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The Benefits and Costs of Performing an Ecological Study at the Minneapolis-St. Paul International Airport: A Journey of Enlightenment

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MSP Ecological Study

The Benefits and Costs of Performing an Ecological Study at the Minneapolis-St. Paul International Airport

A Journey of Enlightenment



MSP Ecological Study

✦ Description of MSP

- ❖ **3000+ Acres**
- ❖ **30.3 Million Passengers**
- ❖ **483,000 Operations**
 - ◆ **Approximately 1,323 Operations a Day**
 - ◆ **Approximately 1 Operation Every Minute**



MSP Ecological Study

✦ What it is!

- ❖ Onsite evaluation of wildlife problems at the airport.
- ❖ Conducted by a wildlife damage management biologist.
- ❖ Provides the scientific basis for the development, implementation, and refinement of a wildlife hazard management plan.
- ❖ Ecological Study = Wildlife Hazard Assessment (WHA)



MSP Ecological Study

✦ Objectives

- ❖ *To identify any and all species of wildlife present at MSP that may pose a threat to aviation safety and to document their numbers, seasonal distribution, behavior and natural or man-made features that are attractive to wildlife on or near the airport.*
- ❖ *To make recommendations for mitigation of identified wildlife attractants and management of wildlife species that may pose a threat to aviation safety.*



MSP Ecological Study

✦ Why We Did It!

❖ FAR Part 139 Requirement

◆ 139.337 - An ecological study is required when:

- ▶ ☐ An air carrier aircraft experiences a multiple bird strike or engine ingestion.
- ▶ ☐ An air carrier aircraft experiences a damaging collision with wildlife other than birds.
- ▶ ☐ When wildlife of a size or number capable of causing such an event as described above, is observed to have access to any airport flight pattern or movement area.



MSP Ecological Study

✦ Why We Did It!

- ❖ **MSP Wildlife Strike History**
- ❖ **June 3, 1995 - Canada Geese Strike by an Air France Concorde at JFK and associated litigation**
- ❖ **LIABILITY**



MSP Ecological Study

✦ What We Did!

- ❖ **MSP Site Survey which included:**
 - ◆ Location and Facilities
 - ◆ Vegetation
 - ◆ Water resources
 - ◆ Soils
 - ◆ Climate/Weather
- ❖ **Monthly Wildlife Observations**
- ❖ **Species Identification Training**
- ❖ **Wildlife Control Assistance**



MSP Ecological Study

- ✦ **Recommendations!**
 - ❖ **Personnel - 12**



MSP Ecological Study

✦ Recommendations!

❖ Habitat Management - 29

- ◆ Water - 7
- ◆ Vegetation - 9
- ◆ Fences and Gates - 7
- ◆ Structures - 4
- ◆ Other - 2



MSP Ecological Study

✦ Recommendations!

- ❖ **Wildlife Management - 21**
 - ◆ **Birds - 9**
 - ◆ **Mammals - 8**
 - ◆ **Other - 4**



MSP Ecological Study

✦ Benefits

- ❖ Comprehensive review
- ❖ Fresh perspective
- ❖ Validation
- ❖ Support for program improvement
- ❖ Greater access to expert resources
- ❖ **INCREASED SAFETY**
- ❖ Reduced liability?



MSP Ecological Study

✦ Costs

- ❖ Contract
- ❖ Personnel/Resources
- ❖ Implementing recommendations
- ❖ Not implementing recommendations
- ❖ ENLIGHTENMENT?



MSP Ecological Study

✦ Conclusion

- ❖ The Wildlife Hazard Assessment, when used correctly, is a very powerful and positive tool that provides tangible benefits to airport operators. But as with anything, those benefits can come with costs, both obvious and hidden. Airport operators must be aware of the costs and how to better reduce their impact while maximizing the benefits of the Wildlife Hazard Assessment.