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## BIRD PROOFING HANGARS

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### BIRD PROOFING HANGARS

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### ABSTRACT

Birds can damage flight line structures and create serious health and safety risks for workers. Many of our structures are old and not designed as bird proof. Many controllable factors are discussed but the underlying principles are to deny birds food, water and access to resting/nesting areas. Various "tools" are discussed including grounds and building maintenance, landscaping, personnel management, chemical deterrents, poisons, and shooting or trapping.

Birds can damage flight line structures and create serious health and safety risks for workers. Bird proofing is essentially the flip side of conventional bird management. The intent of bird proofing is to reduce the suitability of the habitat to discourage birds from using our airfields and hangars.

Several factors should be considered in bird proofing. Since many of our facilities are old, we do not have the luxury of getting with the architects and designing birds out by exclusion, elimination of resting and nesting sites, and by elimination of water and food sources. Nor do we usually have input into the landscaping of surrounding areas, land use or the siting and selection of light standards, power lines, etc.

Knowledge of the factors encouraging a bird to become a pest is a starting place. Birds are like people in many ways --- they need food and water, a place to rest, and a quiet place to nest. Hangars and flight lines are usually short on food and water but are long on roosting and nesting opportunities that are often within easy commuting distance of food and water. Treat birds like unwanted relatives. Don't feed them. Don't let them have access to water. Don't let them get comfortable.

Grounds maintenance and vegetation control on the airfield and flight line is designed to keep habitat, nesting material, food, and water at a minimum. Careful selection of landscape materials should further reduce the desirability of the airfield and flight line to birds.

The presence of aboveground power lines, streetlights, and ramp lighting standards, ledges, exposed beams, and the edge of the roofs often provide a staging area prior to bird's entering a hangar. These utilities should be eliminated if possible or made less attractive to birds by the installation of bird repellent devices. Use of halogen lighting on the ramp and around the hangars will reduce the insect population that attract insect-eating birds and annoy people. Insect reduction will raise morale and can increase productivity.

It may sound simple, but the best way to control birds inside the hangar is exclusion -- keep the birds out. Keep all hangar doors closed as much as possible. Where the doors must be open for long periods several options can be tried. Netting or other inconspicuous barriers hanging down several feet below the top of the doorways will inhibit birds from swooping in just under the top of the doorways for a short time. The use of full-length plastic or other curtains such as 20mil plastic used in super markets will allow the use of the doorway to aircraft, equipment, and people while excluding birds.

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Sheet metal seals installed on the top of the door joints will eliminate an entry point. This will require training of the people that open and close the doors to control the overlap of the door sections and not destroy the seals. High morale and pride of ownership are important to proper operation of the hangar. Maintenance of weather-stripping on the doors and elimination of holes, loose panels, and other potential bird access points will also help keep birds out -- look up during the day and eliminate any point of light.

One option for eliminating the perches and nest sites inside the hangar is netting selected areas. Netting is both costly and maintenance-dependent, but can be very effective in small areas. The use of netting requires training of the hangar personnel on how not to damage the netting while managing the doors, driving equipment, and house keeping. Prompt repair of damaged netting is important to bird exclusion. Rodent damage to the netting needs to be noted and promptly corrected.

Chemical bird deterrents such as the hot foot chemicals are often effective, but require periodic replacement. These work particularly well where birds must be denied the use of specific areas within a hangar instead of treating the whole hangar. Chemical deterrents are temporary fixes and often cause secondary maintenance problems. They can be expensive to install and remove. They are particularly effective in small, easily accessible areas. Chemical deterrents are ineffective or short-lived if exposed to the elements.

Poison perches and baits work well inside hangars. All types of poison operations are manpower intensive and can kill non-target species. Poisoned birds can fall up to a half-mile from the treatment site. Non-target and secondary or tertiary poison deaths can result in adverse publicity and possible notice of violations and prosecution.

Active bird control techniques, such as shooting or trapping, are long-term for the birds but short-term fixes for the hangars. An expert with a pellet gun equipped with a telescopic sight should do any shooting that is required. Shot guns and rifles can puncture a very expensive roof and could injure personnel. A resident bird population may have to be eliminated to allow exclusion to work. Trapping and shooting are labor intensive and require skill, dedication, and perseverance.

Painting the overhead a light color, the installation of a light colored reflective floor treatment and the use of upward projecting lights alone will not discourage birds and is a short-term solution at best. This will, however, increase available interior lighting and reduce the need to open the doors.

It is important to consider the use of recorded distress calls, flashing lights, strobes, sirens, ultrasonic or other electronic scare devices, and the use of the big-eyed balloons, rubber snakes, stuffed owls or even naphthalene blocks. Please keep in mind that their use has only a temporary impact on birds but are not long lasting and may be disruptive to your work force.

If in doubt or if you have questions, please call your Major Command point of contact or your local APHIS Wildlife Services biologist.

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