ACRP Problem No. 12-10-15

Wildlife Deterrents using Habitat Modification at Airports

ACRP Staff Comments: The proposed research would need to consider the results of ACRP Report 32: Wildlife Hazards at General Aviation Airports which has a chapter on wildlife controls at GA airports. This is further research identified in ACRP Synthesis Project 04-05, Bird Repellant Techniques, in publication, and could be accomplished as a synthesis or larger research project. Consideration should be given to Problem Statement 12-04-07, Evaluating the Effectiveness of Airport Wildlife Hazard Management Plan Implementation; and Problem Statement 12-09-11, Enhancing Compatibility of Storm Water and Wildlife Management Plans at Airports.

TRB Aviation Group Committees Comments: AIRCRAFT/AIRPORT COMPATIBILITY CMTE - The proposal is not clear whether this is a synthesis topic based on a literature review or whether fieldwork would be part of the project. It has the potential to produce valuable results about time and cost commitments involved in modifying a habitat to discourage wildlife congregation at airports.
ENVIRONMENTAL IMPACTS OF AVIATION CMTE - Do not support. The research objective is too vague and should be further refined to describe what types of modifications, specific region, or guild of birds that will be the topic of this research. Looking at this issue from a national perspective would not provide new or improved information/techniques for airports and wildlife hazard personnel. If the proposer could refine the research objective and specify the outcome goals, this could be a valuable project.

Review Panel Comments: Not recommended — This problem statement should be incorporated into Problem Statement 12-04-14.

AOC Disposition: No funds allocated. There is a need for this research; however, the FAA has been spearheading it. Consideration was given to preparing a synthesis; however, it was agreed that the FAA would provide the AOC with a status on the research and product output dissemination.
I. PROBLEM TITLE

Wildlife Deterrents using Habitat Modification at Airports

II. RESEARCH PROBLEM STATEMENT

Aircraft collisions with birds and other wildlife pose a significant risk to and cost the aviation industry hundreds of millions of dollars in damage and lost revenue every year. The majority of wildlife strikes occur within the airport environment, thus the responsibility for mitigation falls upon the airport operator. Airports are often located next to wildlife attractants such as waste management/transfer facilities, water management facilities, wetlands, agriculture, shorelines, wildlife refuges and other habitats that provide food, water and sheltering areas for birds. To maximize the reduction of wildlife using airports or their surrounding areas, an integrated approach utilizing multiple strategies including; habitat modification, exclusion, hazing/harassing techniques, and population management should be implemented.

III. OBJECTIVE

The objective of this synthesis project is to describe procedures and projects at representative airports used to modify habitat in order to minimize wildlife strike potential in the vicinity of airports. Airport operations staff and wildlife biologists responsible for airfield safety and wildlife management are the target audience for this report.

IV. RESEARCH PROPOSED

The report would synthesize literature and practice relating to Wildlife Hazard Assessments, Wildlife Hazard Management Plans and programs/projects to deter wildlife through habitat modification to minimize wildlife strike potential in the vicinity of airports. Information on methodologies, biology, effectiveness and costs needed to implement a habitat modification portion of an airport’s wildlife hazard management programs would be included, as well as a representative set of examples of airports using habitat management to manage diverse wildlife species across North America.

V. ESTIMATE OF THE PROBLEM FUNDING AND RESEARCH PERIOD

Recommended Funding: $110,000
Research Period: 8 months

VI. URGENCY AND PAYOFF POTENTIAL

With the requirement for airport to perform wildlife hazard management plans, many airports need basic information to efficiently meet plan requirements. Information on ranges of costs for habitat modification, as well as the time required would be identified in this research.

VII. RELATED RESEARCH

ACRP Report 32: Guidebook for Addressing Aircraft/Wildlife Hazards at General Aviation
ACRP Synthesis 04-05, Bird Harassment, Repellent, and Deterrent Techniques on Airports
Bye Bye, Birdies: Brief discussion of the bird strike problem from NASA.
Migratory Season Heightens Hazard Of Bird Strikes: Article discussing bird strike problem
FAA Wildlife Strikes to Civil Aircraft in the United States (1990-2007): NWRC-Ohio Field Station
bird strike statistics
Canadian Study Finds Greatest Frequency of Bird Strikes...: Transport Canada bird strike statistics
International Birdstrike Committee has released its guidance for airport operators in its Best Practice Guide on its website: www.int-birdstrike.org
Bird Strike Committee - USA : US Committee devoted to reducing bird strike risk in aviation
Bird Strike Committee - Canada: Canadian Committee devoted to reducing bird strike risk in aviation

VIII. PERSON(S) DEVELOPING THE PROBLEM

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IX. PROCESS USED TO DEVELOP PROBLEM STATEMENT

This problem statement is submitted on behalf of Expert Panel S04-05 on Bird Harassment, Repellent and Deterrent Techniques and is one of the areas of further research identified to fill an existing information gap.

X. DATE AND SUBMITTED BY

March 4, 2011

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