical infrastructure objects, taking into account the main characteristics [1–5], peculiarities of the use and functioning of air attack means, should be aimed at the optimal combination and implementation of the following principles:

– lack of influence of protection means on the process of functioning of critical infrastructure facilities;

– instant reaction of the application (providing the necessary speed code, taking into account the notification of the launch of a missile strike);

– energy independence or minimum acceptable energy costs;

– multiple use;

– distortion of the source information of the critical infrastructure object, which is used as a reference image of the cruise missile navigation system;

– allowable increase in the weight and overall characteristics of the critical infrastructure object;

– practical implementation and possibility of application in urban conditions.

On the basis of the works [6–8] the main requirements for means of protection of civil infrastructure objects from the destructive effect of air attack means are:

1. High speed.
2. Active use of an electromagnetic shield over civil infrastructure objects.
3. Minimum mass per unit area.
4. High strength characteristics.
5. Resistance of the frequency range $\lambda = 3$ μm, $\lambda = 8$ μm.
6. Changing the reference image of the cruise missile navigation system by changing the radar signal reflected from the object.

Considering the above, the most complete requirements for critical infrastructure facilities to protect against the destructive impact of cruise missiles can be satisfied with the use of protective electromagnetic shields.

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