

THE ELABORATION OF BIRD STRIKES MEANS FOR SOME SPECIES AND GROUPS OF BIRD AS A PROBLEM

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ABSTRACT

Identification of birds' species - victims of bird strikes and the circumstances of these collisions give the possibility of working out of optimal measures to their prevention. However there are a number of species and groups of birds and situations, where the creation of such means is a problem. It concerns collisions with gliding diurnal birds of prey and flying swallows and swifts.

Strikes with large (800g - 5-6kg) gliding birds (Buzzards, Kites, Eagles, Vultures) on the altitudes of up to 12km led to serious damage to aircraft and crashes. Now there are no means of bird strike prevention at the day time, because it is impossible to 1) forecast of places and time of appearance these birds in the way of a plane; 2) discover the birds in time by a pilot, plane or airdrome radar; 3) scare away birds from flying plane; 4) increase plane airworthiness against a bird impact at high speed; 5) decrease a number of birds of prey for lowering bird strike amount. Despite of little size of swifts and swallows they can cause large damage. As a result of strikes with swifts a crash with jet fighter (an engine was destroyed), there were cases of engine changes of turbopropeller planes and damages of plane radar. The strikes with swallows resulted in a hole of cabin glass and in a stopping of a piston engine of light plane. A large flock of swallows flying under the runway led to changes of 8 engines of training jet fighters in one airdrome during only one month. It is impossible to make unattractive the runways of airdromes for insects, that swallows hunt. There are no means to prevent collisions with swifts at night and at small altitudes.

We suppose to use an airplane self as a repelling means against birds, we propose as well to create a technical means with applying of plane radar for auto-avoiding of birds.